



**TYPICAL CHARACTERISTICS
ON
6SFB-100M18G-1MP-MAH**

PMI MODEL NUMBER 6SFB-100M18G-1MP-MAH IS A RECEIVE SWITCHED FILTER BANK COVERING THE FREQUENCY RANGE OF 100 MHz TO 18 GHz. THIS UNIT INCORPORATES A 2-WAY ABSORPTIVE SWITCH TO SELECT AN INPUT ALONG WITH TWO 6-WAY SWITCHES ALLOWING ONE OF SIX FILTER PATHS TO BE CHOSEN. THE SPECIFICATIONS ARE LISTED BELOW.



July 21, 2014

Designed By:
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Drafted By:
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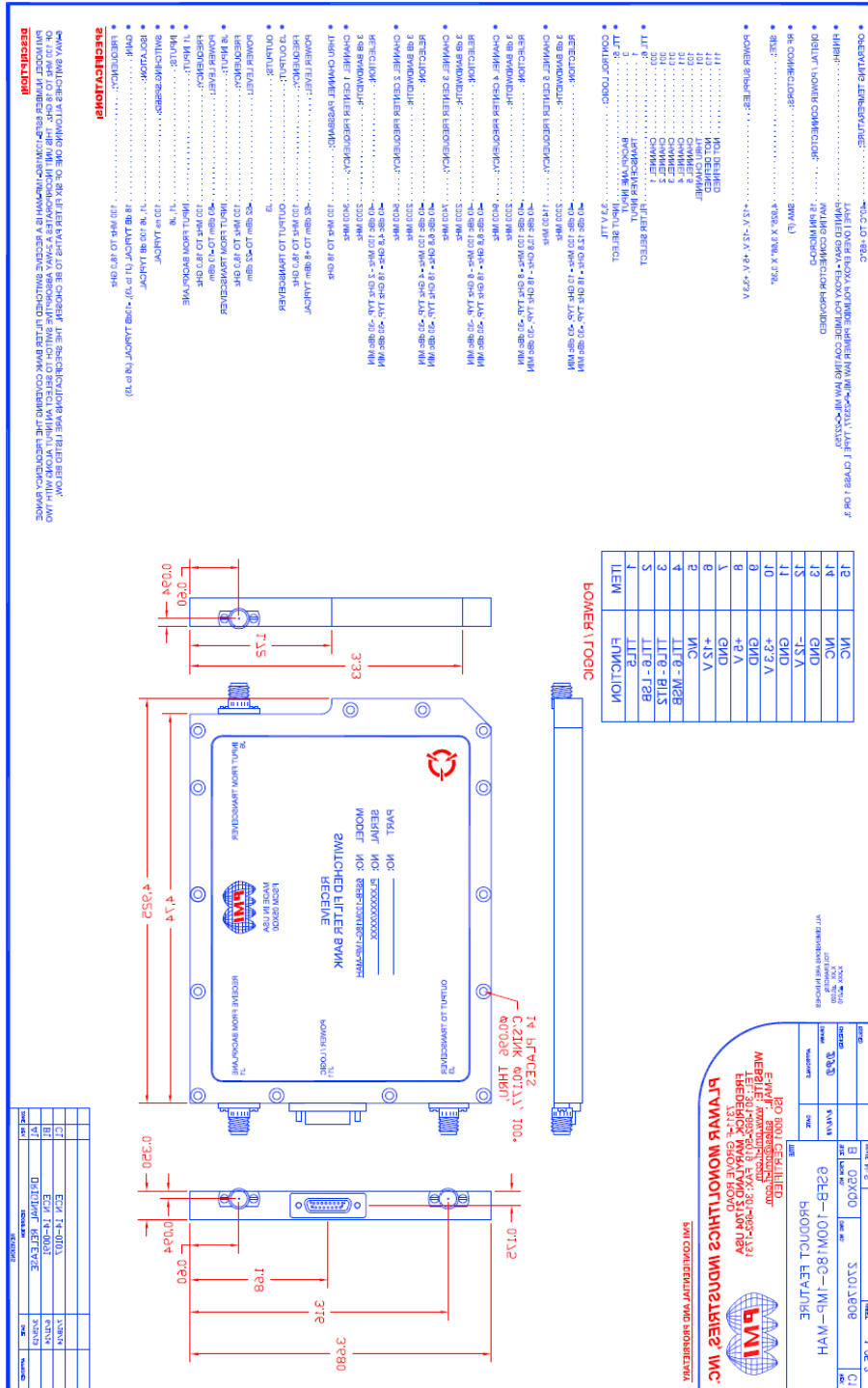
Assembled By:
Rose Routhier

Tested By:
Randy Combs



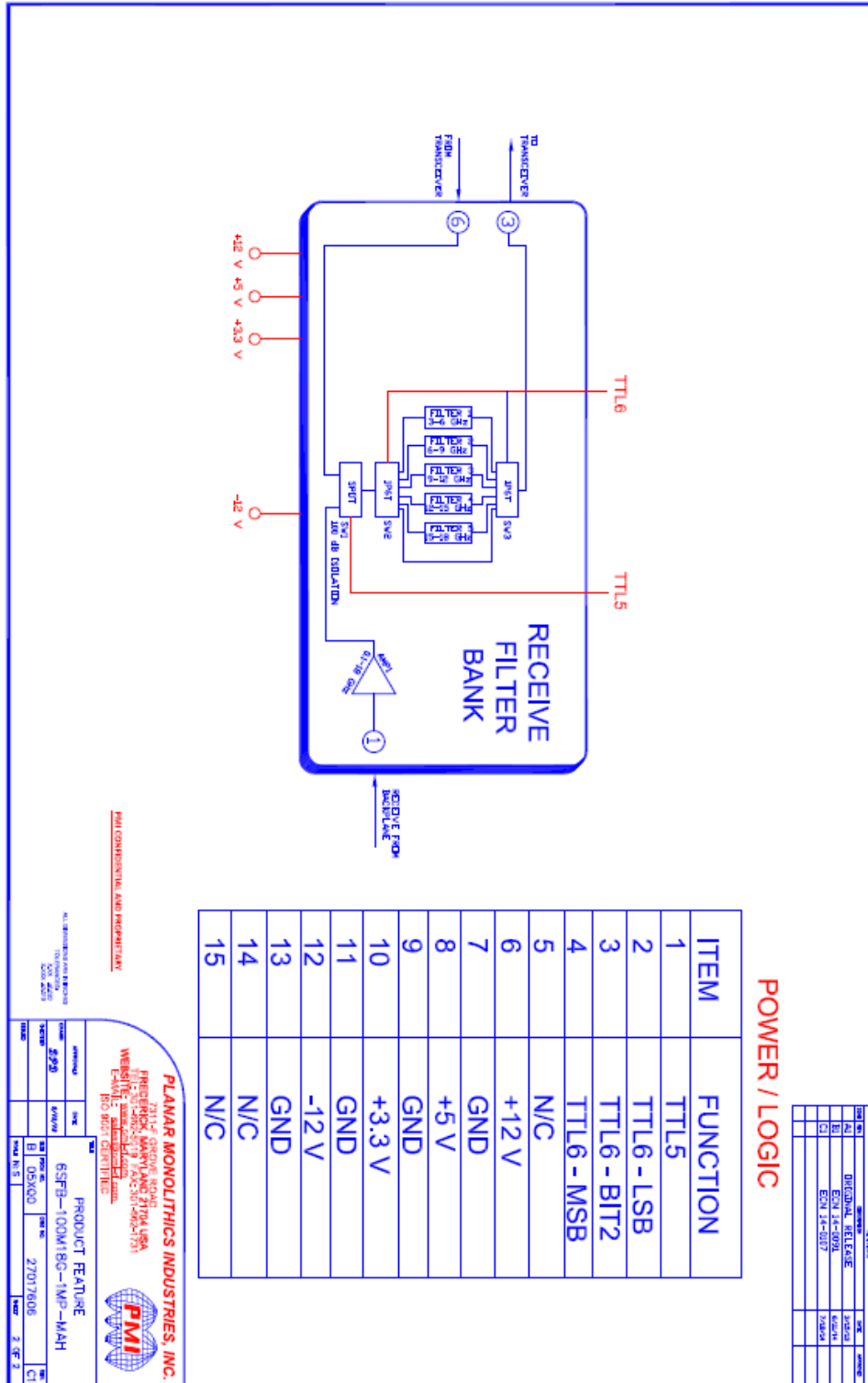
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OUTLINE DRAWING





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POWER / LOGIC

ITEM	FUNCTION
1	TTL5
2	TTL6 - LSB
3	TTL6 - BIT2
4	TTL6 - MSB
5	N/C
6	+12 V
7	GND
8	+5 V
9	GND
10	+3.3 V
11	GND
12	-12 V
13	GND
14	N/C
15	N/C

ALL DIMENSIONS ARE IN MILLIMETERS
TOLERANCES UNLESS OTHERWISE SPECIFIED
DIMENSIONS IN PARENTHESES ARE PROPORTIONAL

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ISO 9001 CERTIFIED

PRODUCT FEATURE
6SFB-100M18G-1MP-MAH

REV	DATE	DESCRIPTION
1	06/04/00	INITIAL RELEASE
2	08/24/00	REVISION
3	01/23/01	REVISION

Part No. 6SFB-100M18G-1MP-MAH Rev. 3.0



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TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency	100 MHz–18.0 GHz	100 MHz-18.0 GHz	
2	Gain	(J1-J3) 18 dB Typ. (J6-J3) -10 dB Typ.	13.7 to 21.6 dB	
3	Isolation J1, J6	100 dB Typ.	100 dB Typ.	
4	Switching Speed	100 ns Typ.	100 ns	
5	J1 Input Frequency (Input from Backplane)	100 MHz-18.0 GHz	100 MHz-18.0 GHz	
6	J1 Input Power Level	-80 dBm to -10dBm	-80 to -10dBm	
7	J6 Input Frequency (Input from Transceiver)	100 MHz-18.0 GHz	100 MHz-18.0 GHz	
8	J6 Input Power Level	-52 dBm to -22dBm	-52 to -22dBm	
9	J3 Output Frequency (LO2 from Backplane)	100 MHz-18.0 GHz	100 MHz-18.0 GHz	
10	J3 Output Power Level	-62 dBm to +7 dBm Typ.	-63 to +7dBm Typ	
11	Thru Channel Passband Frequency	100 MHz-18 GHz	100 MHz – 18 GHz	
12	Channel 1 Center Frequency	3400 MHz	3400 MHz	
13	Channel 1 (3 dB Bandwidth)	2000 MHz	2000 MHz	
14	Channel 1 Rejection	-40 dBc Typ, -30 dBc Min 100 MHz-2 GHz, 4.8 GHz–18 GHz	>40 dBc Typ. 32 dBc Min	
15	Channel 2 Center Frequency	5400 MHz	5400 MHz	



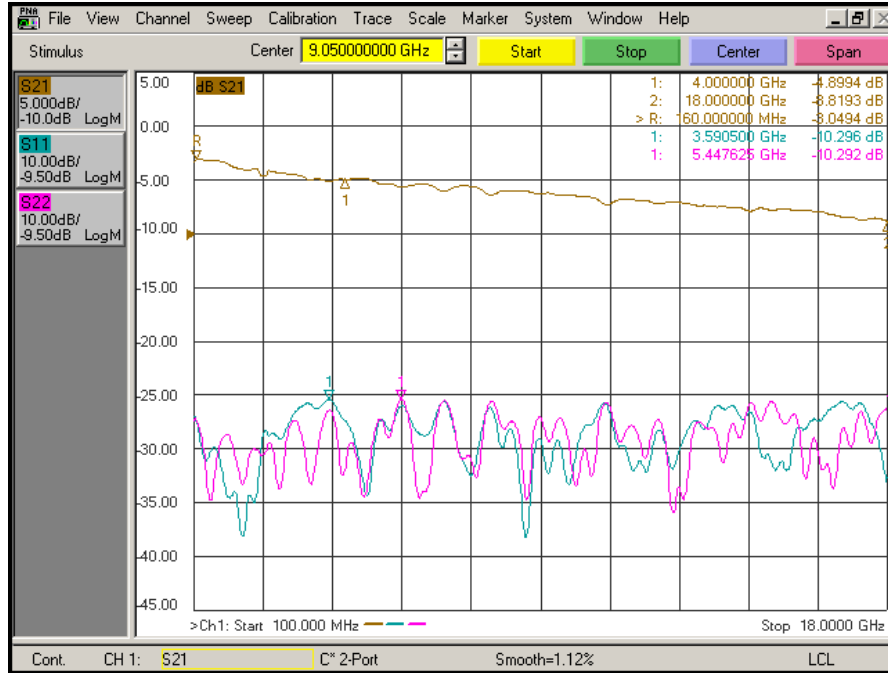
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TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
16	Channel 2 (3 dB Bandwidth)	2000 MHz	2000 MHz	
17	Channel 2 Rejection	-40 dBc Typ, -30 dBc Min 100 MHz-4 GHz, 6.8 GHz-18 GHz	>40 dBc Typ. 37 dBc Min	
18	Channel 3 Center Frequency	7400 MHz	7400 MHz	
19	Channel 3 dB Bandwidth	2000 MHz	2000 MHz	
20	Channel 3 Rejection	-40 dBc Typ, -30 dBc Min 100 MHz-6 GHz, 8.8 GHz-18 GHz	>40 dBc Typ. 46 dBc Min	
21	Channel 4 Center Frequency	9400 MHz	9400 MHz	
22	Channel 4 (3 dB Bandwidth)	2000 MHz	2000 MHz	
23	Channel 4 Rejection	-40 dBc Typ, -30 dBc Min 100 MHz-8 GHz, 10.8 GHz-18 GHz	>40 dBc Typ. 42 dBc Min	
24	Channel 5 Center Frequency	11400 MHz	11400 MHz	
25	Channel 5 (3 dB Bandwidth)	2000 MHz	2000 MHz	
26	Channel 5 Rejection	-40 dBc Typ, -30 dBc Min 100 MHz-10 GHz, 12.8 GHz-18 GHz	>40 dBc Typ. 41 dBc Min	
27	Control Logic	3.3 V TTL	3.3 V TTL	
28	Power Supply	+12 V, -12 V, +5 V, +3.3V	190mA@ +5V 164mA@ +12V 112mA@ -12V 0mA@ +3.3V	

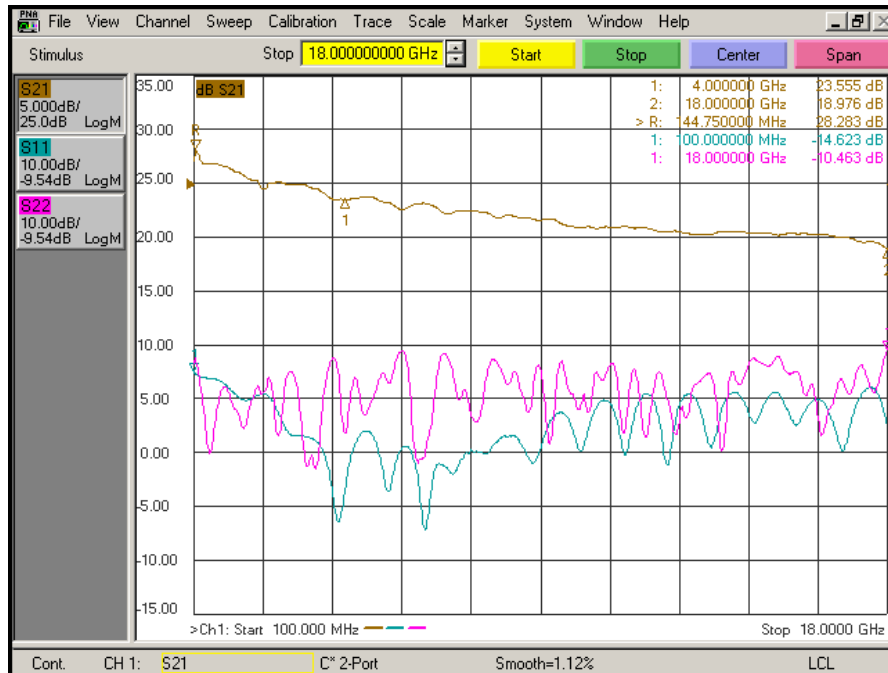


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Thru Channel (Low Gain Path)



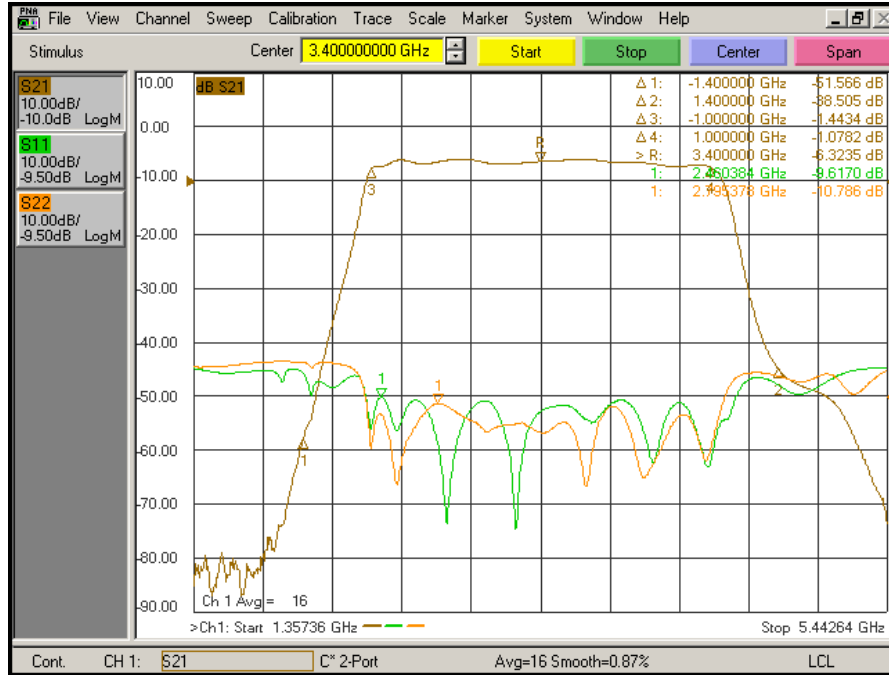
Thru Channel (High Gain Path)



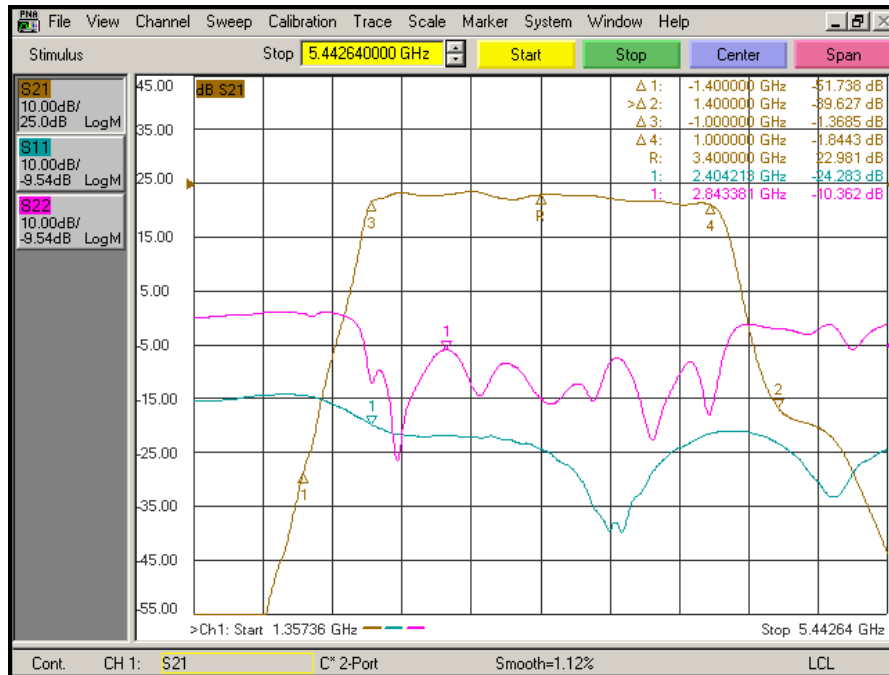


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Channel 1 Narrowband (Low Gain Path)



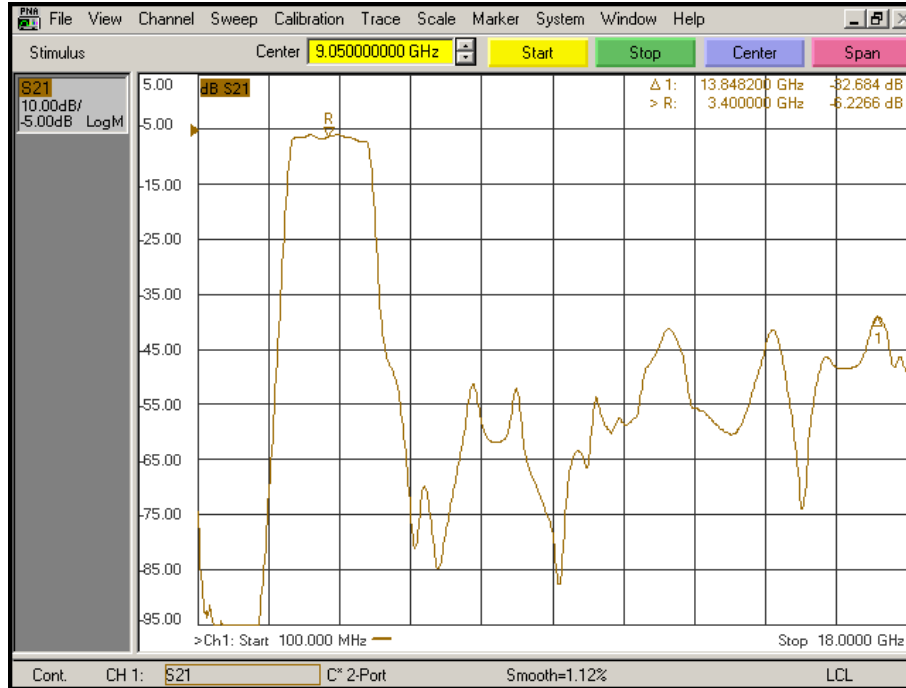
Channel 1 Narrowband (High Gain Path)



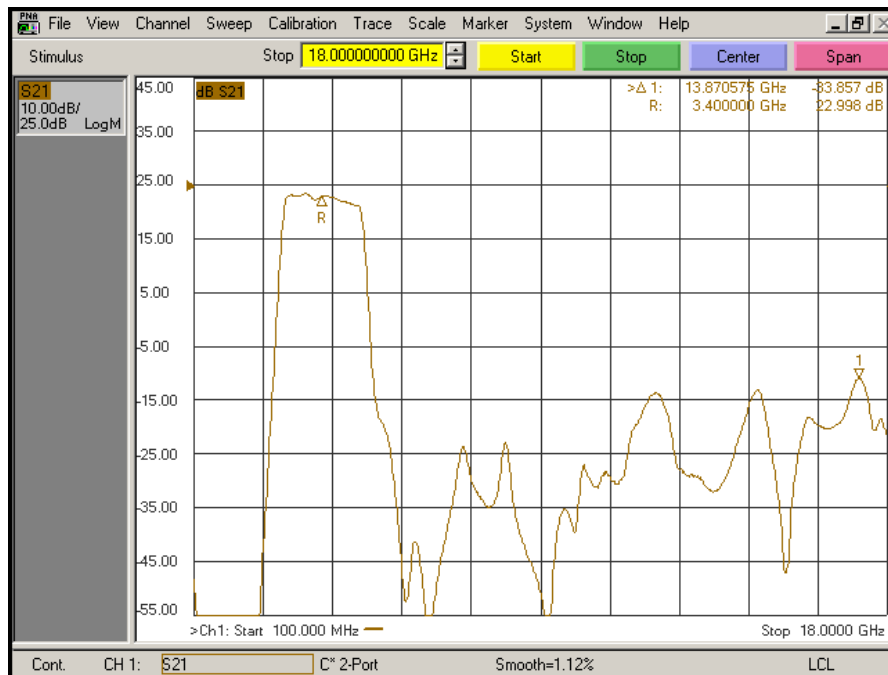


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Channel 1 Wideband (Low Gain Path)



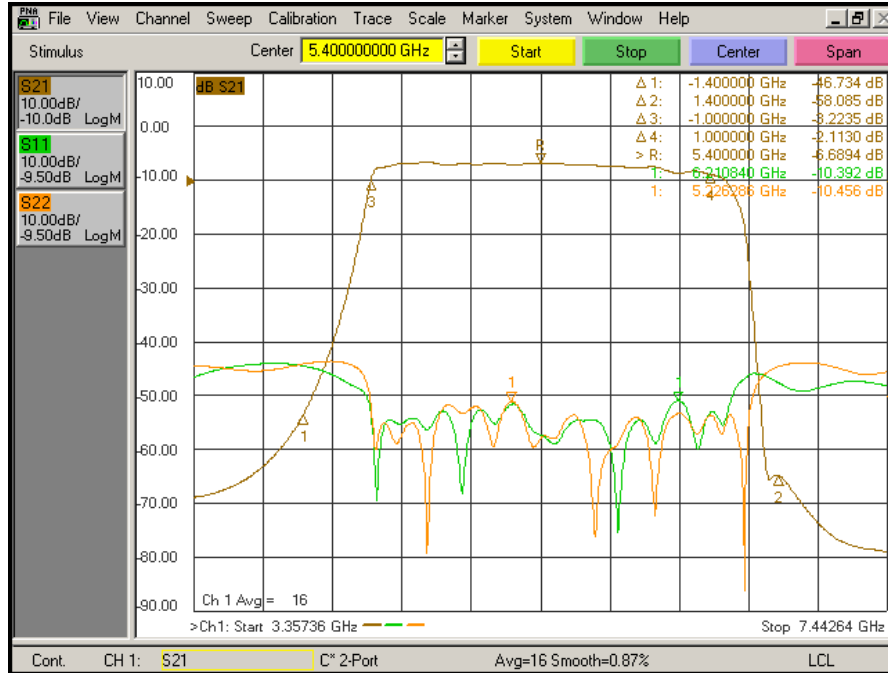
Channel 1 Wideband (High Gain Path)



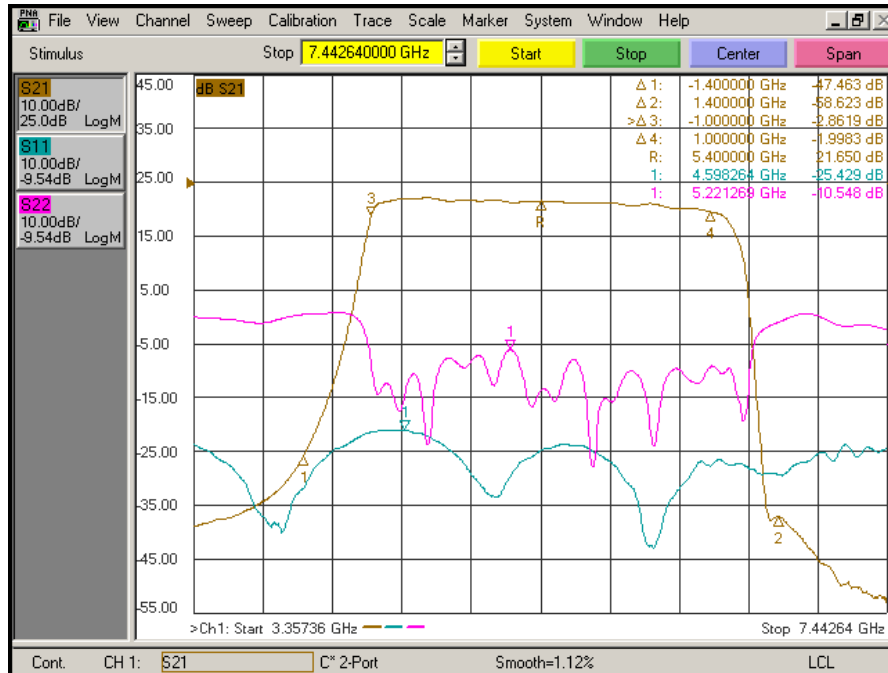


TYPICAL CHARACTERISTICS ON 6SFB-100M18G-1MP-MAH

Channel 2 Narrowband (Low Gain Path)



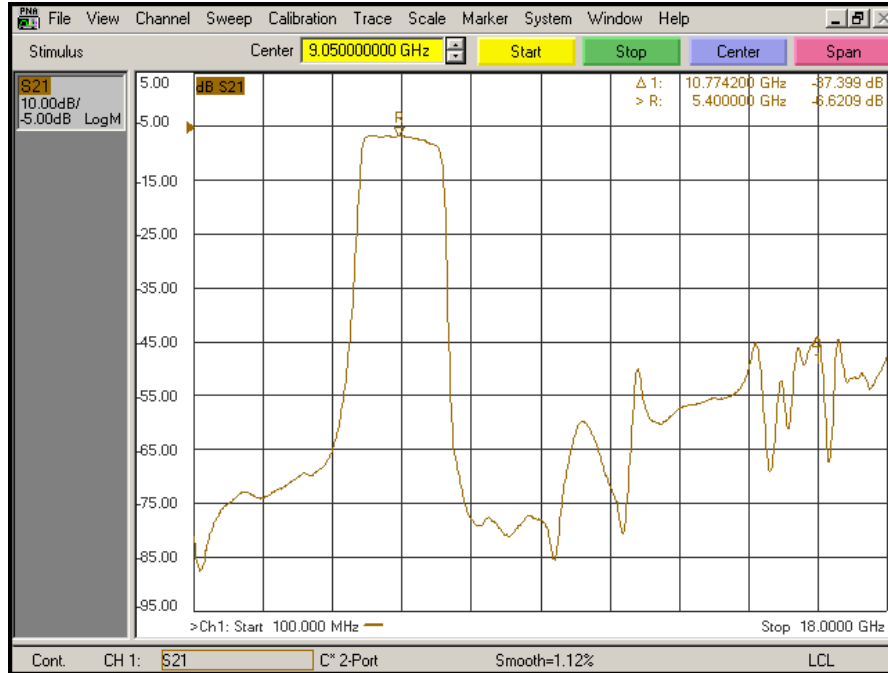
Channel 2 Narrowband (High Gain Path)



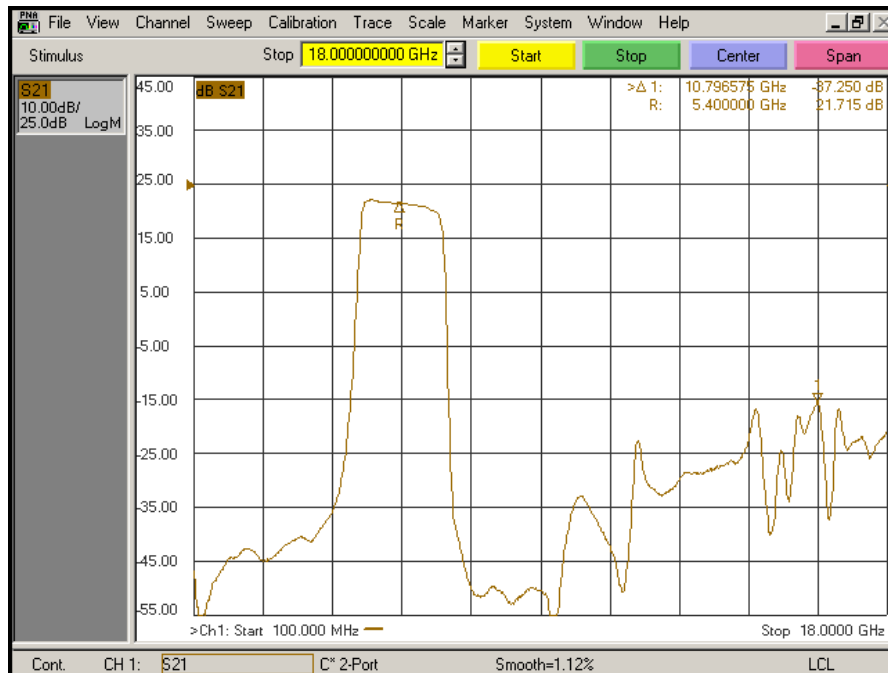


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Channel 2 Wideband (Low Gain Path)



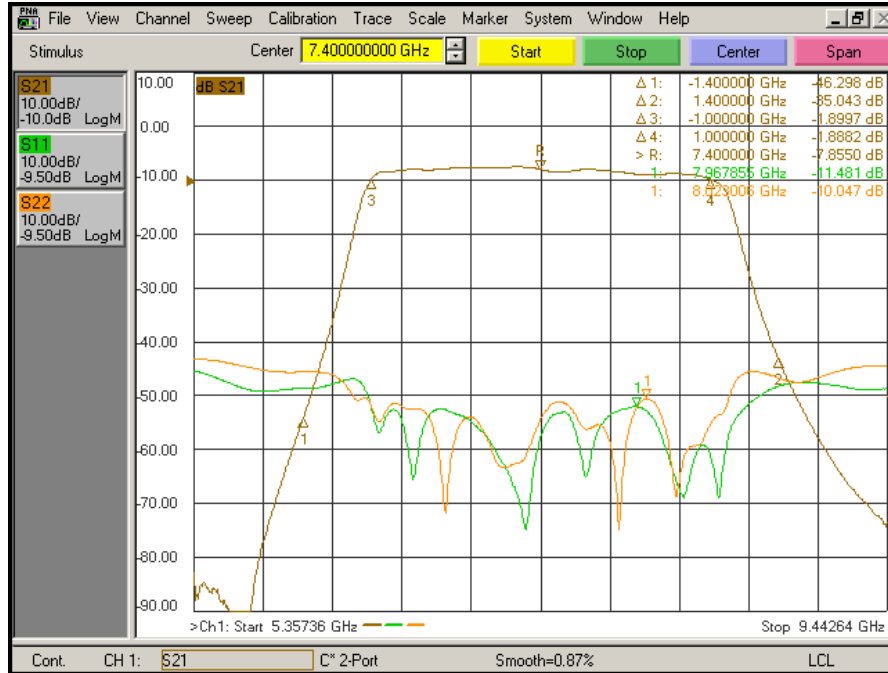
Channel 2 Wideband (High Gain Path)



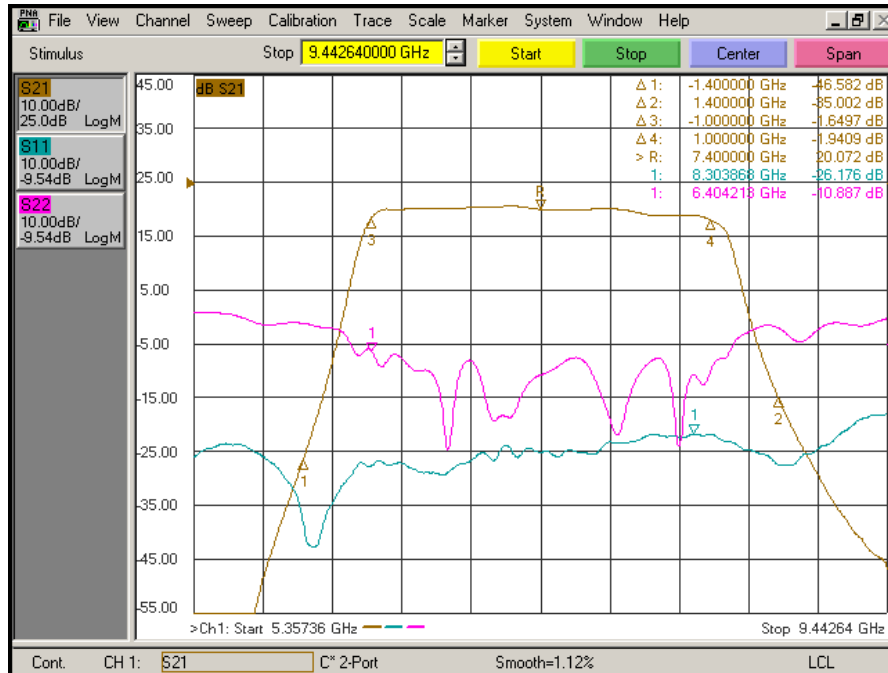


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Channel 3 Narrowband (Low Gain Path)



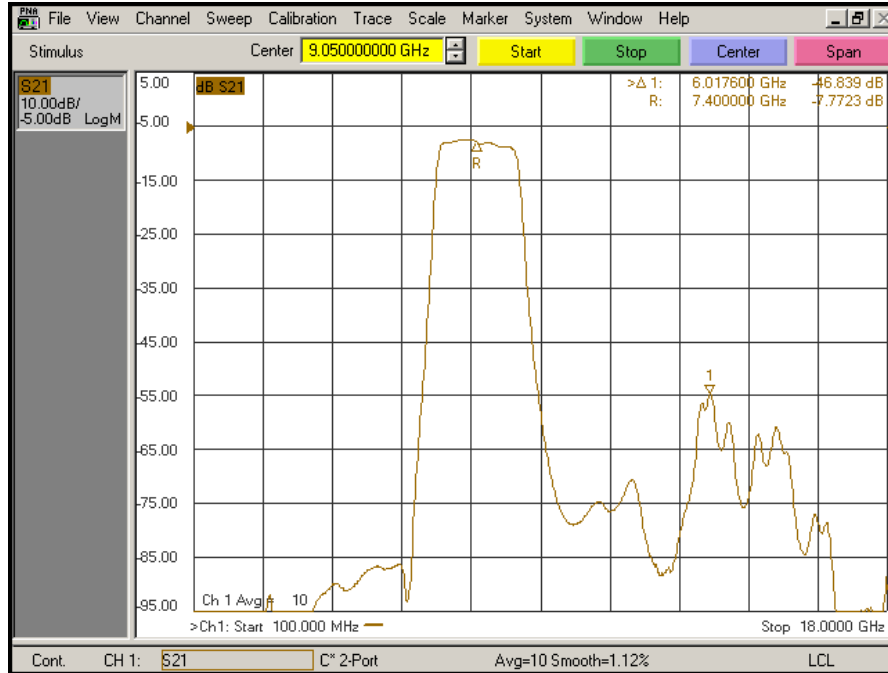
Channel 3 Narrowband (High Gain Path)



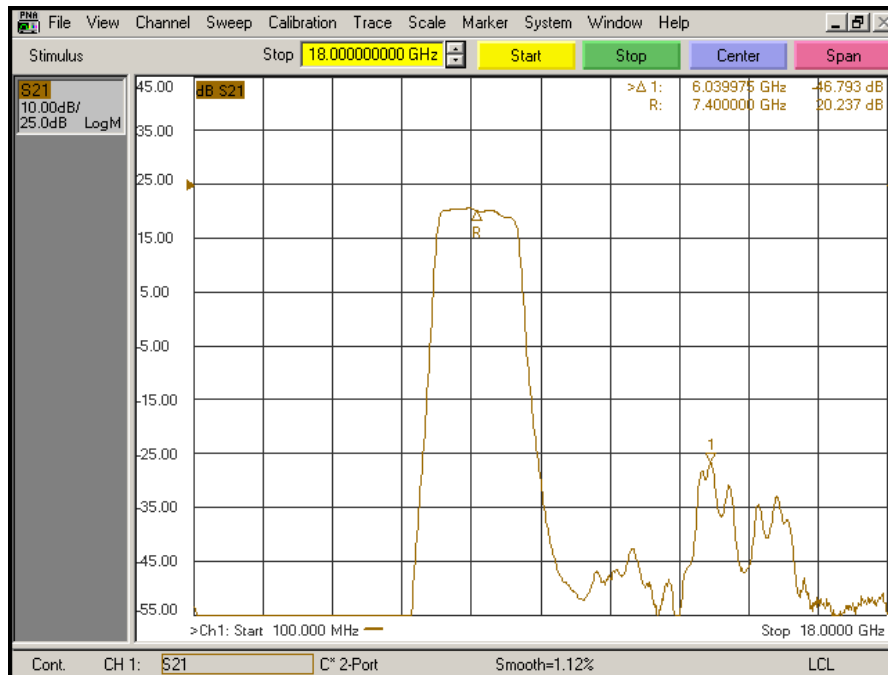


TYPICAL CHARACTERISTICS ON 6SFB-100M18G-1MP-MAH

Channel 3 Wideband (Low Gain Path)



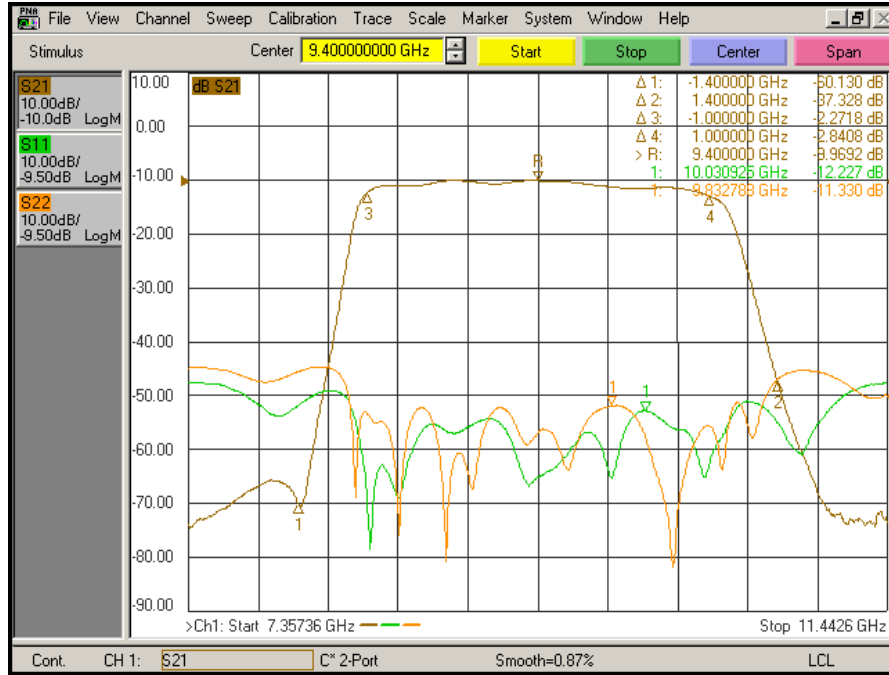
Channel 3 Wideband (High Gain Path)



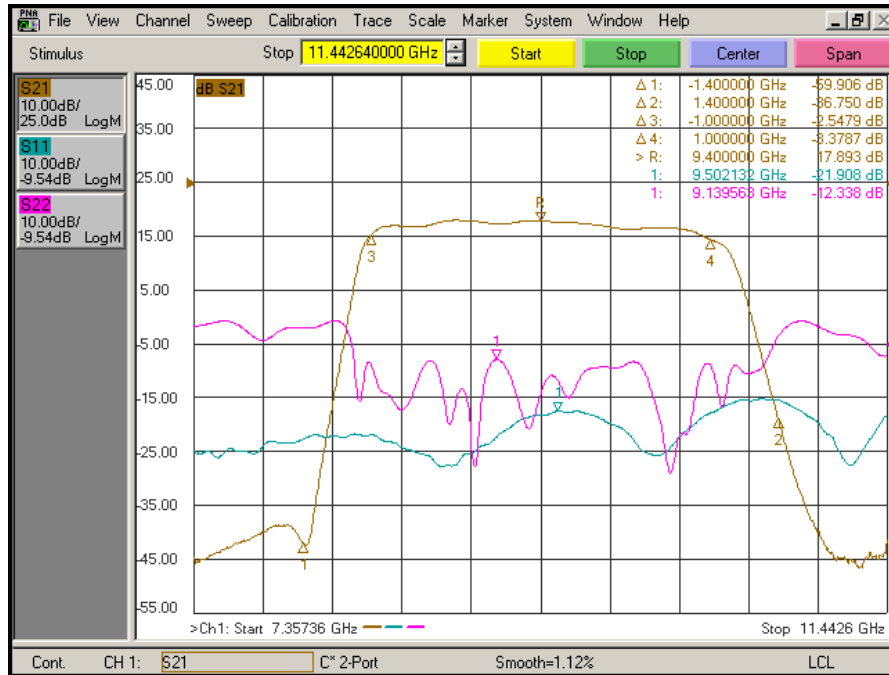


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Channel 4 Narrowband (Low Gain Path)



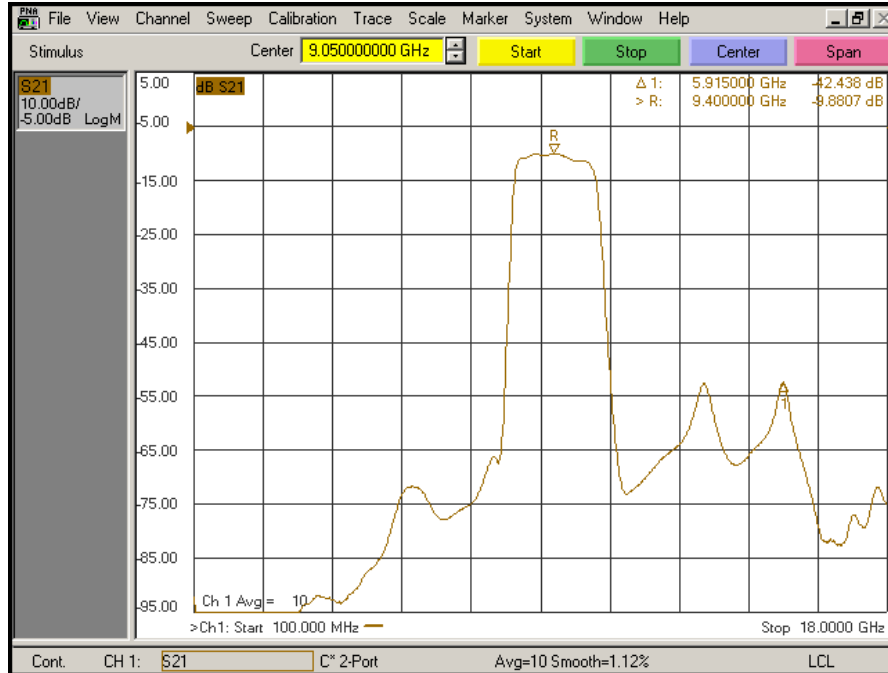
Channel 4 Narrowband (High Gain Path)



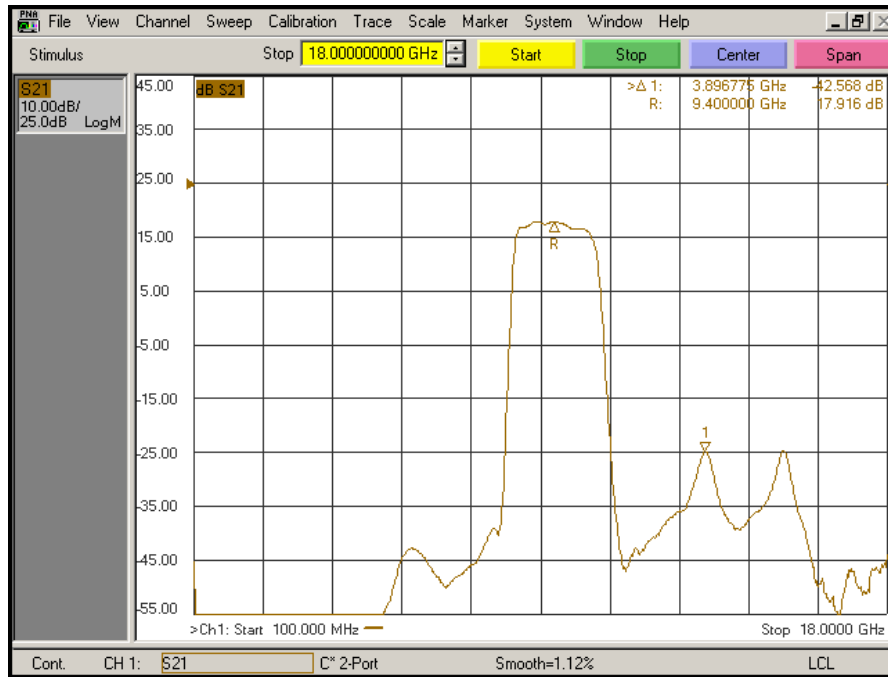


TYPICAL CHARACTERISTICS ON 6SFB-100M18G-1MP-MAH

Channel 4 Wideband (Low Gain Path)



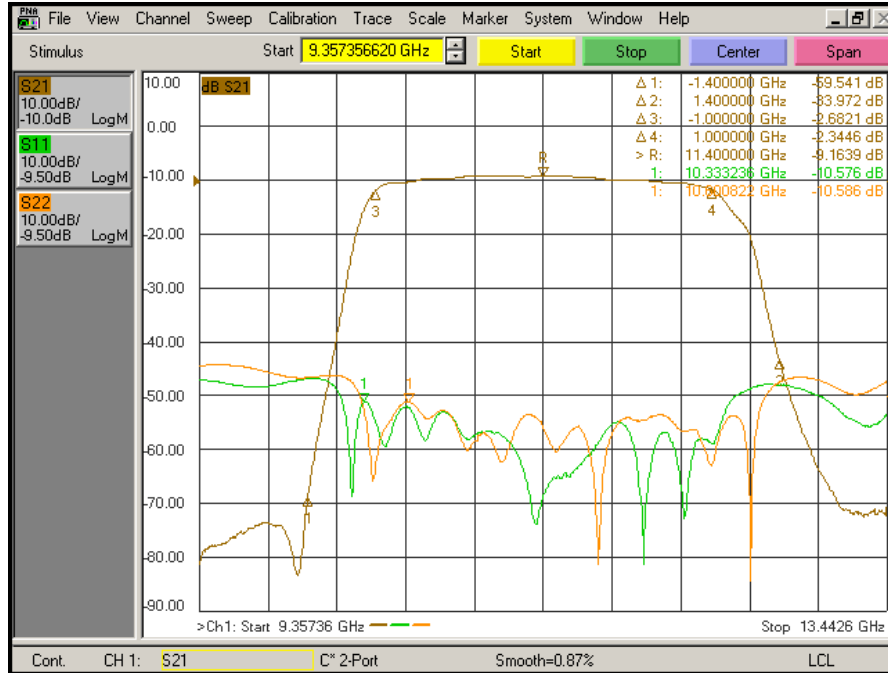
Channel 4 Wideband (High Gain Path)



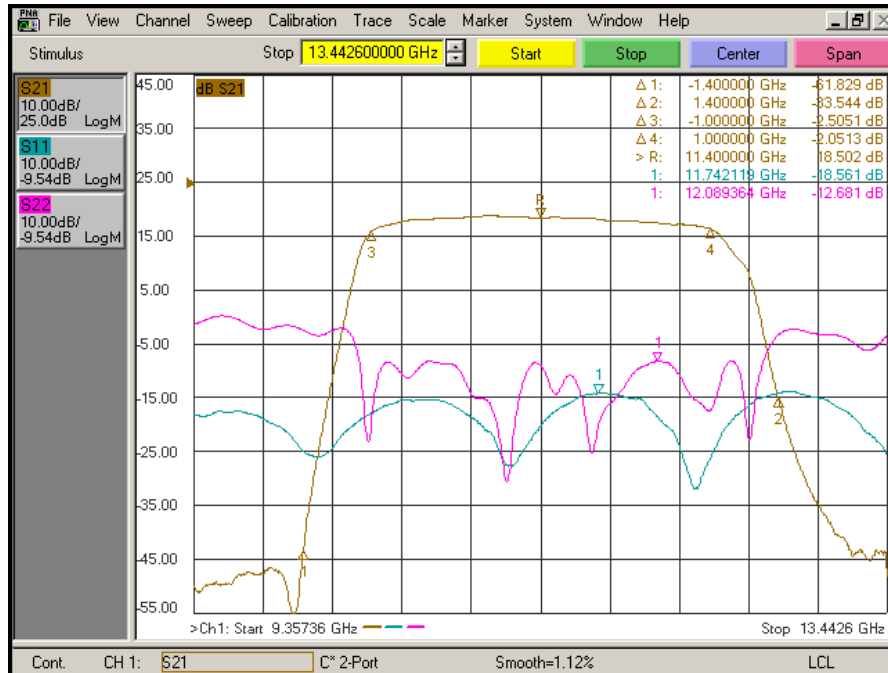


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Channel 5 Narrowband (Low Gain Path)



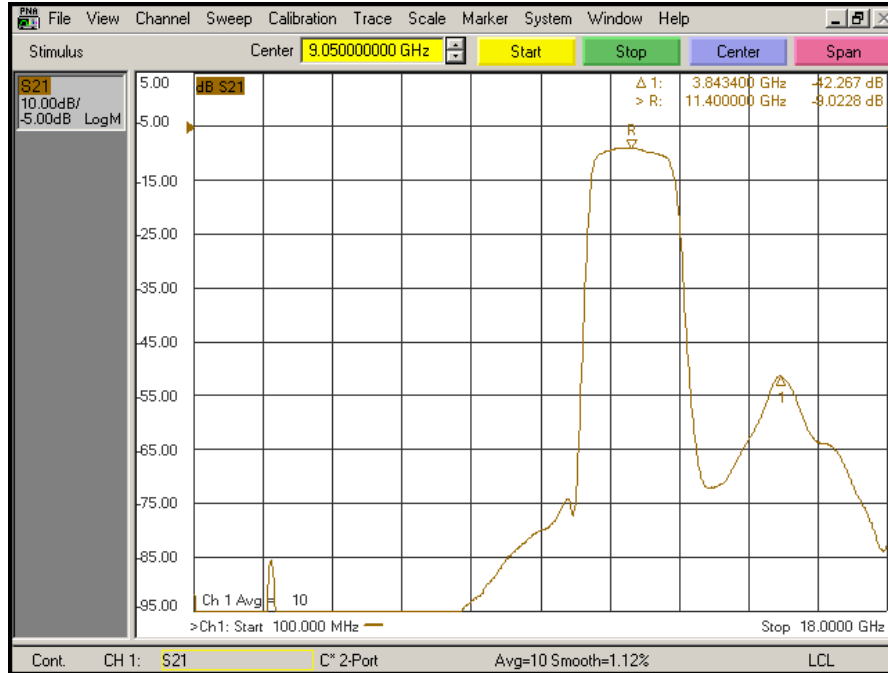
Channel 5 Narrowband (High Gain Path)



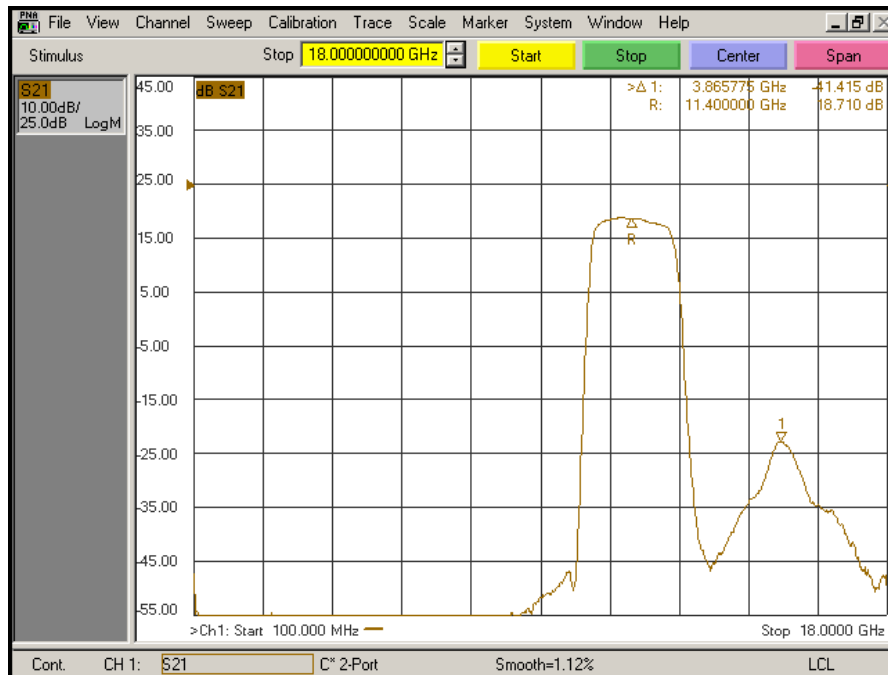


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Channel 5 Wideband (Low Gain Path)



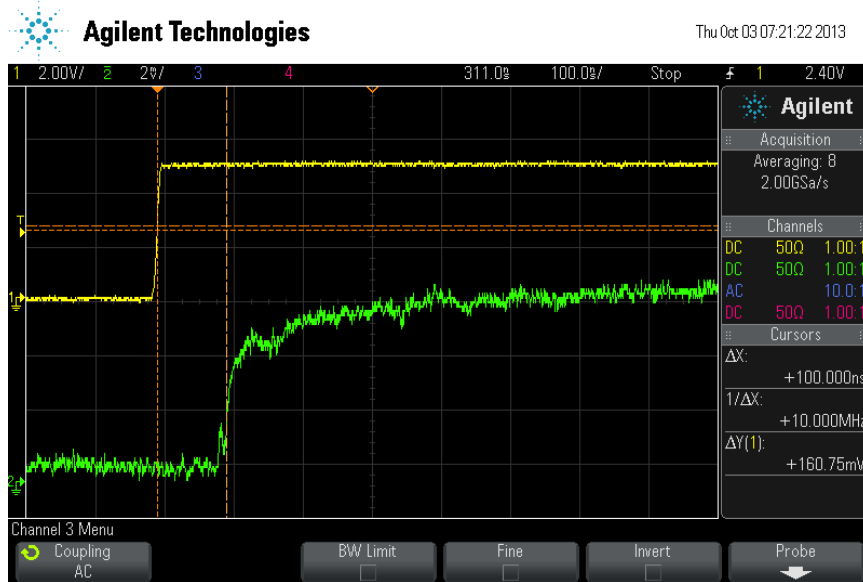
Channel 5 Wideband (High Gain Path)





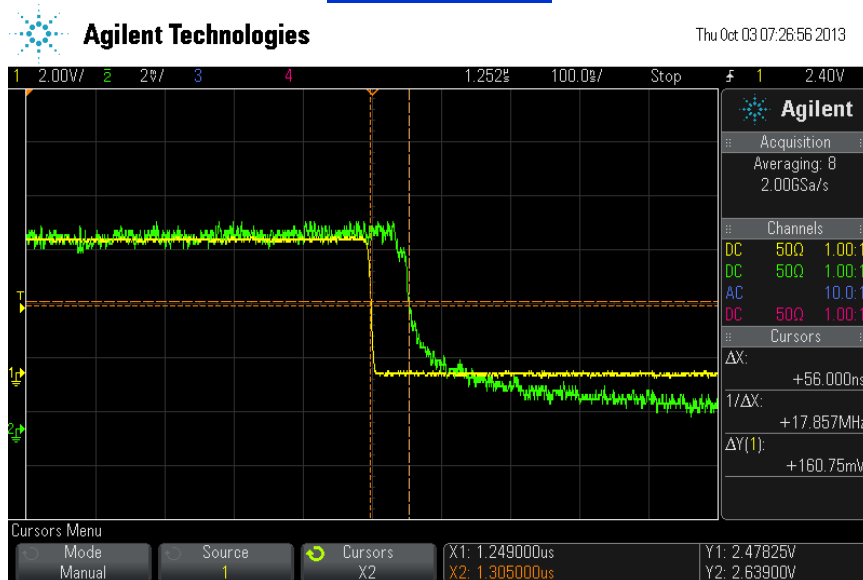
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Switching Speed



Channel 1 (Yellow Trace): TTL Input Signal
Channel 2 (Green Trace): RF output of Diode Detector

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Channel 2 (Green Trace): RF output of Diode Detector



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Internal Photograph

