Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/09/04 Time: 06:08:38
Description:

Serial #: 3460202
File: LAVENDER4

Cal Date: 03/10/03
DOS File: LAVENDER4

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 33.1 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	12.8	-3.5	16.3
3	WRAL	10.5	-3.7	14.2
4	COMM	11.3	-1.9	13.2
5	WRAY	11.8	-2.9	14.7
6	WTVD	11.8	-1.1	12.9
98	TVG	13.8	-0.1	13.9
14	NC14	13.3	-1.1	14.4
15	HSN	13.4	-0.6	14.0
16	QVC	14.2	-0.3	14.5
18	GOV	12.5	-1.5	14.0
19	BET	13.2	-0.9	14.1
21	WGN	13.5	-1.0	14.5
22	WRPX	13.4	-0.5	13.9
7	HBC	13.9	-0.6	14.5
8	COMM	13.6	-0.4	14.0
9	WUNC	13.5	0.6	12.9
10	WLFL	13.8	-2.8	16.6
11	WUVC	13.6	-0.4	14.0
12	WRDC	13.5	0.3	13.2
13	WRAZ	14.7	-1.6	16.3
24	TRI	14.0	0.9	13.1
25	USA	14.9	1.3	13.6
26	TNT	15.1	0.8	14.3
27	A+E	16.1	1.1	15.0
28	FFAM	15.5	1.4	14.1
29	CNN	16.2	2.6	13.6
30	DISC	16.4	2.0	14.4
31	ESPN	15.3	2.3	13.0
32	ESP2	16.7	1.5	15.2
33	LIFE	15.5	2.5	13.0
34	TBS	14.6	1.2	13.4
35	DISH	14.1	0.3	13.8
36	COM	15.1	1.2	13.9
37	CNBC	14.8	0.6	14.2
38	AMC	13.6	-1.8	15.4
39	TLC	15.1	0.4	14.7
40	SPK	15.1	-0.2	15.3
41	HLN	13.7	1.3	12.4
42	TWC	15.1	0.0	15.1
43	NICK	14.7	0.4	14.3
44	CORT	14.2	1.5	12.7
45	MSN	14.9	-0.1	15.0
46	APL	14.4	0.1	14.3
47	LMN	14.6	0.5	14.1
48	VH1	15.3	0.8	14.5
49	SIFI	14.5	-0.1	14.6
50	FSN	14.6	1.3	13.3
51	GOLF	14.8	0.6	14.2
53	MTV	16.1	2.1	14.0

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708 E CLUB BLVD
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Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/09/04 Time: 06:08:38
Description:

Serial #: 3460202
File: LAVENDER4

Cal Date: 03/10/03
DOS File: LAVENDER4

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	14.5	1.2	13.3
55	OXY	15.5	2.1	13.4
56	HIST	15.2	2.3	12.9
57	DISN	15.8	0.3	15.5
58	FOXN	15.3	0.8	14.5
60	CSPA	14.4	-0.5	14.9
61	WETV	14.3	1.4	12.9
62	E	14.7	0.9	13.8
63	SOAP	15.2	0.5	14.7
64	SNBC	14.5	0.6	13.9
65	OLN	14.7	1.3	13.4
66	ESPC	14.3	-0.4	14.7
67	TCM	13.7	-0.7	14.4
68	FITT	13.4	-0.7	14.1
69	CMT	13.7	-0.3	14.0
70	NGEO	12.8	-1.5	14.3
71	FX	13.7	0.9	12.8
72	INSP	13.2	-1.0	14.2
73	HLMK	12.6	-1.0	13.6
74	TRAV	12.8	-0.7	13.5
75	TOON	13.1	-1.6	14.7
76	HGTV	12.9	-1.3	14.2
77	FOOD	12.2	-1.2	13.4
78	UMC	12.7	-1.8	14.5
116		13.4	-2.7	16.1

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 10.5	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 32, Delta = 6.2	Pass
Min Delta V/A	6.5 dB	Ch 41 Delta V/A = 12.4	Pass
Max Delta V/A	17.0 dB	Ch 10 Delta V/A = 16.6	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 2.3	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Test 3 - Signal Levels and Level Variations Test

Summary Page 1 of 1

System Name: Durham
Test Point Location: Cameron Dr.
Date of Test: 2-14-04 Time: 12:09
Tech(s) Performing Test: John Schmitt

Highest Band Pass: 750MHz
Test Point Number: 9
Temperature: 50°
Date Begun: 2-14-04

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer			
FSM	SDA-5000	9383877	N/A

Test Setup used: A 30 meeter (98.45 foot) cable drop from the test point is fed into the Field Strength Meter or Spectrum Analyzer. Audio and video carrier levels are measured, before the channel selector, to determine the extent to which the standard is met. All levels are measured and recorded every 6 hours +/- 1 hour. The time and temperature of each measurement is also recorded. The measurements are made on each NTSC channel.

Minimum Specifications: The five specifications listed here are "Proofed" by this test:

1. All levels are to be measured and recorded ever 6 hours +/- 1 hour.
Was the Specification Met? Yes ✓, No ___

Date/Time	2-14 / 12:05	2-14 / 18:05	2-15 / 00:04	2-15 / 6:10

2. The Visual Carrier Level cannot vary more then 10 dB from any visual carrier on the cable television system of up to 300 MHz of forward bandwidth. (For system having a forward bandwidth greater than 300 MHz 1 additional dB per 100 MHz of forward bandwidth is allowed).

Maximum Video Carrier Level	13.9	13.9	14.3	14.5
Minimum Video Carrier Level	10.3	10.0	10.2	10.4
Variation Highest & Lowest Video Levels	3.6	3.9	4.1	4.1

Maximum allowed variation between highest level carrier and the lowest level carrier per bandwidth 14.5 Was the specification met? Yes ✓, No ___
Justification for any variation in this requirement:

3. All audio carrier levels are to be maintained less then 6.5 dB below the video carrier but not more then 17 dB below the video carrier.
Was the Specification Met? Yes ✓, No ___
Justification for any variation in this requirement:

4. Video carriers are not allowed to very more then 3 dB from any adjacent channel?:
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater than 3 dB:

5. All video carriers must maintain a level greater then 3 dBmV at the end of a 100 foot drop.
Was this Specification Met? Yes ✓, No ___
Justification for any video level less then 3 dBmV:

6. During this 24 hour test all video carrier level changes must be less then 8 dB
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___
Video carrier levels are not allowed to change more then 8 dB from the measurement made in the last 24 hour test.
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___

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WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: JOHNSCHM
Date: 02/14/04 Time: 12:09:59
Description:

Serial #: 8383877
File: 1CAMERON

Cal Date: 10/06/03
DOS File: 1CAMERON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 50.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	10.5	-2.1	12.6
3	WRAL	11.2	-2.7	13.9
4	EDU	10.6	-3.2	13.8
5	WRAY	10.3	-3.5	13.8
6	WTVD	10.3	-2.9	13.2
98	TVG	10.9	-2.0	12.9
14	NC14	11.0	-2.7	13.7
15	HSN	11.4	-2.1	13.5
16	QVC	11.7	-2.5	14.2
18	CSPN	11.7	-2.3	14.0
19	BET	11.8	-1.8	13.6
21	WGN	11.9	-1.6	13.5
22	WRPX	12.1	-1.5	13.6
7	HBC	12.9	-2.2	15.1
8	COMM	12.1	-1.1	13.2
9	WUNC	12.9	0.0	12.9
10	WLFL	13.2	-1.1	14.3
11	WUVC	13.3	-1.2	14.5
12	WRDC	12.3	-0.7	13.0
13	WRAZ	13.0	-0.6	13.6
24	TRI	13.0	-0.2	13.2
25	USA	13.6	-0.8	14.4
26	TNT	12.7	-0.7	13.4
27	A+E	12.8	-0.9	13.7
28	FFAM	12.3	-1.2	13.5
29	CNN	13.7	-0.2	13.9
30	DISC	13.9	0.0	13.9
31	ESPN	12.5	-0.8	13.3
32	ESP2	12.4	-1.6	14.0
33	LIFE	12.4	-0.4	12.8
34	TBS	12.4	-1.5	13.9
35	DISH	12.4	-1.5	13.9
36	COM	12.5	-0.8	13.3
37	CNBC	12.4	-1.8	14.2
38	AMC	11.9	-2.3	14.2
39	TLC	12.3	-1.8	14.1
40	SPK	12.6	-1.7	14.3
41	HLN	12.1	-0.9	13.0
42	TWC	12.3	-1.7	14.0
43	NICK	12.4	-1.7	14.1
44	CORT	12.6	-0.7	13.3
45	MSN	13.2	-1.2	14.4
46	APL	12.6	-1.0	13.6
47	LMN	12.8	-1.1	13.9
48	VH1	12.3	-1.7	14.0
49	SIFI	12.9	-1.3	14.2
50	FOXS	12.7	-0.6	13.3
51	GOLF	13.2	-0.4	13.6
53	MTV	13.9	0.0	13.9

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DURHAM, NC

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Model: SDA-5000
Operator: JOHNSCHM
Date: 02/14/04 Time: 12:09:59
Description:

Serial #: 8383877
File: 1CAMERON

Cal Date: 10/06/03
DOS File: 1CAMERON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.1	-0.5	13.6
55	OXY	13.0	-0.5	13.5
56	HIST	13.8	0.8	13.0
57	DISN	13.6	-0.1	13.7
58	FOXN	13.6	-0.7	14.3
60	CSP2	13.4	-0.9	14.3
61	WET	13.3	-0.7	14.0
62	E	12.6	-1.3	13.9
63	SOAP	13.3	-0.8	14.1
64	SNBC	12.9	-0.9	13.8
65	OLN	13.2	-0.5	13.7
66	ESPC	12.9	-1.9	14.8
67	TCM	12.5	-1.5	14.0
68	FIT	12.5	-1.3	13.8
69	CMT	12.7	-1.4	14.1
70	NGEO	12.6	-1.2	13.8
71	FX	13.1	-0.6	13.7
72	INSP	12.8	-1.1	13.9
73	HLMK	12.5	-1.7	14.2
74	TRAV	12.9	-0.8	13.7
75	TOON	13.2	-1.2	14.4
76	HGTV	13.1	-1.0	14.1
77	FOOD	12.3	-0.5	12.8
78	UMC	13.1	-1.1	14.2
116		13.7	0.9	12.8

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 5 Video = 10.3	Pass
Max Delta Video Level	15.0 dB	Ch 5 and 30, Delta = 3.6	Pass
Min Delta V/A	6.5 dB	Ch 2 Delta V/A = 12.6	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.1	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 28 and 29, Delta = 1.4	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
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TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: JOHNSCHM
Date: 02/14/04 Time: 18:05:13
Description:

Serial #: 8383877
File: 2CAMERON

Cal Date: 10/06/03
DOS File: 2CAMERON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 45.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	10.4	-2.0	12.4
3	WRAL	11.3	-2.6	13.9
4	EDU	10.6	-3.2	13.8
5	WRAY	10.1	-3.6	13.7
6	WTVD	10.0	-2.7	12.7
98	TVG	11.0	-1.7	12.7
14	NC14	10.8	-2.6	13.4
15	HSN	11.5	-1.9	13.4
16	QVC	11.7	-2.4	14.1
18	CSPN	11.3	-2.6	13.9
19	BET	11.8	-1.8	13.6
21	WGN	12.0	-1.7	13.7
22	WRPX	12.3	-1.7	14.0
7	HBC	12.2	-2.2	14.4
8	COMM	11.7	-1.0	12.7
9	WUNC	12.9	0.0	12.9
10	WLFL	13.1	-1.2	14.3
11	WUVC	13.0	-1.5	14.5
12	WRDC	12.1	-0.9	13.0
13	WRAZ	12.8	-0.9	13.7
24	TRI	13.1	-0.3	13.4
25	USA	13.4	-0.9	14.3
26	TNT	12.8	-1.1	13.9
27	A+E	12.2	-1.1	13.3
28	FFAM	12.1	-1.5	13.6
29	CNN	13.5	-0.2	13.7
30	DISC	13.9	-0.1	14.0
31	ESPN	12.2	-0.8	13.0
32	ESP2	12.5	-1.6	14.1
33	LIFE	12.7	-0.7	13.4
34	TBS	12.0	-1.4	13.4
35	DISH	12.3	-1.6	13.9
36	COM	12.9	-0.8	13.7
37	CNBC	12.2	-1.7	13.9
38	AMC	12.0	-2.5	14.5
39	TLC	11.9	-1.5	13.4
40	SPK	12.2	-1.7	13.9
41	HLN	11.9	-1.0	12.9
42	TWC	12.5	-1.7	14.2
43	NICK	12.2	-2.1	14.3
44	CORT	12.3	-0.7	13.0
45	MSN	12.9	-1.2	14.1
46	APL	12.6	-0.9	13.5
47	LMN	12.8	-1.1	13.9
48	VH1	12.3	-1.6	13.9
49	SIFI	13.0	-1.4	14.4
50	FOXS	12.7	-0.8	13.5
51	GOLF	13.3	-0.6	13.9
53	MTV	13.7	-0.1	13.8

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WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: JOHNSCHM
Date: 02/14/04 Time: 18:05:13
Description:

Serial #: 8383877
File: 2CAMERON

Cal Date: 10/06/03
DOS File: 2CAMERON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.0	-0.6	13.6
55	OXY	12.9	-0.6	13.5
56	HIST	13.7	0.9	12.8
57	DISN	13.6	-0.1	13.7
58	FOXN	13.5	-0.6	14.1
60	CSP2	13.4	-1.0	14.4
61	WET	13.4	-0.7	14.1
62	E	12.6	-1.4	14.0
63	SOAP	13.3	-0.7	14.0
64	SNBC	12.9	-1.1	14.0
65	OLN	13.6	-0.1	13.7
66	ESPC	12.8	-2.0	14.8
67	TCM	12.1	-1.7	13.8
68	FIT	12.5	-1.6	14.1
69	CMT	12.8	-1.4	14.2
70	NGEO	12.4	-1.6	14.0
71	FX	13.1	-0.6	13.7
72	INSP	12.9	-1.1	14.0
73	HLMK	12.4	-1.9	14.3
74	TRAV	12.6	-0.6	13.2
75	TOON	13.0	-1.3	14.3
76	HGTV	13.1	-0.8	13.9
77	FOOD	12.1	-0.4	12.5
78	UMC	12.6	-0.7	13.3
116		13.8	0.9	12.9

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 6 Video = 10.0	Pass
Max Delta Video Level	15.0 dB	Ch 6 and 30, Delta = 3.9	Pass
Min Delta V/A	6.5 dB	Ch 2 Delta V/A = 12.4	Pass
Max Delta V/A	17.0 dB	Ch 66 Delta V/A = 14.8	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 30 and 31, Delta = 1.7	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: JOHNSCHM
Date: 02/15/04 Time: 00:04:36
Description:

Serial #: 8383877
File: 3CAMERON

Cal Date: 10/06/03
DOS File: 3CAMERON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 45.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	10.4	-2.1	12.5
3	WRAL	11.9	-2.3	14.2
4	EDU	10.8	-2.9	13.7
5	WRAY	10.5	-3.2	13.7
6	WTVD	10.2	-2.7	12.9
98	TVG	11.3	-1.5	12.8
14	NC14	11.4	-2.2	13.6
15	HSN	11.7	-1.8	13.5
16	QVC	12.0	-2.1	14.1
18	CSPN	11.5	-2.5	14.0
19	BET	11.7	-1.7	13.4
21	WGN	12.4	-1.4	13.8
22	WRPX	12.4	-1.6	14.0
7	HBC	12.4	-1.7	14.1
8	COMM	12.1	-0.9	13.0
9	WUNC	13.1	0.2	12.9
10	WLFL	13.4	-0.9	14.3
11	WUVC	13.3	-1.4	14.7
12	WRDC	12.4	-0.5	12.9
13	WRAZ	13.3	-0.6	13.9
24	TRI	13.4	0.1	13.3
25	USA	13.9	-0.1	14.0
26	TNT	13.1	-0.5	13.6
27	A+E	12.9	-0.9	13.8
28	FFAM	12.5	-0.7	13.2
29	CNN	13.8	0.0	13.8
30	DISC	14.3	0.6	13.7
31	ESPN	12.8	-0.2	13.0
32	ESP2	13.1	-1.6	14.7
33	LIFE	13.3	-0.4	13.7
34	TBS	12.6	-1.0	13.6
35	DISH	12.5	-1.4	13.9
36	COM	13.0	-0.4	13.4
37	CNBC	12.9	-1.3	14.2
38	AMC	12.5	-2.1	14.6
39	TLC	12.6	-1.3	13.9
40	SPK	13.0	-1.2	14.2
41	HLN	12.6	-0.7	13.3
42	TWC	12.9	-1.3	14.2
43	NICK	12.4	-1.7	14.1
44	CORT	12.9	-0.1	13.0
45	MSN	13.6	-0.9	14.5
46	APL	12.6	-0.7	13.3
47	LMN	13.2	-0.9	14.1
48	VH1	12.7	-1.4	14.1
49	SIFI	13.2	-1.2	14.4
50	FOXS	12.9	-0.5	13.4
51	GOLF	13.6	-0.3	13.9
53	MTV	14.3	0.3	14.0

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DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: JOHNSCHM
Date: 02/15/04 Time: 00:04:36
Description:

Serial #: 8383877
File: 3CAMERON

Cal Date: 10/06/03
DOS File: 3CAMERON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.1	-0.2	13.3
55	OXY	13.4	-0.6	14.0
56	HIST	14.1	0.9	13.2
57	DISN	13.8	-0.1	13.9
58	FOXN	13.7	-0.3	14.0
60	CSP2	13.8	-0.7	14.5
61	WET	13.5	-0.3	13.8
62	E	13.1	-0.9	14.0
63	SOAP	13.6	-0.5	14.1
64	SNBC	13.2	-0.9	14.1
65	OLN	13.6	0.0	13.6
66	ESPC	12.8	-1.7	14.5
67	TCM	12.4	-1.3	13.7
68	FIT	13.1	-1.5	14.6
69	CMT	13.0	-1.2	14.2
70	NGEO	12.9	-1.4	14.3
71	FX	13.0	-0.4	13.4
72	INSP	13.0	-0.9	13.9
73	HLMK	12.9	-1.6	14.5
74	TRAV	12.8	-0.7	13.5
75	TOON	13.4	-1.3	14.7
76	HGTV	13.3	-0.6	13.9
77	FOOD	12.5	-0.6	13.1
78	UMC	13.0	-0.7	13.7
116		14.0	1.0	13.0

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 6 Video = 10.2	Pass
Max Delta Video Level	15.0 dB	Ch 6 and 30, Delta = 4.1	Pass
Min Delta V/A	6.5 dB	Ch 2 Delta V/A = 12.5	Pass
Max Delta V/A	17.0 dB	Ch 11 Delta V/A = 14.7	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 1.5	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: JOHNSCHM
Date: 02/15/04 Time: 06:10:30
Description:

Serial #: 8383877
File: 4CAMERON

Cal Date: 10/06/03
DOS File: 4CAMERON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 39.9 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	10.8	-2.2	13.0
3	WRAL	11.8	-2.2	14.0
4	EDU	10.9	-2.8	13.7
5	WRAY	10.4	-3.0	13.4
6	WTVD	10.6	-2.5	13.1
98	TVG	11.6	-1.2	12.8
14	NC14	11.6	-2.2	13.8
15	HSN	12.0	-1.5	13.5
16	QVC	12.3	-1.9	14.2
18	CSPN	11.8	-2.2	14.0
19	BET	12.1	-1.1	13.2
21	WGN	12.4	-1.1	13.5
22	WRPX	12.6	-1.7	14.3
7	HBC	13.2	-2.2	15.4
8	COMM	12.3	-0.8	13.1
9	WUNC	13.3	0.4	12.9
10	WLFL	13.6	-0.9	14.5
11	WUVC	13.7	-1.2	14.9
12	WRDC	12.7	-0.6	13.3
13	WRAZ	13.2	-0.1	13.3
24	TRI	13.4	0.3	13.1
25	USA	14.0	-0.3	14.3
26	TNT	13.5	-0.3	13.8
27	A+E	13.3	-0.7	14.0
28	FFAM	12.8	-0.4	13.2
29	CNN	13.8	0.3	13.5
30	DISC	14.5	0.4	14.1
31	ESPN	12.8	-0.1	12.9
32	ESP2	13.0	-0.9	13.9
33	LIFE	13.2	-0.3	13.5
34	TBS	12.7	-0.6	13.3
35	DISH	13.0	-1.1	14.1
36	COM	13.3	-0.6	13.9
37	CNBC	12.7	-1.3	14.0
38	AMC	12.3	-1.9	14.2
39	TLC	12.9	-0.7	13.6
40	SPK	13.2	-1.4	14.6
41	HLN	12.6	-0.6	13.2
42	TWC	12.9	-1.4	14.3
43	NICK	12.5	-1.6	14.1
44	CORT	12.8	0.0	12.8
45	MSN	13.7	-0.8	14.5
46	APL	12.9	-0.8	13.7
47	LMN	13.3	-0.7	14.0
48	VH1	12.6	-1.1	13.7
49	SIFI	13.3	-1.1	14.4
50	FOXS	13.0	-0.2	13.2
51	GOLF	13.6	-0.2	13.8
53	MTV	14.1	0.3	13.8

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: JOHNSCHM
Date: 02/15/04 Time: 06:10:30
Description:

Serial #: 8383877
File: 4CAMERON

Cal Date: 10/06/03
DOS File: 4CAMERON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.6	-0.2	13.8
55	OXY	13.6	-0.3	13.9
56	HIST	14.3	1.3	13.0
57	DISN	14.3	0.6	13.7
58	FOXN	14.2	-0.4	14.6
60	CSP2	13.9	-0.7	14.6
61	WET	13.8	-0.2	14.0
62	E	13.0	-1.0	14.0
63	SOAP	13.8	-0.2	14.0
64	SNBC	13.3	-0.9	14.2
65	OLN	13.7	-0.1	13.8
66	ESPC	13.2	-1.6	14.8
67	TCM	12.5	-1.0	13.5
68	FIT	12.6	-1.5	14.1
69	CMT	13.4	-1.1	14.5
70	NGEO	12.7	-1.2	13.9
71	FX	13.0	-0.3	13.3
72	INSP	12.9	-1.1	14.0
73	HLMK	13.0	-1.6	14.6
74	TRAV	13.3	-0.4	13.7
75	TOON	13.6	-1.0	14.6
76	HGTV	13.5	-0.5	14.0
77	FOOD	12.6	0.3	12.3
78	UMC	13.1	-0.9	14.0
116		14.2	1.2	13.0

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 5 Video = 10.4	Pass
Max Delta Video Level	15.0 dB	Ch 5 and 30, Delta = 4.1	Pass
Min Delta V/A	6.5 dB	Ch 77 Delta V/A = 12.3	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.4	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 30 and 31, Delta = 1.7	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Test 3 - Signal Levels and Level Variations Test

Summary Page 1 of 1

System Name: Durham
Test Point Location: DIXON
Date of Test: 2-7-04 Time: 17:55
Tech(s) Performing Test: Donald Brown

Highest Band Pass: 750MHz
Test Point Number: 10
Temperature: 50°
Date Begun: 2-7-04

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	NA	NA	NA
FSM	SDA-5000	9513315	N/A

Test Setup used: A 30 meeter (98.45 foot) cable drop from the test point is fed into the Field Strength Meter or Spectrum Analyzer. Audio and video carrier levels are measured, before the channel selector, to determine the extent to which the standard is met. All levels are measured and recorded every 6 hours +/- 1 hour. The time and temperature of each measurement is also recorded. The measurements are made on each NTSC channel.

Minimum Specifications: The five specifications listed here are "Proofed" by this test:

1. All levels are to be measured and recorded ever 6 hours +/- 1 hour.
Was the Specification Met? Yes ✓, No ___

Date/Time	2-7/17:55	2-8/00:06	2-8/6:14	2-8/11:57

2. The Visual Carrier Level cannot vary more then 10 dB from any visual carrier on the cable television system of up to 300 MHz of forward bandwidth. (For system having a forward bandwidth greater than 300 MHz 1 additional dB per 100 MHz of forward bandwidth is allowed).

Maximum Video Carrier Level	19.0	19.4	19.6	19.6
Minimum Video Carrier Level	9.9	10.0	10.2	10.2
Variation Highest & Lowest Video Levels	9.1	9.4	9.4	9.4

Maximum allowed variation between highest level carrier and the lowest level carrier per bandwidth 14.5 Was the specification met? Yes ✓, No ___
Justification for any variation in this requirement:

3. All audio carrier levels are to be maintained less then 6.5 dB below the video carrier but not more then 17 dB below the video carrier.
Was the Specification Met? Yes ✓, No ___
Justification for any variation in this requirement:

4. Video carriers are not allowed to very more then 3 dB from any adjacent channel?:
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater than 3 dB:

5. All video carriers must maintain a level greater then 3 dBmV at the end of a 100 foot drop.
Was this Specification Met? Yes ✓, No ___
Justification for any video level less then 3 dBmV:

6. During this 24 hour test all video carrier level changes must be less then 8 dB
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___
Video carrier levels are not allowed to change more then 8 dB from the measurement made in the last 24 hour test.
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/07/04 Time: 17:55:24
Description:

Serial #: 8513315
File: 1DIXON

Cal Date: 07/18/03
DOS File: 1DIXON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 50.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	11.6	-4.0	15.6
3	WRAL	10.4	-4.9	15.3
4	EDU	9.9	-3.4	13.3
5	WRAY	10.6	-3.7	14.3
6	WTVD	10.7	-2.1	12.8
98	TVG	12.3	-1.7	14.0
14	NC14	12.4	-1.3	13.7
15	HSN	12.5	-0.9	13.4
16	QVC	13.4	-0.8	14.2
18	CSPN	13.0	-1.2	14.2
19	BET	13.7	-0.4	14.1
21	WGN	13.3	-0.4	13.7
22	WRPX	13.5	-0.8	14.3
7	HBC	13.6	-1.4	15.0
8	COMM	13.9	0.1	13.8
9	WUNC	13.1	0.7	12.4
10	WLFL	14.1	-2.6	16.7
11	WUVC	13.6	-0.7	14.3
12	WRDC	13.3	0.9	12.4
13	WRAZ	14.5	-2.3	16.8
24	TRI	13.6	-0.2	13.8
25	USA	14.2	-0.1	14.3
26	TNT	13.7	0.0	13.7
27	A+E	14.8	0.3	14.5
28	FFAM	14.9	0.1	14.8
29	CNN	15.2	2.1	13.1
30	DISC	15.6	1.7	13.9
31	ESPN	14.1	1.4	12.7
32	ESP2	15.7	1.6	14.1
33	LIFE	15.0	1.7	13.3
34	TBS	14.0	0.1	13.9
35	DISH	13.9	-0.2	14.1
36	COM	14.4	0.7	13.7
37	CNBC	14.4	0.1	14.3
38	AMC	13.5	-2.1	15.6
39	TLC	14.5	0.4	14.1
40	SPK	14.7	-0.8	15.5
41	HLN	13.6	0.9	12.7
42	TWC	14.4	-0.1	14.5
43	NICK	15.0	0.8	14.2
44	CORT	14.5	1.3	13.2
45	MSN	15.1	-0.3	15.4
46	APL	14.7	1.4	13.3
47	LMN	15.5	1.6	13.9
48	VH1	15.0	1.5	13.5
49	SIFI	15.4	1.0	14.4
50	FOXS	15.2	2.2	13.0
51	GOLF	15.1	1.9	13.2
53	MTV	15.7	2.0	13.7

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/07/04 Time: 17:55:24
Description:

Serial #: 8513315
File: 1DIXON

Cal Date: 07/18/03
DOS File: 1DIXON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	15.3	1.9	13.4
55	OXY	15.9	2.1	13.8
56	HIST	15.8	3.0	12.8
57	DISN	16.8	1.6	15.2
58	FOXN	16.1	2.5	13.6
60	CSP2	15.6	1.5	14.1
61	WET	16.5	2.6	13.9
62	E	16.3	2.1	14.2
63	SOAP	16.4	2.4	14.0
64	SNBC	16.2	2.2	14.0
65	OLN	17.3	3.3	14.0
66	ESPC	16.3	2.2	14.1
67	TCM	16.0	2.2	13.8
68	FIT	16.3	2.5	13.8
69	CMT	16.7	2.6	14.1
70	NGEO	16.3	2.0	14.3
71	FX	16.7	4.3	12.4
72	INSP	16.6	2.6	14.0
73	HLMK	16.5	2.4	14.1
74	TRAV	17.4	3.4	14.0
75	TOON	17.1	2.9	14.2
76	HGTV	17.1	3.2	13.9
77	FOOD	16.0	2.9	13.1
78	WNCN	17.6	2.6	15.0
116		19.0	3.2	15.8

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 4 Video = 9.9	Pass
Max Delta Video Level	15.0 dB	Ch 4 and 116, Delta = 9.1	Pass
Min Delta V/A	6.5 dB	Ch 9 Delta V/A = 12.4	Pass
Max Delta V/A	17.0 dB	Ch 13 Delta V/A = 16.8	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 31 and 32, Delta = 1.6	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 00:06:07
Description:

Serial #: 8513315
File: 2DIXON

Cal Date: 07/18/03
DOS File: 2DIXON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 36.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	12.0	-3.9	15.9
3	WRAL	10.0	-5.0	15.0
4	EDU	10.2	-3.5	13.7
5	WRAY	11.1	-4.3	15.4
6	WTVD	10.9	-2.4	13.3
98	TVG	13.0	-1.8	14.8
14	NC14	12.5	-1.0	13.5
15	HSN	13.0	-1.0	14.0
16	QVC	13.8	-0.8	14.6
18	CSPN	13.0	-0.9	13.9
19	BET	13.9	-0.2	14.1
21	WGN	13.9	-0.3	14.2
22	WRPX	13.7	-0.5	14.2
7	HBC	14.0	-1.4	15.4
8	COMM	14.2	0.2	14.0
9	WUNC	13.5	1.0	12.5
10	WLFL	14.0	-2.6	16.6
11	WUVC	13.6	-0.7	14.3
12	WRDC	13.4	0.5	12.9
13	WRAZ	14.2	-2.3	16.5
24	TRI	13.5	-0.1	13.6
25	USA	14.3	-0.1	14.4
26	TNT	13.8	0.0	13.8
27	A+E	15.2	0.6	14.6
28	FFAM	14.8	-0.1	14.9
29	CNN	15.2	1.9	13.3
30	DISC	15.4	1.5	13.9
31	ESPN	14.3	1.4	12.9
32	ESP2	16.2	2.0	14.2
33	LIFE	15.1	2.0	13.1
34	TBS	14.2	0.3	13.9
35	DISH	14.2	-0.5	14.7
36	COM	14.7	0.5	14.2
37	CNBC	14.6	0.1	14.5
38	AMC	13.6	-2.4	16.0
39	TLC	14.9	0.6	14,3
40	SPK	15.2	-0.3	15.5
41	HLN	14.4	1.0	13.4
42	TWC	14.8	0.0	14.8
43	NICK	15.1	1.0	14.1
44	CORT	14.5	1.1	13.4
45	MSN	15.4	0.1	15.3
46	APL	15.2	1.4	13.8
47	LMN	15.6	1.5	14.1
48	VH1	15.6	1.8	13.8
49	SIFI	16.0	1.0	15.0
50	FOXS	15.6	2.2	13.4
51	GOLF	15.6	1.9	13.7
53	MTV	16.8	2.3	14.5

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 00:06:07
Description:

Serial #: 8513315
File: 2DIXON

Cal Date: 07/18/03
DOS File: 2DIXON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	15.7	2.1	13.6
55	OXY	16.4	2.3	14.1
56	HIST	16.2	3.3	12.9
57	DISN	17.2	1.4	15.8
58	FOXN	16.6	2.5	14.1
60	CSP2	16.2	2.0	14.2
61	WET	16.3	2.5	13.8
62	E	16.7	2.3	14.4
63	SOAP	16.5	2.5	14.0
64	SNBC	16.5	2.3	14.2
65	OLN	17.0	3.3	13.7
66	ESPC	17.0	2.6	14.4
67	TCM	16.3	2.5	13.8
68	FIT	16.4	2.7	13.7
69	CMT	17.1	2.9	14.2
70	NGEO	16.3	2.3	14.0
71	FX	17.0	4.9	12.1
72	INSP	16.9	2.9	14.0
73	HLMK	16.5	2.9	13.6
74	TRAV	17.6	3.9	13.7
75	TOON	17.6	3.0	14.6
76	HGTV	17.4	3.5	13.9
77	FOOD	16.2	4.0	12.2
78	WNCN	17.4	3.0	14.4
116		19.4	3.5	15.9

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 10.0	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 116, Delta = 9.4	Pass
Min Delta V/A	6.5 dB	Ch 71 Delta V/A = 12.1	Pass
Max Delta V/A	17.0 dB	Ch 10 Delta V/A = 16.6	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 2.0	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 06:14:17
Description:

Serial #: 8513315
File: 3DIXON

Cal Date: 07/18/03
DOS File: 3DIXON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 30.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	12.3	-4.2	16.5
3	WRAL	10.2	-4.9	15.1
4	EDU	10.3	-3.3	13.6
5	WRAY	11.0	-4.4	15.4
6	WTVD	11.1	-2.4	13.5
98	TVG	12.9	-2.2	15.1
14	NC14	12.9	-1.4	14.3
15	HSN	13.1	-0.5	13.6
16	QVC	14.1	-0.8	14.9
18	CSPN	13.6	-0.6	14.2
19	BET	14.1	-0.4	14.5
21	WGN	14.2	-0.3	14.5
22	WRPX	14.0	-0.6	14.6
7	HBC	14.3	-1.6	15.9
8	COMM	14.4	0.2	14.2
9	WUNC	13.8	0.6	13.2
10	WLFL	14.2	-2.6	16.8
11	WUVC	14.1	-0.4	14.5
12	WRDC	13.4	0.3	13.1
13	WRAZ	14.7	-2.3	17.0
24	TRI	13.5	-0.2	13.7
25	USA	14.3	-0.1	14.4
26	TNT	13.9	0.4	13.5
27	A+E	15.3	0.7	14.6
28	FFAM	14.9	-0.2	15.1
29	CNN	15.2	1.7	13.5
30	DISC	15.6	1.4	14.2
31	ESPN	14.8	1.1	13.7
32	ESP2	16.1	1.2	14.9
33	LIFE	15.6	1.3	14.3
34	TBS	14.3	0.3	14.0
35	DISH	14.3	-0.5	14.8
36	COM	14.7	0.7	14.0
37	CNBC	14.8	-0.2	15.0
38	AMC	13.6	-2.4	16.0
39	TLC	15.0	0.5	14.5
40	SPK	14.9	-0.4	15.3
41	HLN	14.5	0.7	13.8
42	TWC	15.1	0.0	15.1
43	NICK	15.3	0.7	14.6
44	CORT	14.8	0.9	13.9
45	MSN	15.7	0.1	15.6
46	APL	15.1	1.3	13.8
47	LMN	16.3	1.8	14.5
48	VH1	15.6	1.8	13.8
49	SIFI	16.2	1.1	15.1
50	FOXS	15.8	2.4	13.4
51	GOLF	15.6	2.1	13.5
53	MTV	16.4	2.1	14.3

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 06:14:17
Description:

Serial #: 8513315
File: 3DIXON

Cal Date: 07/18/03
DOS File: 3DIXON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	15.9	1.9	14.0
55	OXY	16.7	2.7	14.0
56	HIST	16.1	3.3	12.8
57	DISN	17.3	2.3	15.0
58	FOXN	16.7	3.0	13.7
60	CSP2	16.4	1.5	14.9
61	WET	16.7	2.6	14.1
62	E	16.8	2.2	14.6
63	SOAP	16.8	2.9	13.9
64	SNBC	16.8	2.5	14.3
65	OLN	17.4	3.3	14.1
66	ESPC	17.0	2.7	14.3
67	TCM	16.5	2.4	14.1
68	FIT	16.6	2.6	14.0
69	CMT	17.2	2.7	14.5
70	NGEO	16.8	2.1	14.7
71	FX	17.4	5.0	12.4
72	INSP	17.0	3.3	13.7
73	HLMK	17.1	2.6	14.5
74	TRAV	17.5	4.0	13.5
75	TOON	17.5	3.3	14.2
76	HGTV	17.5	3.3	14.2
77	FOOD	16.8	3.2	13.6
78	WNCN	17.5	2.7	14.8
116		19.6	3.5	16.1

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 10.2	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 116, Delta = 9.4	Pass
Min Delta V/A	6.5 dB	Ch 71 Delta V/A = 12.4	Pass
Max Delta V/A	17.0 dB	Ch 13 Delta V/A = 17.0	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 2.1	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 11:57:51
Description:

Serial #: 8513315
File: 4DIXON

Cal Date: 07/18/03
DOS File: 4DIXON

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 52.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	11.8	-4.3	16.1
3	WRAL	10.2	-5.1	15.3
4	EDU	10.3	-3.3	13.6
5	WRAY	10.8	-3.9	14.7
6	WTVD	11.1	-2.3	13.4
98	TVG	12.8	-1.8	14.6
14	NC14	13.0	-1.4	14.4
15	HSN	13.2	-0.7	13.9
16	QVC	14.1	-0.7	14.8
18	CSPN	13.3	-1.0	14.3
19	BET	14.3	-0.2	14.5
21	WGN	13.8	-0.3	14.1
22	WRPX	13.9	-0.6	14.5
7	HBC	13.9	-1.6	15.5
8	COMM	14.6	0.1	14.5
9	WUNC	13.6	1.4	12.2
10	WLFL	14.0	-2.6	16.6
11	WUVC	13.6	-0.5	14.1
12	WRDC	13.2	0.6	12.6
13	WRAZ	14.4	-2.4	16.8
24	TRI	13.5	-0.2	13.7
25	USA	14.3	-0.2	14.5
26	TNT	13.9	0.1	13.8
27	A+E	15.2	0.3	14.9
28	FFAM	15.2	0.2	15.0
29	CNN	15.5	1.9	13.6
30	DISC	15.6	1.6	14.0
31	ESPN	14.2	1.4	12.8
32	ESP2	16.2	1.5	14.7
33	LIFE	15.4	1.5	13.9
34	TBS	14.5	-0.3	14.8
35	DISH	13.9	-0.1	14.0
36	COM	14.9	0.8	14.1
37	CNBC	14.6	-0.1	14.7
38	AMC	13.6	-2.4	16.0
39	TLC	14.6	1.0	13.6
40	SPK	14.8	-0.4	15.2
41	HLN	14.4	0.6	13.8
42	TWC	14.8	-0.2	15.0
43	NICK	15.2	0.7	14.5
44	CORT	15.3	1.6	13.7
45	MSN	15.5	-0.1	15.6
46	APL	15.2	1.7	13.5
47	LMN	15.5	1.7	13.8
48	VH1	15.4	1.6	13.8
49	SIFI	15.9	1.6	14.3
50	FOXS	15.7	2.4	13.3
51	GOLF	15.3	1.9	13.4
53	MTV	16.6	2.5	14.1

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 11:57:51
Description:

Serial #: 8513315
File: 4DIXON

Cal Date: 07/18/03
DOS File: 4DIXON

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	15.5	2.2	13.3
55	OXY	15.9	2.6	13.3
56	HIST	16.3	3.1	13.2
57	DISN	17.2	1.6	15.6
58	FOXN	16.4	2.5	13.9
60	CSP2	16.2	1.4	14.8
61	WET	16.3	2.5	13.8
62	E	17.1	2.5	14.6
63	SOAP	16.4	2.6	13.8
64	SNBC	16.5	2.3	14.2
65	OLN	17.0	3.3	13.7
66	ESPC	16.9	2.7	14.2
67	TCM	16.3	2.5	13.8
68	FIT	16.2	2.6	13.6
69	CMT	17.3	2.6	14.7
70	NGEO	16.4	2.0	14.4
71	FX	16.9	5.0	11.9
72	INSP	16.7	2.7	14.0
73	HLMK	16.5	2.6	13.9
74	TRAV	17.6	3.6	14.0
75	TOON	17.8	3.0	14.8
76	HGTV	17.3	3.3	14.0
77	FOOD	16.6	3.1	13.5
78	WNCN	17.4	2.8	14.6
116		19.6	3.5	16.1

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 10.2	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 116, Delta = 9.4	Pass
Min Delta V/A	6.5 dB	Ch 71 Delta V/A = 11.9	Pass
Max Delta V/A	17.0 dB	Ch 13 Delta V/A = 16.8	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 31 and 32, Delta = 2.0	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Test 3 - Signal Levels and Level Variations Test

Summary Page 1 of 1

System Name: Durham
Test Point Location: Arborfield
Date of Test: 2-8-04 Time: 6:25
Tech(s) Performing Test: Steve Cooper

Highest Band Pass: 750 MHz
Test Point Number: 11
Temperature: 32°
Date Begun: 2-8-04

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	NA	NA	NA
FSM	SDA-5000	8513315	N/A

Test Setup used: A 30 meeter (98.45 foot) cable drop from the test point is fed into the Field Strength Meter or Spectrum Analyzer. Audio and video carrier levels are measured, before the channel selector, to determine the extent to which the standard is met. All levels are measured and recorded every 6 hours +/- 1 hour. The time and temperature of each measurement is also recorded. The measurements are made on each NTSC channel.

Minimum Specifications: The five specifications listed here are "Proofed" by this test:

1. All levels are to be measured and recorded ever 6 hours +/- 1 hour.
Was the Specification Met? Yes ✓, No ___

Date/Time	2-8/16:25	2-8/17:17	2-8/18:21	2-9/00:09

2. The Visual Carrier Level cannot vary more then 10 dB from any visual carrier on the cable television system of up to 300 MHz of forward bandwidth. (For system having a forward bandwidth greater than 300 MHz 1 additional dB per 100 MHz of forward bandwidth is allowed).

Maximum Video Carrier Level	21.1	20.6	20.9	21.5
Minimum Video Carrier Level	13.6	12.6	13.0	13.2
Variation Highest & Lowest Video Levels	7.5	8.3	7.9	8.3

Maximum allowed variation between highest level carrier and the lowest level carrier per bandwidth 14.5 Was the specification met? Yes ✓, No ___
Justification for any variation in this requirement:

3. All audio carrier levels are to be maintained less then 6.5 dB below the video carrier but not more then 17 dB below the video carrier.
Was the Specification Met? Yes ✓, No ___
Justification for any variation in this requirement:

4. Video carriers are not allowed to very more then 3 dB from any adjacent channel?:
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater than 3 dB:

5. All video carriers must maintain a level greater then 3 dBmV at the end of a 100 foot drop.
Was this Specification Met? Yes ✓, No ___
Justification for any video level less then 3 dBmV:

6. During this 24 hour test all video carrier level changes must be less then 8 dB
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___
Video carrier levels are not allowed to change more then 8 dB from the measurement made in the last 24 hour test.
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 06:25:48
Description:

Serial #: 8513315
File: 1ARBORFIELD

Cal Date: 07/18/03
DOS File: 1ARBORFIELD

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 32.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	15.8	-0.7	16.5
3	WRAL	13.8	-1.5	15.3
4	EDU	13.6	-0.1	13.7
5	WRAY	14.1	-1.5	15.6
6	WTVD	14.4	1.0	13.4
98	TVG	15.8	1.0	14.8
14	NC14	15.4	1.5	13.9
15	HSN	15.4	1.9	13.5
16	QVC	16.3	2.7	13.6
18	CSPN	15.5	1.6	13.9
19	BET	16.0	2.3	13.7
21	WGN	16.0	1.4	14.6
22	WRPX	15.7	0.9	14.8
7	HBC	15.9	0.0	15.9
8	COMM	15.7	1.7	14.0
9	WUNC	15.0	1.9	13.1
10	WLFL	15.3	-1.3	16.6
11	WUVC	15.4	1.1	14.3
12	WRDC	14.5	1.7	12.8
13	WRAZ	15.7	-1.1	16.8
24	TRI	14.7	0.9	13.8
25	USA	15.8	1.5	14.3
26	TNT	14.6	0.7	13.9
27	A+E	15.8	1.1	14.7
28	FFAM	15.6	0.5	15.1
29	CNN	16.0	2.4	13.6
30	DISC	16.1	2.2	13.9
31	ESPN	15.1	1.7	13.4
32	ESP2	16.6	2.0	14.6
33	LIFE	15.6	1.8	13.8
34	TBS	15.0	0.7	14.3
35	DISH	14.9	0.1	14.8
36	COM	15.3	0.8	14.5
37	CNBC	15.2	0.2	15.0
38	AMC	13.8	-2.2	16.0
39	TLC	14.9	0.3	14.6
40	SPK	15.1	0.0	15.1
41	HLN	15.0	1.3	13.7
42	TWC	15.2	0.1	15.1
43	NICK	15.2	0.6	14.6
44	CORT	15.0	0.8	14.2
45	MSN	15.6	-0.4	16.0
46	APL	14.6	0.8	13.8
47	LMN	15.1	0.7	14.4
48	VH1	15.0	0.9	14.1
49	SIFI	15.6	0.8	14.8
50	FOXS	15.4	1.6	13.8
51	GOLF	15.0	1.4	13.6
53	MTV	15.5	2.0	13.5

Auto Test Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 06:25:48
Description:

Serial #: 8513315
File: 1ARBORFIELD

Cal Date: 07/18/03
DOS File: 1ARBORFIELD

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	15.4	1.1	14.3
55	OXY	16.1	1.6	14.5
56	HIST	16.0	3.3	12.7
57	DISN	16.9	0.8	16.1
58	FOXN	16.0	1.9	14.1
60	CSP2	15.3	0.4	14.9
61	WET	16.0	1.5	14.5
62	E	16.1	1.2	14.9
63	SOAP	15.7	1.5	14.2
64	SNBC	15.4	1.2	14.2
65	OLN	16.3	2.0	14.3
66	ESPC	15.8	1.2	14.6
67	TCM	15.7	1.3	14.4
68	FIT	15.4	1.4	14.0
69	CMT	15.9	1.6	14.3
70	NGEO	15.2	1.0	14.2
71	FX	16.3	3.4	12.9
72	INSP	16.0	1.3	14.7
73	HLMK	15.2	1.1	14.1
74	TRAV	16.5	2.6	13.9
75	TOON	16.4	2.0	14.4
76	HGTV	16.0	2.1	13.9
77	FOOD	15.4	2.7	12.7
78	WNCN	16.4	1.8	14.6
116		21.1	4.7	16.4

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 4 Video = 13.6	Pass
Max Delta Video Level	15.0 dB	Ch 4 and 116, Delta = 7.5	Pass
Min Delta V/A	6.5 dB	Ch 56 Delta V/A = 12.7	Pass
Max Delta V/A	17.0 dB	Ch 13 Delta V/A = 16.8	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 2.0	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 12:17:16
Description:

Serial #: 8513315
File: 2ARBORFIELD

Cal Date: 07/18/03
DOS File: 2ARBORFIELD

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 50.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	15.0	-1.5	16.5
3	WRAL	12.6	-2.0	14.6
4	EDU	12.9	-0.5	13.4
5	WRAY	13.4	-1.4	14.8
6	WTVD	13.6	0.5	13.1
98	TVG	15.0	0.8	14.2
14	NC14	14.5	0.9	13.6
15	HSN	14.7	1.3	13.4
16	QVC	16.0	1.5	14.5
18	CSPN	15.3	0.8	14.5
19	BET	15.5	1.6	13.9
21	WGN	14.9	1.1	13.8
22	WRPX	15.0	0.4	14.6
7	HBC	15.1	0.0	15.1
8	COMM	15.4	1.3	14.1
9	WUNC	14.3	1.3	13.0
10	WLFL	14.7	-2.0	16.7
11	WUVC	14.9	0.2	14.7
12	WRDC	13.8	1.6	12.2
13	WRAZ	15.0	-1.8	16.8
24	TRI	14.3	0.9	13.4
25	USA	15.0	0.7	14.3
26	TNT	14.4	0.5	13.9
27	A+E	15.4	0.8	14.6
28	FFAM	15.5	0.7	14.8
29	CNN	15.8	2.1	13.7
30	DISC	16.0	2.0	14.0
31	ESPN	14.9	1.6	13.3
32	ESP2	16.3	1.8	14.5
33	LIFE	15.1	1.9	13.2
34	TBS	14.4	-0.1	14.5
35	DISH	14.1	-0.3	14.4
36	COM	14.6	1.0	13.6
37	CNBC	14.5	-0.1	14.6
38	AMC	13.5	-2.6	16.1
39	TLC	14.4	0.1	14.3
40	SPK	15.0	-0.6	15.6
41	HLN	14.6	1.2	13.4
42	TWC	14.7	-0.1	14.8
43	NICK	14.6	0.3	14.3
44	CORT	14.5	1.1	13.4
45	MSN	15.0	-0.8	15.8
46	APL	14.2	0.8	13.4
47	LMN	14.8	0.7	14.1
48	VH1	14.4	0.5	13.9
49	SIFI	14.7	-0.2	14.9
50	FOXS	14.7	1.4	13.3
51	GOLF	14.5	0.8	13.7
53	MTV	15.1	1.5	13.6

Auto Test Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 12:17:16
Description:

Serial #: 8513315
File: 2ARBORFIELD

Cal Date: 07/18/03
DOS File: 2ARBORFIELD

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	14.4	1.0	13.4
55	OXY	15.0	1.3	13.7
56	HIST	15.1	2.3	12.8
57	DISN	15.8	0.3	15.5
58	FOXN	15.6	1.4	14.2
60	CSP2	14.5	0.0	14.5
61	WET	15.2	1.1	14.1
62	E	15.8	0.9	14.9
63	SOAP	15.1	1.1	14.0
64	SNBC	14.9	1.1	13.8
65	OLN	15.4	1.8	13.6
66	ESPC	15.2	1.2	14.0
67	TCM	15.1	1.0	14.1
68	FIT	14.9	0.9	14.0
69	CMT	15.2	1.2	14.0
70	NGEO	14.6	0.7	13.9
71	FX	15.5	2.8	12.7
72	INSP	14.9	0.8	14.1
73	HLMK	14.8	1.0	13.8
74	TRAV	15.7	2.3	13.4
75	TOON	16.0	1.9	14.1
76	HGTV	15.7	2.0	13.7
77	FOOD	14.9	2.7	12.2
78	WNCN	15.9	1.5	14.4
116		20.9	4.5	16.4

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 12.6	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 116, Delta = 8.3	Pass
Min Delta V/A	6.5 dB	Ch 12 Delta V/A = 12.2	Pass
Max Delta V/A	17.0 dB	Ch 13 Delta V/A = 16.8	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 2.4	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

Auto Test Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 18:21:39
Description:

Serial #: 8513315
File: 3ARBORFIELD

Cal Date: 07/18/03
DOS File: 3ARBORFIELD

Location: ?	AmpID:	Reverse Pad: 0.0
Location Type: Undefined	Power Cfg: IN	Forward Pad: 0.0
Area:	Feeder Maker Cfg: 1	Rev Equalizer: 0.0
Test Pnt Type: None	Trunk Term: NO	Fwd Equalizer: 0.0
Test Pnt Comp: 0.0	Voltage Setting: LOW	Temp: 39.9 F
AC Voltage: 0	DC Voltage (reg): 0.0	DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	14.9	-1.5	16.4
3	WRAL	13.0	-2.1	15.1
4	EDU	13.0	-0.4	13.4
5	WRAY	13.2	-1.3	14.5
6	WTVD	13.6	0.3	13.3
98	TVG	15.4	0.6	14.8
14	NC14	14.7	1.0	13.7
15	HSN	14.7	1.2	13.5
16	QVC	15.3	1.4	13.9
18	CSPN	15.0	0.8	14.2
19	BET	15.4	1.5	13.9
21	WGN	14.9	0.8	14.1
22	WRPX	15.0	0.4	14.6
7	HBC	14.9	-0.6	15.5
8	COMM	15.5	1.2	14.3
9	WUNC	14.6	1.5	13.1
10	WLFL	14.8	-2.0	16.8
11	WUVC	14.9	0.4	14.5
12	WRDC	14.1	1.6	12.5
13	WRAZ	15.2	-1.8	17.0
24	TRI	14.4	1.1	13.3
25	USA	14.9	0.9	14.0
26	TNT	14.4	0.6	13.8
27	A+E	15.5	0.9	14.6
28	FFAM	15.3	0.5	14.8
29	CNN	15.6	2.3	13.3
30	DISC	15.9	2.0	13.9
31	ESPN	15.0	1.7	13.3
32	ESP2	15.8	1.9	13.9
33	LIFE	15.3	2.0	13.3
34	TBS	14.5	0.1	14.4
35	DISH	14.4	-0.3	14.7
36	COM	14.7	1.0	13.7
37	CNBC	14.6	0.3	14.3
38	AMC	13.7	-2.4	16.1
39	TLC	14.7	0.1	14.6
40	SPK	14.9	-0.4	15.3
41	HLN	14.5	1.2	13.3
42	TWC	14.5	0.1	14.4
43	NICK	14.8	0.3	14.5
44	CORT	14.7	0.9	13.8
45	MSN	15.0	-0.5	15.5
46	APL	14.6	0.7	13.9
47	LMN	14.8	0.7	14.1
48	VH1	15.1	1.0	14.1
49	SIFI	15.0	0.2	14.8
50	FOXS	14.8	1.6	13.2
51	GOLF	14.8	1.2	13.6
53	MTV	15.4	1.9	13.5

Data Analysis Software
WWG StealthWare

Auto Test Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: BROWN_DON
Date: 02/08/04 Time: 18:21:39
Description:

Serial #: 8513315
File: 3ARBORFIELD

Cal Date: 07/18/03
DOS File: 3ARBORFIELD

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	14.7	1.2	13.5
55	OXY	15.6	1.4	14.2
56	HIST	15.4	2.4	13.0
57	DISN	16.1	0.8	15.3
58	FOXN	15.6	1.6	14.0
60	CSP2	14.6	0.3	14.3
61	WET	15.2	1.2	14.0
62	E	15.6	1.1	14.5
63	SOAP	15.4	1.3	14.1
64	SNBC	15.0	1.3	13.7
65	OLN	15.6	1.8	13.8
66	ESPC	15.0	0.8	14.2
67	TCM	15.1	1.0	14.1
68	FIT	14.9	1.2	13.7
69	CMT	15.2	1.3	13.9
70	NGEO	15.1	0.8	14.3
71	FX	15.4	3.1	12.3
72	INSP	15.0	1.0	14.0
73	HLMK	14.7	1.1	13.6
74	TRAV	15.8	2.6	13.2
75	TOON	16.0	1.9	14.1
76	HGTV	15.8	2.0	13.8
77	FOOD	14.9	2.2	12.7
78	WNCN	16.2	1.7	14.5
116		20.9	4.6	16.3

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 13.0	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 116, Delta = 7.9	Pass
Min Delta V/A	6.5 dB	Ch 71 Delta V/A = 12.3	Pass
Max Delta V/A	17.0 dB	Ch 13 Delta V/A = 17.0	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 1.9	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/09/04 Time: 00:09:48
Description:

Serial #: 8513315
File: 4ARBORFIELD

Cal Date: 07/18/03
DOS File: 4ARBORFIELD

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 28.9 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	15.6	-0.6	16.2
3	WRAL	13.2	-1.6	14.8
4	EDU	13.5	-0.2	13.7
5	WRAY	14.2	-1.5	15.7
6	WTVD	14.4	0.9	13.5
98	TVG	15.4	1.4	14.0
14	NC14	15.4	1.9	13.5
15	HSN	15.3	1.7	13.6
16	QVC	16.1	2.2	13.9
18	CSPN	15.6	0.9	14.7
19	BET	15.9	1.7	14.2
21	WGN	15.7	1.2	14.5
22	WRPX	15.7	1.1	14.6
7	HBC	15.6	-0.2	15.8
8	COMM	15.6	1.6	14.0
9	WUNC	15.1	1.8	13.3
10	WLFL	15.3	-1.3	16.6
11	WUVC	15.5	0.9	14.6
12	WRDC	14.6	2.0	12.6
13	WRAZ	15.2	-1.5	16.7
24	TRI	14.7	1.1	13.6
25	USA	15.1	0.8	14.3
26	TNT	14.6	0.6	14.0
27	A+E	15.9	1.3	14.6
28	FFAM	15.4	0.6	14.8
29	CNN	15.8	2.4	13.4
30	DISC	16.2	2.0	14.2
31	ESPN	15.0	1.6	13.4
32	ESP2	16.2	2.8	13.4
33	LIFE	15.6	2.1	13.5
34	TBS	14.6	0.0	14.6
35	DISH	14.5	-0.3	14.8
36	COM	15.0	1.1	13.9
37	CNBC	14.9	0.2	14.7
38	AMC	13.9	-2.1	16.0
39	TLC	15.1	0.3	14.8
40	SPK	15.6	-0.3	15.9
41	HLN	14.9	2.1	12.8
42	TWC	15.1	0.0	15.1
43	NICK	15.4	0.9	14.5
44	CORT	15.2	1.0	14.2
45	MSN	15.6	-0.5	16.1
46	APL	14.7	0.6	14.1
47	LMN	15.3	1.4	13.9
48	VH1	15.3	1.0	14.3
49	SIFI	15.1	0.9	14.2
50	FOXS	15.0	1.7	13.3
51	GOLF	15.2	1.5	13.7
53	MTV	16.0	1.7	14.3

Auto Test Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: BROWN_DON
Date: 02/09/04 Time: 00:09:48
Description:

Serial #: 8513315
File: 4ARBORFIELD

Cal Date: 07/18/03
DOS File: 4ARBORFIELD

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	15.0	1.4	13.6
55	OXY	16.1	1.3	14.8
56	HIST	15.9	2.7	13.2
57	DISN	16.5	0.6	15.9
58	FOXN	16.0	1.9	14.1
60	CSP2	15.3	0.3	15.0
61	WET	15.7	1.3	14.4
62	E	15.7	1.2	14.5
63	SOAP	16.0	1.8	14.2
64	SNBC	15.6	1.5	14.1
65	OLN	16.0	2.0	14.0
66	ESPC	15.6	1.3	14.3
67	TCM	15.6	1.0	14.6
68	FIT	15.7	1.9	13.8
69	CMT	15.8	1.5	14.3
70	NGEO	15.3	1.1	14.2
71	FX	16.1	3.3	12.8
72	INSP	15.5	1.0	14.5
73	HLMK	15.6	1.6	14.0
74	TRAV	16.3	2.8	13.5
75	TOON	16.3	2.0	14.3
76	HGTV	16.3	2.3	14.0
77	FOOD	15.6	2.5	13.1
78	WNCN	16.5	1.9	14.6
116		21.5	4.8	16.7

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 13.2	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 116, Delta = 8.3	Pass
Min Delta V/A	6.5 dB	Ch 12 Delta V/A = 12.6	Pass
Max Delta V/A	17.0 dB	Ch 13 Delta V/A = 16.7	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 2 and 3, Delta = 2.4	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Test 3 - Signal Levels and Level Variations Test

Summary Page 1 of 1

System Name: Durham
Test Point Location: Massey Chapel
Date of Test: 2-15-04 Time: 11:02
Tech(s) Performing Test: Ron Cupit

Highest Band Pass: 752 MHz
Test Point Number: 12
Temperature: 48°
Date Begun: 2-15-04

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer			
FSM	SDA-5000	2301236	N/A

Test Setup used: A 30 meeter (98.45 foot) cable drop from the test point is fed into the Field Strength Meter or Spectrum Analyzer. Audio and video carrier levels are measured, before the channel selector, to determine the extent to which the standard is met. All levels are measured and recorded every 6 hours +/- 1 hour. The time and temperature of each measurement is also recorded. The measurements are made on each NTSC channel.

Minimum Specifications: The five specifications listed here are "Proofed" by this test:

1. All levels are to be measured and recorded ever 6 hours +/- 1 hour.
Was the Specification Met? Yes ✓, No ___

Date/Time	2-15/11:02	2-15/17:03	2-15/22:58	2-16/5:55

2. The Visual Carrier Level cannot vary more then 10 dB from any visual carrier on the cable television system of up to 300 MHz of forward bandwidth. (For system having a forward bandwidth greater than 300 MHz 1 additional dB per 100 MHz of forward bandwidth is allowed).

Maximum Video Carrier Level	21.4	21.9	22.4	22.3
Minimum Video Carrier Level	16.7	17.1	17.8	17.8
Variation Highest & Lowest Video Levels	4.7	4.8	4.6	4.5

Maximum allowed variation between highest level carrier and the lowest level carrier per bandwidth 4.5 Was the specification met? Yes ✓, No ___
Justification for any variation in this requirement:

3. All audio carrier levels are to be maintained less then 6.5 dB below the video carrier but not more then 17 dB below the video carrier.
Was the Specification Met? Yes ✓, No ___
Justification for any variation in this requirement:

4. Video carriers are not allowed to very more then 3 dB from any adjacent channel?:
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater than 3 dB:

5. All video carriers must maintain a level greater then 3 dBmV at the end of a 100 foot drop.
Was this Specification Met? Yes ✓, No ___
Justification for any video level less then 3 dBmV:

6. During this 24 hour test all video carrier level changes must be less then 8 dB
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB:
Video carrier levels are not allowed to change more then 8 dB from the measurement made in the last 24 hour test.
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB:

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: RON
Date: 02/15/04 Time: 11:02:13
Description:

Serial #: 2381236
File: 1MASSEY

Cal Date: 09/10/03
DOS File: 1MASSEY

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 48.9 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	18.6	5.0	13.6
3	WRAL	18.9	5.2	13.7
4	EDU	18.6	5.1	13.5
5	WRAY	18.4	5.2	13.2
6	WTVD	18.9	5.7	13.2
7	HBC	21.0	6.1	14.9
8	COMM	21.0	7.3	13.7
9	WUNC	20.9	8.4	12.5
10	WLFL	21.2	7.1	14.1
11	WUVC	21.2	7.3	13.9
12	WRDC	20.8	7.3	13.5
13	WRAZ	21.1	7.0	14.1
14	NC14	20.0	6.5	13.5
15	HSN	20.3	7.0	13.3
16	QVC	20.3	6.6	13.7
18	CSPN	20.0	6.0	14.0
19	BET	20.1	6.5	13.6
21	WGN	20.4	6.6	13.8
22	WRPX	20.3	6.2	14.1
24	TRI	20.6	7.0	13.6
25	USA	20.9	6.3	14.6
26	TNT	20.0	6.2	13.8
27	A+E	20.3	6.5	13.8
28	FFAM	20.6	6.2	14.4
29	CNN	20.9	7.1	13.8
30	DISC	21.4	7.8	13.6
31	ESPN	20.4	7.5	12.9
32	ESP2	20.5	6.5	14.0
33	LIFE	20.3	7.1	13.2
34	TBS	20.4	6.8	13.6
35	DISH	20.2	6.6	13.6
36	COM	20.9	7.0	13.9
37	CNBC	20.4	6.3	14.1
38	AMC	19.8	5.5	14.3
39	TLC	20.1	5.8	14.3
40	SPK	20.0	5.8	14.2
41	HLN	19.3	6.3	13.0
42	TWC	19.7	5.6	14.1
43	NICK	19.6	5.7	13.9
44	CORT	20.2	7.1	13.1
45	MSN	20.7	6.8	13.9
46	APL	20.0	7.2	12.8
47	LMN	21.1	6.9	14.2
48	VH1	20.4	6.6	13.8
49	SIFI	20.6	6.3	14.3
50	FOXS	20.3	6.7	13.6
51	GOLF	20.3	6.6	13.7
53	MTV	20.6	6.9	13.7
54	TVLN	19.9	6.6	13.3

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: RON
Date: 02/15/04 Time: 11:02:13
Description:

Serial #: 2381236
File: 1MASSEY

Cal Date: 09/10/03
DOS File: 1MASSEY

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	20.2	6.6	13.6
56	HIST	20.9	7.7	13.2
57	DISN	21.0	7.0	14.0
58	FOXN	20.8	6.5	14.3
60	CSP2	19.8	5.9	13.9
61	WET	20.2	6.4	13.8
62	E	19.5	5.3	14.2
63	SOAP	19.6	5.7	13.9
64	SNBC	19.2	5.3	13.9
65	OLN	19.5	5.9	13.6
66	ESPC	19.1	4.7	14.4
67	TCM	18.5	4.5	14.0
68	FIT	18.4	4.0	14.4
69	CMT	18.4	4.2	14.2
70	NGEO	18.1	4.1	14.0
71	FX	18.4	5.1	13.3
72	INSP	17.9	3.8	14.1
73	HLMK	17.4	3.4	14.0
74	TRAV	17.6	4.2	13.4
75	TOON	17.8	3.3	14.5
76	HGTV	17.3	3.9	13.4
77	FOOD	16.8	4.0	12.8
78	UMC	17.2	3.2	14.0
98	TVG	20.0	6.6	13.4
116		16.7	3.8	12.9

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 116 Video = 16.7	Pass
Max Delta Video Level	15.0 dB	Ch 30 and 116, Delta = 4.7	Pass
Min Delta V/A	6.5 dB	Ch 9 Delta V/A = 12.5	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 14.9	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 46 and 47, Delta = 1.1	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: RON
Date: 02/15/04 Time: 17:03:54
Description:

Serial #: 2381236
File: 2MASSEY

Cal Date: 09/10/03
DOS File: 2MASSEY

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 39.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	18.4	4.9	13.5
3	WRAL	18.6	4.9	13.7
4	EDU	18.5	5.0	13.5
5	WRAY	18.4	5.2	13.2
6	WTVD	18.9	5.7	13.2
7	HBC	20.8	6.3	14.5
8	COMM	21.0	7.9	13.1
9	WUNC	21.5	8.8	12.7
10	WLFL	21.6	7.5	14.1
11	WUVC	21.5	7.3	14.2
12	WRDC	20.9	7.2	13.7
13	WRAZ	20.2	6.3	13.9
14	NC14	20.1	6.4	13.7
15	HSN	20.5	7.1	13.4
16	QVC	20.4	6.6	13.8
18	CSPN	20.0	5.8	14.2
19	BET	19.9	6.3	13.6
21	WGN	20.0	6.2	13.8
22	WRPX	20.0	6.1	13.9
24	TRI	20.6	6.6	14.0
25	USA	20.8	6.3	14.5
26	TNT	20.1	6.4	13.7
27	A+E	20.5	6.7	13.8
28	FFAM	20.9	6.6	14.3
29	CNN	21.3	7.4	13.9
30	DISC	21.9	8.2	13.7
31	ESPN	20.5	7.7	12.8
32	ESP2	21.0	6.4	14.6
33	LIFE	20.4	7.2	13.2
34	TBS	20.5	6.6	13.9
35	DISH	20.1	6.6	13.5
36	COM	20.8	7.1	13.7
37	CNBC	20.5	6.4	14.1
38	AMC	19.6	5.5	14.1
39	TLC	20.0	6.0	14.0
40	SPK	20.2	6.1	14.1
41	HLN	19.4	6.7	12.7
42	TWC	20.0	5.8	14.2
43	NICK	19.8	6.0	13.8
44	CORT	20.2	7.3	12.9
45	MSN	20.9	7.0	13.9
46	APL	20.4	7.3	13.1
47	LMN	21.0	6.9	14.1
48	VH1	20.6	6.6	14.0
49	SIFI	20.8	6.4	14.4
50	FOXS	20.2	6.9	13.3
51	GOLF	20.4	6.6	13.8
53	MTV	20.9	7.1	13.8
54	TVLN	20.0	6.7	13.3

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: RON
Date: 02/15/04 Time: 17:03:54
Description:

Serial #: 2381236
File: 2MASSEY

Cal Date: 09/10/03
DOS File: 2MASSEY

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	20.3	6.7	13.6
56	HIST	20.9	8.0	12.9
57	DISN	21.0	7.1	13.9
58	FOXN	20.8	6.9	13.9
60	CSP2	20.0	6.2	13.8
61	WET	20.0	6.4	13.6
62	E	19.7	5.5	14.2
63	SOAP	19.6	5.8	13.8
64	SNBC	19.2	5.3	13.9
65	OLN	19.7	5.9	13.8
66	ESPC	19.3	4.7	14.6
67	TCM	18.8	4.7	14.1
68	FIT	18.6	4.3	14.3
69	CMT	18.7	4.5	14.2
70	NGEO	18.4	4.4	14.0
71	FX	18.5	5.2	13.3
72	INSP	18.2	4.1	14.1
73	HLMK	17.8	3.6	14.2
74	TRAV	17.9	4.6	13.3
75	TOON	18.4	3.7	14.7
76	HGTV	17.8	4.3	13.5
77	FOOD	17.2	4.2	13.0
78	UMC	17.5	3.5	14.0
98	TVG	20.0	6.6	13.4
116		17.1	4.2	12.9

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 116 Video = 17.1	Pass
Max Delta Video Level	15.0 dB	Ch 30 and 116, Delta = 4.8	Pass
Min Delta V/A	6.5 dB	Ch 9 Delta V/A = 12.7	Pass
Max Delta V/A	17.0 dB	Ch 75 Delta V/A = 14.7	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 30 and 31, Delta = 1.4	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: RON
Date: 02/15/04 Time: 22:58:23
Description:

Serial #: 2381236
File: 3MASSEY

Cal Date: 09/10/03
DOS File: 3MASSEY

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 32.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	18.6	5.1	13.5
3	WRAL	18.9	5.1	13.8
4	EDU	18.8	5.1	13.7
5	WRAY	18.9	5.3	13.6
6	WTVD	19.2	5.9	13.3
7	HBC	21.3	6.5	14.8
8	COMM	21.5	8.1	13.4
9	WUNC	21.7	9.2	12.5
10	WLFL	22.1	7.7	14.4
11	WUVC	21.8	7.4	14.4
12	WRDC	21.5	7.6	13.9
13	WRAZ	20.8	6.6	14.2
14	NC14	20.5	6.8	13.7
15	HSN	20.5	7.1	13.4
16	QVC	21.0	7.0	14.0
18	CSPN	20.4	6.3	14.1
19	BET	20.5	6.7	13.8
21	WGN	20.3	6.5	13.8
22	WRPX	20.4	6.3	14.1
24	TRI	21.0	7.2	13.8
25	USA	21.3	6.7	14.6
26	TNT	20.6	6.9	13.7
27	A+E	21.0	7.2	13.8
28	FFAM	22.0	7.3	14.7
29	CNN	21.7	8.2	13.5
30	DISC	22.4	8.9	13.5
31	ESPN	21.3	8.2	13.1
32	ESP2	21.5	7.0	14.5
33	LIFE	21.1	7.7	13.4
34	TBS	21.1	7.3	13.8
35	DISH	20.9	6.9	14.0
36	COM	21.4	7.7	13.7
37	CNBC	21.2	6.9	14.3
38	AMC	20.0	5.7	14.3
39	TLC	20.5	6.7	13.8
40	SPK	20.7	6.6	14.1
41	HLN	20.1	7.2	12.9
42	TWC	20.5	6.3	14.2
43	NICK	20.3	5.9	14.4
44	CORT	20.7	7.6	13.1
45	MSN	21.5	7.5	14.0
46	APL	21.1	7.9	13.2
47	LMN	21.7	7.5	14.2
48	VH1	21.2	7.2	14.0
49	SIFI	21.4	6.8	14.6
50	FOXS	20.9	7.4	13.5
51	GOLF	20.9	7.1	13.8
53	MTV	21.3	7.6	13.7
54	TVLN	20.5	7.1	13.4

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: RON
Date: 02/15/04 Time: 22:58:23
Description:

Serial #: 2381236
File: 3MASSEY

Cal Date: 09/10/03
DOS File: 3MASSEY

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	20.8	7.2	13.6
56	HIST	21.5	8.8	12.7
57	DISN	21.6	7.6	14.0
58	FOXN	21.6	7.3	14.3
60	CSP2	20.9	6.9	14.0
61	WET	20.7	7.0	13.7
62	E	20.5	6.1	14.4
63	SOAP	20.6	6.4	14.2
64	SNBC	19.9	6.0	13.9
65	OLN	20.5	6.8	13.7
66	ESPC	19.7	5.1	14.6
67	TCM	19.5	5.4	14.1
68	FIT	19.5	5.1	14.4
69	CMT	19.3	5.1	14.2
70	NGEO	18.7	4.8	13.9
71	FX	19.4	6.0	13.4
72	INSP	18.8	4.9	13.9
73	HLMK	18.2	4.2	14.0
74	TRAV	18.7	5.3	13.4
75	TOON	18.9	4.4	14.5
76	HGTV	18.5	5.0	13.5
77	FOOD	17.9	4.8	13.1
78	UMC	18.1	4.0	14.1
98	TVG	20.3	7.4	12.9
116		17.8	5.0	12.8

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 116 Video = 17.8	Pass
Max Delta Video Level	15.0 dB	Ch 30 and 116, Delta = 4.6	Pass
Min Delta V/A	6.5 dB	Ch 9 Delta V/A = 12.5	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 14.8	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 37 and 38, Delta = 1.2	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: RON
Date: 02/16/04 Time: 05:05:02
Description:

Serial #: 2381236
File: 4MASSEY

Cal Date: 09/10/03
DOS File: 4MASSEY

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 27.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	18.9	5.1	13.8
3	WRAL	18.7	5.1	13.6
4	EDU	18.8	5.2	13.6
5	WRAY	18.6	5.2	13.4
6	WTVD	19.2	5.9	13.3
7	HBC	21.5	6.2	15.3
8	COMM	21.5	8.2	13.3
9	WUNC	21.8	9.3	12.5
10	WLFL	22.0	7.8	14.2
11	WUVC	21.5	7.5	14.0
12	WRDC	21.6	7.8	13.8
13	WRAZ	20.8	6.7	14.1
14	NC14	20.5	6.9	13.6
15	HSN	20.7	7.1	13.6
16	QVC	20.8	6.9	13.9
18	CSPN	20.5	6.3	14.2
19	BET	20.4	6.7	13.7
21	WGN	20.4	6.6	13.8
22	WRPX	20.4	6.5	13.9
24	TRI	21.0	7.2	13.8
25	USA	21.1	6.8	14.3
26	TNT	20.5	6.8	13.7
27	A+E	21.0	7.4	13.6
28	FFAM	21.4	7.0	14.4
29	CNN	21.6	8.1	13.5
30	DISC	22.3	8.6	13.7
31	ESPN	21.1	8.3	12.8
32	ESP2	21.6	7.0	14.6
33	LIFE	21.0	8.1	12.9
34	TBS	21.0	7.0	14.0
35	DISH	20.7	6.9	13.8
36	COM	21.4	7.7	13.7
37	CNBC	21.0	7.2	13.8
38	AMC	19.9	5.7	14.2
39	TLC	20.6	6.5	14.1
40	SPK	20.7	6.6	14.1
41	HLN	19.8	7.0	12.8
42	TWC	20.3	6.3	14.0
43	NICK	20.2	6.5	13.7
44	CORT	20.6	7.4	13.2
45	MSN	21.4	7.4	14.0
46	APL	20.8	7.8	13.0
47	LMN	21.7	7.5	14.2
48	VH1	21.3	7.1	14.2
49	SIFI	21.4	6.8	14.6
50	FOXS	20.8	7.1	13.7
51	GOLF	20.7	7.0	13.7
53	MTV	21.5	7.8	13.7
54	TVLN	20.6	7.1	13.5

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: RON
Date: 02/16/04 Time: 05:05:02
Description:

Serial #: 2381236
File: 4MASSEY

Cal Date: 09/10/03
DOS File: 4MASSEY

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	20.6	7.2	13.4
56	HIST	21.6	8.4	13.2
57	DISN	21.4	7.6	13.8
58	FOXN	21.7	7.3	14.4
60	CSP2	20.8	6.9	13.9
61	WET	20.6	6.9	13.7
62	E	20.2	6.1	14.1
63	SOAP	20.3	6.4	13.9
64	SNBC	19.9	6.0	13.9
65	OLN	20.3	6.7	13.6
66	ESPC	19.8	5.1	14.7
67	TCM	19.5	5.3	14.2
68	FIT	19.3	5.0	14.3
69	CMT	19.3	5.1	14.2
70	NGEO	18.7	4.7	14.0
71	FX	19.2	5.8	13.4
72	INSP	18.6	4.9	13.7
73	HLMK	18.1	4.1	14.0
74	TRAV	18.5	5.2	13.3
75	TOON	19.0	4.5	14.5
76	HGTV	18.8	5.0	13.8
77	FOOD	18.0	4.8	13.2
78	UMC	18.0	4.1	13.9
98	TVG	20.3	6.9	13.4
116		17.8	5.0	12.8

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 116 Video = 17.8	Pass
Max Delta Video Level	15.0 dB	Ch 30 and 116, Delta = 4.5	Pass
Min Delta V/A	6.5 dB	Ch 9 Delta V/A = 12.5	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.3	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 30 and 31, Delta = 1.2	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Test 3 - Signal Levels and Level Variations Test

Summary Page 1 of 1

System Name: Durham
Test Point Location: Ashford
Date of Test: 2-13-04 Time: 6:03
Tech(s) Performing Test: John Wooding

Highest Band Pass: 750 MHz
Test Point Number: 13
Temperature: 31°
Date Begun: 2-13-04

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer			
FSM	SDA-5000	2381234	N/A

Test Setup used: A 30 meeter (98.45 foot) cable drop from the test point is fed into the Field Strength Meter or Spectrum Analyzer. Audio and video carrier levels are measured, before the channel selector, to determine the extent to which the standard is met. All levels are measured and recorded every 6 hours +/- 1 hour. The time and temperature of each measurement is also recorded. The measurements are made on each NTSC channel.

Minimum Specifications: The five specifications listed here are "Proofed" by this test:

1. All levels are to be measured and recorded ever 6 hours +/- 1 hour.
Was the Specification Met? Yes ✓, No ___

Date/Time	2-13/6:03	2-13/12:09	2-13/17:58	2-13/23:56

2. The Visual Carrier Level cannot vary more then 10 dB from any visual carrier on the cable television system of up to 300 MHz of forward bandwidth. (For system having a forward bandwidth greater than 300 MHz 1 additional dB per 100 MHz of forward bandwidth is allowed).

Maximum Video Carrier Level	17.7	12.7	13.1	13.3
Minimum Video Carrier Level	9.6	8.3	8.4	8.6
Variation Highest & Lowest Video Levels	8.1	4.4	4.7	4.7

Maximum allowed variation between highest level carrier and the lowest level carrier per bandwidth 14.5 Was the specification met? Yes ✓, No ___
Justification for any variation in this requirement:

3. All audio carrier levels are to be maintained less then 6.5 dB below the video carrier but not more then 17 dB below the video carrier.
Was the Specification Met? Yes ✓, No ___
Justification for any variation in this requirement:

4. Video carriers are not allowed to very more then 3 dB from any adjacent channel?:
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater than 3 dB:

5. All video carriers must maintain a level greater then 3 dBmV at the end of a 100 foot drop.
Was this Specification Met? Yes ✓, No ___
Justification for any video level less then 3 dBmV:

6. During this 24 hour test all video carrier level changes must be less then 8 dB
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB:
Video carrier levels are not allowed to change more then 8 dB from the measurement made in the last 24 hour test.
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB:

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: ?
Date: 02/13/04 Time: 06:03:18
Description:

Serial #: 2381234
File: ASHFORD1

Cal Date: 08/08/03
DOS File: ASHFORD1

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 30.9 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	10.2	-3.7	13.9
3	WRAL	9.6	-4.0	13.6
4	COMM	11.1	-2.9	14.0
5	WRAY	11.3	-1.9	13.2
6	WTVD	11.8	-1.9	13.7
98	TVG	11.0	-2.6	13.6
14	NC14	10.6	-3.1	13.7
15	HSN	11.2	-2.3	13.5
16	QVC	11.9	-1.5	13.4
18	GOV	12.0	-1.1	13.1
19	BET	12.1	-2.2	14.3
21	WGN	11.4	-1.8	13.2
22	WRPX	11.2	-2.1	13.3
7	HBC	11.8	-3.5	15.3
8	COMM	12.1	-1.9	14.0
9	WUNC	12.7	-0.9	13.6
10	WLFL	11.3	-2.2	13.5
11	WUVC	11.9	-1.8	13.7
12	WRDC	11.5	-2.6	14.1
13	WRAZ	11.8	-0.9	12.7
24	TRI	11.2	-2.3	13.5
25	USA	11.4	-2.1	13.5
26	TNT	11.0	-2.9	13.9
27	A+E	11.2	-2.6	13.8
28	FFAM	11.1	-3.1	14.2
29	CNN	11.9	-1.8	13.7
30	DISC	10.7	-1.7	12.4
31	ESPN	11.1	-1.8	12.9
32	ESP2	12.3	-1.1	13.4
33	LIFE	12.7	-0.6	13.3
34	TBS	11.8	-1.4	13.2
35	DISH	12.0	-1.3	13.3
36	COM	12.4	-1.3	13.7
37	CNBC	11.9	-1.4	13.3
38	AMC	11.5	-2.4	13.9
39	TLC	12.0	-1.8	13.8
40	SPK	12.4	-1.0	13.4
41	HLN	12.4	-1.2	13.6
42	TWC	13.3	0.2	13.1
43	NICK	12.4	-0.7	13.1
44	CORT	12.8	-0.6	13.4
45	MSN	13.0	0.2	12.8
46	APL	13.2	-0.3	13.5
47	LMN	13.0	-0.6	13.6
48	VH1	12.7	-0.6	13.3
49	SIFI	13.3	-1.1	14.4
50	FSN	13.4	0.5	12.9
51	GOLF	13.3	-0.1	13.4
53	MTV	13.8	0.7	13.1

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: ?
Date: 02/13/04 Time: 06:03:18
Description:

Serial #: 2381234
File: ASHFORD1

Cal Date: 08/08/03
DOS File: ASHFORD1

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.3	-0.4	13.7
55	OXY	13.3	0.3	13.0
56	HIST	13.8	0.7	13.1
57	DISN	13.8	0.3	13.5
58	FOXN	13.1	0.1	13.0
60	CSPA	12.9	-0.8	13.7
61	WETV	13.2	-0.5	13.7
62	E	13.3	-0.9	14.2
63	SOAP	13.1	0.1	13.0
64	SNBC	13.5	-0.2	13.7
65	OLN	13.6	0.5	13.1
66	ESPC	13.6	-0.3	13.9
67	TCM	13.6	0.0	13.6
68	FITT	14.1	0.7	13.4
69	CMT	13.8	0.3	13.5
70	NGEO	13.3	-0.3	13.6
71	FX	15.1	1.8	13.3
72	INSP	13.4	-0.1	13.5
73	HLMK	13.3	-0.7	14.0
74	TRAV	13.3	0.0	13.3
75	TOON	13.3	-0.2	13.5
76	HGTV	13.7	0.4	13.3
77	FOOD	12.6	0.2	12.4
78	UMC	14.1	0.5	13.6
116		17.7	4.3	13.4

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 9.6	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 116, Delta = 8.1	Pass
Min Delta V/A	6.5 dB	Ch 30 Delta V/A = 12.4	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.3	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 70 and 71, Delta = 1.8	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: ?
Date: 02/13/04 Time: 12:09:03
Description:

Serial #: 2381234
File: ASHFORD2

Cal Date: 08/08/03
DOS File: ASHFORD2

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 50.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	8.3	-4.5	12.8
3	WRAL	9.4	-3.4	12.8
4	COMM	10.0	-3.7	13.7
5	WRAY	10.0	-2.8	12.8
6	WTVD	10.5	-3.0	13.5
98	TVG	9.6	-3.7	13.3
14	NC14	9.8	-3.8	13.6
15	HSN	10.1	-3.6	13.7
16	QVC	10.1	-3.3	13.4
18	GOV	11.1	-2.1	13.2
19	BET	10.4	-3.2	13.6
21	WGN	9.9	-3.1	13.0
22	WRPX	9.9	-3.8	13.7
7	HBC	10.5	-4.9	15.4
8	COMM	10.5	-3.7	14.2
9	WUNC	10.8	-2.7	13.5
10	WLFL	9.4	-3.8	13.2
11	WUVC	10.1	-3.3	13.4
12	WRDC	9.7	-4.2	13.9
13	WRAZ	9.5	-3.3	12.8
24	TRI	9.6	-3.8	13.4
25	USA	9.9	-3.5	13.4
26	TNT	9.5	-4.7	14.2
27	A+E	9.0	-4.3	13.3
28	FFAM	9.6	-4.7	14.3
29	CNN	9.7	-4.3	14.0
30	DISC	9.7	-3.3	13.0
31	ESPN	8.7	-3.9	12.6
32	ESP2	9.4	-3.9	13.3
33	LIFE	9.8	-3.4	13.2
34	TBS	9.7	-3.8	13.5
35	DISH	10.4	-3.1	13.5
36	COM	10.4	-3.1	13.5
37	CNBC	10.0	-3.0	13.0
38	AMC	9.8	-3.8	13.6
39	TLC	10.3	-3.9	14.2
40	SPK	10.6	-2.6	13.2
41	HLN	10.6	-2.9	13.5
42	TWC	11.5	-1.9	13.4
43	NICK	10.4	-3.2	13.6
44	CORT	11.0	-2.5	13.5
45	MSN	11.1	-1.7	12.8
46	APL	11.4	-2.0	13.4
47	LMN	11.3	-2.2	13.5
48	VH1	10.9	-2.5	13.4
49	SIFI	11.5	-3.0	14.5
50	FSN	11.0	-1.8	12.8
51	GOLF	11.7	-2.2	13.9
53	MTV	12.0	-1.3	13.3

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: ?
Date: 02/13/04 Time: 12:09:03
Description:

Serial #: 2381234
File: ASHFORD2

Cal Date: 08/08/03
DOS File: ASHFORD2

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	11.5	-2.3	13.8
55	OXY	11.1	-1.7	12.8
56	HIST	12.2	-0.9	13.1
57	DISN	11.6	-1.7	13.3
58	FOXN	11.4	-1.9	13.3
60	CSPA	11.8	-1.8	13.6
61	WETV	11.6	-1.8	13.4
62	E	11.4	-3.2	14.6
63	SOAP	11.0	-2.0	13.0
64	SNBC	11.8	-2.1	13.9
65	OLN	11.6	-1.4	13.0
66	ESPC	11.4	-2.2	13.6
67	TCM	11.5	-2.3	13.8
68	FITT	12.2	-1.4	13.6
69	CMT	11.8	-1.7	13.5
70	NGEO	11.5	-2.0	13.5
71	FX	12.1	-0.9	13.0
72	INSP	11.2	-2.3	13.5
73	HLMK	11.2	-2.8	14.0
74	TRAV	11.2	-2.2	13.4
75	TOON	11.0	-2.6	13.6
76	HGTV	11.5	-1.7	13.2
77	FOOD	10.2	-2.1	12.3
78	UMC	11.3	-1.7	13.0
116		12.7	-0.3	13.0

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 2 Video = 8.3	Pass
Max Delta Video Level	15.0 dB	Ch 2 and 116, Delta = 4.4	Pass
Min Delta V/A	6.5 dB	Ch 77 Delta V/A = 12.3	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.4	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 9 and 10, Delta = 1.4	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: ?
Date: 02/13/04 Time: 17:58:54
Description:

Serial #: 2381234
File: ASHFORD3

Cal Date: 08/08/03
DOS File: ASHFORD3

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 53.1 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	8.4	-4.3	12.7
3	WRAL	9.4	-3.3	12.7
4	COMM	9.9	-3.9	13.8
5	WRAY	10.2	-2.4	12.6
6	WTVD	10.7	-2.6	13.3
98	TVG	9.7	-3.5	13.2
14	NC14	9.7	-3.8	13.5
15	HSN	9.8	-3.3	13.1
16	QVC	10.2	-3.2	13.4
18	GOV	10.7	-2.3	13.0
19	BET	10.4	-2.9	13.3
21	WGN	9.9	-3.0	12.9
22	WRPX	10.2	-3.2	13.4
7	HBC	10.4	-4.7	15.1
8	COMM	10.5	-3.7	14.2
9	WUNC	11.2	-2.3	13.5
10	WLFL	9.6	-3.7	13.3
11	WUVC	10.3	-2.9	13.2
12	WRDC	9.8	-4.0	13.8
13	WRAZ	9.4	-3.3	12.7
24	TRI	9.6	-3.9	13.5
25	USA	9.9	-3.4	13.3
26	TNT	9.4	-4.5	13.9
27	A+E	8.9	-4.4	13.3
28	FFAM	9.5	-4.4	13.9
29	CNN	9.8	-4.0	13.8
30	DISC	9.4	-3.2	12.6
31	ESPN	8.7	-4.4	13.1
32	ESP2	9.2	-4.0	13.2
33	LIFE	9.6	-3.6	13.2
34	TBS	9.6	-3.6	13.2
35	DISH	10.5	-2.8	13.3
36	COM	10.5	-3.1	13.6
37	CNBC	9.9	-2.9	12.8
38	AMC	9.8	-3.8	13.6
39	TLC	10.1	-3.6	13.7
40	SPK	10.5	-2.8	13.3
41	HLN	10.4	-2.9	13.3
42	TWC	11.5	-1.7	13.2
43	NICK	10.3	-2.8	13.1
44	CORT	10.9	-2.4	13.3
45	MSN	11.2	-1.4	12.6
46	APL	11.4	-2.0	13.4
47	LMN	11.3	-1.9	13.2
48	VH1	10.9	-2.3	13.2
49	SIFI	11.5	-2.9	14.4
50	FSN	11.1	-1.7	12.8
51	GOLF	11.5	-2.0	13.5
53	MTV	12.1	-1.1	13.2

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: ?
Date: 02/13/04 Time: 17:58:54
Description:

Serial #: 2381234
File: ASHFORD3

Cal Date: 08/08/03
DOS File: ASHFORD3

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	11.5	-2.3	13.8
55	OXY	10.9	-1.8	12.7
56	HIST	12.4	-0.9	13.3
57	DISN	11.2	-1.7	12.9
58	FOXN	11.3	-2.0	13.3
60	CSPA	12.0	-1.8	13.8
61	WETV	11.3	-1.7	13.0
62	E	11.5	-3.0	14.5
63	SOAP	11.0	-1.6	12.6
64	SNBC	12.1	-1.9	14.0
65	OLN	11.4	-1.4	12.8
66	ESPC	11.2	-2.3	13.5
67	TCM	11.6	-2.1	13.7
68	FITT	12.3	-1.2	13.5
69	CMT	11.8	-1.7	13.5
70	NGEO	11.3	-1.8	13.1
71	FX	12.2	-1.1	13.3
72	INSP	11.3	-1.9	13.2
73	HLMK	11.6	-2.6	14.2
74	TRAV	10.9	-1.8	12.7
75	TOON	11.8	-2.2	14.0
76	HGTV	11.6	-1.2	12.8
77	FOOD	10.6	-2.0	12.6
78	UMC	11.6	-0.9	12.5
116		13.1	0.4	12.7

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 2 Video = 8.4	Pass
Max Delta Video Level	15.0 dB	Ch 2 and 116, Delta = 4.7	Pass
Min Delta V/A	6.5 dB	Ch 78 Delta V/A = 12.5	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.1	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 9 and 10, Delta = 1.6	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: JON_W
Date: 02/13/04 Time: 23:56:16
Description:

Serial #: 2381234
File: ASHFORD4

Cal Date: 08/08/03
DOS File: ASHFORD4

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 35.1 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	8.6	-4.2	12.8
3	WRAL	9.8	-2.8	12.6
4	COMM	10.6	-3.3	13.9
5	WRAY	10.5	-2.3	12.8
6	WTVD	11.1	-2.6	13.7
98	TVG	10.2	-2.9	13.1
14	NC14	9.8	-3.8	13.6
15	HSN	10.2	-3.1	13.3
16	QVC	10.5	-2.9	13.4
18	GOV	11.3	-1.8	13.1
19	BET	10.8	-2.5	13.3
21	WGN	10.5	-2.5	13.0
22	WRPX	10.3	-3.3	13.6
7	HBC	10.8	-4.4	15.2
8	COMM	10.9	-3.2	14.1
9	WUNC	11.3	-2.2	13.5
10	WLFL	9.9	-3.5	13.4
11	WUVC	10.6	-2.7	13.3
12	WRDC	10.2	-3.7	13.9
13	WRAZ	10.0	-2.7	12.7
24	TRI	10.1	-3.3	13.4
25	USA	10.4	-3.0	13.4
26	TNT	9.9	-4.0	13.9
27	A+E	9.4	-3.9	13.3
28	FFAM	10.0	-4.2	14.2
29	CNN	10.1	-3.7	13.8
30	DISC	10.1	-2.6	12.7
31	ESPN	9.1	-3.6	12.7
32	ESP2	9.6	-3.6	13.2
33	LIFE	10.4	-2.9	13.3
34	TBS	10.1	-3.1	13.2
35	DISH	10.7	-2.7	13.4
36	COM	11.3	-2.5	13.8
37	CNBC	10.7	-2.2	12.9
38	AMC	10.4	-3.4	13.8
39	TLC	10.5	-3.2	13.7
40	SPK	11.0	-2.2	13.2
41	HLN	11.0	-2.3	13.3
42	TWC	12.3	-1.2	13.5
43	NICK	11.0	-3.3	14.3
44	CORT	11.4	-2.0	13.4
45	MSN	11.8	-1.0	12.8
46	APL	12.0	-1.7	13.7
47	LMN	11.6	-1.7	13.3
48	VH1	11.3	-2.1	13.4
49	SIFI	11.9	-2.5	14.4
50	FSN	11.3	-1.4	12.7
51	GOLF	11.9	-1.8	13.7
53	MTV	12.6	-0.6	13.2

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: JON_W
Date: 02/13/04 Time: 23:56:16
Description:

Serial #: 2381234
File: ASHFORD4

Cal Date: 08/08/03
DOS File: ASHFORD4

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	12.1	-1.8	13.9
55	OXY	11.5	-1.1	12.6
56	HIST	13.0	-0.4	13.4
57	DISN	11.9	-1.1	13.0
58	FOXN	11.8	-1.6	13.4
60	CSPA	12.2	-1.5	13.7
61	WETV	11.8	-1.4	13.2
62	E	11.7	-2.8	14.5
63	SOAP	11.4	-1.4	12.8
64	SNBC	12.1	-1.8	13.9
65	OLN	11.9	-0.9	12.8
66	ESPC	11.9	-1.8	13.7
67	TCM	11.9	-1.9	13.8
68	FITT	12.3	-1.2	13.5
69	CMT	12.1	-1.5	13.6
70	NGEO	11.6	-1.5	13.1
71	FX	12.6	-0.8	13.4
72	INSP	11.5	-1.7	13.2
73	HLMK	11.5	-2.7	14.2
74	TRAV	11.4	-1.5	12.9
75	TOON	11.8	-2.2	14.0
76	HGTV	11.7	-1.2	12.9
77	FOOD	10.9	-1.8	12.7
78	UMC	11.5	-1.2	12.7
116		13.3	0.4	12.9

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 2 Video = 8.6	Pass
Max Delta Video Level	15.0 dB	Ch 2 and 116, Delta = 4.7	Pass
Min Delta V/A	6.5 dB	Ch 3 Delta V/A = 12.6	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.2	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 55 and 56, Delta = 1.5	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Test 3 - Signal Levels and Level Variations Test

Summary Page 1 of 1

System Name: Durham
Test Point Location: Sprucepine Trl.
Date of Test: 2-10-04 Time: 6:00 Am
Tech(s) Performing Test: M. Fiath

Highest Band Pass: 750MHz
Test Point Number: 14
Temperature: 43°
Date Begun: 2-10-04

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	NA	NA	NA
FSM	SDA-5000	3460202	N/A

Test Setup used: A 30 meeter (98.45 foot) cable drop from the test point is fed into the Field Strength Meter or Spectrum Analyzer. Audio and video carrier levels are measured, before the channel selector, to determine the extent to which the standard is met. All levels are measured and recorded every 6 hours +/- 1 hour. The time and temperature of each measurement is also recorded. The measurements are made on each NTSC channel.

Minimum Specifications: The five specifications listed here are "Proofed" by this test:

1. All levels are to be measured and recorded ever 6 hours +/- 1 hour.
Was the Specification Met? Yes ✓, No ___

Date/Time	2-10/16:08	2-10/23:11	2-11/6:01	2-11/11:57

2. The Visual Carrier Level cannot vary more then 10 dB from any visual carrier on the cable television system of up to 300 MHz of forward bandwidth. (For system having a forward bandwidth greater than 300 MHz 1 additional dB per 100 MHz of forward bandwidth is allowed).

Maximum Video Carrier Level	13.7	13.8	13.6	13.9
Minimum Video Carrier Level	9.0	9.1	9.0	9.0
Variation Highest & Lowest Video Levels	4.7	4.7	4.6	4.9

Maximum allowed variation between highest level carrier and the lowest level carrier per bandwidth 14.5 Was the specification met? Yes ✓, No ___
Justification for any variation in this requirement:

3. All audio carrier levels are to be maintained less then 6.5 dB below the video carrier but not more then 17 dB below the video carrier.
Was the Specification Met? Yes ✓, No ___
Justification for any variation in this requirement:

4. Video carriers are not allowed to very more then 3 dB from any adjacent channel?:
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater than 3 dB:

5. All video carriers must maintain a level greater then 3 dBmV at the end of a 100 foot drop:
Was this Specification Met? Yes ✓, No ___
Justification for any video level less then 3 dBmV:

6. During this 24 hour test all video carrier level changes must be less then 8 dB
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___
Video carrier levels are not allowed to change more then 8 dB from the measurement made in the last 24 hour test.
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/10/04 Time: 18:08:55
Description:

Serial #: 3460202
File: 1SPRUCEPINE

Cal Date: 03/10/03
DOS File: 1SPRUCEPINE

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 43.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	9.7	-4.6	14.3
3	WRAL	9.4	-5.7	15.1
4	COMM	9.2	-5.0	14.2
5	WRAY	9.5	-4.7	14.2
6	WTVD	9.9	-3.9	13.8
98	TVG	10.1	-3.8	13.9
14	NC14	9.9	-3.6	13.5
15	HSN	10.4	-3.8	14.2
16	QVC	11.1	-2.2	13.3
18	GOV	11.0	-2.9	13.9
19	BET	10.5	-4.0	14.5
21	WGN	9.8	-4.9	14.7
22	WRPX	9.0	-4.0	13.0
7	HBC	10.7	-4.2	14.9
8	COMM	11.4	-2.4	13.8
9	WUNC	12.9	-1.3	14.2
10	WLFL	11.6	-3.6	15.2
11	WUVC	11.5	-2.2	13.7
12	WRDC	10.6	-3.2	13.8
13	WRAZ	11.7	-0.5	12.2
24	TRI	11.3	-1.1	12.4
25	USA	13.1	-0.6	13.7
26	TNT	12.6	-1.7	14.3
27	A+E	12.8	-1.3	14.1
28	FFAM	12.8	-1.2	14.0
29	CNN	13.6	-0.7	14.3
30	DISC	12.1	-0.8	12.9
31	ESPN	12.7	-1.3	14.0
32	ESP2	12.9	-1.3	14.2
33	LIFE	13.3	-0.8	14.1
34	TBS	10.9	-2.1	13.0
35	DISH	11.8	-2.0	13.8
36	COM	11.9	-2.2	14.1
37	CNBC	10.8	-2.8	13.6
38	AMC	11.0	-2.7	13.7
39	TLC	11.4	-3.2	14.6
40	SPK	11.7	-2.4	14.1
41	HLN	11.5	-2.5	14.0
42	TWC	12.8	-1.5	14.3
43	NICK	12.0	-1.5	13.5
44	CORT	11.7	-1.8	13.5
45	MSN	11.9	-1.0	12.9
46	APL	12.6	-1.5	14.1
47	LMN	12.6	-1.3	13.9
48	VH1	12.4	-1.5	13.9
49	SIFI	13.4	-1.7	15.1
50	FSN	13.3	0.0	13.3
51	GOLF	13.2	-1.1	14.3
53	MTV	13.1	-0.1	13.2

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/10/04 Time: 18:08:55
Description:

Serial #: 3460202
File: 1SPRUCEPINE

Cal Date: 03/10/03
DOS File: 1SPRUCEPINE

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.4	-1.2	14.6
55	OXY	13.3	-0.4	13.7
56	HIST	13.3	-0.1	13.4
57	DISN	12.9	-0.2	13.1
58	FOXN	13.7	0.2	13.5
60	CSPA	12.6	-1.1	13.7
61	WETV	13.3	-0.6	13.9
62	E	13.3	-1.5	14.8
63	SOAP	13.6	-0.4	14.0
64	SNBC	13.6	-1.2	14.8
65	OLN	12.4	-0.8	13.2
66	ESPC	11.4	-1.9	13.3
67	TCM	11.8	-1.9	13.7
68	FITT	13.3	-1.1	14.4
69	CMT	12.1	-2.2	14.3
70	NGEO	12.0	-1.9	13.9
71	FX	13.0	0.3	12.7
72	INSP	12.6	-1.5	14.1
73	HLMK	12.7	-1.8	14.5
74	TRAV	12.9	-0.7	13.6
75	TOON	13.0	-0.6	13.6
76	HGTV	13.4	-0.2	13.6
77	FOOD	12.7	-0.2	12.9
78	UMC	13.7	-0.1	13.8
116		13.6	-0.8	14.4

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 22 Video = 9.0	Pass
Max Delta Video Level	15.0 dB	Ch 22 and 58, Delta = 4.7	Pass
Min Delta V/A	6.5 dB	Ch 13 Delta V/A = 12.2	Pass
Max Delta V/A	17.0 dB	Ch 10 Delta V/A = 15.2	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 33 and 34, Delta = 2.4	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/10/04 Time: 23:11:36
Description:

Serial #: 3460202
File: 2SPRUCEPINE

Cal Date: 03/10/03
DOS File: 2SPRUCEPINE

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 39.9 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	9.7	-4.8	14.5
3	WRAL	9.3	-5.6	14.9
4	COMM	9.1	-5.1	14.2
5	WRAY	9.5	-4.9	14.4
6	WTVD	9.8	-3.9	13.7
98	TVG	9.9	-3.8	13.7
14	NC14	9.8	-3.2	13.0
15	HSN	10.6	-3.7	14.3
16	QVC	11.1	-2.3	13.4
18	GOV	10.9	-2.7	13.6
19	BET	10.3	-3.9	14.2
21	WGN	9.9	-4.9	14.8
22	WRPX	9.1	-3.6	12.7
7	HBC	10.9	-4.2	15.1
8	COMM	11.4	-2.3	13.7
9	WUNC	12.9	-1.3	14.2
10	WLFL	11.6	-3.9	15.5
11	WUVC	11.5	-2.3	13.8
12	WRDC	10.6	-2.4	13.0
13	WRAZ	11.8	-0.5	12.3
24	TRI	11.4	-1.1	12.5
25	USA	13.4	-0.3	13.7
26	TNT	12.6	-1.4	14.0
27	A+E	12.9	-1.4	14.3
28	FFAM	13.0	-1.8	14.8
29	CNN	13.6	-0.9	14.5
30	DISC	12.1	-0.8	12.9
31	ESPN	12.3	-0.7	13.0
32	ESP2	12.8	-1.3	14.1
33	LIFE	13.3	-1.1	14.4
34	TBS	11.1	-2.3	13.4
35	DISH	11.7	-1.9	13.6
36	COM	11.4	-2.0	13.4
37	CNBC	10.7	-2.6	13.3
38	AMC	10.9	-3.2	14.1
39	TLC	11.3	-2.8	14.1
40	SPK	11.3	-2.3	13.6
41	HLN	11.5	-2.2	13.7
42	TWC	12.4	-1.5	13.9
43	NICK	12.0	-1.9	13.9
44	CORT	11.6	-1.9	13.5
45	MSN	12.0	-0.8	12.8
46	APL	12.5	-1.3	13.8
47	LMN	12.7	-1.0	13.7
48	VH1	12.2	-1.8	14.0
49	SIFI	13.2	-2.0	15.2
50	FSN	13.1	0.2	12.9
51	GOLF	13.3	-0.6	13.9
53	MTV	13.4	0.1	13.3

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/10/04 Time: 23:11:36
Description:

Serial #: 3460202
File: 2SPRUCEPINE

Cal Date: 03/10/03
DOS File: 2SPRUCEPINE

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.7	-1.3	15.0
55	OXY	13.4	-0.6	14.0
56	HIST	13.4	-0.1	13.5
57	DISN	12.9	-0.4	13.3
58	FOXN	13.3	-0.1	13.4
60	CSPA	12.8	-1.0	13.8
61	WETV	13.4	0.1	13.3
62	E	12.8	-1.1	13.9
63	SOAP	13.0	-0.3	13.3
64	SNBC	13.8	-1.3	15.1
65	OLN	13.0	-0.7	13.7
66	ESPC	11.9	-1.5	13.4
67	TCM	11.8	-1.5	13.3
68	FITT	13.2	-1.0	14.2
69	CMT	12.7	-1.9	14.6
70	NGEO	11.8	-1.8	13.6
71	FX	13.3	0.3	13.0
72	INSP	12.8	-1.2	14.0
73	HLMK	12.8	-1.8	14.6
74	TRAV	12.9	-0.9	13.8
75	TOON	13.0	-0.7	13.7
76	HGTV	13.5	-0.1	13.6
77	FOOD	12.6	-0.3	12.9
78	UMC	13.5	-0.1	13.6
116		13.3	-1.0	14.3

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 4 Video = 9.1	Pass
Max Delta Video Level	15.0 dB	Ch 4 and 64, Delta = 4.7	Pass
Min Delta V/A	6.5 dB	Ch 13 Delta V/A = 12.3	Pass
Max Delta V/A	17.0 dB	Ch 10 Delta V/A = 15.5	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 33 and 34, Delta = 2.2	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/11/04 Time: 06:01:54
Description:

Serial #: 3460202
File: 3SPRUCEPINE

Cal Date: 03/10/03
DOS File: 3SPRUCEPINE

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 39.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	9.8	-4.8	14.6
3	WRAL	9.2	-5.8	15.0
4	COMM	9.2	-5.3	14.5
5	WRAY	9.4	-4.9	14.3
6	WTVD	9.9	-3.6	13.5
98	TVG	10.1	-3.8	13.9
14	NC14	9.7	-3.6	13.3
15	HSN	10.5	-3.8	14.3
16	QVC	11.3	-2.4	13.7
18	GOV	11.0	-3.1	14.1
19	BET	10.3	-3.9	14.2
21	WGN	9.9	-4.8	14.7
22	WRPX	9.0	-3.5	12.5
7	HBC	10.7	-4.1	14.8
8	COMM	11.6	-2.4	14.0
9	WUNC	12.9	-1.1	14.0
10	WLFL	11.5	-3.9	15.4
11	WUVC	11.2	-2.4	13.6
12	WRDC	10.9	-2.3	13.2
13	WRAZ	11.7	-0.7	12.4
24	TRI	11.3	-1.2	12.5
25	USA	13.2	-0.6	13.8
26	TNT	12.3	-1.6	13.9
27	A+E	12.8	-1.3	14.1
28	FFAM	12.8	-1.9	14.7
29	CNN	13.6	-0.7	14.3
30	DISC	12.2	-0.9	13.1
31	ESPN	12.5	-1.3	13.8
32	ESP2	13.0	-1.0	14.0
33	LIFE	13.0	-0.9	13.9
34	TBS	11.3	-1.9	13.2
35	DISH	11.5	-1.8	13.3
36	COM	11.5	-2.2	13.7
37	CNBC	10.9	-2.7	13.6
38	AMC	10.8	-3.3	14.1
39	TLC	11.4	-3.2	14.6
40	SPK	11.5	-2.1	13.6
41	HLN	11.6	-2.6	14.2
42	TWC	12.9	-1.5	14.4
43	NICK	11.6	-1.7	13.3
44	CORT	11.6	-2.0	13.6
45	MSN	11.9	-1.0	12.9
46	APL	12.4	-1.6	14.0
47	LMN	12.3	-1.1	13.4
48	VH1	11.9	-1.8	13.7
49	SIFI	13.3	-1.9	15.2
50	FSN	13.3	0.2	13.1
51	GOLF	13.2	-1.1	14.3
53	MTV	13.5	-0.1	13.6

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/11/04 Time: 06:01:54
Description:

Serial #: 3460202
File: 3SPRUCEPINE

Cal Date: 03/10/03
DOS File: 3SPRUCEPINE

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.2	-1.3	14.5
55	OXY	13.5	-0.5	14.0
56	HIST	13.2	-0.1	13.3
57	DISN	12.7	-0.6	13.3
58	FOXN	13.3	-0.1	13.4
60	CSPA	12.6	-1.0	13.6
61	WETV	13.0	-0.4	13.4
62	E	12.8	-1.2	14.0
63	SOAP	13.1	-0.6	13.7
64	SNBC	13.5	-1.3	14.8
65	OLN	12.8	-1.1	13.9
66	ESPC	11.5	-1.5	13.0
67	TCM	11.6	-2.0	13.6
68	FITT	13.0	-1.1	14.1
69	CMT	12.0	-2.2	14.2
70	NGEO	12.0	-1.8	13.8
71	FX	13.0	0.4	12.6
72	INSP	12.5	-1.2	13.7
73	HLMK	12.6	-1.4	14.0
74	TRAV	13.1	-0.6	13.7
75	TOON	13.1	-0.7	13.8
76	HGTV	13.5	-0.2	13.7
77	FOOD	12.7	-0.4	13.1
78	UMC	13.4	-0.2	13.6
116		13.6	-0.9	14.5

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 22 Video = 9.0	Pass
Max Delta Video Level	15.0 dB	Ch 22 and 29, Delta = 4.6	Pass
Min Delta V/A	6.5 dB	Ch 13 Delta V/A = 12.4	Pass
Max Delta V/A	17.0 dB	Ch 10 Delta V/A = 15.4	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 24 and 25, Delta = 1.9	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/11/04 Time: 11:51:29
Description:

Serial #: 3460202
File: 4SPRUCEPINE

Cal Date: 03/10/03
DOS File: 4SPRUCEPINE

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 45.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	9.8	-4.7	14.5
3	WRAL	9.1	-5.8	14.9
4	COMM	9.1	-5.1	14.2
5	WRAY	9.5	-4.8	14.3
6	WTVD	9.6	-4.0	13.6
98	TVG	9.9	-3.8	13.7
14	NC14	9.7	-3.6	13.3
15	HSN	10.4	-3.6	14.0
16	QVC	11.1	-2.4	13.5
18	GOV	10.8	-3.2	14.0
19	BET	10.3	-4.1	14.4
21	WGN	9.8	-5.0	14.8
22	WRPX	9.0	-3.9	12.9
7	HBC	11.1	-4.2	15.3
8	COMM	11.6	-2.4	14.0
9	WUNC	12.7	-1.5	14.2
10	WLFL	11.4	-4.0	15.4
11	WUVC	11.1	-2.5	13.6
12	WRDC	10.6	-3.4	14.0
13	WRAZ	11.8	-0.5	12.3
24	TRI	11.2	-1.0	12.2
25	USA	12.9	0.0	12.9
26	TNT	12.2	-1.7	13.9
27	A+E	12.9	-1.4	14.3
28	FFAM	12.8	-1.9	14.7
29	CNN	13.4	-0.8	14.2
30	DISC	12.3	-1.0	13.3
31	ESPN	12.3	-1.2	13.5
32	ESP2	12.7	-0.7	13.4
33	LIFE	13.1	-0.6	13.7
34	TBS	11.0	-2.2	13.2
35	DISH	11.8	-2.0	13.8
36	COM	11.4	-2.4	13.8
37	CNBC	10.8	-2.8	13.6
38	AMC	11.0	-3.0	14.0
39	TLC	11.3	-3.2	14.5
40	SPK	11.9	-2.3	14.2
41	HLN	11.9	-2.1	14.0
42	TWC	12.9	-1.2	14.1
43	NICK	11.9	-1.9	13.8
44	CORT	11.8	-1.9	13.7
45	MSN	12.0	-0.9	12.9
46	APL	12.7	-1.5	14.2
47	LMN	12.6	-0.9	13.5
48	VH1	11.8	-1.5	13.3
49	SIFI	13.4	-1.9	15.3
50	FSN	13.3	0.2	13.1
51	GOLF	13.4	-0.4	13.8
53	MTV	13.1	0.2	12.9

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/11/04 Time: 11:51:29
Description:

Serial #: 3460202
File: 4SPRUCEPINE

Cal Date: 03/10/03
DOS File: 4SPRUCEPINE

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
54	TVLN	13.5	-1.3	14.8
55	OXY	13.4	-0.5	13.9
56	HIST	13.7	0.0	13.7
57	DISN	13.0	-0.3	13.3
58	FOXN	13.6	-0.4	14.0
60	CSPA	12.6	-1.0	13.6
61	WETV	13.1	-0.3	13.4
62	E	12.7	-1.3	14.0
63	SOAP	13.5	-0.6	14.1
64	SNBC	13.6	-1.4	15.0
65	OLN	12.6	-1.0	13.6
66	ESPC	11.5	-1.5	13.0
67	TCM	11.6	-1.9	13.5
68	FITT	13.1	-1.1	14.2
69	CMT	12.4	-2.1	14.5
70	NGEO	12.0	-1.8	13.8
71	FX	13.0	0.5	12.5
72	INSP	12.2	-0.9	13.1
73	HLMK	13.3	-1.5	14.8
74	TRAV	13.1	-0.7	13.8
75	TOON	13.2	-0.8	14.0
76	HGTV	13.7	-0.1	13.8
77	FOOD	12.8	-0.2	13.0
78	UMC	13.7	0.0	13.7
116		13.9	-0.7	14.6

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 22 Video = 9.0	Pass
Max Delta Video Level	15.0 dB	Ch 22 and 116, Delta = 4.9	Pass
Min Delta V/A	6.5 dB	Ch 24 Delta V/A = 12.2	Pass
Max Delta V/A	17.0 dB	Ch 10 Delta V/A = 15.4	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 22 and 7, Delta = 2.1	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Test 3 - Signal Levels and Level Variations Test

Summary Page 1 of 1

System Name: Durham
Test Point Location: Newhope
Date of Test: 2-13-04 Time: 6:03
Tech(s) Performing Test: Pat Dobson

Highest Band Pass: 750 MHz
Test Point Number: 15
Temperature: 31°
Date Begun: 2-13-04

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer			
FSM	SDA-5000	3460202	N/A

Test Setup used: A 30 meeter (98.45 foot) cable drop from the test point is fed into the Field Strength Meter or Spectrum Analyzer. Audio and video carrier levels are measured, before the channel selector, to determine the extent to which the standard is met. All levels are measured and recorded every 6 hours +/- 1 hour. The time and temperature of each measurement is also recorded. The measurements are made on each NTSC channel.

Minimum Specifications: The five specifications listed here are "Proofed" by this test:

1. All levels are to be measured and recorded ever 6 hours +/- 1 hour.
Was the Specification Met? Yes ✓, No ___

Date/Time	2-13 16:03	2-13/11:58	2-13/17:59	___/___

2. The Visual Carrier Level cannot vary more then 10 dB from any visual carrier on the cable television system of up to 300 MHz of forward bandwidth. (For system having a forward bandwidth greater than 300 MHz 1 additional dB per 100 MHz of forward bandwidth is allowed).

Maximum Video Carrier Level	15.9	13.9	14.5	17.5
Minimum Video Carrier Level	11.3	10.4	10.8	11.6
Variation Highest & Lowest Video Levels	4.6	3.5	3.7	5.9

Maximum allowed variation between highest level carrier and the lowest level carrier per bandwidth 14.5 Was the specification met? Yes ✓, No ___
Justification for any variation in this requirement:

3. All audio carrier levels are to be maintained less then 6.5 dB below the video carrier but not more then 17 dB below the video carrier.
Was the Specification Met? Yes ✓, No ___
Justification for any variation in this requirement:

4. Video carriers are not allowed to very more then 3 dB from any adjacent channel?:
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater than 3 dB:

5. All video carriers must maintain a level greater then 3 dBmV at the end of a 100 foot drop:
Was this Specification Met? Yes ✓, No ___
Justification for any video level less then 3 dBmV:

6. During this 24 hour test all video carrier level changes must be less then 8 dB
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___
Video carrier levels are not allowed to change more then 8 dB from the measurement made in the last 24 hour test.
Was this Specification Met? Yes ✓, No ___
Justification for any variation greater then 8 dB: ___

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/13/04 Time: 06:03:13
Description:

Serial #: 3460202
File: 1NEWHOPETL

Cal Date: 03/10/03
DOS File: 1NEWHOPETL

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 30.9 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	12.3	-2.8	15.1
3	WRAL	11.3	-3.0	14.3
4	COMM	12.3	-2.6	14.9
5	WRAY	11.8	-1.9	13.7
6	WTVD	12.5	-1.6	14.1
7	HBC	12.3	-4.0	16.3
8	COMM	11.9	-2.2	14.1
9	WUNC	13.3	-0.6	13.9
10	WLFL	12.3	-1.4	13.7
11	WUVC	14.0	-0.4	14.4
12	WRDC	13.5	-1.1	14.6
13	WRAZ	13.5	0.4	13.1
14	NC14	11.6	-2.3	13.9
15	HSN	12.2	-2.0	14.2
16	QVC	12.6	-1.2	13.8
18	GOV	12.9	-0.8	13.7
19	BET	13.3	-1.7	15.0
21	WGN	12.6	-1.2	13.8
22	WRPX	12.7	-1.7	14.4
24	TRI	13.3	-0.6	13.9
25	USA	14.1	0.4	13.7
26	TNT	13.7	-0.6	14.3
27	A+E	14.0	-0.5	14.5
28	FFAM	14.1	-0.7	14.8
29	CNN	14.7	-0.1	14.8
30	DISC	13.3	-0.2	13.5
31	ESPN	13.4	-0.1	13.5
32	ESP2	14.4	0.3	14.1
33	LIFE	14.9	1.0	13.9
34	TBS	13.9	0.1	13.8
35	DISH	14.2	0.1	14.1
36	COM	14.4	0.2	14.2
37	CNBC	13.9	-0.1	14.0
38	AMC	13.4	-1.1	14.5
39	TLC	13.9	-0.9	14.8
40	SPK	13.8	0.2	13.6
41	HLN	14.2	0.0	14.2
42	TWC	14.8	0.6	14.2
43	NICK	13.8	0.4	13.4
44	CORT	14.0	0.1	13.9
45	MSN	14.0	0.4	13.6
46	APL	14.6	0.4	14.2
47	LMN	14.2	0.1	14.1
48	VH1	13.7	0.0	13.7
49	SIFI	14.7	-0.5	15.2
50	FSN	14.7	1.3	13.4
51	GOLF	14.7	0.9	13.8
53	MTV	15.8	1.4	14.4
54	TVLN	14.6	0.5	14.1

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/13/04 Time: 06:03:13
Description:

Serial #: 3460202
File: 1NEWHOPETL

Cal Date: 03/10/03
DOS File: 1NEWHOPETL

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	14.8	1.0	13.8
56	HIST	15.1	1.4	13.7
57	DISN	14.9	1.0	13.9
58	FOXN	14.5	1.0	13.5
60	CSPA	13.8	-0.5	14.3
61	WETV	13.9	0.6	13.3
62	E	14.2	-0.6	14.8
63	SOAP	14.2	0.6	13.6
64	SNBC	14.8	0.3	14.5
65	OLN	14.6	0.9	13.7
66	ESPC	14.5	0.4	14.1
67	TCM	14.7	0.1	14.6
68	FITT	15.3	0.9	14.4
69	CMT	14.3	0.4	13.9
70	NGEO	14.2	0.2	14.0
71	FX	15.9	3.0	12.9
72	INSP	14.4	0.6	13.8
73	HLMK	14.6	0.4	14.2
74	TRAV	15.4	1.4	14.0
75	TOON	14.9	0.7	14.2
76	HGTV	14.9	1.2	13.7
77	FOOD	14.7	1.0	13.7
78	UMC	15.5	1.1	14.4
98	TVG	11.7	-2.3	14.0
116		15.3	1.0	14.3

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 3 Video = 11.3	Pass
Max Delta Video Level	15.0 dB	Ch 3 and 71, Delta = 4.6	Pass
Min Delta V/A	6.5 dB	Ch 71 Delta V/A = 12.9	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 16.3	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 10 and 11, Delta = 1.7	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

WAVETEK WANDEL GOLTERMANN

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/13/04 Time: 11:58:30
Description:

Serial #: 3460202
File: 2NEWHOPE___

Cal Date: 03/10/03
DOS File: 2NEWHOPE___

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 50.0 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	10.6	-3.0	13.6
3	WRAL	11.1	-2.2	13.3
4	COMM	11.3	-3.1	14.4
5	WRAY	10.9	-2.2	13.1
6	WTVD	11.4	-2.1	13.5
7	HBC	11.3	-4.6	15.9
8	COMM	11.7	-2.6	14.3
9	WUNC	12.3	-1.6	13.9
10	WLFL	11.2	-2.2	13.4
11	WUVC	12.2	-1.5	13.7
12	WRDC	11.9	-2.3	14.2
13	WRAZ	11.8	-0.9	12.7
14	NC14	10.5	-2.7	13.2
15	HSN	11.2	-2.8	14.0
16	QVC	11.2	-2.5	13.7
18	GOV	12.0	-1.7	13.7
19	BET	11.3	-2.7	14.0
21	WGN	11.2	-2.0	13.2
22	WRPX	11.3	-2.6	13.9
24	TRI	12.1	-1.1	13.2
25	USA	12.9	-0.9	13.8
26	TNT	12.5	-1.7	14.2
27	A+E	11.7	-1.5	13.2
28	FFAM	12.7	-1.9	14.6
29	CNN	12.3	-1.9	14.2
30	DISC	12.0	-1.2	13.2
31	ESPN	11.6	-1.8	13.4
32	ESP2	11.8	-2.0	13.8
33	LIFE	12.1	-1.3	13.4
34	TBS	12.4	-1.3	13.7
35	DISH	12.4	-0.7	13.1
36	COM	13.1	-0.8	13.9
37	CNBC	12.4	-1.3	13.7
38	AMC	12.1	-2.2	14.3
39	TLC	12.4	-2.0	14.4
40	SPK	12.3	-0.8	13.1
41	HLN	12.0	-1.7	13.7
42	TWC	13.3	-0.8	14.1
43	NICK	11.9	-1.8	13.7
44	CORT	12.5	-1.2	13.7
45	MSN	12.6	-0.5	13.1
46	APL	13.2	-0.8	14.0
47	LMN	13.2	-0.7	13.9
48	VH1	12.3	-1.2	13.5
49	SIFI	12.9	-1.6	14.5
50	FSN	12.6	-0.4	13.0
51	GOLF	13.5	-0.3	13.8
53	MTV	13.9	0.6	13.3
54	TVLN	13.6	-0.1	13.7

Data Analysis Software
WWG StealthWare

AutoTest Report

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/13/04 Time: 11:58:30
Description:

Serial #: 3460202
File: 2NEWHOPE___

Cal Date: 03/10/03
DOS File: 2NEWHOPE___

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	13.2	-0.2	13.4
56	HIST	13.9	0.6	13.3
57	DISN	13.1	-0.4	13.5
58	FOXN	13.0	-0.7	13.7
60	CSPA	13.4	-0.8	14.2
61	WETV	13.1	-0.4	13.5
62	E	13.0	-1.5	14.5
63	SOAP	12.7	-0.5	13.2
64	SNBC	13.5	-1.0	14.5
65	OLN	13.4	-0.2	13.6
66	ESPC	12.8	-0.9	13.7
67	TCM	12.6	-1.4	14.0
68	FITT	13.2	-0.2	13.4
69	CMT	12.9	-0.8	13.7
70	NGEO	13.1	-0.6	13.7
71	FX	13.4	0.7	12.7
72	INSP	13.3	-0.3	13.6
73	HLMK	13.6	-0.4	14.0
74	TRAV	13.9	0.1	13.8
75	TOON	13.6	-0.3	13.9
76	HGTV	13.8	0.0	13.8
77	FOOD	12.5	-0.3	12.8
78	UMC	13.0	-0.1	13.1
98	TVG	10.4	-2.4	12.8
116		12.1	-2.1	14.2

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 98 Video = 10.4	Pass
Max Delta Video Level	15.0 dB	Ch 98 and 53, Delta = 3.5	Pass
Min Delta V/A	6.5 dB	Ch 13 Delta V/A = 12.7	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 15.9	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 42 and 43, Delta = 1.4	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/13/04 Time: 17:59:31
Description:

Serial #: 3460202
File: 3NEWHOPETL

Cal Date: 03/10/03
DOS File: 3NEWHOPETL

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 53.1 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	10.9	-2.9	13.8
3	WRAL	11.5	-1.9	13.4
4	COMM	11.0	-3.1	14.1
5	WRAY	11.1	-2.0	13.1
6	WTVD	11.8	-1.7	13.5
7	HBC	11.6	-2.5	14.1
8	COMM	12.0	-2.1	14.1
9	WUNC	12.9	-1.2	14.1
10	WLFL	11.2	-2.3	13.5
11	WUVC	12.3	-1.0	13.3
12	WRDC	12.2	-1.8	14.0
13	WRAZ	11.6	-0.9	12.5
14	NC14	10.9	-2.4	13.3
15	HSN	11.5	-2.2	13.7
16	QVC	11.2	-2.3	13.5
18	GOV	11.9	-1.3	13.2
19	BET	12.1	-1.6	13.7
21	WGN	10.9	-2.4	13.3
22	WRPX	11.5	-2.1	13.6
24	TRI	12.1	-1.3	13.4
25	USA	13.0	-0.3	13.3
26	TNT	12.8	-1.3	14.1
27	A+E	12.2	-1.3	13.5
28	FFAM	13.0	-1.3	14.3
29	CNN	12.8	-1.5	14.3
30	DISC	12.3	-0.9	13.2
31	ESPN	11.6	-1.5	13.1
32	ESP2	12.1	-1.7	13.8
33	LIFE	12.2	-0.5	12.7
34	TBS	12.1	-0.2	12.3
35	DISH	12.9	-0.5	13.4
36	COM	13.0	-0.6	13.6
37	CNBC	12.3	-0.9	13.2
38	AMC	12.3	-1.9	14.2
39	TLC	12.6	-1.5	14.1
40	SPK	12.7	-0.4	13.1
41	HLN	12.3	-1.6	13.9
42	TWC	13.5	-0.3	13.8
43	NICK	12.3	-1.4	13.7
44	CORT	12.5	-0.6	13.1
45	MSN	12.7	-0.2	12.9
46	APL	13.5	-0.4	13.9
47	LMN	13.4	-0.6	14.0
48	VH1	13.1	-0.7	13.8
49	SIFI	13.1	-1.3	14.4
50	FSN	13.1	0.2	12.9
51	GOLF	13.9	0.1	13.8
53	MTV	14.2	1.1	13.1
54	TVLN	13.9	-0.1	14.0

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/13/04 Time: 17:59:31
Description:

Serial #: 3460202
File: 3NEWHOPETL

Cal Date: 03/10/03
DOS File: 3NEWHOPETL

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	13.6	0.3	13.3
56	HIST	14.5	1.1	13.4
57	DISN	13.6	0.3	13.3
58	FOXN	13.5	-0.2	13.7
60	CSPA	13.7	0.0	13.7
61	WETV	13.9	0.2	13.7
62	E	13.9	-1.3	15.2
63	SOAP	13.4	0.1	13.3
64	SNBC	13.9	-0.3	14.2
65	OLN	13.8	0.1	13.7
66	ESPC	13.0	-0.8	13.8
67	TCM	13.5	-0.6	14.1
68	FITT	14.2	0.6	13.6
69	CMT	13.3	-0.3	13.6
70	NGEO	13.2	-0.2	13.4
71	FX	14.3	1.1	13.2
72	INSP	13.6	0.2	13.4
73	HLMK	14.5	0.4	14.1
74	TRAV	14.0	0.4	13.6
75	TOON	13.9	-0.2	14.1
76	HGTV	14.2	0.5	13.7
77	FOOD	13.1	0.2	12.9
78	UMC	13.8	0.8	13.0
98	TVG	10.8	-2.6	13.4
116		12.2	-1.7	13.9

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 98 Video = 10.8	Pass
Max Delta Video Level	15.0 dB	Ch 98 and 56, Delta = 3.7	Pass
Min Delta V/A	6.5 dB	Ch 34 Delta V/A = 12.3	Pass
Max Delta V/A	17.0 dB	Ch 62 Delta V/A = 15.2	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 9 and 10, Delta = 1.7	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/14/04 Time: 00:12:42
Description:

Serial #: 3460202
File: 4NEWHOPETL

Cal Date: 03/10/03
DOS File: 4NEWHOPETL

Location: ?
Location Type: Undefined
Area:
Test Pnt Type: None
Test Pnt Comp: 0.0
AC Voltage: 0

AmpID:
Power Cfg: IN
Feeder Maker Cfg: 1
Trunk Term: NO
Voltage Setting: LOW
DC Voltage (reg): 0.0

Reverse Pad: 0.0
Forward Pad: 0.0
Rev Equalizer: 0.0
Fwd Equalizer: 0.0
Temp: 35.1 F
DC Voltage (unreg): 0.0

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
2	WNCN	11.6	-1.9	13.5
3	WRAL	11.9	-1.2	13.1
4	COMM	12.6	-2.1	14.7
5	WRAY	12.0	-0.6	12.6
6	WTVD	12.9	-0.8	13.7
7	HBC	13.8	-1.1	14.9
8	COMM	14.0	-0.7	14.7
9	WUNC	14.7	0.3	14.4
10	WLFL	12.9	-0.2	13.1
11	WUVC	14.4	0.6	13.8
12	WRDC	14.2	-0.2	14.4
13	WRAZ	13.8	0.8	13.0
14	NC14	12.4	-1.1	13.5
15	HSN	12.7	-0.8	13.5
16	QVC	12.8	-0.8	13.6
18	GOV	13.5	0.1	13.4
19	BET	13.7	-0.2	13.9
21	WGN	12.6	-0.6	13.2
22	WRPX	13.2	-0.5	13.7
24	TRI	14.4	0.8	13.6
25	USA	14.8	1.5	13.3
26	TNT	14.7	0.6	14.1
27	A+E	14.0	1.0	13.0
28	FFAM	15.0	0.6	14.4
29	CNN	14.9	0.4	14.5
30	DISC	14.5	1.5	13.0
31	ESPN	13.4	0.7	12.7
32	ESP2	13.8	0.6	13.2
33	LIFE	14.5	1.3	13.2
34	TBS	14.8	0.9	13.9
35	DISH	15.4	1.7	13.7
36	COM	15.3	1.6	13.7
37	CNBC	14.9	1.3	13.6
38	AMC	14.8	0.5	14.3
39	TLC	14.9	0.5	14.4
40	SPK	15.5	1.3	14.2
41	HLN	15.3	0.9	14.4
42	TWC	15.9	2.1	13.8
43	NICK	14.9	1.0	13.9
44	CORT	14.8	1.7	13.1
45	MSN	15.3	2.4	12.9
46	APL	15.9	2.2	13.7
47	LMN	15.8	2.1	13.7
48	VH1	15.4	1.9	13.5
49	SIFI	15.9	1.5	14.4
50	FSN	15.3	2.6	12.7
51	GOLF	16.5	2.7	13.8
53	MTV	17.1	3.4	13.7
54	TVLN	16.7	2.7	14.0

Data Analysis Software
WWG StealthWare

AutoTest Report

WAVETEK WANDEL GOLTERMANN

TIME WARNER
708 E CLUB BLVD
DURHAM, NC

FCC PROOFS

Model: SDA-5000
Operator: MIKE-FINCH
Date: 02/14/04 Time: 00:12:42
Description:

Serial #: 3460202
File: 4NEWHOPETL

Cal Date: 03/10/03
DOS File: 4NEWHOPETL

Chan	Label	Video (dBmV)	Audio (dBmV)	Delta V/A (dB)
55	OXY	16.5	3.0	13.5
56	HIST	17.2	3.9	13.3
57	DISN	16.5	2.9	13.6
58	FOXN	16.6	2.7	13.9
60	CSPA	16.5	2.6	13.9
61	WETV	16.4	3.5	12.9
62	E	16.2	1.5	14.7
63	SOAP	16.2	3.1	13.1
64	SNBC	17.0	2.5	14.5
65	OLN	16.7	3.3	13.4
66	ESPC	16.3	2.1	14.2
67	TCM	16.3	2.3	14.0
68	FITT	17.4	3.5	13.9
69	CMT	16.5	2.9	13.6
70	NGEO	16.6	2.9	13.7
71	FX	17.2	4.4	12.8
72	INSP	17.0	3.5	13.5
73	HLMK	17.4	3.5	13.9
74	TRAV	17.3	3.4	13.9
75	TOON	17.2	3.0	14.2
76	HGTV	17.5	3.6	13.9
77	FOOD	16.4	3.2	13.2
78	UMC	17.1	3.6	13.5
98	TVG	11.9	-1.3	13.2
116		16.3	2.2	14.1

LIMIT CHECK	Limit	Actual	
Min Video Carrier Level	3.0 dBmV	Ch 2 Video = 11.6	Pass
Max Delta Video Level	15.0 dB	Ch 2 and 76, Delta = 5.9	Pass
Min Delta V/A	6.5 dB	Ch 5 Delta V/A = 12.6	Pass
Max Delta V/A	17.0 dB	Ch 7 Delta V/A = 14.9	Pass
Max Delta Adjacent Chan	3.0 dB	Ch 9 and 10, Delta = 1.8	Pass
Min Digital Level	-7.0 dBmV	No data	Pass
Max Digital Level	8.0 dBmV	No data	Pass
Conclusion:			PASS

Reviewed: _____ Date: _____

Section 4 - Color and Channel Frequency Response Test

System Name: WARRENTON
Test Point Location: S. MAIN ST
Date of Test: 2-11-04 Time: 11:10
Tech(s) Performing Test: BOBBY OEHAM

Highest Band Pass: 750
Test Point Number: 1
Temperature: 48°F

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	HP859IC	3829A02949	2-28-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator			
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-78			0.3
10	VITS				0.5
9	VITS				0.7
25	VITS				0.4
28	VITS				0.3
33	VITS				0.9
38	VITS				0.4
49	VITS				0.2
57	VITS				0.3
68	VITS				0.4
75	VITS				0.4
116	VITS				0.7

Section 4 - Color and Channel Frequency Response Test

System Name: HENDERSON
Test Point Location: HIBERNIA RD.
Date of Test: 2-10-04 Time: 1:50
Tech(s) Performing Test: BOBBY DEBNAM

Highest Band Pass: 750
Test Point Number: 2
Temperature: 55°F

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	HP 8591C	3829A02949	7-25-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator			
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-89			0.2
10	VITS				0.5
9	VITS				0.7
25	VITS				0.3
28	VITS				0.2
33	VITS				0.9
38	VITS				0.3
49	VITS				0.1
57	VITS				0.3
68	VITS				0.4
25	VITS				0.4
116	VITS				0.4

Section 4 - Color and Channel Frequency Response Test

System Name: 204;5B4BC
Test Point Location: 419 Hwy 561
Date of Test: 2-11-04 Time: 12:45
Tech(s) Performing Test: BOBBY DEBNAM

Highest Band Pass: 750
Test Point Number: 3
Temperature: 50°F

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	HP8591C	3829A02949	7-28-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator			
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-83			0.5
10	VITS				0.2
9	VITS				0.4
25	VITS				0.3
28	VITS				0.2
33	VITS				0.8
38	VITS				0.5
49	VITS				0.3
57	VITS				0.4
68	VITS				0.5
75	VITS				0.5
116	VITS				0.8

Section 4 - Color and Channel Frequency Response Test

System Name: HENDERSON
Test Point Location: 77 CLARK LN
Date of Test: 2-10-04 Time: 12:05
Tech(s) Performing Test: BOBBY DEBNAM

Highest Band Pass: 750
Test Point Number: 4
Temperature: 50°F

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	HP8591C	3829A02949	7-28-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator			
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-85			0.1
10	VITS				0.3
9	VITS				0.7
25	VITS				0.1
28	VITS				0.2
33	VITS				0.3
38	VITS				0.3
49	VITS				0.3
57	VITS				0.5
68	VITS				0.5
75-[illegible]	VITS				0.3
116	VITS				0.8

Section 4 - Color and Channel Frequency Response Test

System Name: HENDERSON / OXFORD
Test Point Location: PUCKETT 4
Date of Test: 2-10-04 Time: 3:45 PM
Tech(s) Performing Test: BOBBY DEBNAM

Highest Band Pass: 750
Test Point Number: 5
Temperature: 55°F

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	HP8591C	3829A02949	7-28-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator			
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-88			0.2
10	VITS				0.2
9	VITS				0.9
25	VITS				0.2
28	VITS				0.1
33	VITS				0.6
38	VITS				0.2
49	VITS				0.3
57	VITS				0.6
68	VITS				0.6
75	VITS				0.4
116	VITS				0.9

Section 4 - Color and Channel Frequency Response Test

System Name: Chapel Hill
Test Point Location: Sawmill
Date of Test: 2-5-04 Time: 930
Tech(s) Performing Test: M. Fuith

Highest Band Pass: 750MHz
Test Point Number: 6
Temperature: 40°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3513A00794	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-411	07030005O	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	GEN	101			-.8
6	VITS				-.6
9	VITS				-.2
22	GEN				-.6
26	VITS				-.3
29	GEN				-.4
33	GEN				-.5
38	VITS				-.5
53	VITS				-.1
57	VITS				-.1
75	GEN				-.1
116	VITS				-.3

Section 4 - Color and Channel Frequency Response Test

System Name: Chapel Hill
Test Point Location: Hoover
Date of Test: 2-5-04 Time: 3:30
Tech(s) Performing Test: M. Finch

Highest Band Pass: 750MHz
Test Point Number: 7
Temperature: 47°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3513A00794	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-411	070300050	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-70			.2
5	VITS				.3
9	VITS				.4
22	VITS				.7
26	VITS				.8
29	GEN				.7
33	GEN				.4
38	VITS				.7
53	VITS				.8
57	VITS				.2
75	GEN				.1
116	VITS				.3

Section 4 - Color and Channel Frequency Response Test

System Name: Durham
Test Point Location: Lavender
Date of Test: 2-6-04 Time: 9:05
Tech(s) Performing Test: M Finch

Highest Band Pass: 750 MHz
Test Point Number: 8
Temperature: 43°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3513A00754	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-411	0705000SC	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-81			.4
5	VITS				.4
9	VITS				.2
22	VITS				.5
26	VITS				.4
29	GEN				.7
33	GEN				.2
38	VITS				.6
53	VITS				.3
57	VITS				.4
75	GEN				.2
116	VITS				.5

Section 4 - Color and Channel Frequency Response Test

System Name: Durham — Highest Band Pass: 750 MHz
Test Point Location: CAMERON — Test Point Number: 9
Date of Test: 2-3-04 — Time: 8:00 — Temperature: 38°
Tech(s) Performing Test: M Fink, J Schmitt

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3537A00794	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VITG-411	0705000SC	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-99			.5
5	VITS				.4
9	VITS				.7
22	VITS				.3
26	VITS				.8
29	Gen				.5
33	Gen				.3
38	VITS				.2
53	VITS				.4
57	VITS				.1
75	Gen				.3
116	VITS				.2

Section 4 - Color and Channel Frequency Response Test

System Name: Durham
Test Point Location: Dixon Rd.
Date of Test: 2-2-04 Time: 2:20
Tech(s) Performing Test: Mike Finch
John Schmitt

Highest Band Pass: 750 MHz
Test Point Number: 10
Temperature: 58°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	HP Agilent 8591C	3537A00794	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-411	0705000SC	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-25			.8
5	VITS				.5
9	VITS				.7
22	VITS				.4
26	VITS				.5
29	Gen				.3
33	Gen				.2
38	VITS				.3
53	VITS				.3
57	VITS				.2
75	Gen				.4
116	VITS				.7

Section 4 - Color and Channel Frequency Response Test

System Name: Durham
Test Point Location: 7 Arbor Field
Date of Test: 2-2-04 Time: 9.00
Tech(s) Performing Test: M Fuels, T Schaudt

Highest Band Pass: 750 MHz
Test Point Number: 11
Temperature: 40°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3513A00744	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-41	0705000SC	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-46			.5
5	VITS				.7
9	VITS				.8
22	VITS				.4
26	VITS				.4
29	GEN				.2
33	GEN				.5
38	VITS				.5
53	VITS				.6
57	VITS				.4
75	GEN				.3
116	VITS				.4

Section 4 - Color and Channel Frequency Response Test

System Name: Durham
Test Point Location: 8021 MASSEY CHAPEL
Date of Test: 2-2-04 Time: 11:10
Tech(s) Performing Test: M Fink
J Schmitt

Highest Band Pass: 750 MHz
Test Point Number: 12
Temperature: 39°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3537A00794	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-411	0705000SC	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition, November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-24			.5
5	VITS				.7
9	VITS				.2
22	VITS				.1
26	VITS				.3
29	GEN				.5
33	GEN				-.3
38	VITS				-.3
53	VITS				-.4
57	VITS				-.2
75	GEN				-.4
116	VITS				-.3

Section 4 - Color and Channel Frequency Response Test

System Name: Chapel Hill
Test Point Location: Ashford
Date of Test: 2-6-04 Time: 12:00
Tech(s) Performing Test: M Finch

Highest Band Pass: 750MHz
Test Point Number: 13
Temperature: 44°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3513A00794	12-16-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VTF-411	07030005O	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition. November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-42			.3
5	VITS				.4
9	VITS				.3
22	VITS				.2
26	VITS				.6
29	GEN				.6
33	GEN				.3
38	VITS				.4
53	VITS				.2
57	VITS				.5
75	GEN				.1
116	VITS				.3

Section 4 - Color and Channel Frequency Response Test

System Name: Durham
Test Point Location: Sprucepine
Date of Test: 2-3-04 Time: 3:00
Tech(s) Performing Test: M Finch

Highest Band Pass: 750 MHz
Test Point Number: 14
Temperature: 43°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	Agilent 8591C	3513A00754	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-411	0703000SC	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition. November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	-96			.5
5	VITS				.7
9	VITS				.6
22	VITS				.8
26	VITS				.4
29	GEN				.4
33	GEN				.4
38	VITS				.2
53	VITS				.1
57	VITS				.3
75	GEN				.3
116	VITS				.3

Section 4 - Color and Channel Frequency Response Test

System Name: Chapel Hill
Test Point Location: New Hope
Date of Test: 2-5-04 Time: 12:00
Tech(s) Performing Test: M Finch

Highest Band Pass: 750MHz
Test Point Number: 15
Temperature: 43°

Equipment Used	Make/Model	Serial Number	Last Calibration Date
Spectrum Analyzer	AGILENT 8591C	3513A00794	12-18-03
Waveform Monitor			N/A
Vectorscope			
Test Demodulator			
Video Sigl. Generator	VIDEOTEK VIT-411	070300050	7-8-03
Band Pass Filter 1			N/A
Band Pass Filter 2			N/A

Test Setup used: The 30 meeter (98.45 foot) cable drop from the test point is fed into the Test Demodulator. The video output of the test demodulator is fed to the Video Waveform Monitor, and looped through to the Vectorscope. The required "12.5T modulated Sine-squared Pulse" and "Modulated Stair Step" test signals are generated by the Video Signal Generator or are received as part of the VITS provided by the program source. Care should be exercised when using VITS signals supplied by the program source. Such VITS signals may arrive at the Headend with imperfections that could result in failed tests. Following good engineering practices and NCTA Recommended Practices for Measurements on Cable Television Systems, 2nd edition. November 1989, Chrominance to Luminance Delay Inequality, Differential Gain, and Differential Phase measurements are performed on the required channels. The results are recorded below.

For Channel Frequency Response measurements the Multiburst test signal is acquired on the Waveform Monitor. Six frequency packets should be observed (for the Combination Test Signal the packets will be .5, 1, 2, 3, 3.58, and 4.2 MHz).. Measure the amplitude of the largest and smallest multiburst packets. Divide the largest measurement by the smallest and determine the natural Log of the result. Multiply this number by 20 to obtain the channel frequency response in dB. .

As an alternative, automated test equipment such as the Hewlett Packard 8591C Spectrum Analyzer or Tektronics VM700 may be used to perform these tests. All automated measurements should be performed in accordance with the manufacture's specifications. Because some automated test measurements may be affected positively or negatively by factors not related to the test being performed, manual measurements should be made on a minimum of two channels for comparison with the automated measurements. If there is more then a 5 percent difference between the automated and manual measurements, manual measurements should be performed on each channel.

Number of Measurements: The measurements are to be made at the Headend on widely spaced channels with the number of test channels being a minimum of 4 channels plus one channel for each 100 MHz or fraction thereof of cable distribution system uper bandwidth. (See Specifications page viii). Additionally, Chrominance to Luminance Delay Inequality must be measured at all field test points on channel 2.

Minimum Specifications: All minimum specifications are listed in [ ] below. All units are listed in ( ).

Ch.	Signal Source (VITS/Gen.)	Chroma Delay [170 max.] (Nanoseconds)	Diff. Gain [+/- 20 %] (Percent)	Diff. Phase [+/- 10 Deg.] (Degrees)	Frequency Response [+/- 2 dB] (dB)
2	VITS	72			.1
5	VITS				.5
9	VITS				.3
22	VITS				.6
26	VITS				.4
29	Gen				.8
33	Gen				.4
38	VITS				.3
53	VITS				.5
57	VITS				.6
75	Gen				.3
116	VITS				.8

System Name: AOL Time Warner of Durham/Chapel Hill

The following tap devices are used in this system:

Manufacturer	Model Number
LINDSEY	LGT
MILLINEUM	MGT 10-1000 MHZ
REGAL	RMT-102W

As specified by the rules copies of the manufacture's specification sheets are attached for each make of tap used in this system.

LINDSAY LGT SERIES

BROAD-BAND MODULAR POWER TAP

PRODUCTION PRELIMINARY SPEC

Jan. 24. 96

2 PORT TYPICAL TAP LOSS PROFILE

Nominal Tap Values 2 PORT	Coupler	SPOT FREQUENCIES MHz 5	50	300	450	550	750	1000
4	0	-3.6	-3.4	-3.6	-3.7	-3.8	-4.1	-4.5
8	4	-6.6	-6.7	-6.8	-7.0	-7.2	-7.7	-8.4
11	7	-10.9	-10.7	-10.7	-10.5	-10.6	-11.0	-12.5
14	10	-13.9	-13.6	-13.7	-13.7	-13.8	-14.0	-14.4
17	13	-16.5	-16.5	-16.6	-16.5	-16.5	-16.5	-16.6
20	16	-19.5	-19.6	-19.7	-19.7	-19.8	-20.2	-20.8
23	19	-22.8	-22.7	-22.7	-22.6	-22.7	-23.0	-23.5
26	22	-26.3	-25.7	-25.8	-25.7	-25.8	-26.3	-27.3
29	25	-28.8	-28.5	-28.5	-28.4	-28.5	-28.9	-30.0
32	28	-31.8	-31.4	-31.5	-31.3	-31.4	-31.8	-33.0
Tap Loss tolerance		+/- 0.5	+/- 0.3	+/- 0.4	+/- 0.5	+/- 0.6	+/- 0.7	+/- 1.0
Tap Return Loss min	dB	18	20	20	20	20	18	18
Tap to Tap Isolation	dB	23	23	23	23	23	23	23

4 PORT TYPICAL TAP LOSS PROFILE

Nominal Tap Values PORT	Coupler	SPOT FREQUENCIES MHz 5	50	300	450	550	750	1000
8	0	-6.9	-6.7	-6.9	-7.1	-7.4	-8.0	-8.7
11	4	-9.9	-9.9	-10.2	-10.4	-10.7	-11.5	-12.7
14	7	-14.3	-14.0	-14.1	-14.0	-14.1	-14.5	-16.1
17	10	-17.0	-16.8	-17.0	-17.1	-17.3	-18.0	-18.6
20	13	-19.7	-19.7	-19.8	-19.8	-20.0	-20.5	-21.2
23	16	-22.8	-22.9	-23.0	-23.0	-23.2	-23.8	-24.2
26	19	-25.9	-25.9	-26.0	-26.0	-26.3	27.0	-28.3
29	22	-28.9	-28.9	-29.0	-29.0	-29.3	-30.1	-31.1
32	25	-31.9	-31.8	-31.8	-31.7	-31.9	-32.9	-34.5
35	28	-34.8	-34.7	-34.3	-34.6	-34.8	-35.7	-37.5
Tap Loss tolerance		+/- 0.6	+/- 0.4	+/- 0.5	+/- 0.6	+/- 0.8	+/- 1.0	+/- 1.5
Tap Return Loss min	dB	18	20	20	20	20	20	20
Tap to Tap Isolation	dB	23	23	23	23	23	23	23

8 PORT TYPICAL TAP LOSS PROFILE

Nominal Tap Values 8 PORT	Coupler	SPOT FREQUENCIES MHz 5	50	300	450	550	750	1000
11	0	-10.1	-9.9	-10.3	-10.5	-10.8	-11.3	12.4
14	4	-13.3	-13.2	-13.5	-13.8	-14.2	14.9	-16.3
17	7	-17.8	-17.2	-17.4	-17.5	-17.5	-18.0	-19.9
20	10	-20.6	-20.0	-20.5	-20.5	-20.7	-21.2	-22.3
23	13	-23.2	-22.9	-23.3	-23.3	-23.3	-23.6	-24.5
26	16	-26.3	-26.1	-26.3	-26.4	-26 6	-26.9	-27.9
29	19	-29.3	-29.1	-29 3	-29 5	-29.6	-30.3	-31.5
32	22	-32.6	-32.2	-32.5	-32.5	-32.7	-33.3	-34 7
35	25	-35.5	-35.2	-35.5	-35.5	-35.8	-38.4	-37.8
Tap Loss tolerance		+/- 0.7	+/- 0.5	+/- 0.6	+/- 0.8	+/- 1.0	+/- 1.5	+/- 2.0

LINDSAY LGT SERIES

BROAD-BAND MODULAR POWER TAP

PRODUCTION PRELIMINARY SPEC

Jan. 24, 96

Nominal Tap Values

2 PORT	Coupler
4	0
8	4
11	7
14	10
17	13
20	16
23	19
26	22
29	25
32	28

Tap Loss tolerance

Tap Return Loss min dB

Tap to Tap Isolation dB

2 PORT TYPICAL TAP LOSS PROFILE

SPOT FREQUENCIES MHz	5	50	300	450	550	750	1000
	-3.6	-3.4	-3.6	-3.7	-3.8	-4.1	-4.5
	-6.6	-6.7	-6.8	-7.0	-7.2	-7.7	-8.4
	-10.9	-10.7	-10.7	-10.5	-10.6	-11.0	-12.5
	-13.9	-13.6	-13.7	-13.7	-13.8	-14.0	-14.4
	-16.5	-16.5	-16.6	-16.5	-16.5	-16.5	-16.6
	-19.5	-19.8	-19.7	-19.7	-19.8	-20.2	-20.8
	-22.8	-22.7	-22.7	-22.6	-22.7	-23.0	-23.5
	-26.3	-25.7	-25.8	-25.7	-25.8	-26.3	-27.3
	-28.8	-28.5	-28.5	-28.4	-28.5	-28.9	-30.0
	-31.8	-31.4	-31.5	-31.3	-31.4	-31.8	-33.0
	+/- 0.5	+/- 0.3	+/- 0.4	+/- 0.5	+/- 0.6	+/- 0.7	+/- 1.0
	18	20	20	20	20	18	18
	23	23	23	23	23	23	22

Nominal Tap Values

PORT	Coupler
8	0
11	4
14	7
17	10
20	13
23	16
26	19
29	22
32	25
35	28

Tap Loss tolerance

Tap Return Loss min dB

Tap to Tap Isolation dB

4 PORT TYPICAL TAP LOSS PROFILE

SPOT FREQUENCIES MHz	5	50	300	450	550	750	1000
	-6.9	-6.7	-6.9	-7.1	-7.4	-8.0	-8.7
	-9.9	-9.9	-10.2	-10.4	-10.7	-11.5	-12.7
	-14.3	-14.0	-14.1	-14.0	-14.1	-14.8	-16.1
	-17.0	-16.8	-17.0	-17.1	-17.3	-18.0	-18.6
	-19.7	-19.7	-19.8	-19.8	-20.0	-20.5	-21.2
	-22.8	-22.9	-23.0	-23.0	-23.2	-23.5	-24.2
	-25.9	-25.9	-26.0	-26.0	-26.3	27.0	-28.3
	-28.9	-28.9	-29.0	-29.0	-29.3	-30.1	-31.1
	-31.9	-31.8	-31.8	-31.7	-31.9	-32.5	-34.5
	-34.8	-34.7	-34.3	-34.6	-34.8	-35.7	-37.5
	+/- 0.6	+/- 0.4	+/- 0.5	+/- 0.6	+/- 0.8	+/- 1.0	+/- 1.5
	18	20	20	20	20	20	20
	23	23	23	23	23	23	23

Nominal Tap Values

8 PORT	Coupler
11	0
14	4
17	7
20	10
23	13
26	16
29	19
32	22
35	25

Tap Loss tolerance

8 PORT TYPICAL TAP LOSS PROFILE

SPOT FREQUENCIES MHz	5	50	300	450	550	750	1000
	-10.1	-9.9	-10.3	-10.5	-10.5	-11.3	12.4
	-13.3	-13.2	-13.5	-13.8	-14.2	14.9	-16.3
	-17.8	-17.2	-17.4	-17.5	-17.5	-18.0	-19.9
	-20.6	-20.0	-20.5	-20.5	-20.7	-21.2	-22.3
	-23.2	-22.9	-23.3	-23.3	-23.3	-23.6	-24.5
	-26.3	-26.1	-26.3	-26.4	-26 6	-26.9	-27.9
	-29.3	-29.1	-29 3	-29 5	-29.6	-30.3	-31.5
	-32.6	-32.2	-32.5	-32.5	-32.7	-33.3	-34 7
	-35.5	-35.2	-35.5	-35.5	-35.8	-36.4	-37.8
	+/- 0.7	+/- 0.5	+/- 0.6	+/- 0.8	+/- 1.0	+/- 1.5	+/- 2.0

ypical ecification	Freq. (MHz)	2204		2208		2211		2214		2217		2220		2223		2226		2229	
		Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)
o Loss*	10	3.3	0.1	7.6	0.1	10.9	0.1	13.6	0.1	15.8	0.1	18.3	0.3	21.1	0.1	24.1	0.1	27.2	0.3
	30	3.3	0.1	7.5	0.1	11.0	0.1	15.1	0.1	17.4	0.1	20.0	0.1	22.9	0.1	25.9	0.1	28.7	0.1
	50	3.3	0.1	7.5	0.1	11.0	0.1	15.1	0.1	17.4	0.1	20.0	0.1	22.9	0.1	25.9	0.1	28.8	0.1
	100	3.6	0.1	8.0	0.1	11.2	0.1	15.0	0.1	17.4	0.1	19.9	0.1	22.8	0.1	25.8	0.1	28.4	0.1
	330	3.6	0.1	8.0	0.1	11.2	0.1	15.0	0.1	17.5	0.1	19.9	0.1	22.8	0.1	25.5	0.1	28.3	0.3
	450	3.7	0.1	8.0	0.1	11.1	0.3	15.0	0.1	17.5	0.3	19.9	0.1	22.6	0.3	25.6	0.3	28.3	0.3
	550	3.7	0.1	8.0	0.1	11.0	0.3	14.9	0.3	17.5	0.3	19.9	0.3	22.5	0.3	25.6	0.3	28.3	0.3
	600	3.8	0.1	8.1	0.3	10.8	0.3	14.9	0.3	17.5	0.3	19.9	0.3	22.6	0.3	25.6	0.4	28.2	0.4
	750	3.9	0.3	8.8	0.3	10.7	0.4	14.9	0.4	17.6	0.6	20.0	0.4	22.7	0.4	25.8	0.6	28.4	0.6
	860	4.2	0.3	9.1	0.4	10.7	0.4	14.9	0.6	17.7	0.7	20.3	0.6	23.0	0.6	26.4	0.7	29.0	0.9
	1000	4.6	0.4	9.8	0.6	10.9	0.6	15.1	0.9	17.7	0.9	20.6	0.7	23.7	1.0	26.9	1.0	29.9	1.2
Insertion Loss* (dB)	10			2.9		1.4		1.0		0.9		0.7		0.4		0.4		0.4	
	30			2.9		1.4		0.8		0.8		0.7		0.4		0.4		0.4	
	50			2.9		1.4		0.8		0.8		0.7		0.4		0.4		0.4	
	100			3.3		1.8		1.0		0.9		0.8		0.4		0.5		0.5	
	330			3.4		2.0		1.0		1.0		0.8		0.8		0.6		0.8	
	450			3.4		2.0		1.0		1.0		0.8		0.6		0.6		0.6	
	550			3.4		2.0		1.1		1.0		0.9		0.6		0.6		0.6	
	600			3.6		2.2		1.2		1.1		0.9		0.7		0.7		0.7	
	750			3.7		2.6		1.3		1.2		1.0		0.8		0.8		0.8	
	860			3.8		2.9		1.5		1.3		1.1		0.9		0.9		0.9	
	1000			4.1		3.7		2.0		1.4		1.2		1.1		1.0		1.0	
lation to Out min)	10-29			20		20		20		24		29		30		34		34	
	30-749			22		24		26		30		33		36		38		40	
	750-899			20		22		25		28		31		34		36		38	
	900-1000			20		22		24		28		31		34		36		38	
olation ap to Tap dB min)	10-29	20		20		20		20		20		20		20		20		20	
	30-449	25		25		25		25		25		25		25		25		25	
	450-749	23		23		23		23		23		23		23		23		23	
	750-1000	20		20		20		20		20		20		20		20		20	
eturn Loss and Out dB min)	10-29	17		17		17		17		17		17		17		17		17	
	30-599	18		18		18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17		17		17	
	900-1000	16		16		16		16		16		16		16		16		16	
eturn Loss ap dB min)	10-29	16		16		16		16		16		16		16		16		16	
	30-599	18		18		18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17		17		17	
	900-1000	16		16		16		16		16		16		16		16		16	
um Mod. 10 Amps, B min)	10-49			-64		-64		-70		-70		-70		-70		-70		-70	
	50-599			-70		-70		-70		-70		-70		-70		-70		-70	
	600-749			-64		-64		-70		-70		-70		-70		-70		-70	
	750-1000			-60		-60		-70		-70		-70		-70		-70		-70	
dl (dB min)	10-1000	-105.0		-105.0		-105.0		-105.0		-105.0		-105.0		-105.0		-105.0		-105.0	
ss max)	10-1000	0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35	
wer Rating		12 Amps, 60 to 90 Vac																	

Specifications are subject to change without notice.

Typical Specification	Freq. (MHz)	2408		2411		2414		2417		2420		2423		2426		2429	
		Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)
Tap Loss* (dB)	10	7.3	0.7	10.3	0.1	14.3	0.1	15.8	0.3	19.4	0.3	22.0	0.4	24.8	0.3	27.7	0.3
	30	7.2	0.6	10.1	0.1	14.4	0.1	17.4	0.1	20.9	0.1	23.4	0.3	26.1	0.3	29.2	0.1
	50	7.1	0.6	10.1	0.1	14.4	0.1	17.6	0.1	20.9	0.1	23.5	0.3	26.1	0.3	29.3	0.1
	100	7.4	0.6	10.7	0.3	14.8	0.3	17.6	0.3	21.0	0.3	23.4	0.3	25.8	0.3	29.0	0.4
	330	7.4	0.6	10.6	0.3	14.8	0.3	17.6	0.3	21.0	0.3	23.3	0.3	25.8	0.4	29.1	0.4
	450	7.5	0.6	10.6	0.3	14.7	0.4	17.6	0.4	21.0	0.3	23.3	0.3	25.9	0.4	29.1	0.4
	550	7.6	0.6	10.6	0.3	14.6	0.6	17.5	0.4	21.0	0.3	23.3	0.3	25.9	0.4	29.1	0.4
	600	7.7	0.6	10.7	0.4	14.8	0.6	17.3	0.7	21.0	0.6	23.3	0.4	25.9	0.7	29.3	0.9
	750	7.9	0.6	11.1	0.8	14.5	0.7	16.9	0.9	20.6	0.9	23.0	0.6	25.7	0.9	29.1	1.0
	860	8.1	0.7	11.6	0.9	14.4	0.7	16.6	1.2	20.3	0.9	22.7	0.7	25.3	1.0	28.8	1.0
	1000	8.8	1.0	12.5	1.2	15.0	1.2	17.4	1.9	20.2	1.2	22.5	1.2	26.1	1.4	29.5	1.6
Insertion Loss* (dB)	10			3.5		1.5		1.0		0.9		0.7		0.4		0.4	
	30			3.5		1.4		0.8		0.8		0.7		0.4		0.4	
	50			3.5		1.4		0.8		0.8		0.7		0.4		0.4	
	100			3.9		1.8		1.0		1.0		0.8		0.5		0.5	
	330			4.1		2.0		1.1		1.0		0.8		0.5		0.5	
	450			4.2		2.0		1.1		1.0		0.8		0.6		0.5	
	550			4.3		2.0		1.1		1.0		0.9		0.6		0.6	
	600			4.6		2.2		1.2		1.1		0.9		0.7		0.7	
	750			4.8		2.6		1.4		1.2		1.0		0.8		0.8	
	860			4.9		2.9		1.7		1.3		1.1		0.9		0.9	
	1000			5.1		3.7		2.2		1.4		1.2		1.0		1.0	
olation ip to Out 3 min)	10-29			20		21		22		27		30		34		34	
	30-749			24		27		30		33		36		38		40	
	750-899			22		25		28		31		34		36		38	
	900-1000			22		25		28		31		34		36		38	
ation Tap to Tap (dB min)	10-29	20		20		20		20		20		20		20		20	
	30-449	25		25		25		25		25		25		25		25	
	450-749	23		23		23		23		23		23		23		23	
	750-1000	20		20		20		20		20		20		20		20	
Return Loss In and Out (dB min)	10-29	17		17		17		17		17		17		17		17	
	30-599	18		18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17		17	
	900-1000	18		18		16		18		18		18		16		16	
Return Loss Tap (dB min)	10-29	18		16		18		18		16		18		18		16	
	30-599	18		18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17		17	
	900-1000	16		18		16		16		16		16		16		16	
Hum Mod. at 10 Amps. (dB min)	10-49			-64		-64		-70		-70		-70		-70		-70	
	50-599			-70		-70		-70		-70		-70		-70		-70	
	600-749			-64		-64		-70		-70		-70		-70		-70	
	750-1000			-60		-60		-70		-70		-70		-70		-70	
EMI (dB min)	10-1000	-105		-105		-105		-105		-105		-105		-105		-105	
ness 3 max)	10-1000	0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35	
ower Rating		12 Amps, 60 to 90 Vac															

[illegible]

Specifications are subject to change without notice.

Typical Specification	Freq. (MHz)	2812		2815		2818		2821		2824		2827		2830	
		Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)
ap Loss*	10	10.6	0.3	13.8	0.1	17.6	0.4	20.0	0.4	22.3	0.4	25.2	0.3	28.8	0.4
3)	30	10.5	0.3	13.7	0.1	17.8	0.3	20.9	0.3	24.0	0.3	26.6	0.3	30.2	0.3
	50	10.5	0.1	13.6	0.1	17.8	0.3	20.9	0.3	24.1	0.3	26.6	0.3	30.2	0.3
	100	10.9	0.3	14.3	0.4	18.1	0.8	21.0	0.6	24.1	0.6	26.6	0.6	30.0	1.0
	330	11.1	0.4	14.3	0.6	18.2	0.8	21.1	0.6	24.2	0.7	26.6	0.6	30.0	1.2
	450	11.1	0.4	14.3	0.6	18.1	0.6	21.2	0.7	24.2	0.7	26.8	0.7	30.0	1.2
	550	11.2	0.4	14.3	0.7	18.0	0.6	21.2	0.7	24.3	0.9	26.5	0.9	29.9	1.2
	600	11.3	0.7	14.5	0.7	17.7	0.9	21.3	0.9	24.3	0.9	26.6	1.2	29.8	1.2
	750	11.7	0.9	15.2	0.9	17.8	1.3	21.2	1.4	24.2	1.5	26.7	1.5	29.7	1.5
	860	12.0	1.0	15.8	1.2	17.8	1.4	21.1	1.5	24.1	1.5	26.8	1.5	29.6	1.5
	1000	12.7	1.3	17.2	1.9	18.8	1.9	21.6	2.2	24.8	1.9	27.9	2.1	30.7	1.9
Insertion Loss* (dB)	10			3.4		1.5		1.1		1.0		0.7		0.4	
	30			3.4		1.4		1.0		0.8		0.7		0.4	
	50			3.5		1.4		1.0		0.8		0.6		0.4	
	100			3.9		1.8		1.1		1.0		0.8		0.5	
	330			4.0		2.0		1.1		1.0		0.8		0.6	
	450			4.1		2.1		1.2		1.0		0.8		0.6	
	550			4.2		2.2		1.2		1.1		0.9		0.6	
	600			4.6		2.3		1.2		1.1		0.9		0.7	
	750			4.7		2.7		1.4		1.2		1.0		0.8	
	860			4.9		3.0		1.6		1.4		1.2		1.0	
	1000			5.0		3.9		2.0		1.5		1.3		1.1	
lation o to Out ' min)	10-29			21		24		27		30		34		34	
	30-749			26		30		32		34		38		40	
	750-899			25		28		30		33		36		38	
	900-1000			24		28		28		33		34		36	
L tion Tap to Tap (dB min)	10-29	20		20		20		20		20		20		20	
	30-449	25		25		25		25		25		25		25	
	450-749	23		23		23		23		23		23		23	
	750-1000	20		20		20		20		20		20		20	
Return Loss In and Out (dB min)	10-29	17		17		17		17		17		17		17	
	30-599	18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17	
	900-1000	16		16		16		16		16		16		16	
Return Loss Tap (dB min)	10-29	18		18		18		16		18		16		16	
	30-599	18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17	
	900-1000	16		16		16		16		16		16		16	
dum Mod. at 10 Amps. dB min)	10-49			-64		-64		-70		-70		-70		-70	
	50-599			-70		-70		-70		-70		-70		-70	
	600-749			-64		-64		-70		-70		-70		-70	
	750-1000			-60		-60		-70		-70		-70		-70	
EMI (dB min)	10-1000	-105		-105		-105		-105		-105		-105		-105	
ness max)	10-1000	0.35		0.35		0.35		0.35		0.35		0.35		0.35	
Power Rating		12 Amps, 60 to 90 Vac													

ical (cont.)

Specifications are subject to change without notice

ypical Specification	Freq. (MHz)	2204		2208		2211		2214		2217		2220		2223		2226		2229	
		Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)	Nom	(+/-)
·o Loss*	10	3.3	0.1	7.6	0.1	10.9	0.1	13.8	0.1	15.8	0.1	18.3	0.3	21.1	0.1	24.1	0.1	27.2	0.3
)	30	3.3	0.1	7.5	0.1	11.0	0.1	15.1	0.1	17.4	0.1	20.0	0.1	22.9	0.1	25.9	0.1	28.7	0.1
	50	3.3	0.1	7.5	0.1	11.0	0.1	15.1	0.1	17.4	0.1	20.0	0.1	22.9	0.1	25.9	0.1	28.8	0.1
	100	3.6	0.1	8.0	0.1	11.2	0.1	15.0	0.1	17.4	0.1	19.9	0.1	22.6	0.1	25.8	0.1	28.4	0.1
	330	3.8	0.1	8.0	0.1	11.2	0.1	15.0	0.1	17.5	0.1	19.9	0.1	22.6	0.1	25.5	0.1	28.3	0.3
	450	3.7	0.1	8.0	0.1	11.1	0.3	15.0	0.1	17.5	0.3	19.9	0.1	22.6	0.3	25.6	0.3	28.3	0.3
	550	3.7	0.1	8.0	0.1	11.0	0.3	14.9	0.3	17.5	0.3	19.9	0.3	22.5	0.3	25.8	0.3	28.3	0.3
	600	3.8	0.1	8.1	0.3	10.8	0.3	14.9	0.3	17.5	0.3	19.9	0.3	22.6	0.3	25.6	0.4	28.2	0.4
	750	3.9	0.3	8.8	0.3	10.7	0.4	14.9	0.4	17.8	0.6	20.0	0.4	22.7	0.4	25.8	0.6	28.4	0.6
	860	4.2	0.3	9.1	0.4	10.7	0.4	14.9	0.6	17.7	0.7	20.3	0.6	23.0	0.6	26.4	0.7	29.0	0.9
	1000	4.6	0.4	9.8	0.6	10.9	0.6	15.1	0.9	17.7	0.9	20.6	0.7	23.7	1.0	26.9	1.0	29.9	1.2
Insertion Loss* (dB)	10			2.9		1.4		1.0		0.9		0.7		0.4		0.4		0.4	
	30			2.9		1.4		0.8		0.8		0.7		0.4		0.4		0.4	
	50			2.9		1.4		0.8		0.8		0.7		0.4		0.4		0.4	
	100			3.3		1.8		1.0		0.9		0.8		0.4		0.5		0.5	
	330			3.4		2.0		1.0		1.0		0.8		0.6		0.6		0.6	
	450			3.4		2.0		1.0		1.0		0.8		0.6		0.6		0.6	
	550			3.4		2.0		1.1		1.0		0.9		0.6		0.6		0.6	
	600			3.6		2.2		1.2		1.1		0.9		0.7		0.7		0.7	
	750			3.7		2.6		1.3		1.2		1.0		0.8		0.8		0.8	
	860			3.8		2.9		1.5		1.3		1.1		0.9		0.9		0.9	
	1000			4.1		3.7		2.0		1.4		1.2		1.1		1.0		1.0	
·lation : to Out ·in)	10-29			20		20		20		24		29		30		34		34	
	30-749			22		24		26		30		33		36		38		40	
	750-899			20		22		25		28		31		34		38		38	
	900-1000			20		22		24		28		31		34		36		38	
Is··ation Tap to Tap (dB min)	10-29	20		20		20		20		20		20		20		20		20	
	30-449	25		25		25		25		25		25		25		25		25	
	450-749	23		23		23		23		23		23		23		23		23	
	750-1000	20		20		20		20		20		20		20		20		20	
Return Loss n and Out dB min)	10-29	17		17		17		17		17		17		17		17		17	
	30-599	18		18		18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17		17		17	
	900-1000	16		16		16		16		16		16		16		16		16	
Return Loss ·ap dB min)	10-29	18		18		16		18		16		18		16		16		16	
	30-599	18		18		18		18		18		18		18		18		18	
	600-899	17		17		17		17		17		17		17		17		17	
	900-1000	16		16		16		16		16		16		16		16		16	
lum Mod. t 10 Amps. dB min)	10-49			-64		-64		-70		-70		-70		-70		-70		-70	
	50-599			-70		-70		-70		-70		-70		-70		-70		-70	
	600-749			-64		-64		-70		-70		-70		-70		-70		-70	
	750-1000			-60		-60		-70		-70		-70		-70		-70		-70	
MI (dB min)	10-1000	-105.0		-105.0		-105.0		-105.0		-105.0		-105.0		-105.0		-105.0		-105.0	
·ms max)	10-1000	0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35	
ower Rating		12 Amps, 60 to 90 Vac																	

Nominal Performance Specifications

RMT102-	4.0	8.0	11.0	14.0	17.0	20.0	23.0	26.0	29.0	32.0	35.0
Nominal Tap Value (dB)											
5 MHz	3.40	7.20	10.34	14.60	16.50	20.60	22.50	25.60	28.50	31.60	34.70
50 MHz	3.40	7.20	10.70	14.50	16.50	20.60	22.60	25.70	28.50	31.60	34.70
300 MHz	3.50	7.20	10.78	14.40	16.50	20.60	22.50	25.80	28.70	31.90	35.20
400 MHz	3.60	7.20	10.70	14.20	16.60	20.60	22.60	25.90	28.90	32.30	35.30
500 MHz	3.50	7.40	10.68	14.20	16.70	21.80	22.60	26.10	28.90	32.50	35.70
600 MHz	3.60	7.40	10.74	13.80	16.70	21.00	22.90	26.10	29.10	32.50	35.70
700 MHz	3.70	7.60	10.72	13.60	16.80	21.10	22.90	26.00	29.10	32.50	35.60
800 MHz	3.80	7.60	10.76	13.20	16.80	21.20	22.80	25.80	28.90	32.50	35.50
900 MHz	3.80	7.90	10.80	12.30	16.80	21.10	23.00	25.50	28.60	32.50	35.30
1000 MHz	4.20	8.60	11.24	13.00	17.30	21.40	23.80	25.50	28.60	32.40	35.40
Nominal Insertion Loss (in/out) (dB)											
5 MHz	T	3.40	1.60	1.00	0.70	0.40	0.40	0.40	0.40	0.40	0.40
50 MHz	T	3.40	1.40	0.90	0.70	0.40	0.30	0.30	0.30	0.30	0.30
200 MHz	T	3.50	1.60	1.00	0.70	0.40	0.40	0.50	0.50	0.50	0.50
400 MHz	T	3.60	1.60	1.10	0.70	0.40	0.40	0.50	0.50	0.50	0.50
500 MHz	T	3.30	1.30	1.30	1.00	0.60	0.70	0.70	0.70	0.70	0.70
600 MHz	T	4.00	2.00	1.20	0.90	0.80	0.70	0.70	0.70	0.70	0.70
700 MHz	T	4.30	2.30	1.50	1.20	0.90	0.80	0.80	0.70	0.80	0.80
00 MHz	T	4.30	2.50	2.00	1.20	1.00	0.90	0.90	0.80	0.90	0.90
00 MHz	T	4.40	2.50	2.10	1.40	1.10	1.10	1.10	1.00	1.10	1.10
1000 MHz	T	4.50	3.00	2.50	1.50	1.40	1.10	1.20	1.10	1.20	1.40

Ordering Information on Pages H57-H59

Recommended Torque	
Housing Closure Screws	20-30 in. lb.
Center Conductor Seizure	15-20 in. lb.
Port Plugs	10-15 ft. lb.
Connector Pull-Out	100 lb. minimum

Specifications subject to change without notice

1GHz Two Way Wide Body Tap

REGAL

Frequency (MHz)	5-10	10-20	20-400	400-500	500-600	600-900	900-1000
Isolation (dB minimum) Tap to Tap	18	23	25	25	23	21	19
Return Loss (dB minimum)	15	18	20	18	17	16	15
Tap Loss Tolerance							
4.0 to 29.0 dB	±1.0	±1.0	±1.0	±1.0	±1.3	±1.7	±2.0
32.0 to 35.0 dB	±1.0	±1.0	±1.0	±1.0	±1.5	±2.0	±2.3
EMI Shielding (dB minimum)	100	100	100	100	100	100	100
Hum Modulation 7 Amps (dB minimum)	65	65	65	65	65	65	65
Power Rating	7 Amps AC/DC, 50-90 Volts, 1-60 Hz						

Worst Case Performance Specifications

RMT102-	4.0	8.0	11.0	14.0	17.0	20.0	23.0	26.0	29.0	32.0	35.0
Color Code	LIGHT GREEN	BLACK	GOLD	BLUE	NAVY	ORANGE	TAN	ORANGE-RED	PURPLE	RED	GREEN
Insertion Loss (dB maximum)											
5 MHz	T	3.5	1.7	1.2	0.7	0.5	0.4	0.4	0.4	0.4	0.4
50 MHz	T	3.5	1.6	1.1	0.7	0.5	0.3	0.3	0.3	0.3	0.3
300 MHz	T	3.7	1.8	1.2	0.8	0.6	0.5	0.5	0.5	0.5	0.5
400 MHz	T	3.8	1.9	1.4	1.0	0.6	0.5	0.6	0.6	0.6	0.6
500 MHz	T	3.9	2.1	1.5	1.0	0.7	0.7	0.7	0.7	0.7	0.7
600 MHz	T	4.2	2.2	1.6	1.1	0.7	0.7	0.7	0.7	0.7	0.7
700 MHz	T	4.5	2.4	1.8	1.3	0.9	0.8	0.8	0.8	0.8	0.8
800 MHz	T	4.6	2.5	2.1	1.4	1.0	0.9	0.9	0.9	0.9	0.9
900 MHz	T	4.7	2.8	2.4	1.5	1.1	1.1	1.1	1.1	1.1	1.1
1000 MHz	T	4.8	3.3	2.9	1.9	1.4	1.4	1.4	1.4	1.4	1.4
Out-To-Tap Isolation (dB minimum)											
5 MHz	T	18	18	20	30	30	35	38	40	42	45
50 MHz	T	25	25	20	30	30	37	40	42	43	46
300 MHz	T	25	25	23	30	30	35	35	42	44	46
400 MHz	T	23	23	21	30	30	33	34	42	44	46
500 MHz	T	22	22	20	30	30	33	33	40	42	44
900 MHz	T	21	21	20	30	27	32	30	39	41	43
[illegible] MHz	T	19	19	19	28	25	28	26	30	32	32
[illegible] MHz	T	18	18	18	25	23	27	25	27	31	32

[illegible] subject to change without notice

Nominal Performance Specifications

···T102-	4.0	8.0	11.0	14.0	17.0	20.0	23.0	26.0	29.0	32.0	35.0
...inal Tap Value (dB)											
5 MHz	3.40	7.20	10.34	14.60	16.50	20.60	22.50	25.60	28.50	31.60	34.70
50 MHz	3.40	7.20	10.70	14.60	16.50	20.60	22.60	25.70	28.50	31.60	34.70
300 MHz	3.50	7.20	10.78	14.40	16.50	20.60	22.60	25.80	28.70	31.90	35.20
400 MHz	3.60	7.20	10.70	14.20	16.60	20.60	22.60	25.90	28.90	32.20	35.30
500 MHz	3.50	7.40	10.68	14.20	16.70	21.80	22.60	26.10	28.90	32.60	35.70
600 MHz	3.60	7.40	10.74	13.30	16.70	21.00	22.90	26.10	29.10	32.50	35.70
700 MHz	3.70	7.50	10.72	13.50	16.90	21.10	22.90	26.00	29.10	32.60	35.60
800 MHz	3.80	7.60	10.76	13.20	16.80	21.20	22.80	25.80	28.90	32.50	35.50
900 MHz	3.80	7.90	10.80	12.80	16.80	21.10	23.00	25.50	28.60	32.50	35.20
1000 MHz	4.20	8.60	11.24	13.00	17.20	21.40	23.80	25.50	28.60	32.40	35.40
Nominal Insertion Loss (in/out) (dB)											
5 MHz	T	3.40	1.50	1.00	0.70	0.40	0.40	0.40	0.40	0.40	0.40
50 MHz	T	3.40	1.40	0.90	0.70	0.40	0.30	0.30	0.30	0.30	0.30
300 MHz	T	3.50	1.60	1.00	0.70	0.40	0.40	0.50	0.50	0.50	0.50
400 MHz	T	3.60	1.60	1.10	0.70	0.40	0.40	0.50	0.50	0.50	0.50
·00 MHz	T	3.80	1.80	1.30	1.00	0.60	0.70	0.70	0.70	0.70	0.70
MHz	T	4.00	2.00	1.20	0.90	0.80	0.70	0.70	0.70	0.70	0.70
MHz	T	4.20	2.30	1.50	1.20	0.90	0.80	0.80	0.70	0.80	0.80
MHz	T	4.30	2.50	2.00	1.20	1.00	0.90	0.90	0.80	0.90	0.90
900 MHz	T	4.40	2.60	2.10	1.40	1.10	1.10	1.10	1.00	1.10	1.10
1000 MHz	T	4.50	3.00	2.50	1.50	1.40	1.10	1.20	1.10	1.20	1.40

Ordering Information on Pages H57-H59

Recommended Torque	
Housing Closure Screws	20-30 in. lb.
Center Conductor Seizure	15-20 in. lb.
Port Plugs	10-15 ft. lb.
Connector Pull-Out	100 lb. minimum

Specifications subject to change without notice

inal Performance Specifications

	4.0	8.0	11.0	14.0	17.0	20.0	23.0	26.0	29.0	32.0	35.0
Value (dB)											
z	3.40	7.20	10.34	14.60	16.50	20.60	22.50	25.60	28.50	31.50	34.70
Hz	3.40	7.20	10.70	14.60	16.50	20.60	22.60	25.70	28.50	31.60	34.70
Hz	3.50	7.20	10.78	14.40	16.50	20.60	22.60	25.80	28.70	31.90	35.20
Hz	3.60	7.20	10.70	14.20	16.60	20.60	22.60	25.90	28.90	32.30	35.30
Hz	3.50	7.40	10.68	14.20	16.70	21.80	22.60	26.10	28.90	32.60	35.70
Hz	3.60	7.40	10.74	13.80	16.70	21.00	22.90	26.10	29.10	32.50	35.70
Hz	3.70	7.50	10.72	13.60	16.80	21.10	22.90	26.00	29.10	32.60	35.60
Hz	3.80	7.60	10.76	13.20	16.80	21.20	22.90	25.80	28.90	32.50	35.50
Hz	3.80	7.90	10.80	12.30	16.80	21.10	23.00	25.50	28.60	32.50	35.30
Hz	4.20	8.50	11.24	13.00	17.30	21.40	23.80	25.50	28.60	32.40	35.40
al Insertion Loss (in/out) (dB)											
	T	3.40	1.50	1.00	0.70	0.40	0.40	0.40	0.40	0.40	0.40
	T	3.40	1.40	0.90	0.70	0.40	0.30	0.30	0.30	0.30	0.30
z	T	3.50	1.60	1.00	0.70	0.40	0.40	0.50	0.50	0.50	0.50
z	T	3.60	1.60	1.10	0.70	0.40	0.40	0.50	0.50	0.50	0.50
z	T	3.80	1.80	1.20	1.00	0.60	0.70	0.70	0.70	0.70	0.70
	T	4.00	2.00	1.20	0.90	0.80	0.70	0.70	0.70	0.70	0.70
	T	4.20	2.30	1.50	1.20	0.90	0.80	0.80	0.70	0.80	0.80
z	T	4.20	2.50	2.00	1.20	1.00	0.90	0.90	0.80	0.90	0.90
z	T	4.40	2.60	2.10	1.40	1.10	1.10	1.10	1.00	1.10	1.10
Hz	T	4.50	3.00	2.50	1.50	1.40	1.10	1.20	1.10	1.20	1.40

mended Torque	
g Closure Screws	20-30 in. lb.
Conductor Seizure	15-20 in. lb.
gs	10-15 ft. lb.
or Pull-Out	100 lb. minimum

ons subject to change without notice

Ordering Information on Pages H57-H59