Attemplifier module tests				MRD		2008jan30				
HP 8350B CW source programmed to 630 Mhz @ 2.6dB --->										
		DB pad --> 6 dB pad --> long coax ---> -10.2 dBm into E4407B Spectrum Analyzer								
Switch bit = 0: the notch filter is NOT in the signal path										
Input power level		-10.2		'dBm						
Programmed		Binary		Output power in dBm						Primary
Attenuation		B1..B6		630 Mhz		1260 Mhz		1890 Mhz		Gain in 'dB
31.5		111111		-33		-82.4		-96		-22.8
31.0		111110		-31.4		-82		-96		-21.2
30.5		111101		-30.9		-81.2		-96		-20.7
30.0		111100		-30.4		-80.4		-94.4		-20.2
29.5		111011		-30		-80.2		-93.9		-19.8
29.0		111010		-29.4		-79.8		-93.9		-19.2
28.5		111001		-28.9		-79.1		-93.9		-18.7
28.0		111000		-28.3		-78.9		-93.5		-18.1
27.5		110111		-28.3		-78.5		-93		-18.1
27.0		110110		-27.8		-78.2		-92.5		-17.6
26.5		110101		-27.2		-77.5		-92		-17
26.0		110100		-26.7		-77.2		-91.9		-16.5
25.5		110011		-26.3		-76.8		-91.7		-16.1
25.0		110010		-25.7		-76.4		-90.7		-15.5
24.5		110001		.25.2		-75.9		-90.4		10.2
24.0		110000		-24.7		-75.5		-90		-14.5
23.5		101111		-24.3		-75.2		-89.5		-14.1
23.0		101110		-23.7		-74.6		-89.2		-13.5
22.5		101101		-23.3		-74.1		-88.3		-13.1
22.0		101100		-22.8		-73.9		-88		-12.6
21.5		101011		-22.6		-73.3		-87.8		-12.4
21.0		101010		-21.9		-73		-86.8		-11.7
20.5		101001		-21.4		-72.4		-86		-11.2
20.0		101000		-20.8		-72		-86		-10.6
19.5		100111		-20.5		-71.7		-86		-10.3
19.0		100110		-20		-71.4		-85.7		-9.8
18.5		100101		-19.6		-71		-86		-9.4
18.0		100100		-19		-70.7		-85.4		-8.8
17.5		100011		-18.7		-70.3		-86		-8.5
17.0		100010		-18.1		-70		-84.5		-7.9
16.5		100001		-17.6		-69.8		-83.5		-7.4
16.0		100000		-17.1		-69.4		-82.3		-6.9

Input power level	-10.2	'dBm			
Programmed	Binary	Output power in dBm			Primary
Attenuation	B1..B6	630 Mhz	1260 Mhz	1890 Mhz	Gain in 'dB
15.5	011111	-16.7	-69.6	-81.5	-6.5
15.0	011110	-16.1	-69.2	-80.9	-5.9
14.5	011101	-15.6	-68.8	-80.7	-5.4
14.0	011100	-15.1	-68.5	-80.2	-4.9
13.5	011011	-14.9	-68.1	-80.1	-4.7
13.0	011010	-14.2	-67.8	-79.3	-4
12.5	011001	-13.9	-67.5	-78.7	-3.7
12.0	011000	-13.2	-67.2	-77.8	-3
11.5	010111	-12.8	-67	-77.5	-2.6
11.0	010110	-12.2	-66.5	-77.3	-2
10.5	010101	-11.8	-66	-76.8	-1.6
10.0	010100	-11.3	-65.5	-76.3	-1.1
9.5	010011	-10.8	-64.9	-75.9	-0.6
9.0	010010	-10.3	-64	-75	-0.1
8.5	010001	-9.6	-63.3	-75	0.6
8.0	010000	-9.1	-62.4	-73.8	1.1
7.5	001111	-8.7	-61.9	-73	1.5
7.0	001110	-8.1	-60.8	-72.4	2.1
6.5	001101	-7.7	-59.7	-72.4	2.5
6.0	001100	-7.1	-58.5	-71.7	3.1
5.5	001011	-6.9	-57.8	-71.9	3.3
5.0	001010	-6.4	-56.5	-69.7	3.8
4.5	001001	-5.8	-55.2	-69.5	4.4
4.0	001000	-5.2	-53.8	-68.7	5
3.5	000111	-4.8	-52.9	-68	5.4
3.0	000110	-4.2	-51.5	-67.4	6
2.5	000101	-3.9	-50.3	-66.5	6.3
2.0	000100	-3.3	-48.9	-65.8	6.9
1.5	000011	-3	-48.1	-65.3	7.2
1.0	000010	-2.4	-46.8	-64.1	7.8
0.5	000001	-2	-45.6	-63.6	8.2
0.0	000000	-1.5	-44.2	-61.7	8.7

Attemplifier module tests		MRD		2008jan30				
HP 8350B CW source programmed to 630 Mhz @ 2.6dB --->								
	DB pad --> 6 dB pad --> long coax ---> -10.2 dBm into E4407B Spectrum Analyzer							
Programmed	Binary							
Attenuation	B1..B6							
21.0	101010							
Input power level	-10.2	'dBm		Note this may vary vs frequency because				
				The CW source was NOT checked at each				
				Output frequency setting.				
Only 530 – 730 Mhz is active when input is supplied by Jack's 200 Mhz wide BPF centered at 630 Mhz								
Frequency	Output power level in 'dBm			Loss in 'dB		Net		Net
In 'Mhz	Switch =0		Switch = 1	Due to		Gain in 'dB		Gain in 'dB
	No notch filter		Notch filter	Notch filter		No notch filter		Notch filter
50	-35		-35.4	0.4		-24.8		-25.2
100	-28		-28.2	0.2		-17.8		-18
150	-25		-25.4	0.4		-14.8		-15.2
200	-23.7		-23.9	0.2		-13.5		-13.7
250	-23		-23.4	0.4		-12.8		-13.2
300	-22.3		-22.7	0.4		-12.1		-12.5
350	-22.2		-22.4	0.2		-12		-12.2
400	-21.8		-22.1	0.3		-11.6		-11.9
450	-21.6		-21.8	0.2		-11.4		-11.6
500	-21.4		-21.7	0.3		-11.2		-11.5
540	-21.4		-22	0.6		-11.2		-11.8
550	-21.7		-21.9	0.2		-11.5		-11.7
570	-21.6		-22.2	0.6		-11.4		-12
600	-21.6		-22.8	1.2		-11.4		-12.6
630	-21.7		-39.7	18		-11.5		-29.5
650	-21.8		-23.6	1.8		-11.6		-13.4
660	-21.8		-22.6	0.8		-11.6		-12.4
690	-22		-22.2	0.2		-11.8		-12
700	-22		-22.2	0.2		-11.8		-12
720	-22		-22.3	0.3		-11.8		-12.1
750	-22.1		-22.4	0.3		-11.9		-12.2
800	-22.2		-22.4	0.2		-12		-12.2
850	-22.5		-22.7	0.2		-12.3		-12.5
900	-22.4		-22.7	0.3		-12.2		-12.5
950	-22.6		-22.8	0.2		-12.4		-12.6

Only 530 – 730 Mhz is active when input is supplied by Jack's 200 Mhz wide BPF centered at 630 Mhz

Frequency	Output power level in 'dBm		Loss in 'dB	Net	Net
In 'Mhz	Switch =0	Switch = 1	Due to	Gain in 'dB	Gain in 'dB
	No notch filter	Notch filter	Notch filter	No notch filter	Notch filter
1000	-22.7	-23.2	0.5	-12.5	-13
1050	-22.8	-23.2	0.4	-12.6	-13
1100	-23	-23.4	0.4	-12.8	-13.2
1150	-23	-23.4	0.4	-12.8	-13.2
1200	-23.2	-23.6	0.4	-13	-13.4
1250	-23.3	-23.6	0.3	-13.1	-13.4
1300	-23.6	-23.9	0.3	-13.4	-13.7
1350	-23.8	-23.9	0.1	-13.6	-13.7
1400	-23.6	-24	0.4	-13.4	-13.8
1450	-23.8	-24.2	0.4	-13.6	-14
1500	-24	-24.5	0.5	-13.8	-14.3
1550	-24.1	-24.6	0.5	-13.9	-14.4
1600	-24.3	-24.8	0.5	-14.1	-14.6
1650	-24.7	-25	0.3	-14.5	-14.8
1700	-24.9	-25.2	0.3	-14.7	-15
1750	-25.2	-25.6	0.4	-15	-15.4
1800	-25.4	-25.8	0.4	-15.2	-15.6
1850	-25.5	-26	0.5	-15.3	-15.8
1900	-25.8	-26.3	0.5	-15.6	-16.1
1950	-26	-26.7	0.7	-15.8	-16.5
2000	-26	-28	2	-15.8	-17.8
2050	-26	-27.9	1.9	-15.8	-17.7
2100	-26	-26.4	0.4	-15.8	-16.2