CABLE

TYPE	DC Loop Resistance ohms\1000'	Loss @ MHz per 100' 870	550	52	40	5
412P3	2.57	3.01	2.35	0.66	0.63	0.20
500P3	1.72	2.34	1.82	0.52	0.49	0.16
625P3	1.10	1.93	1.50	0.42	0.41	0.13
700P3	0.84	1.62	1.25	0.35	0.33	0.11
750P3	0.76	1.61	1.24	0.35	0.33	0.11
875P3	0.55	1.42	1.08	0.30	0.92	0.09
1.00P3	0.40	1.34	1.01	0.27	0.25	0.08
RG11	19.4	3.98	3.04	0.96	0.96	0.38
RG6	41.0	6.10	4.90	1.60	1.60	0.58

COUPLERS

Type	Tap Leg Losses (MHz) 870	550	52	40	5	Insertion Losses (MHz) 870	550	52	40	5
2 Way	5.2	4.5	4.2	4.2	4.1	5.2	4.5	4.2	4.2	4.1
3 Way	8.4	8.0	7.6	7.6	7.6	5.1	4.5	3.9	3.9	3.9
DC8	8.5	8.5	8.5	8.5	8.5	3.0	2.4	1.8	1.8	1.8
DC12	12.5	12.5	12.5	12.5	12.5	2.4	1.7	1.4	1.4	1.2
PI	--	--	--	--	--	1.3	1.0	0.8	0.8	0.7

UG CABLE DIMENSIONS

Type	Diameter In	MM
412P3	0.480	12.20
500P3	0.570	14.48
625P3	0.695	17.65
750P3	0.830	21.08
875P3	0.955	24.26
1.00P3	1.090	27.69
540QR	0.610	15.49
715QR	0.785	19.94
860QR	0.960	24.38
565TX10	0.635	16.10
700TX10	0.775	19.70
700TX10 EXTRA THICK	0.843	21.40
840TX10	0.920	23.40
Times 1.16P3	1.260	32.00

TAPS

Type	Tap Losses 870-5 MHz	Insertion Losses (MHz) 870	550	52	40	5
2 port 23	22.5	1.7	1.3	0.8	0.8	0.9
2 port 20	19.5	1.7	1.3	0.8	0.8	0.9
2 port 17	17.0	1.8	1.6	0.8	0.8	1.0
2 port 14	13.5	2.1	1.8	1.0	1.0	1.3
2 port 11	11.5	3.2	2.6	1.5	1.5	2.0
2 port 8	8.0	4.6	4.0	3.3	3.3	3.4
2 port 4	4.5	Self-Terminating				
4 port 23	22.5	1.7	1.3	0.8	0.8	0.9
4 port 20	20.0	1.8	1.6	0.8	0.8	1.0
4 port 17	17.0	2.1	1.8	1.0	1.0	1.3
4 port 14	15.0	3.2	2.6	1.5	1.5	2.0
4 port 11	12.0	4.6	4.0	3.3	3.3	3.4
4 port 8	8.5	Self-Terminating				
8 port 23	23.0	1.8	1.6	0.8	0.8	1.0
8 port 20	20.5	2.1	1.8	1.0	1.0	1.3
8 port 17	18.5	3.2	2.6	1.5	1.5	2.0
8 port 14	16.0	4.6	4.0	3.3	3.3	3.4
8 port 11	12.0	Self-Terminating				

Frequencies (MHz)
Forward 870\550\52 (high\mid\low)
Reverse 40\5 (high\low)

Minimum Tap Levels
19\15\10 (870\550\52)

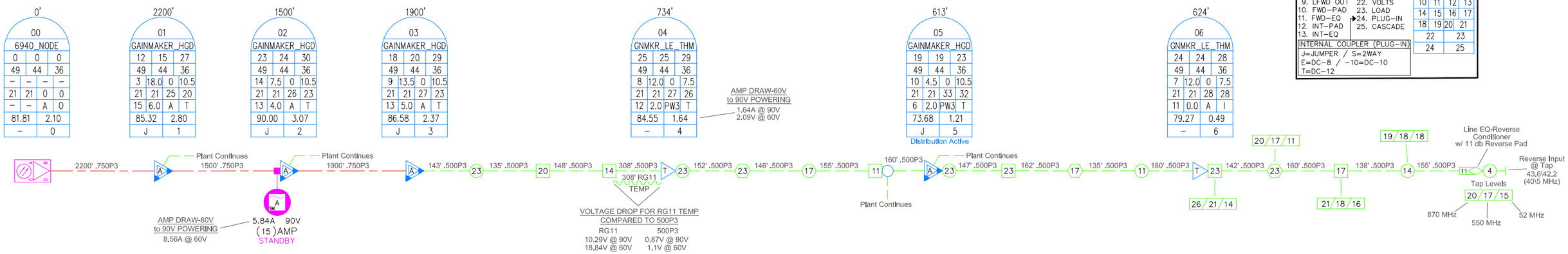
6940 Node
Output 48.5\36.0 (870\52)

Gainmaker High Gain Dual AGC
Gain Forward 40 db @ 870 MHz
Gain Reverse 19 db @ 40 MHz
Minimum Input 8.5\8.5 (870\52)
Output 48.5\43.5\36.0 (870\550\52)
Reverse Output Max 40\40 (40\5)
CTB 64 XMOD 63 CSO 68

Gainmaker High Gain Dual Dist AGC
Gain Forward 36 db @ 870 MHz
Gain Reverse 19 db @ 40 MHz
Minimum Input 12.5\12.5 (870\52)
Output 48.5\43.5\36.0 (870\550\52)
Reverse Output Max 40\40 (40\5)
CTB 64 XMOD 61 CSO 67

Gainmaker Line Extender Thermal
Gain Forward 32 db @ 870 MHz
Gain Reverse 19.5 db @ 40 MHz
Minimum Input 16.5\11.0 (870\52)
Output 48.5\43.5\36.0 (870\550\52)
Reverse Output Max 40\40 (40\5)
CTB 66 XMOD 65 CSO 64

TYPICAL 6 ACTIVE ARCHITECTURE



NODE/AMP/LE DATA

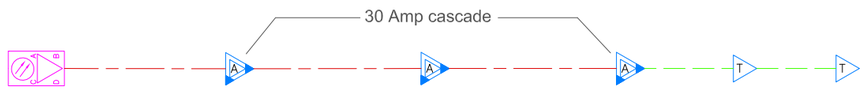
1. FOOTAGE
2. AMP-ID
3. MODEL#
4. HFWD IN
5. MFWD IN
6. LFWD IN
7. HFWD OUT
8. MFWD OUT
9. LFWD OUT
10. FWD-PAD
11. FWD-EQ
12. INT-PAD
13. INT-EQ
14. HREV IN
15. LREV IN
16. HREV OUT
17. LREV OUT
18. REV-PAD
19. REV-EQ
20. PS-ID
21. PS-MODE
22. VOLTS
23. LOAD
24. PLUG-IN
25. CASCADE

INTERNAL COUPLER (PLUG-IN)
J=JUMPER / S=2WAY
E=DC-8 / -10=DC-10
T=DC-12

		1	
		2	
		3	
4	5	6	
7	8	9	
10	11	12	13
14	15	16	17
18	19	20	21
	22	23	
	24	25	

TYPICAL 30 ACTIVE ARCHITECTURE

For Distortion Comparison



EOL Distortion Levels

32 Active Cascade	6 Active Cascade
CTN 42.583	CTN 51.092
CTB 33.738	CTB 47.624
CSO 51.586	CSO 57.562
XMOD 30.881	XMOD 45.355

SIZE / CABLE DESCRIPTION / EXPRESS FEEDER

SIZE	CABLE DESCRIPTION	EXPRESS FEEDER
FIBER		EXPRESS
1.0"		EXPRESS
.875"		EXPRESS
.860"		EXPRESS
.840"		EXPRESS
.750"		EXPRESS
.715"		EXPRESS
.700"		EXPRESS
.650"		FEEDER
.625"		FEEDER
.565"		FEEDER
.540"		FEEDER
.500"		FEEDER
.412"		FEEDER
RG-?	RG	FEEDER

DESIGN SYMBOLS

HOT TAP "H"
E.O.L. LEVELS HI LO H/M/L
INTERNAL DC THRU LEG
TERM
SELF TERM
TRACER CABLE (B)
S FIBER SPLICE
REEL#/COUNT
POWER BLOCK
FTG FIBER BK-LASH
STATUS MONITOR S/M
POWER SUPPLY ID INSERTER
2 PORT TAP
4 PORT TAP
8 PORT TAP
2 WAY SPLIT
3 WAY SPLIT
D.C.
S SPLICE
W/PAD # INLINE EQ'S
REVERSE ## CONDITIONER
FIBER NODES HIGH MAIN LOW 4 EQUAL OUTPUTS
(HGD) (MINI-B/FNB) HIGH LOSS A MAIN LOW LOSS
(LGD) HIGH LOSS A MAIN LOW LOSS
BT3 A 3 EQUAL OUTPUTS
BTD A 4 EQUAL OUTPUTS
TRUNK AMP A MAIN
LINE EXTENDERS * A T M
WALK OUT

NODE/AMP/LE DATA

1. FOOTAGE
2. AMP-ID
3. MODEL#
4. HFWD IN
5. MFWD IN
6. LFWD IN
7. HFWD OUT
8. MFWD OUT
9. LFWD OUT
10. FWD-PAD
11. FWD-EQ
12. INT-PAD
13. INT-EQ
14. HREV IN
15. LREV IN
16. HREV OUT
17. LREV OUT
18. REV-PAD
19. REV-EQ
20. PS-ID
21. PS-MODE
22. VOLTS
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25. CASCADE

INTERNAL COUPLER (PLUG-IN)
J=JUMPER / S=2WAY
E=DC-8 / -10=DC-10
T=DC-12

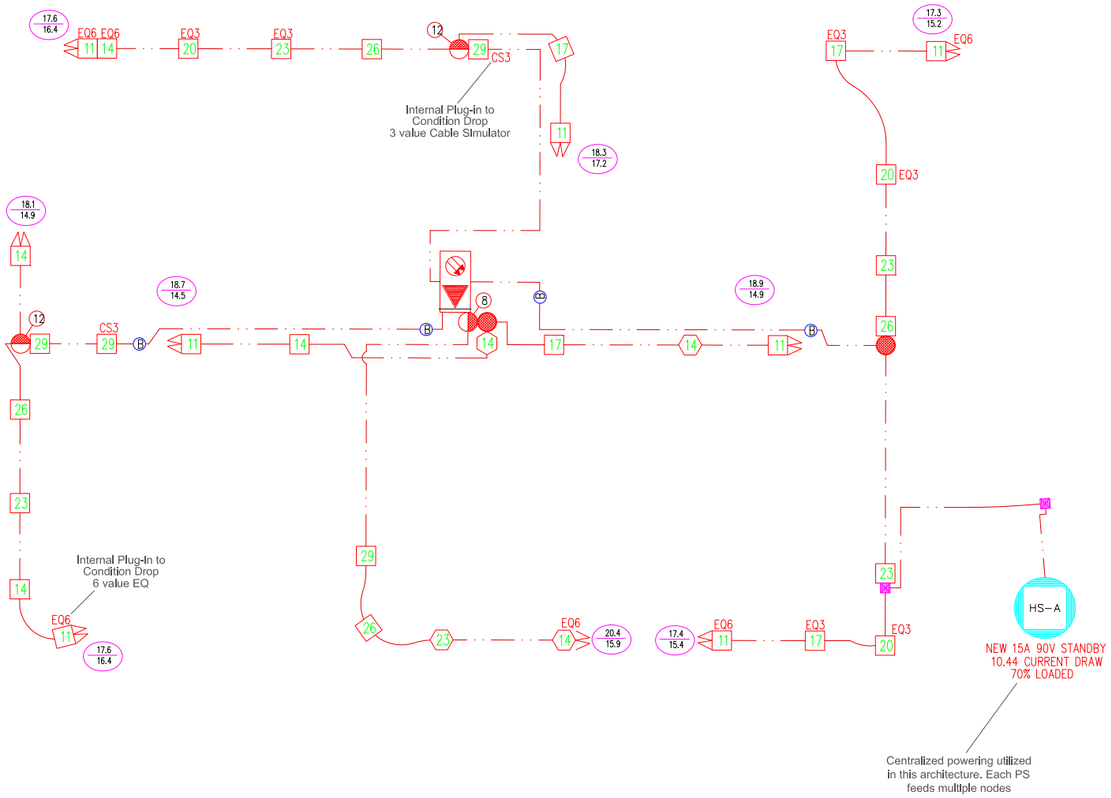
		1	
		2	
		3	
4	5	6	
7	8	9	
10	11	12	13
14	15	16	17
18	19	20	21
	22	23	
	24	25	

CABLE 101

COURTESY OF SPECTRUM PLANNING, INC.

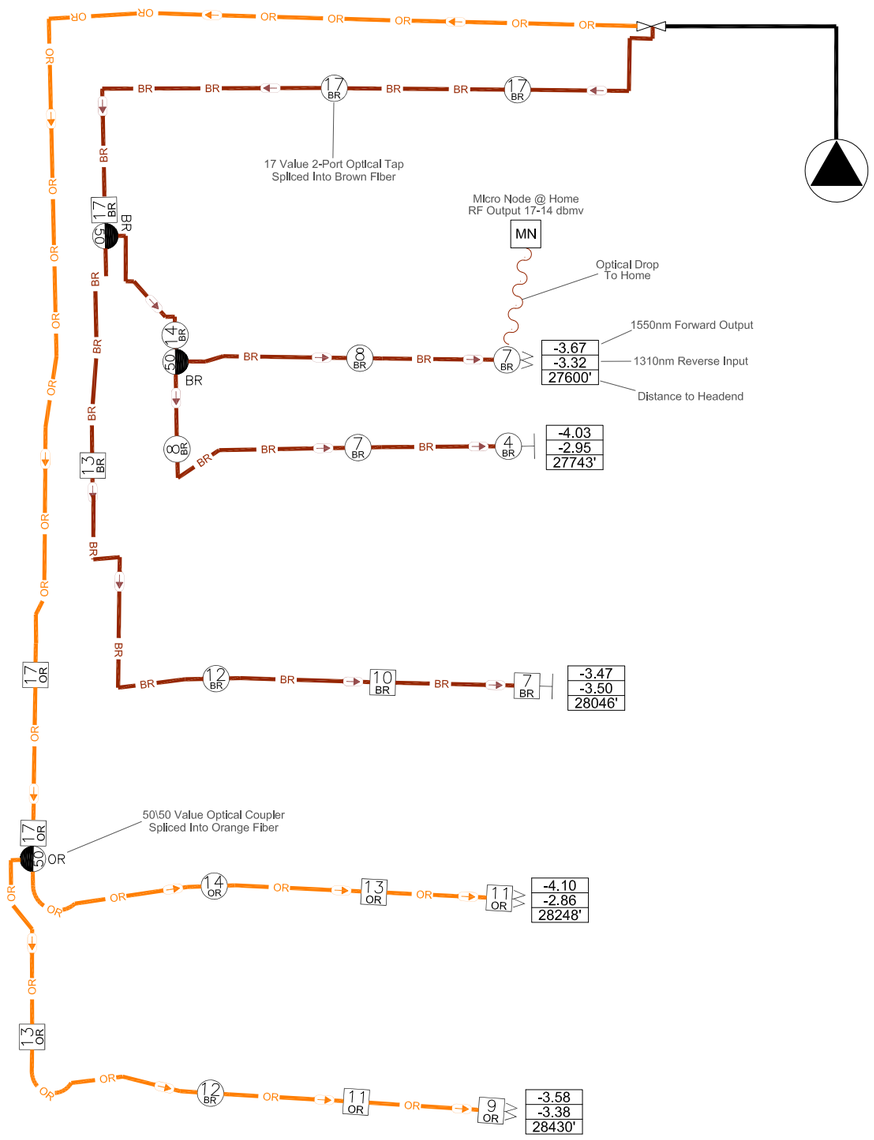
ALTERNATIVE ARCHITECTURES

PASSIVE\OPTICAL ARCHITECTURE



RFoG ARCHITECTURE

Direct Feed



SIZE	CABLE DESCRIPTION	EXPRESS FEEDER
FIBER		
1.0"		EXPRESS
.875"		EXPRESS
.860"		EXPRESS
.840"		EXPRESS
.750"		EXPRESS
.715"		EXPRESS
.700"		EXPRESS
.650"		FEEDER
.625"		FEEDER
.565"		FEEDER
.540"		FEEDER
.500"		FEEDER
.412"		FEEDER
RG-?	RG	FEEDER

DESIGN SYMBOLS

HOT TAP "H"; E.O.L. LEVELS: HI LO, H / M / L; INTERNAL DC THRU LEG; TERM; SELF TERM; TRACER CABLE (B); S FIBER SPLICE; REEL#/COUNT; POWER BLOCK; FTG FIBER BK-LASH; STATUS MONITOR S/M; POWER SUPPLY ID INSERTER; 2 PORT TAP; 4 PORT TAP; 8 PORT TAP; 2 WAY SPLIT; 3 WAY SPLIT; D.C.; S SPLICE; W/PAD # INLINE EQ'S; REVERSE ## CONDITIONER

FIBER NODES: HIGH, MAIN, LOW; 4 EQUAL OUTPUTS

(HGD) (MINI-B/FNB): HIGH LOSS, MAIN, LOW LOSS

(LGD): HIGH LOSS, MAIN, LOW LOSS

BT3: A, 3 EQUAL OUTPUTS

BTD: A, 4 EQUAL OUTPUTS

TRUNK AMP: A, MAIN

LINE EXTENDERS: *=(A, T, M); WALK OUT

NODE/AMP/LE DATA

1. FOOTAGE
2. AMP-ID
3. MODEL#
4. HFWD IN
5. MFWD IN
6. LFWD IN
7. HFWD OUT
8. MFWD OUT
9. LFWD OUT
10. FWD-PAD
11. FWD-EQ
12. INT-PAD
13. INT-EQ
14. HREV IN
15. LREV IN
16. HREV OUT
17. LREV OUT
18. REV-PAD
19. REV-EQ
20. PS-ID
21. PS-MODE
22. VOLTS
23. LOAD
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INTERNAL COUPLER (PLUG-IN)

J=JUMPER / S=2WAY
E=DC-8 / -10=DC-10
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		1	
		2	
		3	
4	5	6	
7	8	9	
10	11	12	13
14	15	16	17
18	19	20	21
22		23	
24		25	

CABLE 101

COURTESY OF SPECTRUM PLANNING, INC.