# SUMMARY TEST DATA
# ON
# 6SFB-CC-100M18G-MAH-RX-TX
# APPENDIX A

PL30450/2041

| | | | | | |
|---|---|---|---|---|---|
| **Customer:** | | **Tested By:** | E. Kretz | | |
| **SO No:** | | **Temperature:** | +25°C | | |
| **Model No:** | 6SFB-CC-100M18G-MAH-RX-TX | **Date:** | 10/06/20 | | |
| **Serial No:** | PL30450/2041 | **Drawing No:** | 27624332 | **Rev:** | A1 |

| TEST ITEM NO: | PARAMETERS | SPECIFIED VALUE | MEASURED VALUE | REMARKS QA/QC |
|---|---|---|---|---|
| 1 | J1 Input Frequency (RF RX Input) | 100MHz–18.0GHz | **100MHz-18.0GHz See Plot** | PMI QA 2 |
| 2 | J1 Input Power Level | -80dBm to -10dBm Typical | **-80dBm to -10dBm** | |
| 3 | J5 Input Frequency (RF TX Input) | 100MHz-18.0GHz | **100MHz-18.0GHz See Plot** | |
| 4 | J5 Input Power Level | -20dBm to -15dBm Typical | **-20dBm to -15dBm** | |
| 5 | J7 Input Frequency (RF BIT RX Input) | 100MHz-18.0GHz | **100MHz-18.0GHz See Plot** | |
| 6 | J7 Input Power Level | -20dBm to -15dBm Typical | **-20dBm to -15dBm** | |
| 7 | J2 Output Frequency (RF RX Output) | 100MHz-18.0GHz | **100MHz-18.0GHz See Plot** | |
| 8 | J2 Output Power Level | -62dBm to +8dBm Typical | **-60dBm to +15dBm** | |
| 9 | J6 Output Frequency (RF TX Output) | 100MHz-18.0GHz | **100MHz-18.0GHz See Plot** | |
| 10 | J6 Output Power Level | 0dBm to +10dBm Typical | **+7dBm to +14dBm** | |
| 11 | J1 RX Path Gain | 18dB Typical | **20dB to 29dB** | |
| 12 | J7 RX BIT Path Insertion Loss | 10dB Typical | **3dB to 8dB** | |
| 13 | (J1 to J2) to (J7 to J2) RX Isolation | 100dB Typical | **117 dB See Plot** | |
| 14 | J5 TX Path Gain | 32dB Typical | **33dB to 40dB** | |
| 15 | VSWR Over 90% Passband | 2 : 1 Maximum | **2.0:1 See Plots** | PMI QA 2 |



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| | | | | |
|---|---|---|---|---|
| 16 | Switching Speed | 100ns Typical | **75.0ns See Plot** | PMI QA 2 |
| 17 | Thru Channel Passband | 100MHz-18.0GHz | **100MHz-18.0GHz See Plots** | |
| 18 | Channel 1 Center Frequency | 3400MHz | **3400MHz** | |
| 19 | Channel 1 3dB Bandwidth | 2000MHz | **2000MHz** | |
| 20 | Channel 1 RX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-2.0GHz,<br>-40dBc Typical, -30dBc Minimum 4.8GHz-18.0GHz | **-47dBc See Plot**<br>**-54dBc See Plot** | |
| 21 | Channel 1 TX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-2.0GHz,<br>-40dBc Typical, -30dBc Minimum 4.8GHz-18.0GHz | **-49dBc See Plot**<br>**-48dBc See Plot** | |
| 22 | Channel 2 Center Frequency | 5400MHz | **5400MHz** | |
| 23 | Channel 2 3dB Bandwidth | 2000MHz | **2000MHz** | |
| 24 | Channel 2 RX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-4.0GHz,<br>-40dBc Typical, -30dBc Minimum 6.8GHz-18.0GHz | **-57dBc See Plot**<br>**-39dBc See Plot** | |
| 25 | Channel 2 TX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-4.0GHz,<br>-40dBc Typical, -30dBc Minimum 6.8GHz-18.0GHz | **-51dBc See Plot**<br>**-43dBc See Plot** | |
| 26 | Channel 3 Center Frequency | 7400MHz | **7400MHz** | |
| 27 | Channel 3 3dB Bandwidth | 2000MHz | **2000MHz** | |
| 28 | Channel 3 RX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-6.0GHz,<br>-40dBc Typical, -30dBc Minimum 8.8GHz-18.0GHz | **-65dBc See Plot**<br>**-40dBc See Plot** | PMI QA 2 |



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| | | | | |
|---|---|---|---|---|
| 29 | Channel 3 TX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-6.0GHz,<br><br>-40dBc Typical, -30dBc Minimum 8.8GHz-18.0GHz | **-64dBc See Plot**<br><br>**-42dBc See Plot** | PMI QA 2 |
| 30 | Channel 4 Center Frequency | 9400MHz | **9400MHz** | |
| 31 | Channel 4 3dB Bandwidth | 2000MHz | **2000MHz** | |
| 32 | Channel 4 RX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-8.0GHz,<br><br>-40dBc Typical, -30dBc Minimum 10.8GHz-18.0GHz | **-38dBc See Plot**<br><br>**-41dBc See Plot** | |
| 33 | Channel 4 TX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-8.0GHz,<br><br>-40dBc Typical, -30dBc Minimum 10.8GHz-18.0GHz | **-45dBc See Plot**<br><br>**-48dBc See Plot** | |
| 34 | Channel 5 Center Frequency | 11400MHz | **11400MHz** | |
| 35 | Channel 5 3dB Bandwidth | 2000MHz | **2000MHz** | |
| 36 | Channel 5 RX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-10.0GHz,<br><br>-40dBc Typical, -30dBc Minimum 12.8GHz-18.0GHz | **-59dBc See Plot**<br><br>**-55dBc See Plot** | |
| 37 | Channel 5 TX Rejection | -40dBc Typical, -30dBc Minimum 100MHz-10.0GHz,<br><br>-40dBc Typical, -30dBc Minimum 12.8GHz-18.0GHz | **-50dBc See Plot**<br><br>**-57dBc See Plot** | |
| 38 | Control Logic | TTL '0': 0V to 0.8V<br>TTL '1': 2V to 5V | **Pass** | |
| 39 | Power Supplies | +12V @ 600mA Max<br>+5V @ 550mA Max<br>-12V @ 300mA Max | **+12V @ 405mA**<br>**+5V @ 98mA**<br>**-12V @ 150mA** | PMI QA 2 |



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QA/QC Approval: PMI QA 2 Date: 11/2/20



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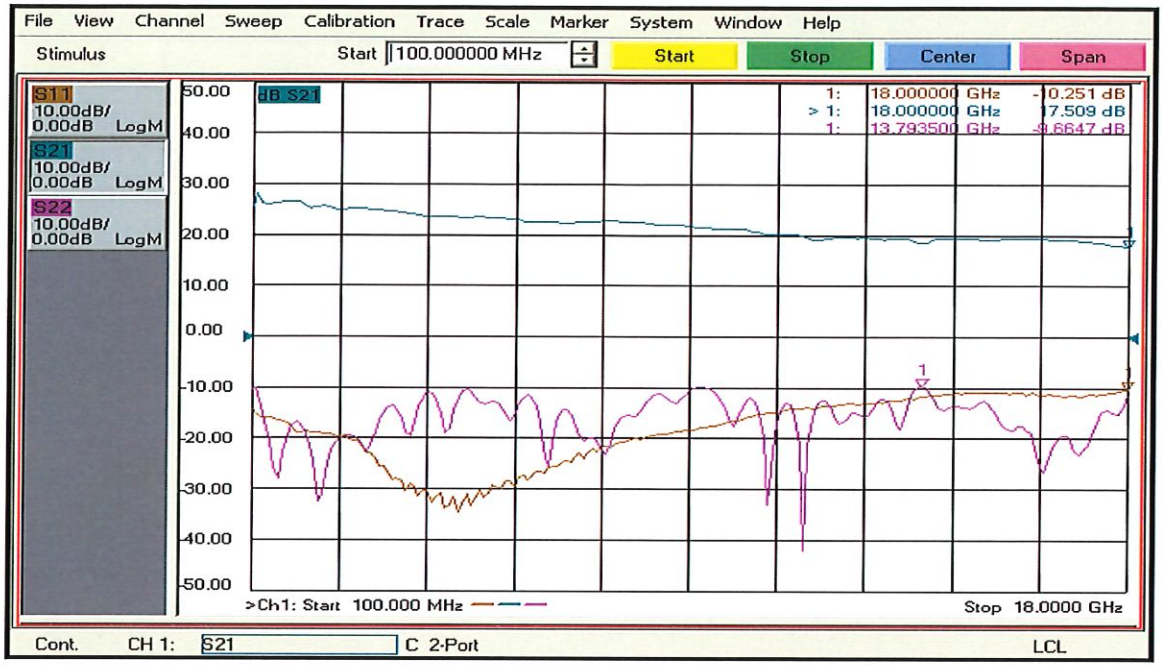
## RX High Gain Thru Path (J1 RX IN)



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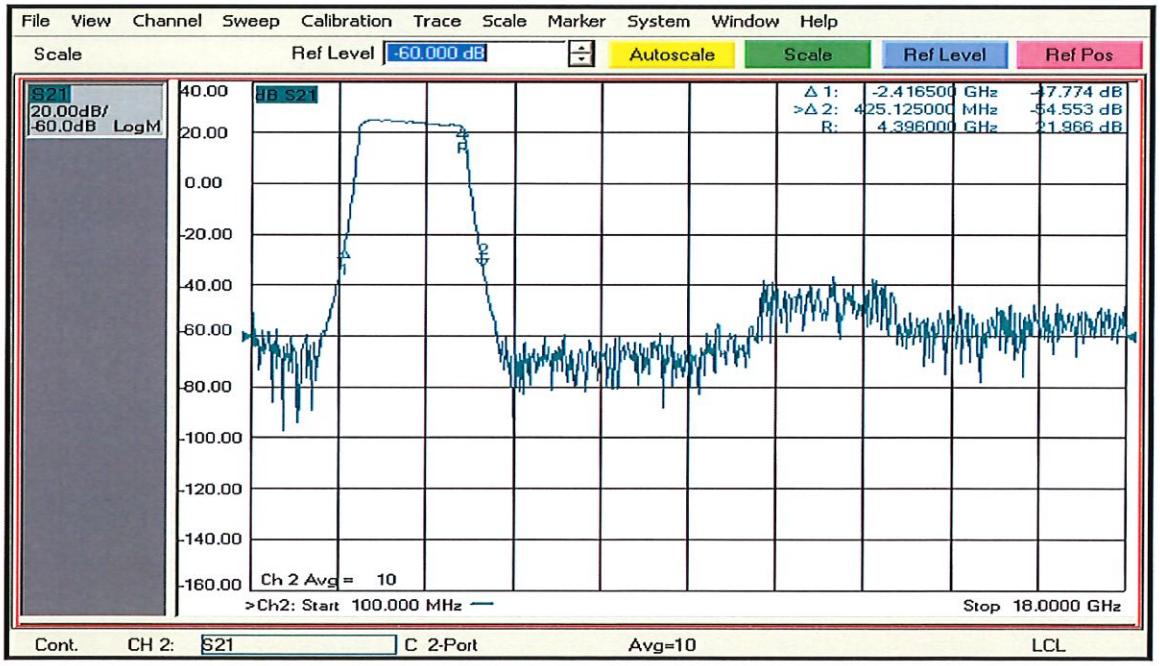
## RX Ch1 High Gain Path Narrow Band (J1 RX IN)


## RX Ch1 High Gain Path Broadband (J1 RX IN)



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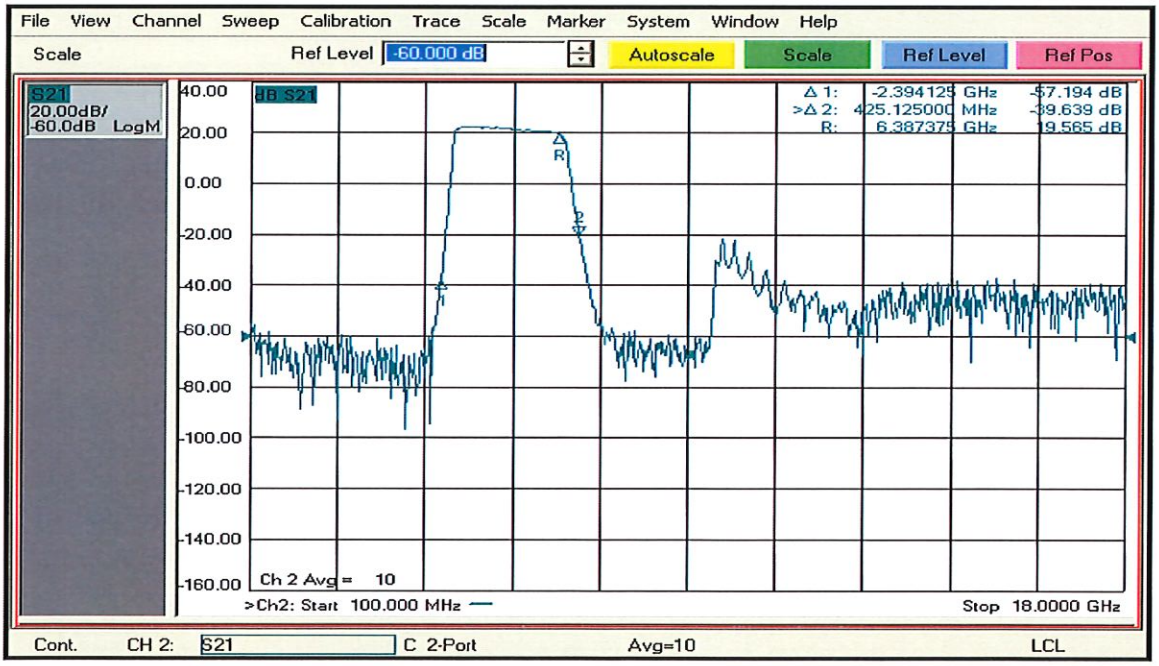
## RX Ch2 High Gain Path Narrow Band (J1 RX IN)


## RX Ch2 High Gain Path Broadband (J1 RX IN)



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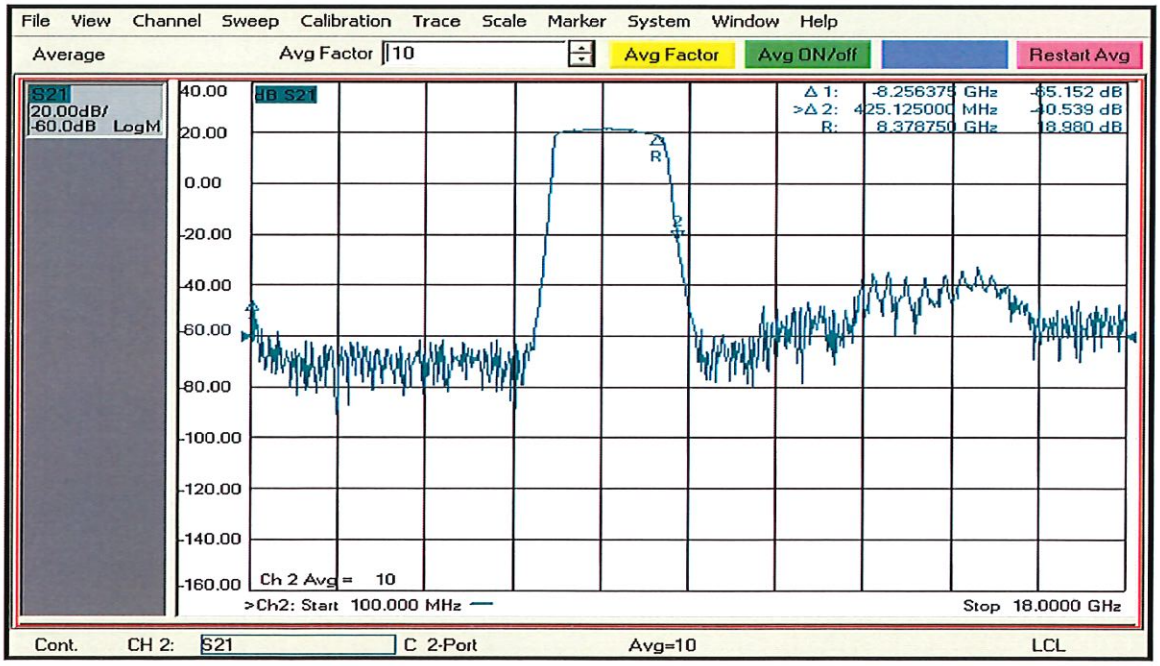
## RX Ch3 High Gain Path Narrow Band (J1 RX IN)


## RX Ch3 High Gain Path Broadband (J1 RX IN)



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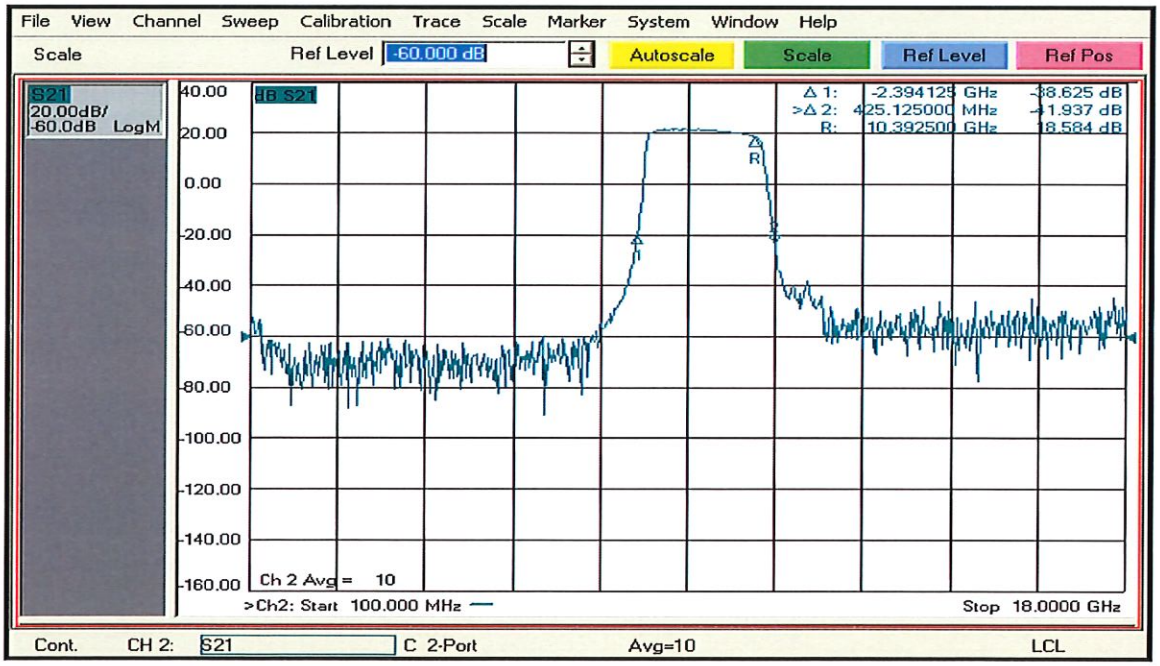
## RX Ch4 High Gain Path Narrow Band (J1 RX IN)


## RX Ch4 High Gain Path Broadband (J1 RX IN)



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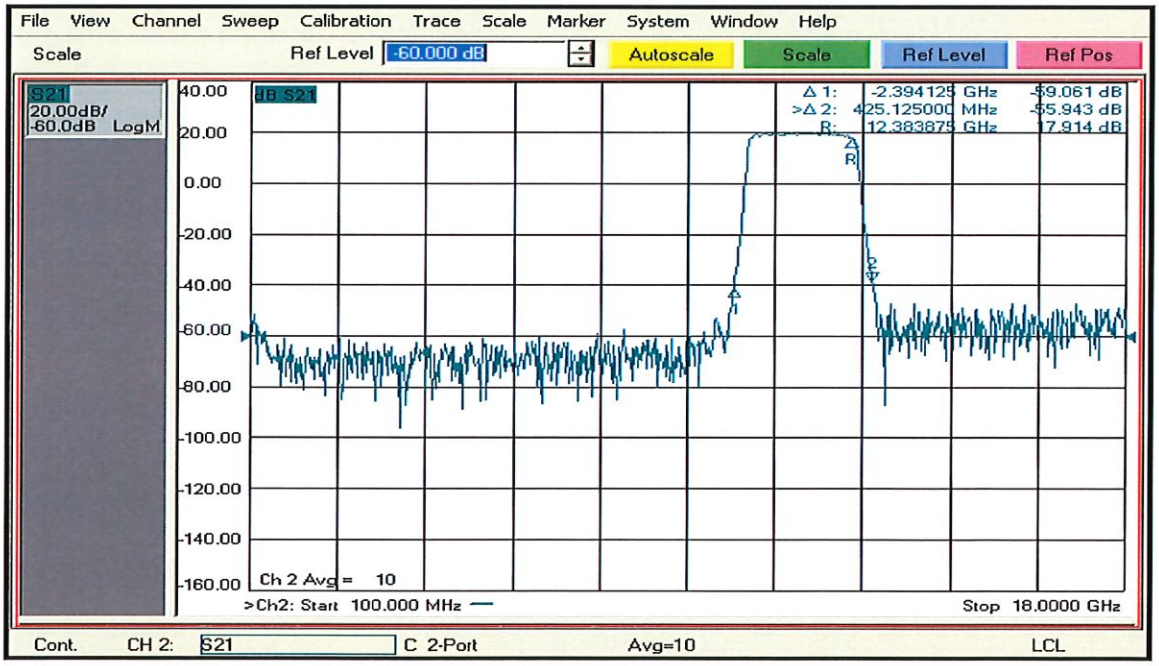
## RX Ch5 High Gain Path Narrow Band (J1 RX IN)


## RX Ch5 High Gain Path Broadband (J1 RX IN)



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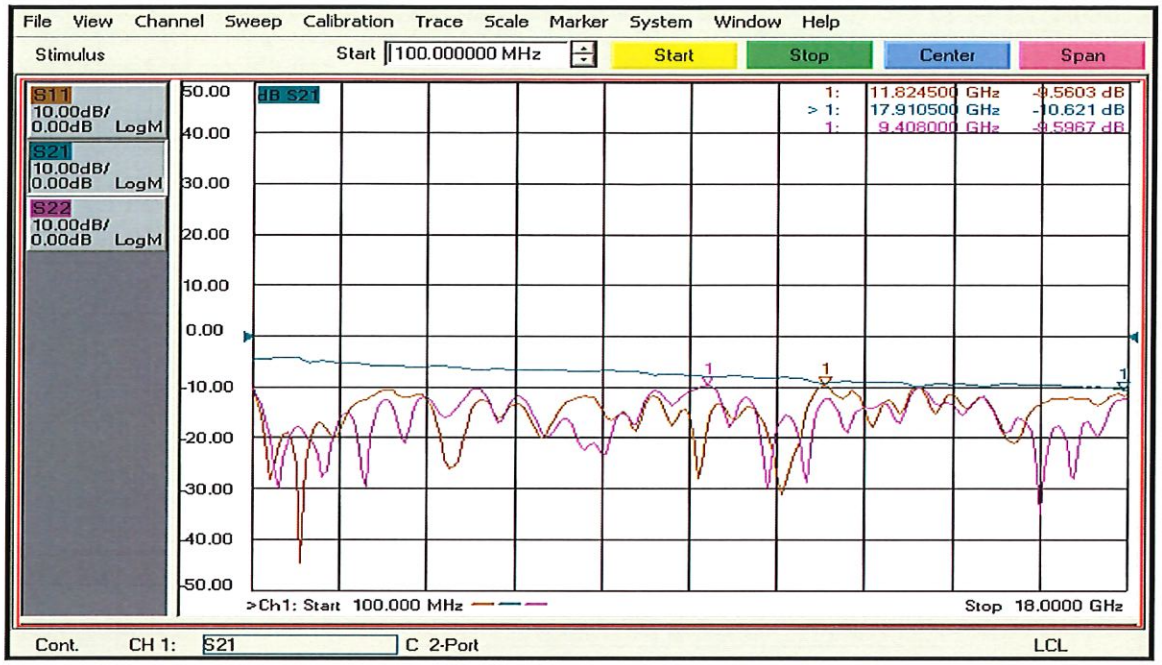
## RX Low Gain Thru Path (J7 RX BIT IN)



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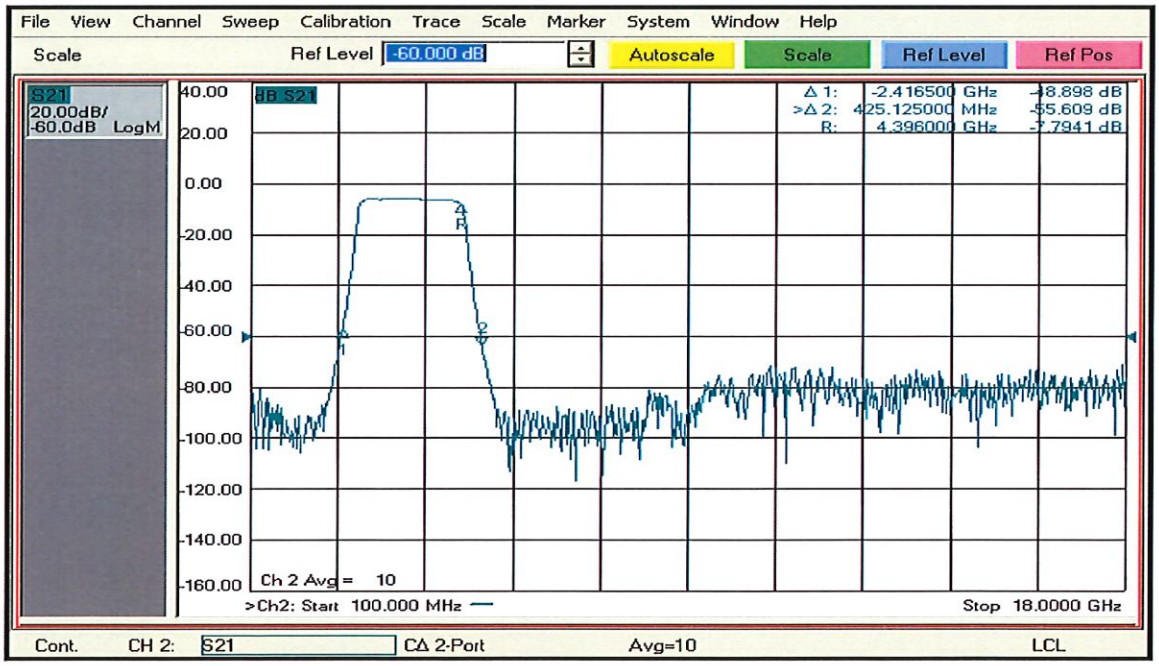
## RX Ch1 Low Gain Path Narrow Band (J7 RX BIT IN)


## RX Ch1 Low Gain Path Broadband (J7 RX BIT IN)



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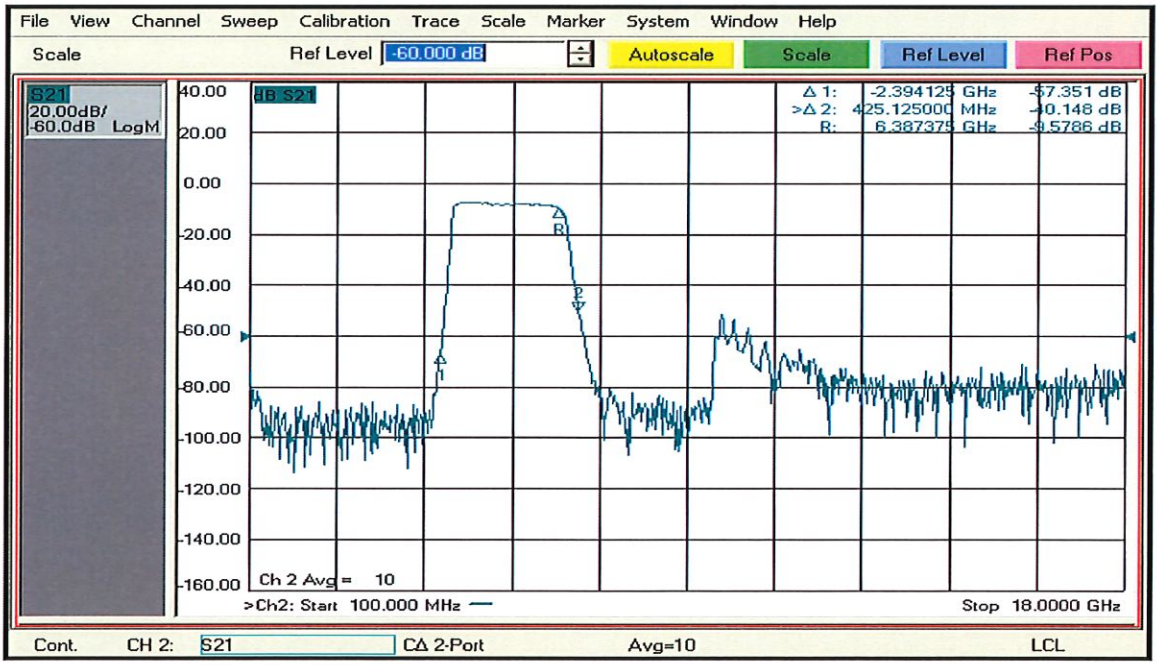
## RX Ch2 Low Gain Path Narrow Band (J7 RX BIT IN)


## RX Ch2 Low Gain Path Broadband (J7 RX BIT IN)



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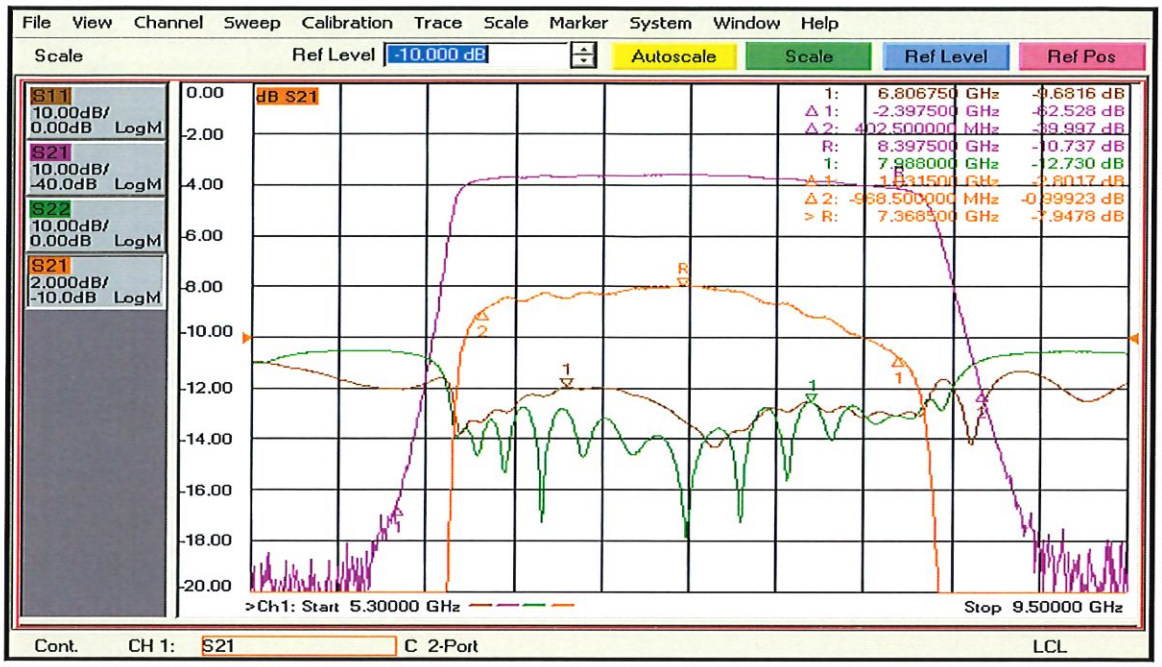
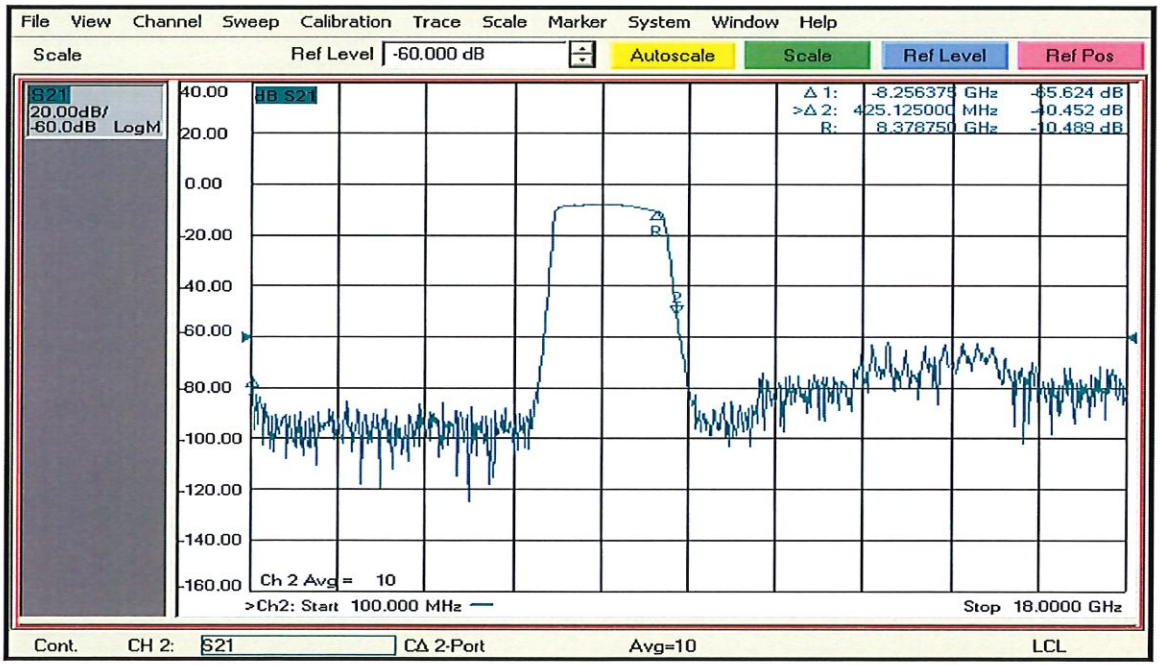
## RX Ch3 Low Gain Path Narrow Band (J7 RX BIT IN)




## RX Ch3 Low Gain Path Broadband (J7 RX BIT IN)



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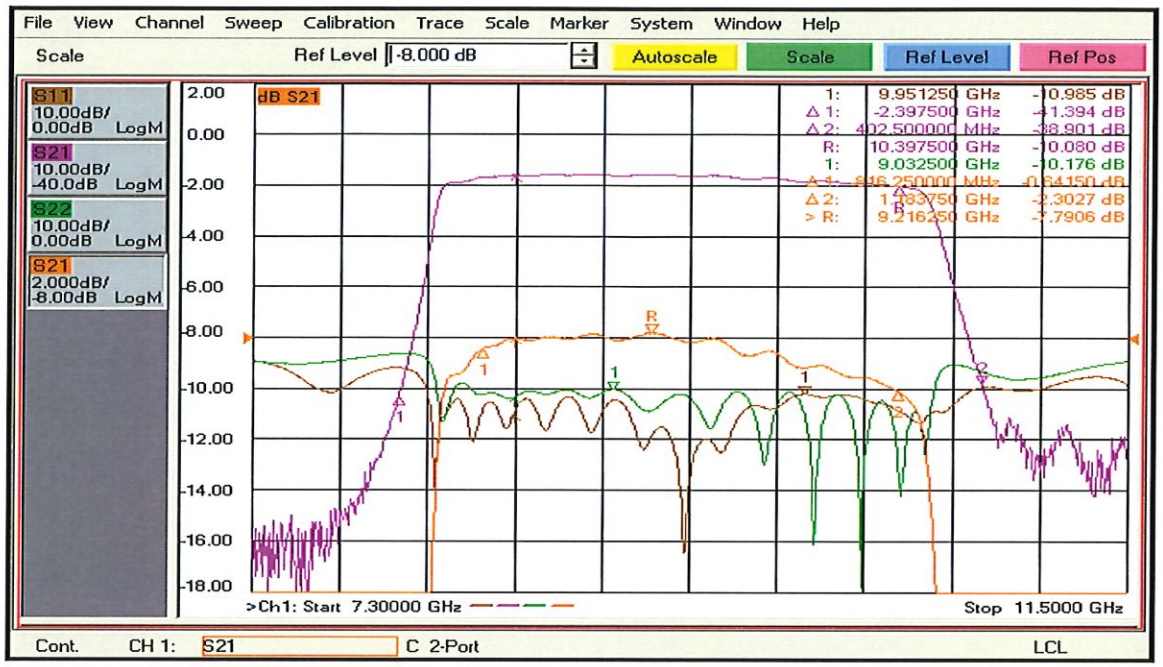
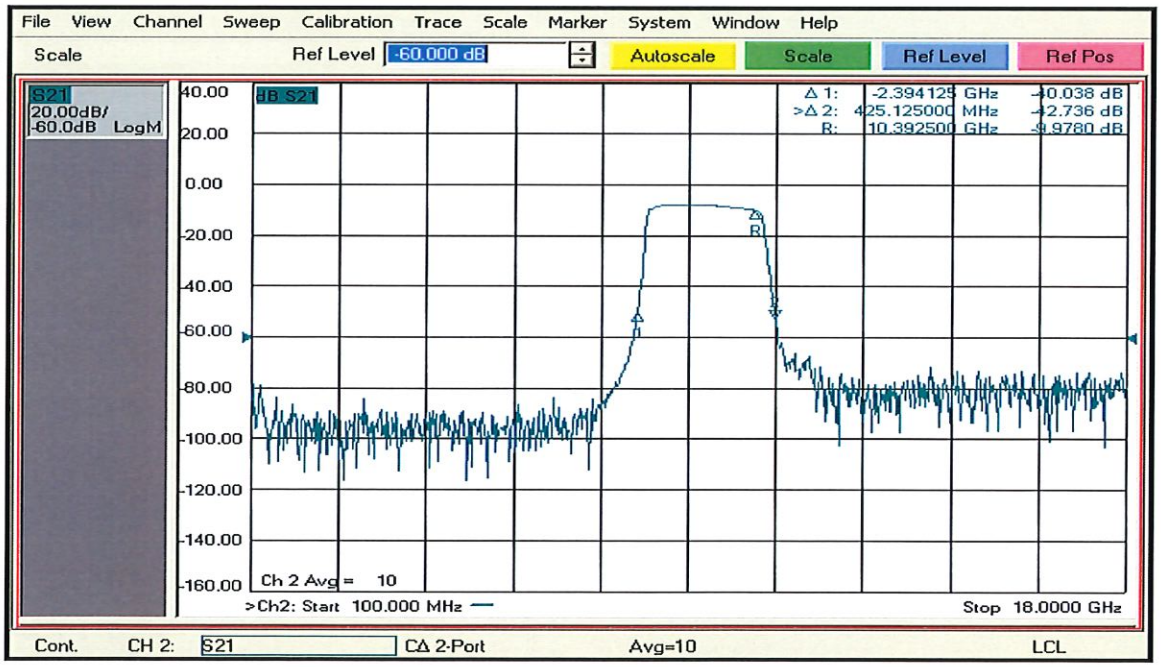
## RX Ch4 Low Gain Path Narrow Band (J7 RX BIT IN)




## RX Ch4 Low Gain Path Broadband (J7 RX BIT IN)



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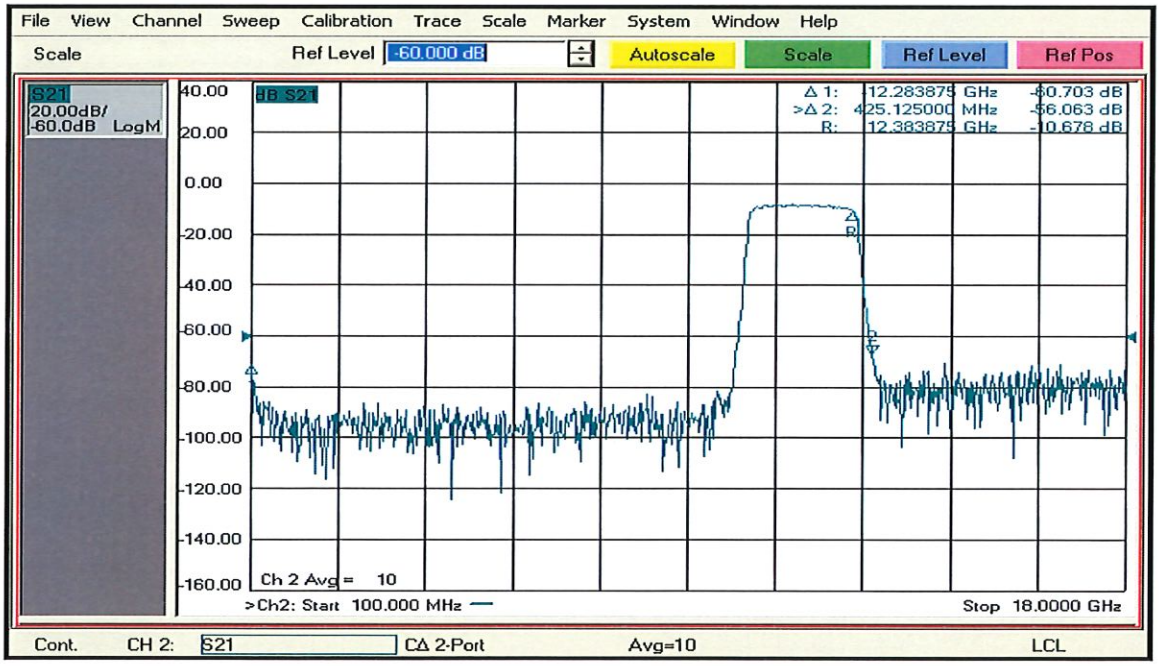
## RX Ch5 Low Gain Path Narrow Band (J7 RX BIT IN)


## RX Ch5 Low Gain Path Broadband (J7 RX BIT IN)



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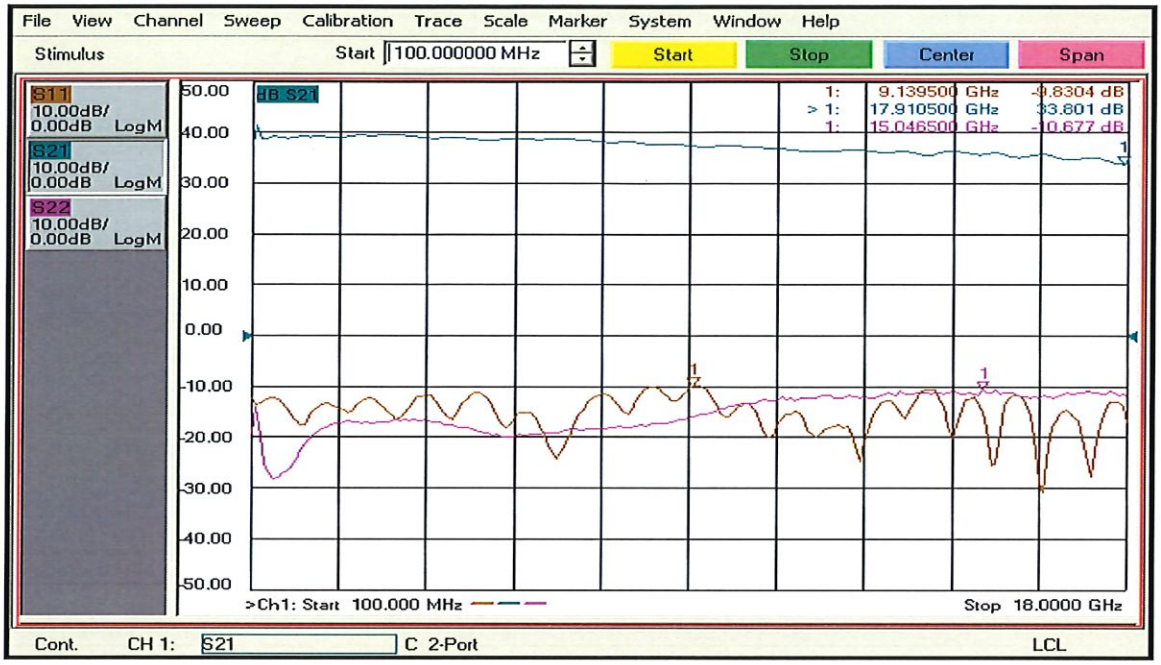
## TX Thru Path



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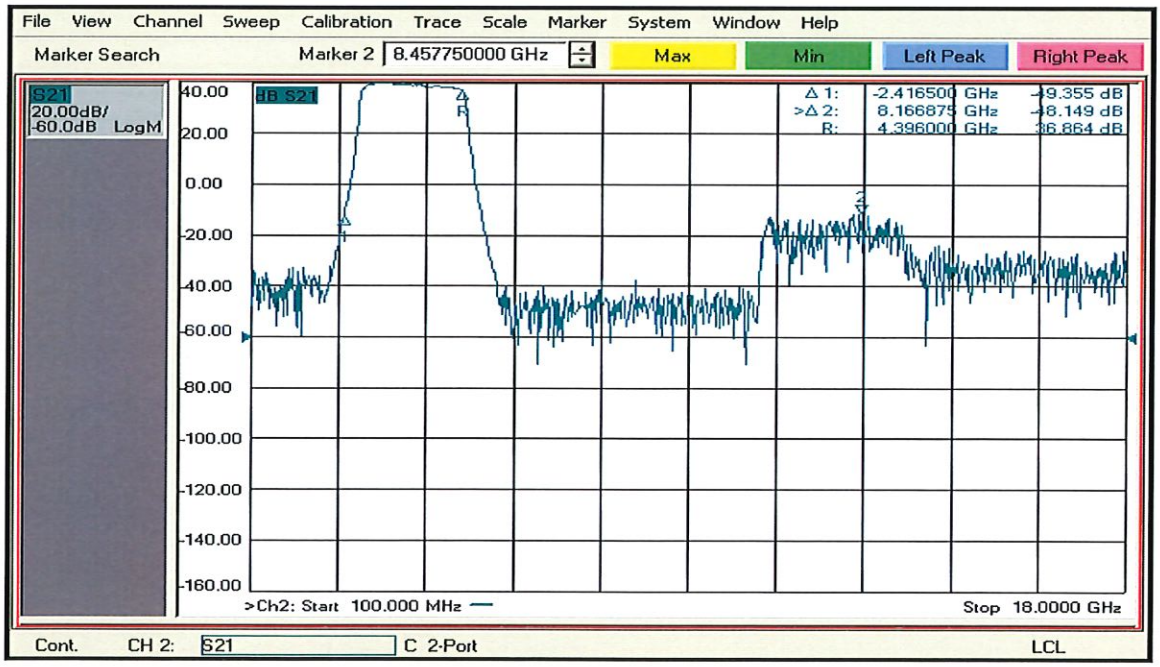
## TX Ch1 Path Narrow Band


## TX Ch1 Path Broadband



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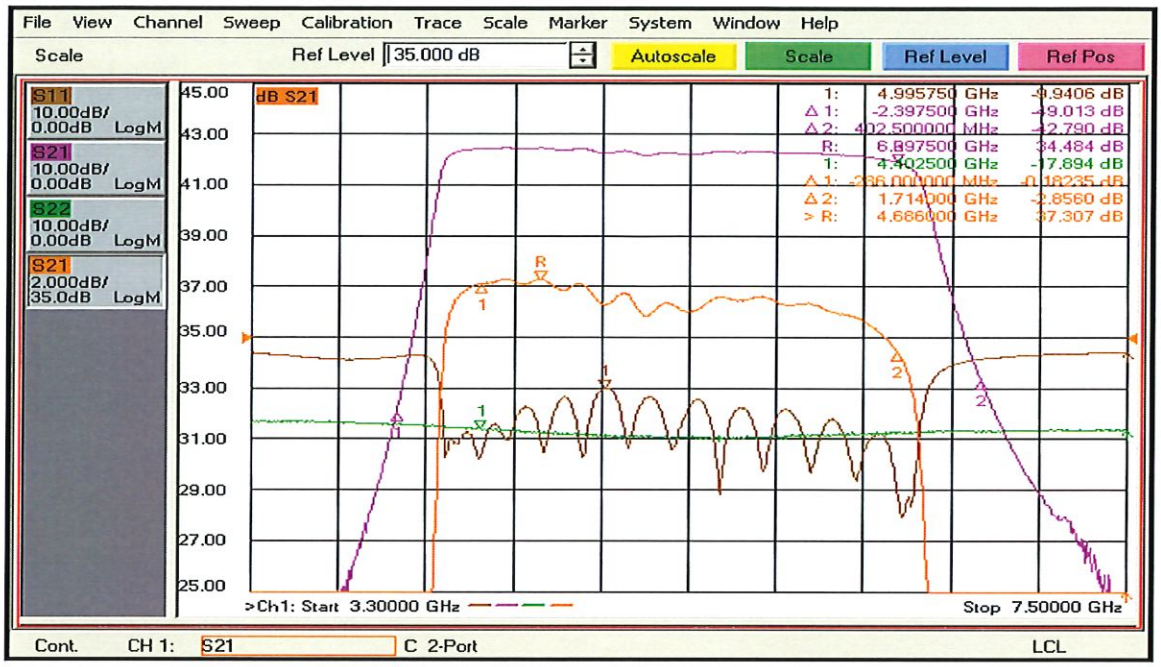
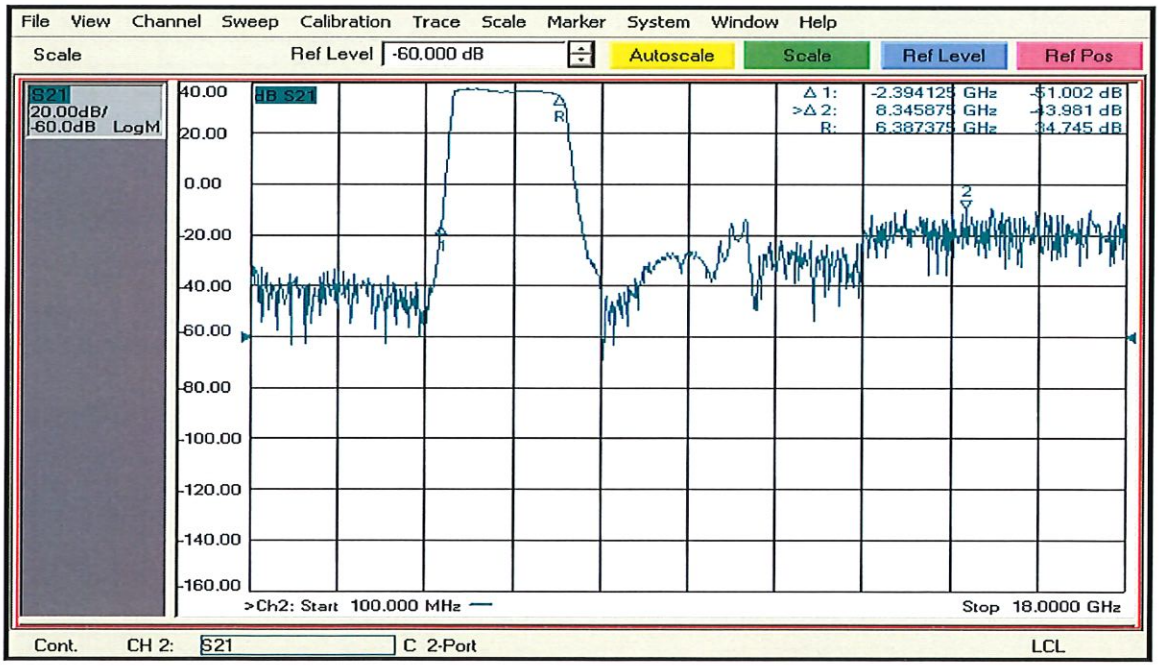
## TX Ch2 Path Narrow Band




## TX Ch2 Path Broadband



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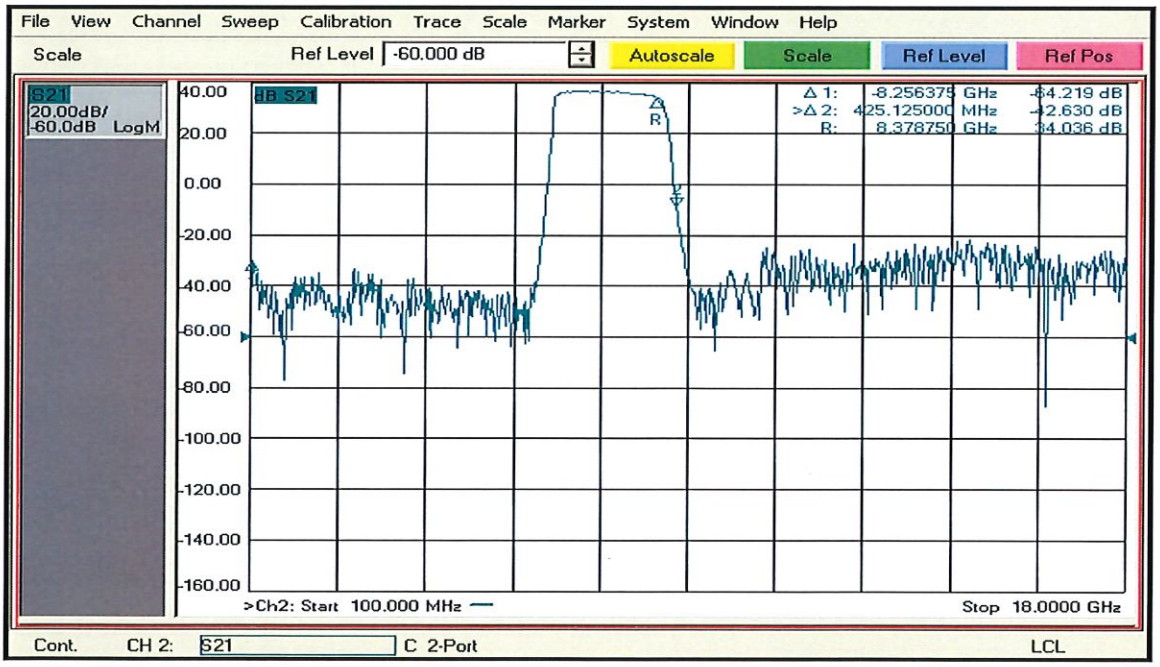
## TX Ch3 Path Narrow Band


## TX Ch3 Path Broadband



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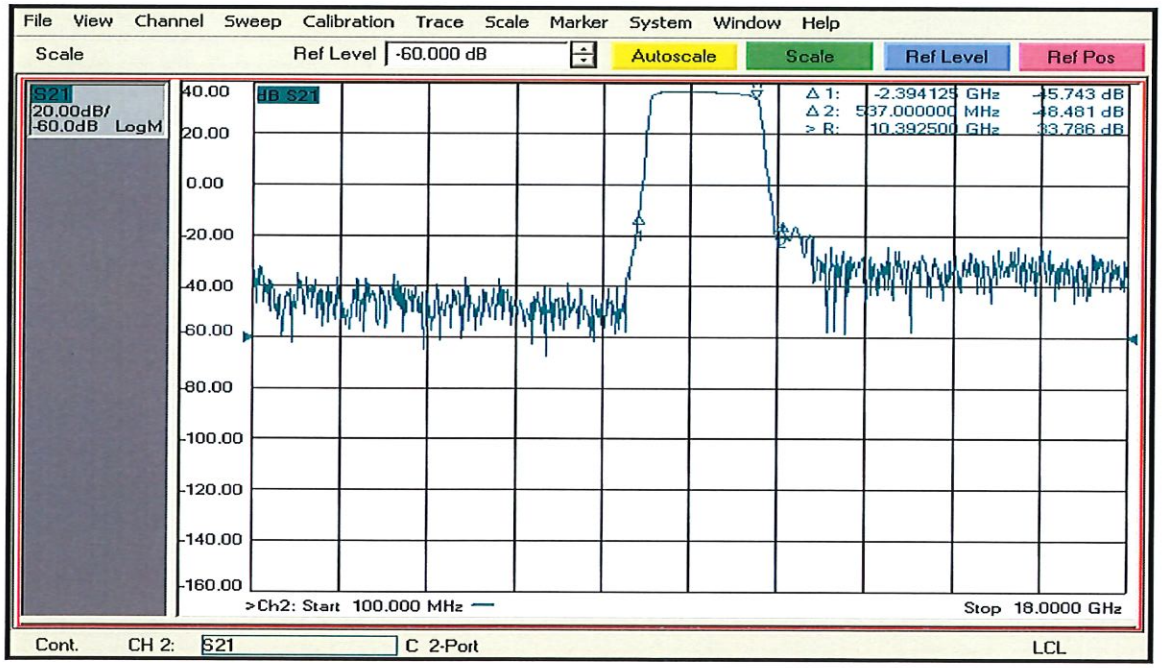
## TX Ch4 Path Narrow Band


## TX Ch4 Path Broadband



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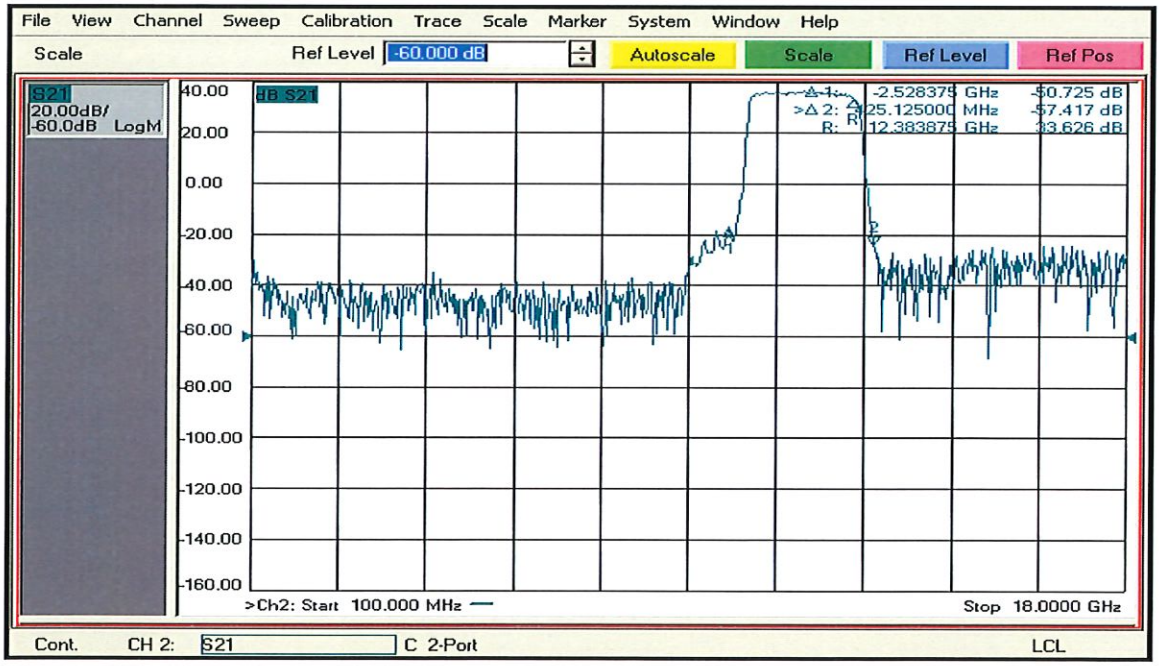
## TX Ch5 Path Narrow Band


## TX Ch5 Path Broadband



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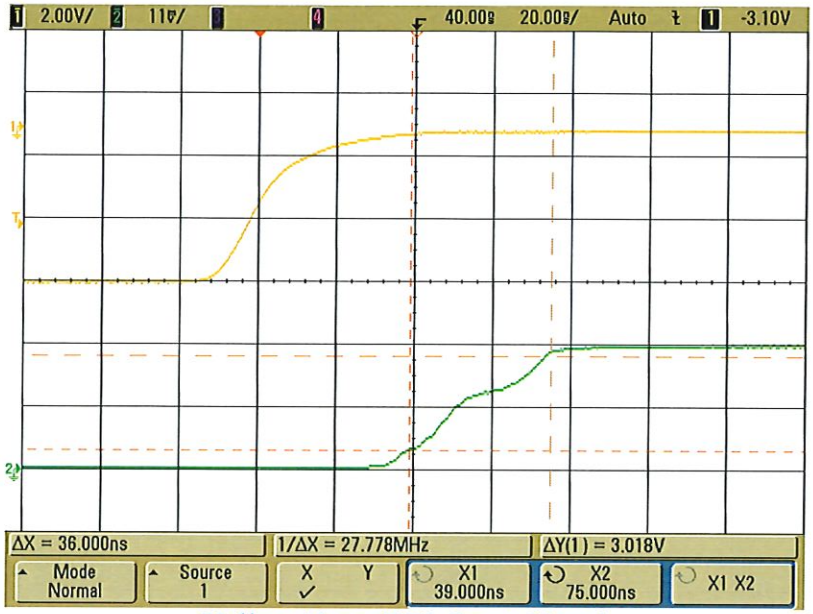
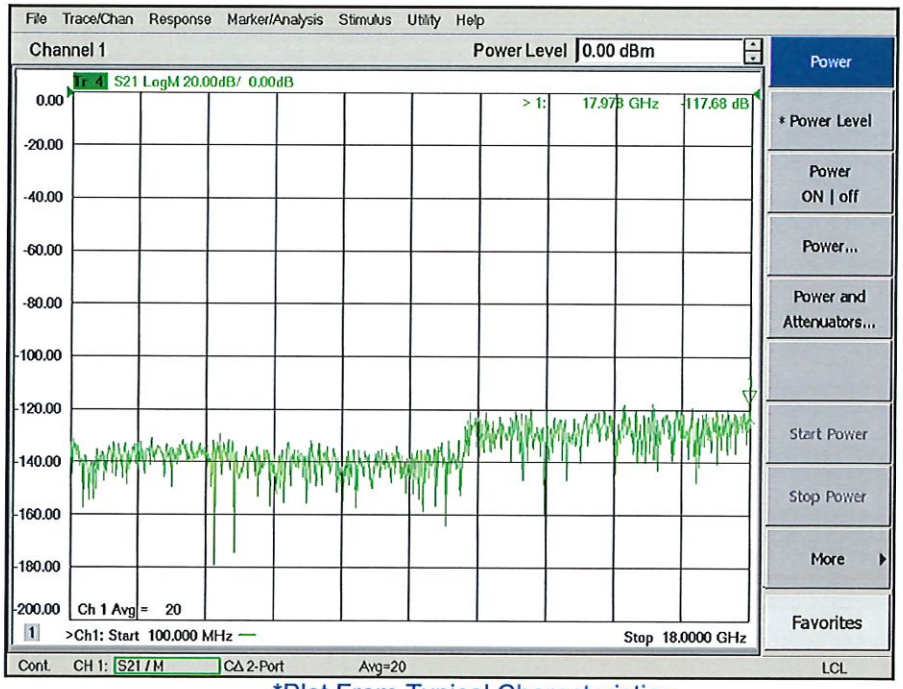
## Switching Speed




Yellow Trace TTL Input Signal
Green Trace RF Output of Detector
*Plot From Typical Characteristics

## Isolation BIT Port (J7) to RX Port (J1)




*Plot From Typical Characteristics



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