



Typical Characteristics On PEC-20M3G-8T-SFF-LV

PL14208/1348

DESCRIPTION

PMI MODEL NUMBER PEC-20M3G-8T-SFFM-LV IS A SINGLE POLE, EIGHT THROW NON-REFLECTIVE SWITCH DESIGNED TO OPERATE OVER THE 20MHZ TO 300GHZ THIS MODEL OFFERS ULTRA LOW VIDEO TRANSIENTS.

SPECIFICATIONS:

- OPERATING FREQUENCY: 20 MHZ TO 30 GHZ
- INSERTION LOSS (1.0 - 2.0GHZ): 2.0dB MAXIMUM
- INSERTION LOSS (2.0 - 3.0GHZ): 2.5dB MAXIMUM
- INSERTION LOSS (2.0 - 3.0GHZ): 4.0dB MAXIMUM
- VSWR (1.02 - 1.0GHZ) 1.8:1 MAXIMUM
- VSWR (1.0 - 2.0GHZ) 1.9:1 MAXIMUM
- VSWR (2.0 - 3.0GHZ): 2.0:1 MAXIMUM
- ISOLATION (1.02 - 1.0GHZ): 70dB MINIMUM
- ISOLATION (1.0 - 2.0GHZ): 60dB MINIMUM
- ISOLATION (2.0 - 3.0GHZ): 50dB MINIMUM
- P1dB (1.02 - 1.0GHZ): +23/25 dB
- P1dB (1.0 - 2.0GHZ) +27/29 dB
- P1dB (2.0 - 3.0GHZ): +30/32 dB
- AMPLITUDE BALANCE: +/-0.25dB
- PHASE BALANCE: +/-6.0 DEGREES
- VIDEO TRANSIENTS: ABOVE 20MHZ -100 dBm
BELOW 20MHZ -75 dBm
- CONTROL: SEE TRUTH TABLE ABOVE
- POWER SUPPLY: PINS C111 THRU C113 ARE PULLED LOW *0
- RF CONNECTORS: GPO & SMA FEMALE CONNECTORS
- FINISH: SILVER PLATED

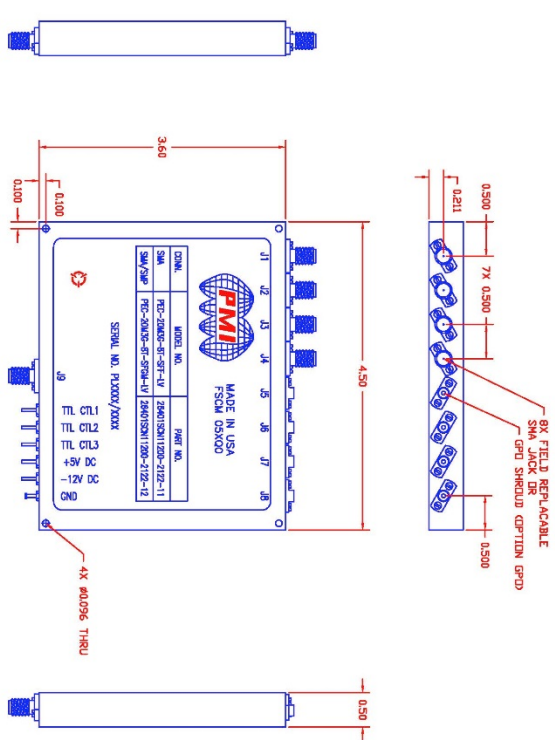
TRUTH TABLE

TTL	TTL2	TTL3	PMI
0	0	0	-9-11
0	0	1	-9-12
0	1	0	-9-13
0	1	1	-9-14
1	0	0	-9-15
1	0	1	-9-16
1	1	0	-9-17
1	1	1	-9-18

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -45°C TO +90°C (OPERATING)
-54°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. C
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- SALT FOG: MIL-STD-202F, METHOD 101D+EST COND. B
- FUNGUS: MIL-STD-810F, METHOD 508.5
- EMI / EMC: MIL-STD-461E

Note: Environmental testing and ESS will be met, but actual testing is not done by PMI. Actual screening is available for an additional charge.
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



ALL DIMENSIONS ARE IN INCHES
TOLERANCES: 0.005
DATE: 04/20/00
DRAWN: JMM

REV	DATE	DESCRIPTION
01	05/20/00	ISSUED
02	05/20/00	REVISION

PMI COMMERCIAL AND INDUSTRIAL

PLAVER MONOLITHICS INDUSTRIES

OUTLINE DRAWING

PEC-20M3G-8T-SFFM-LV

PART NO. 27004803-8

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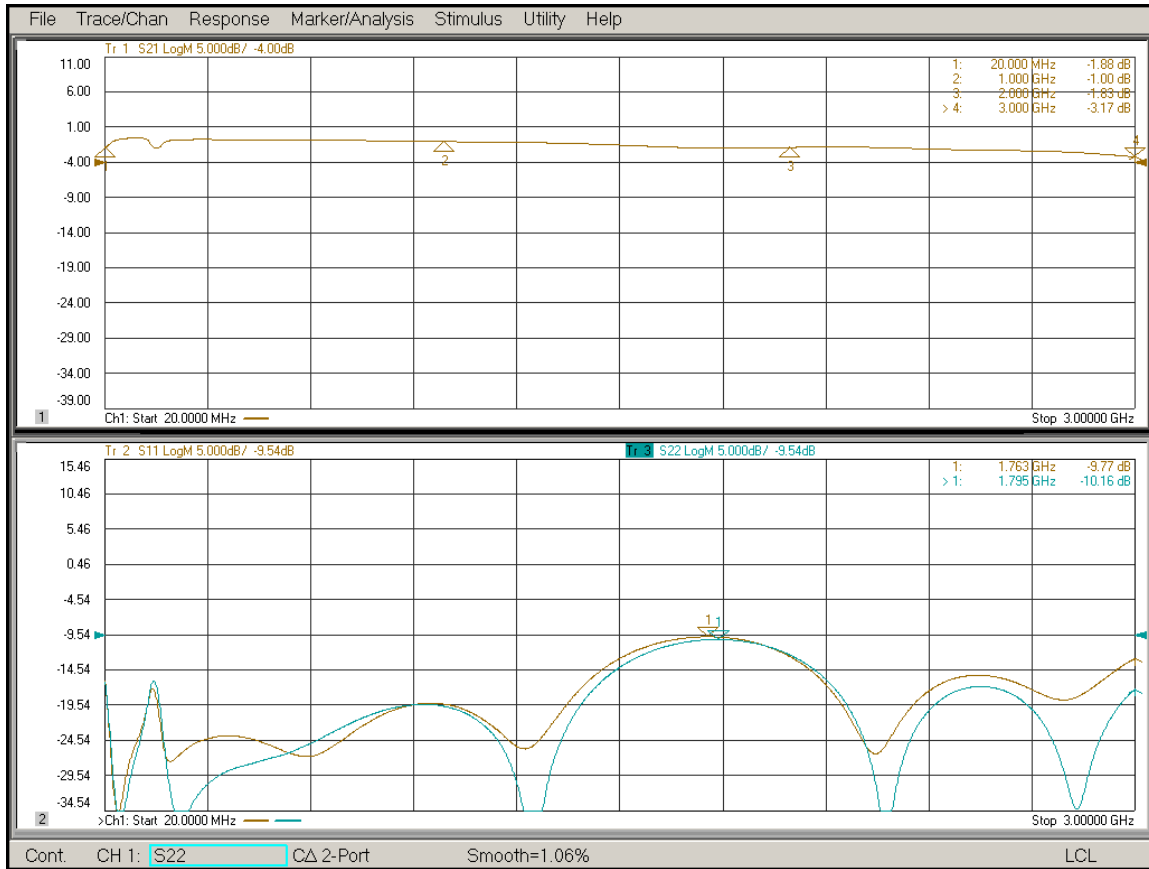
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	20 – 3000 MHz	20 – 3000 MHz See Plots	
2	Insertion Loss (Max):	.02 – 1.0 GHz 2.0 dB 1.0 – 2.0 GHz 2.5 dB 2.0 – 3.0 GHz 4.0 dB	1.88dB 1.83dB 3.17dB See Plots	
3	Isolation (Min):	.02 – 1.0 GHz 70 dB 1.0 – 2.0 GHz 60 dB 2.0 – 3.0 GHz 50 dB	76.10dB 91.20dB 55.85dB See Plots	
4	VSWR (Max):	.02 – 1.0 GHz 1.8 : 1 1.0 – 2.0 GHz 1.9 : 1 2.0 – 3.0 GHz 2.0 : 1	<1.8 :1 <1.9 :1 <2.0 :1 See Plots	
5	Input 1dB Compression Point (Min/Typ):	.02 – 1.0 GHz +23/25 dB 1.0 – 2.0 GHz +27/29 dB 2.0 – 3.0 GHz +30/32 dB	>23/25 dB >27/29 dB >30/32 dB	
6	Amplitude Balance:	+/- 0.25 dB	+/- 0.25 dB See Plots	
7	Phase Balance:	+/- 6.0 degrees	+/- 6.0 degrees See Plots	
8	Video Transients:	Above 20 MHz -100 dBm Below 20 MHz -75 dBm	-100dBm -75dBm	
9	DC Supply:	+5VDC 450mA max -12VDC 350mA max	230mA 278mA	



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Typical Insertion Loss and Return Loss

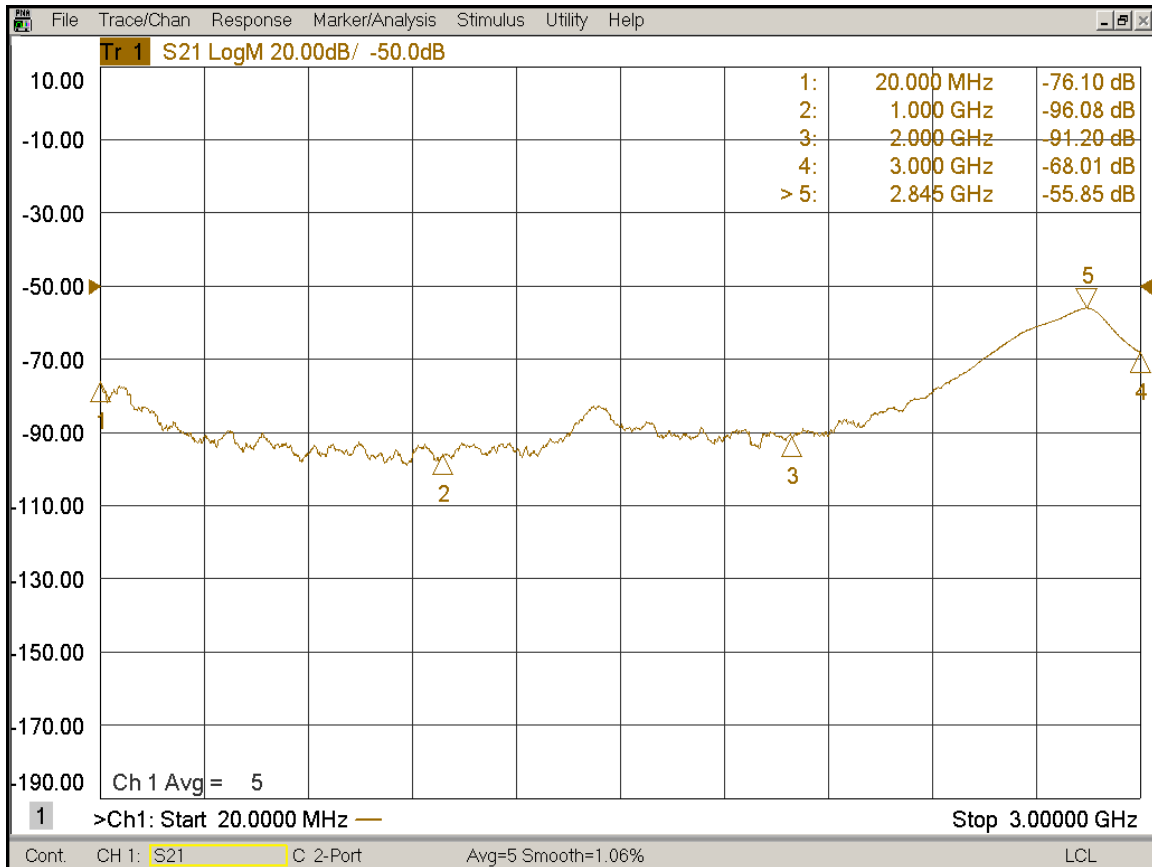




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Typical Isolation

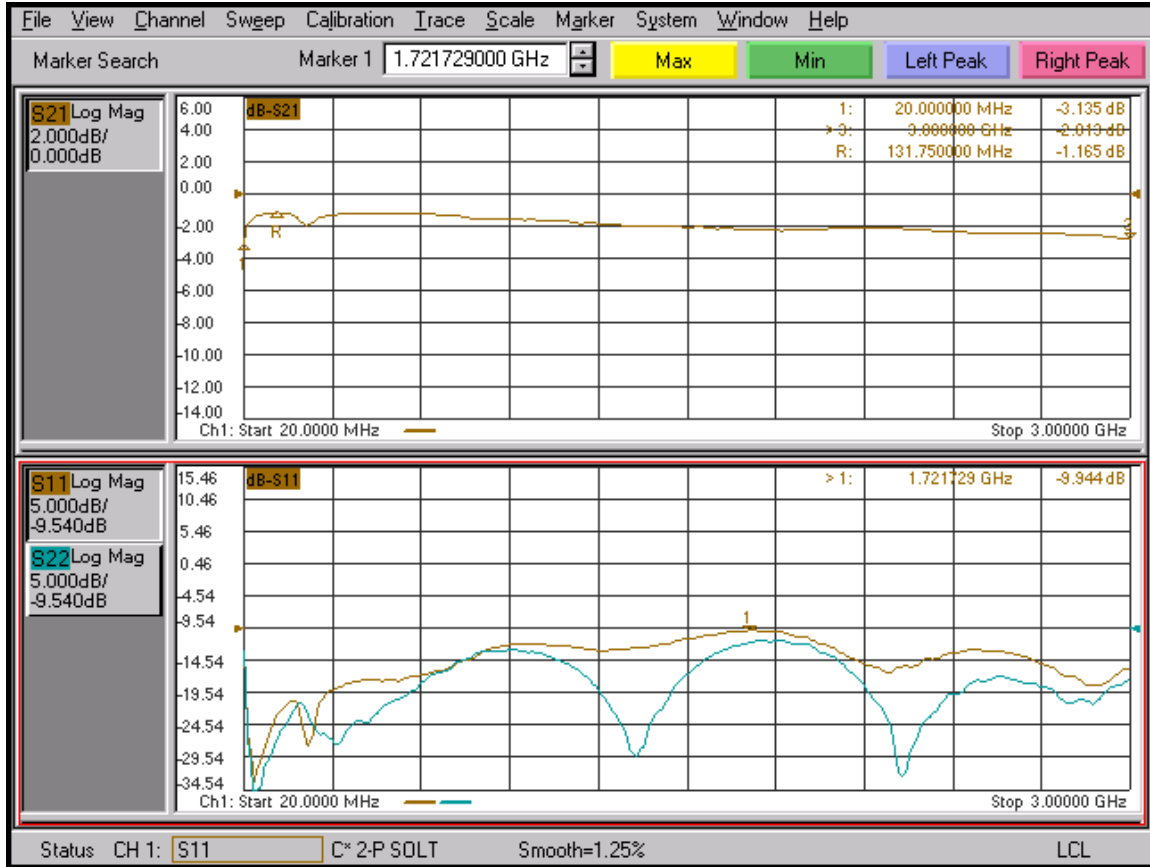




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Typ. Insertion Loss and Return Loss J1-J9

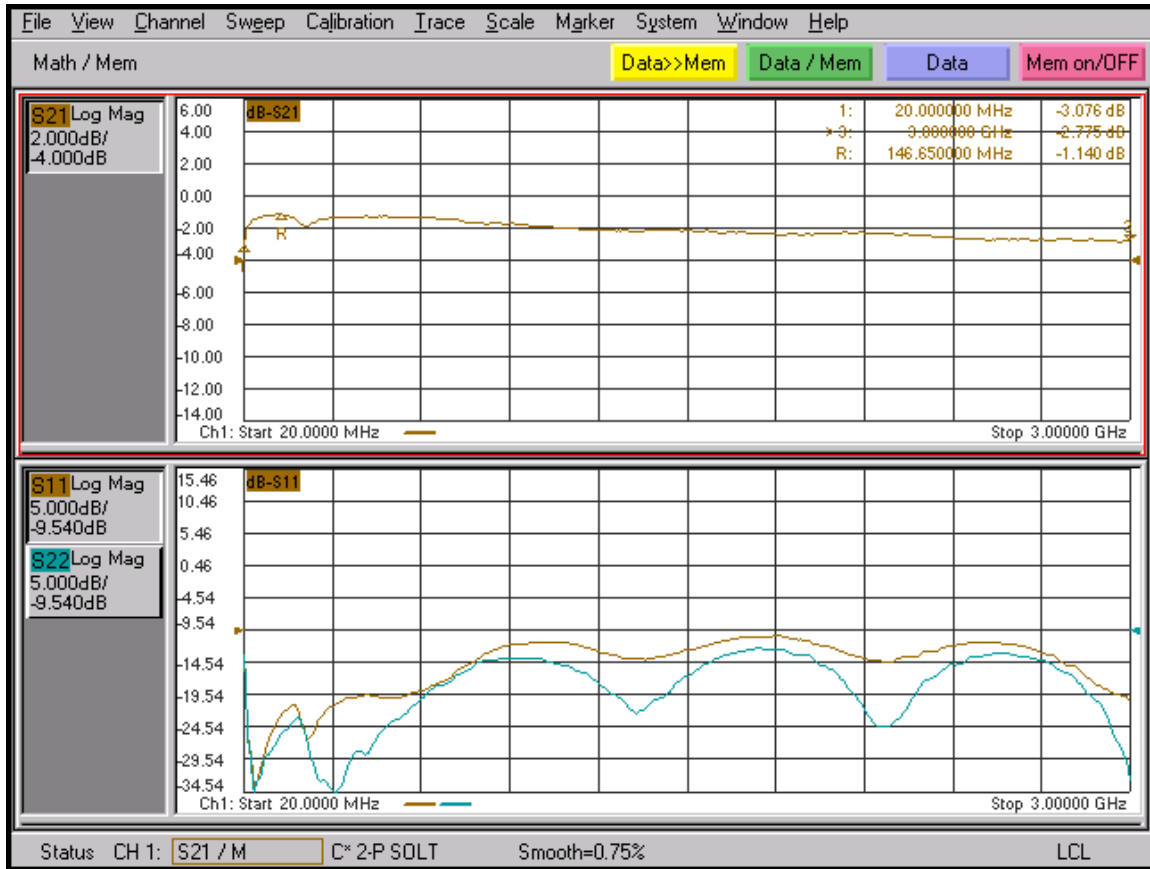




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Typ. Insertion Loss and Return Loss J2-J9

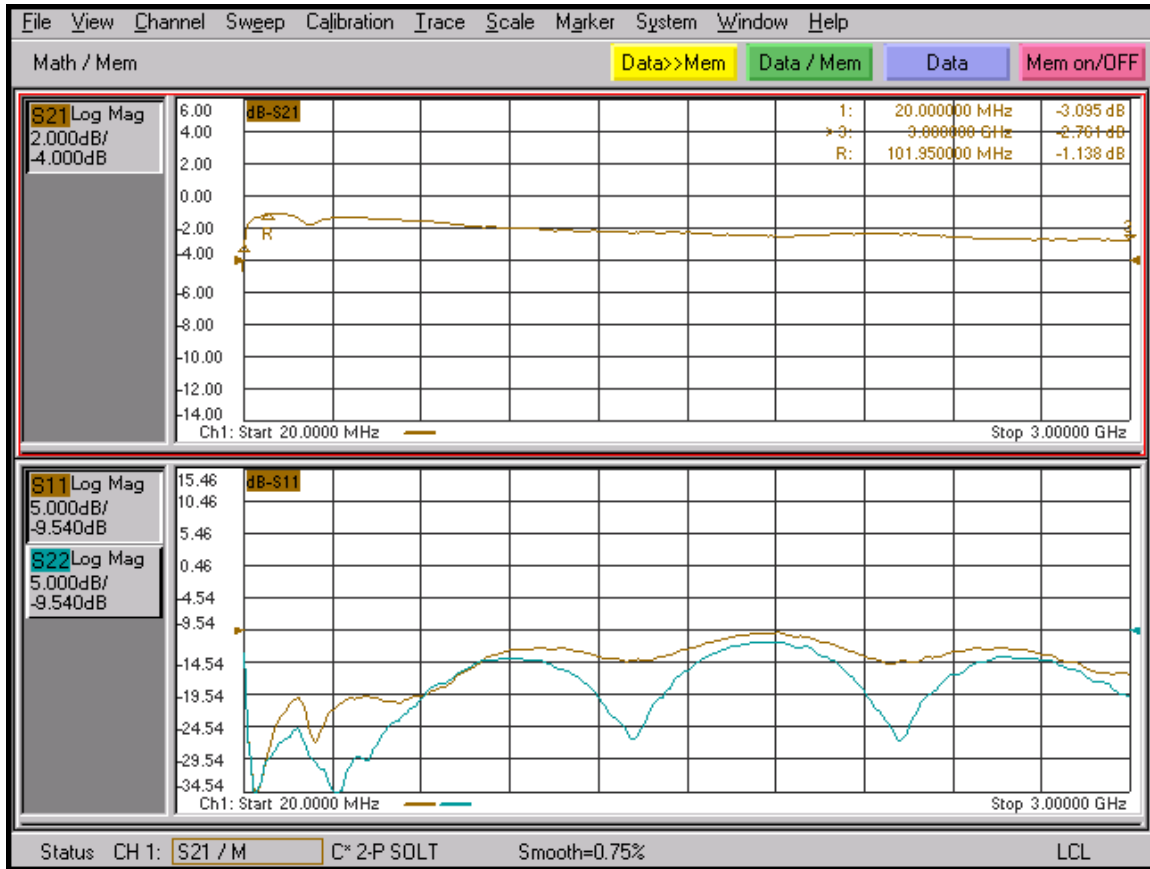




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Typ. Insertion Loss and Return Loss J3-J9

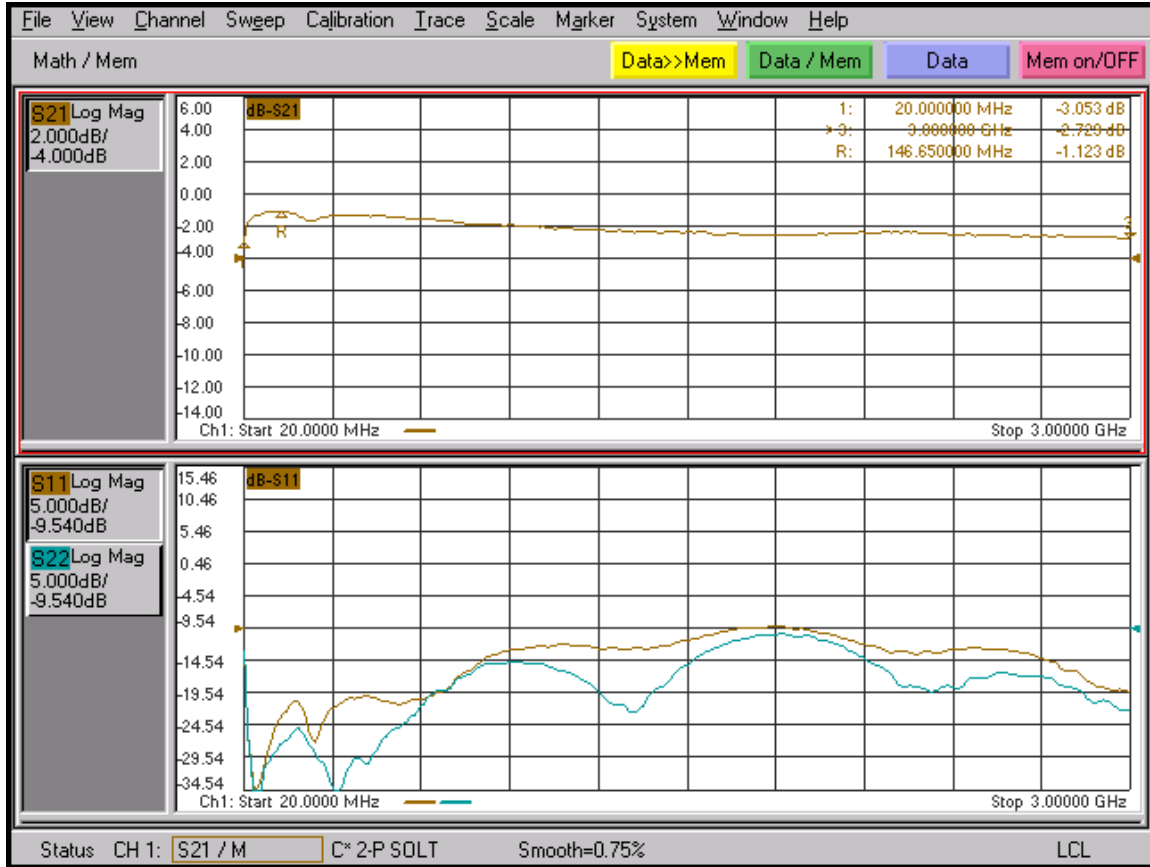




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Typ. Insertion Loss and Return Loss J4-J9

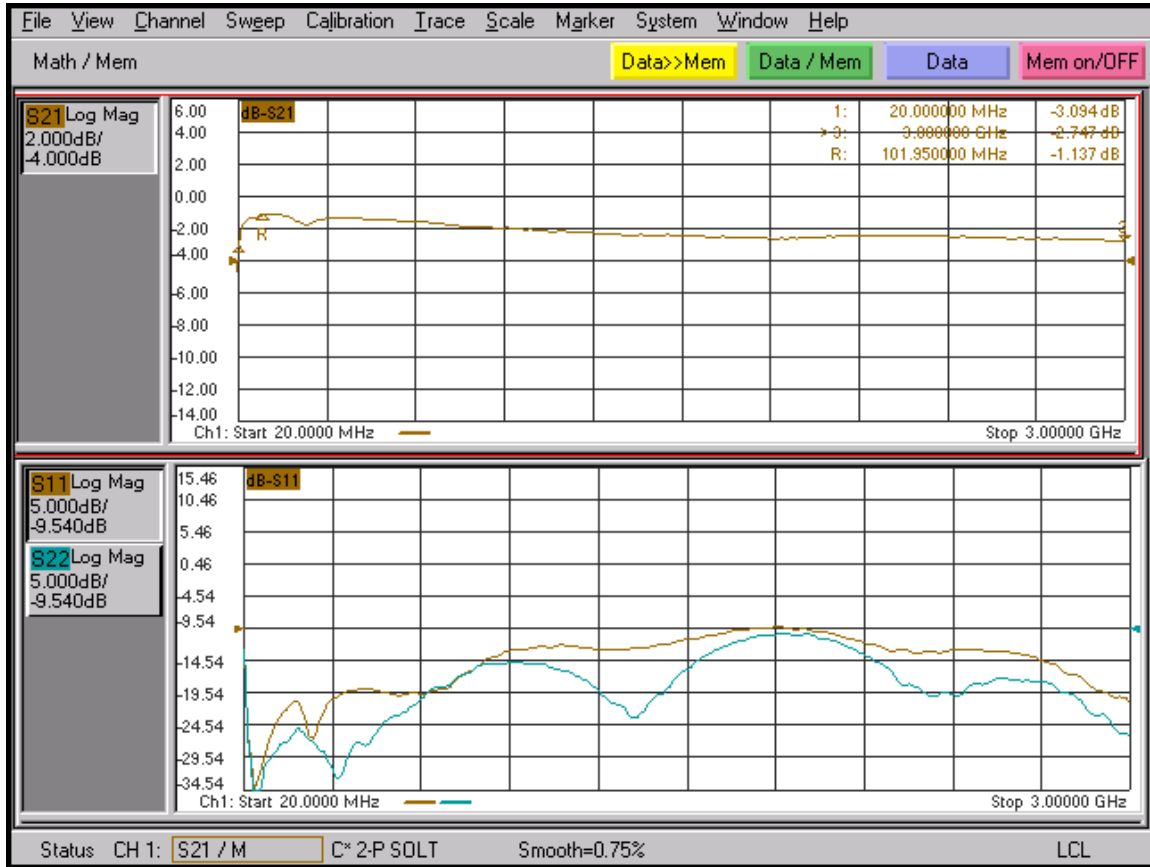




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Typ. Insertion Loss and Return Loss J5-J9

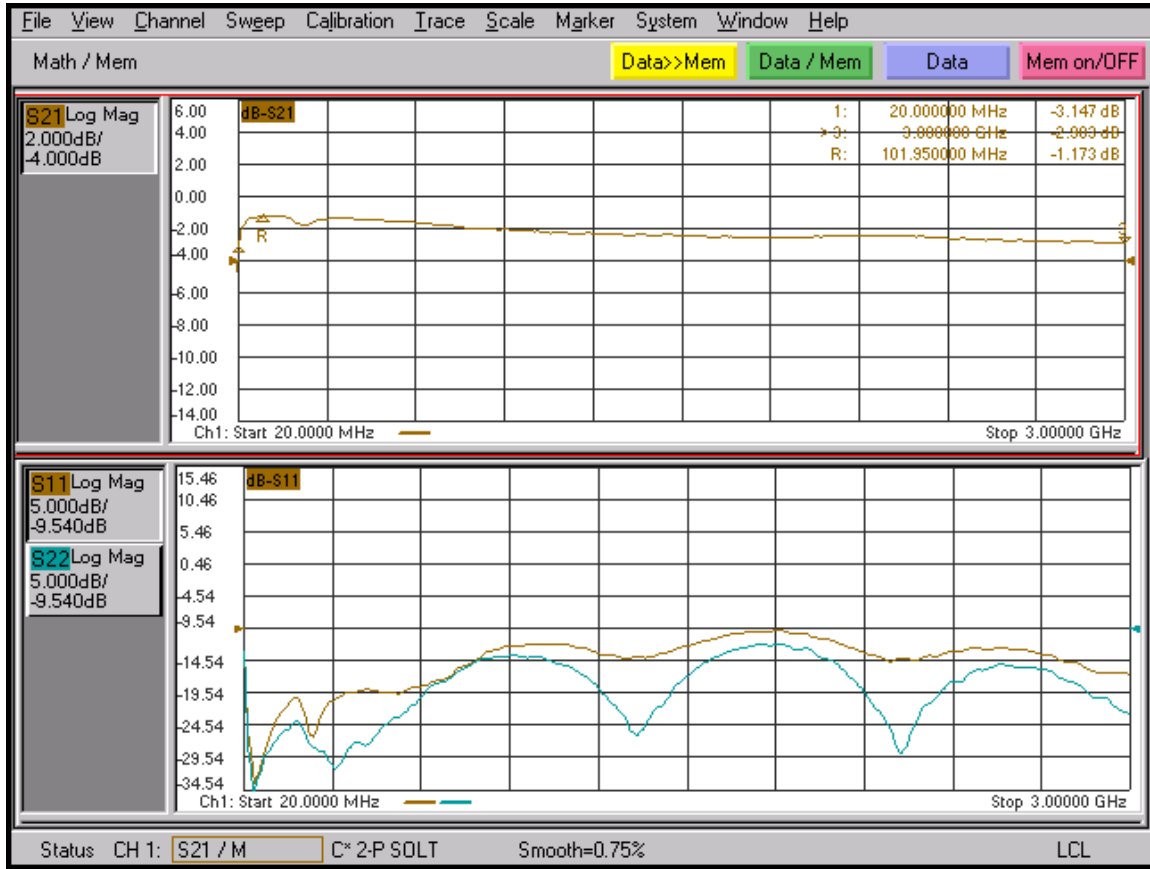




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Typ. Insertion Loss and Return Loss J6-J9

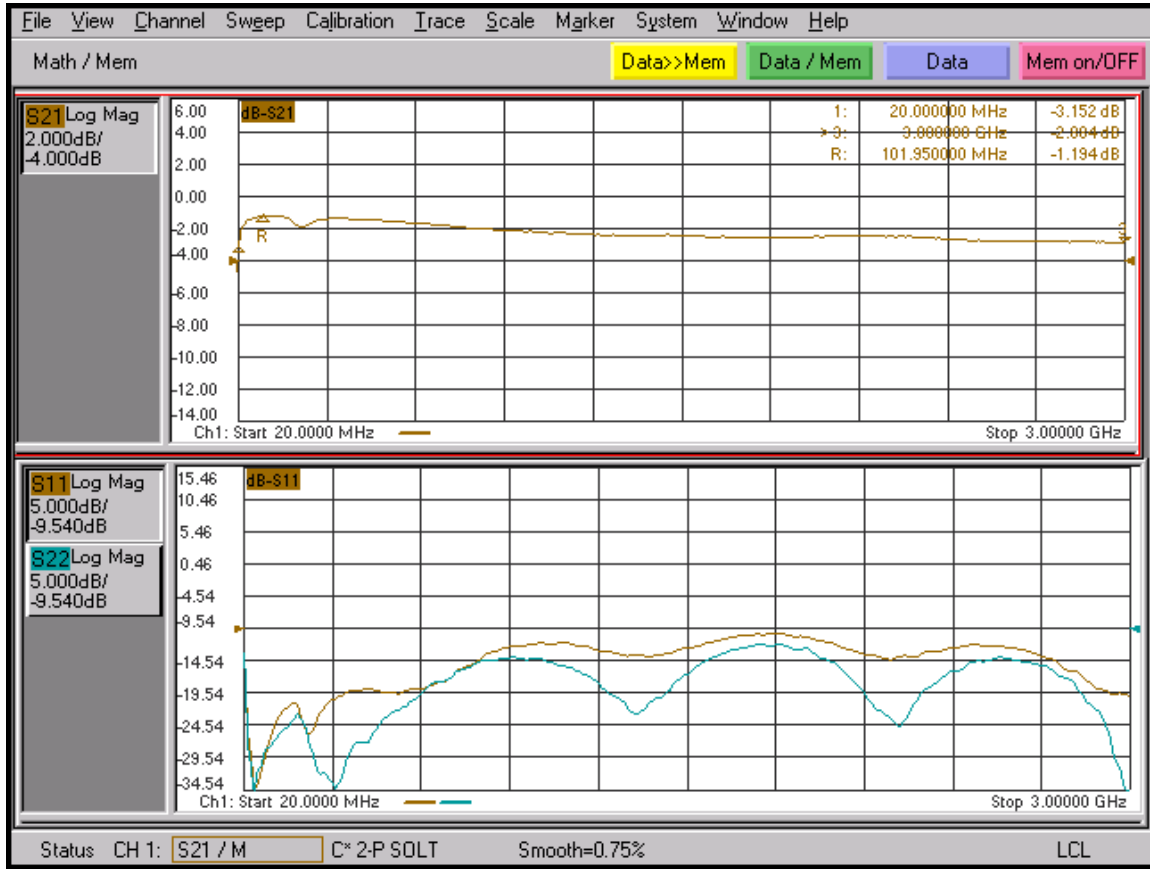




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Typ. Insertion Loss and Return Loss J7-J9

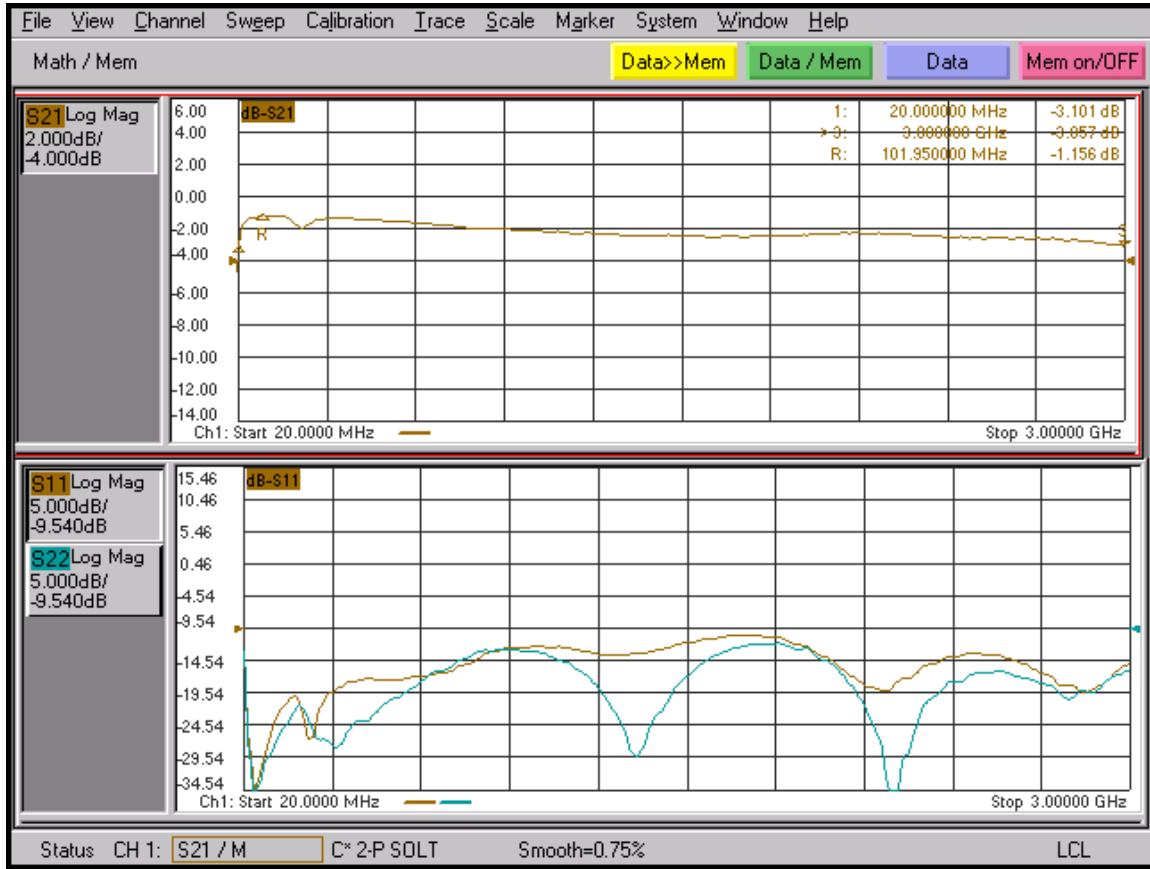




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Typ. Insertion Loss and Return Loss J8-J9

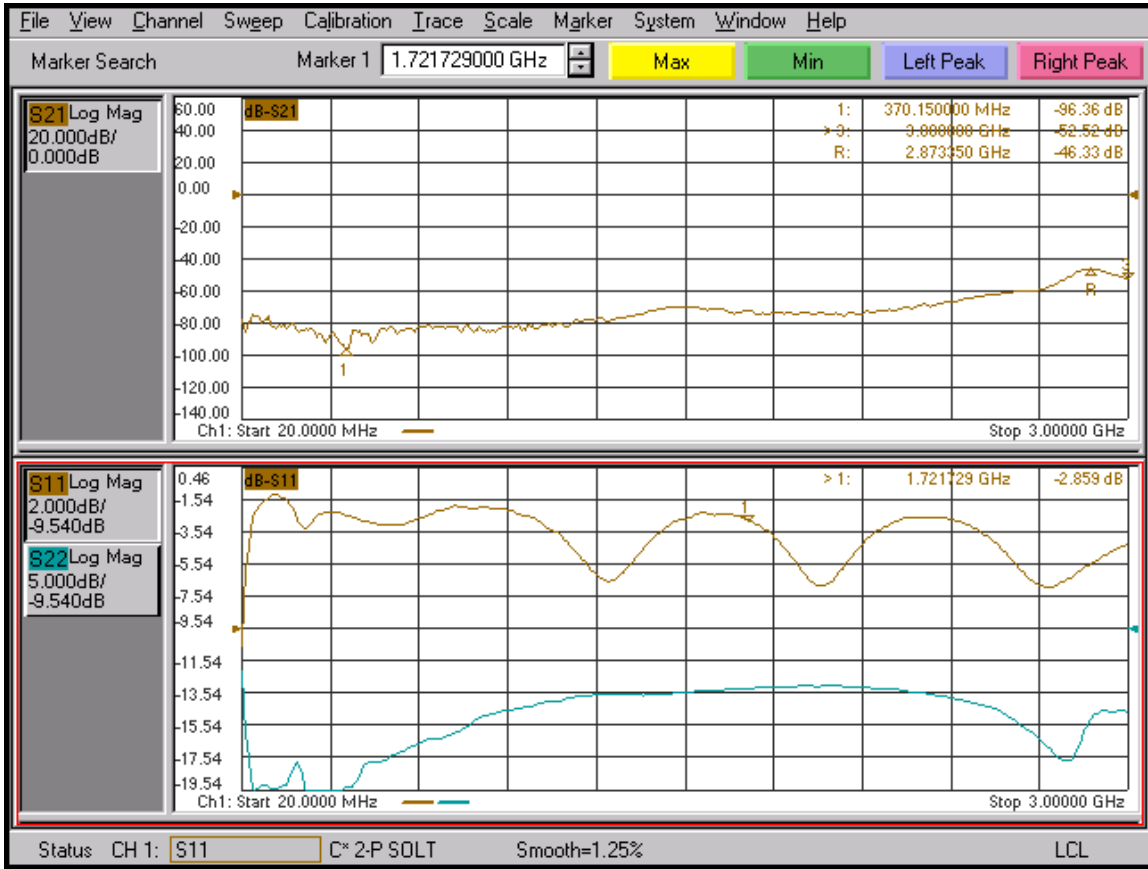




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Typ. Isolation and Return Loss J1-J9

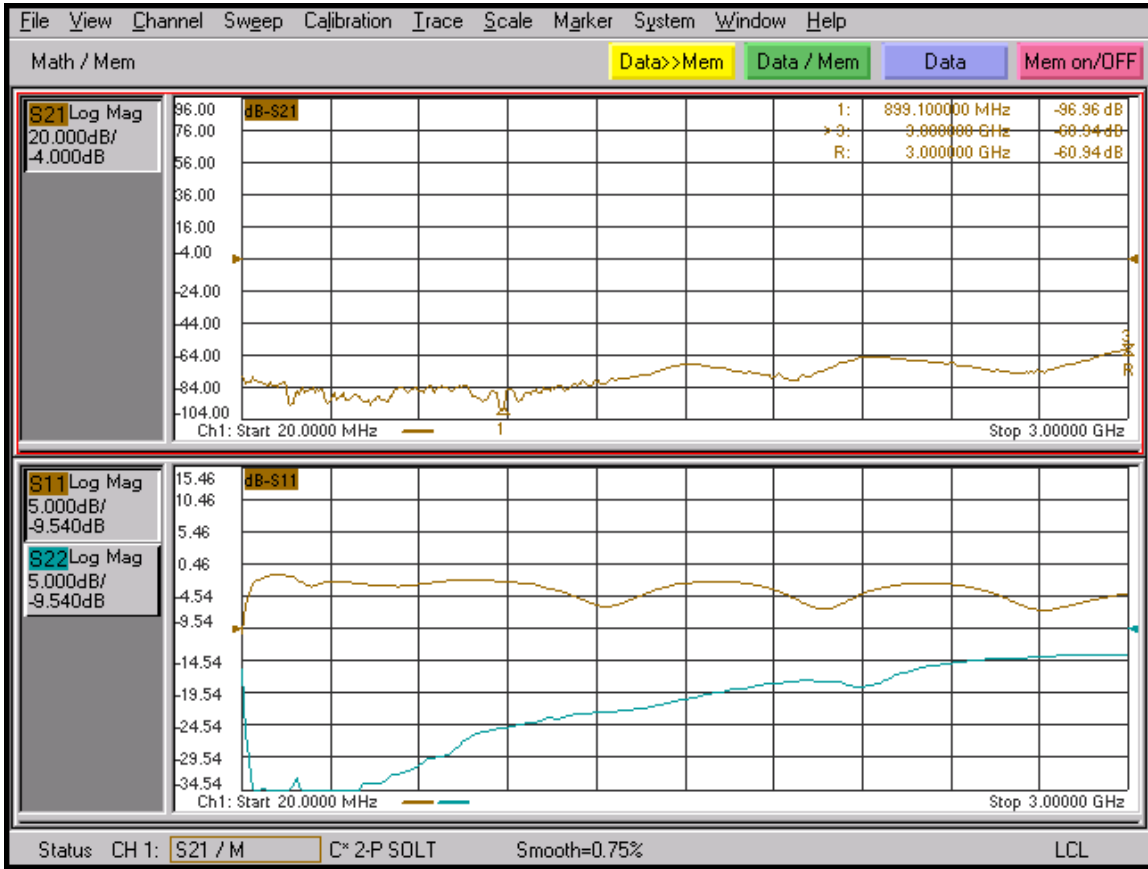




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Typ. Isolation and Return Loss J2-J9

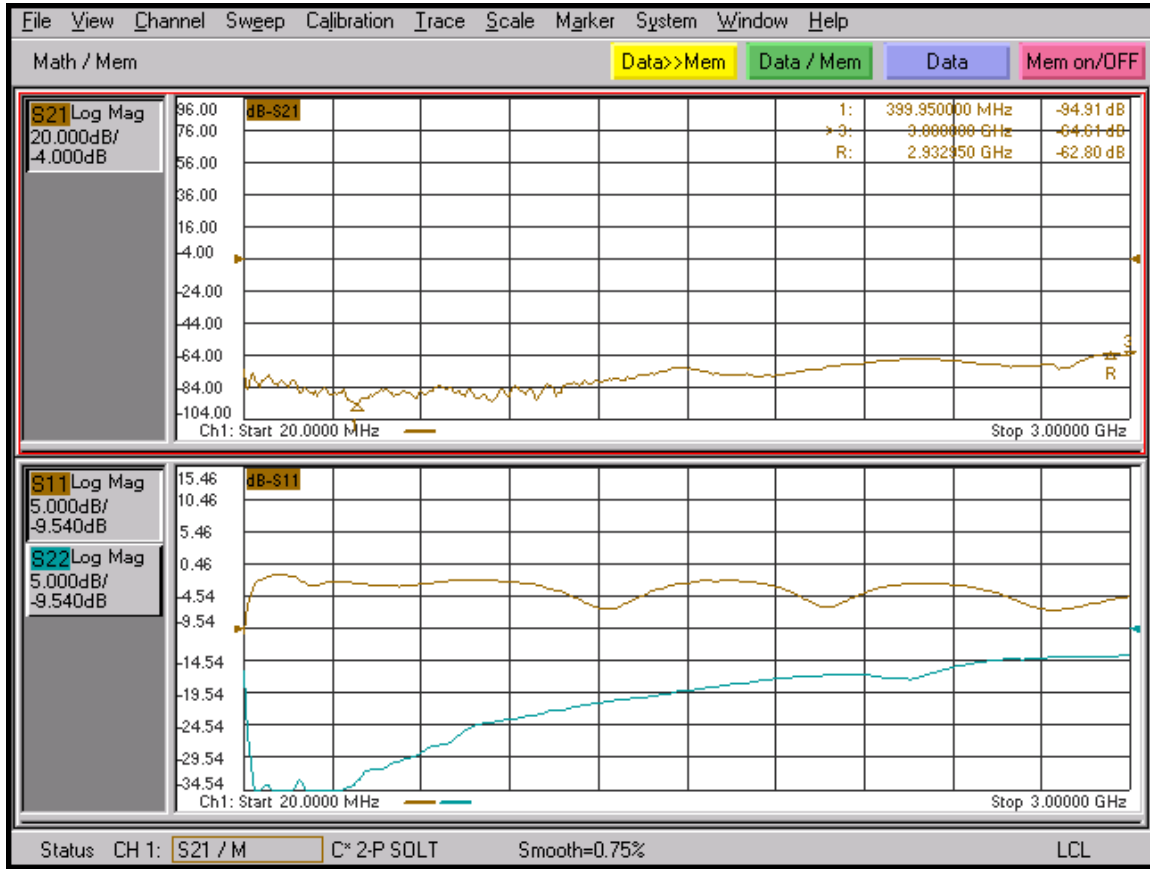




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Typ. Isolation and Return Loss J3-J9

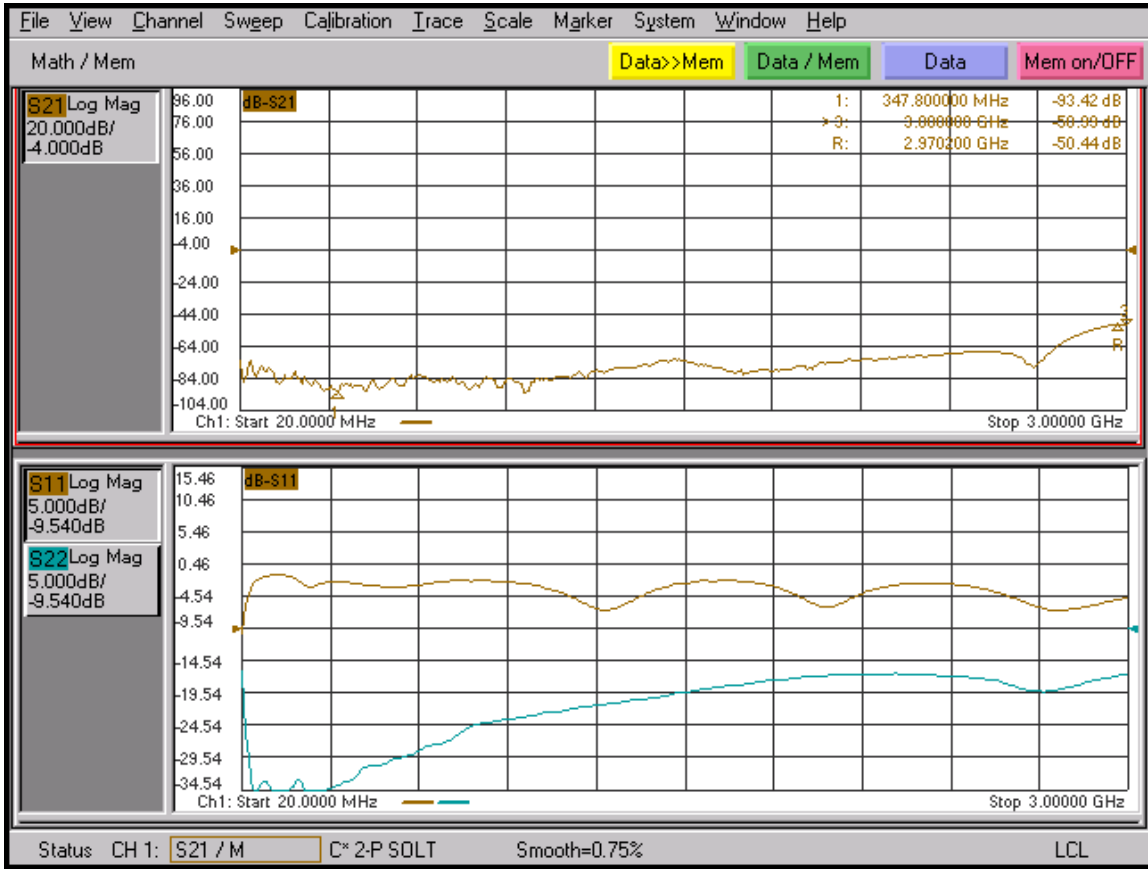




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Typ. Isolation and Return Loss J4-J9

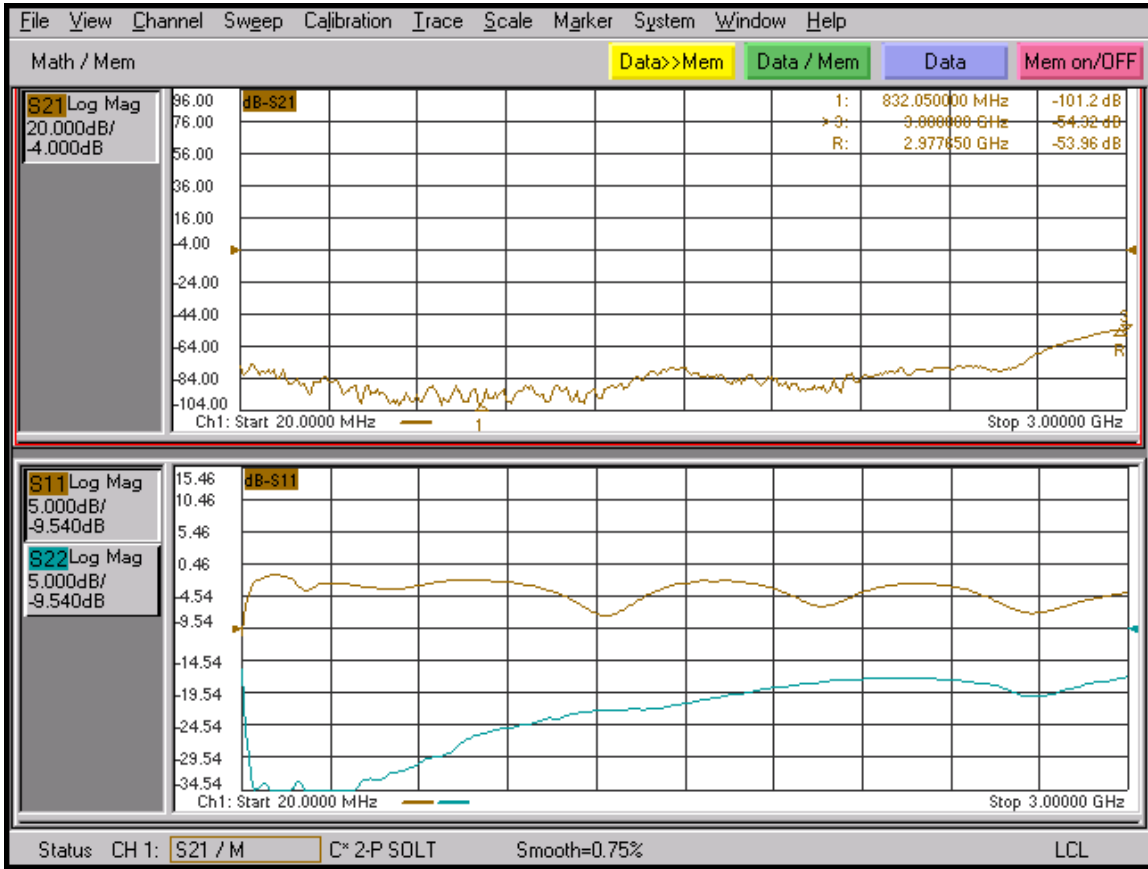




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Typ. Isolation and Return Loss J5-J9

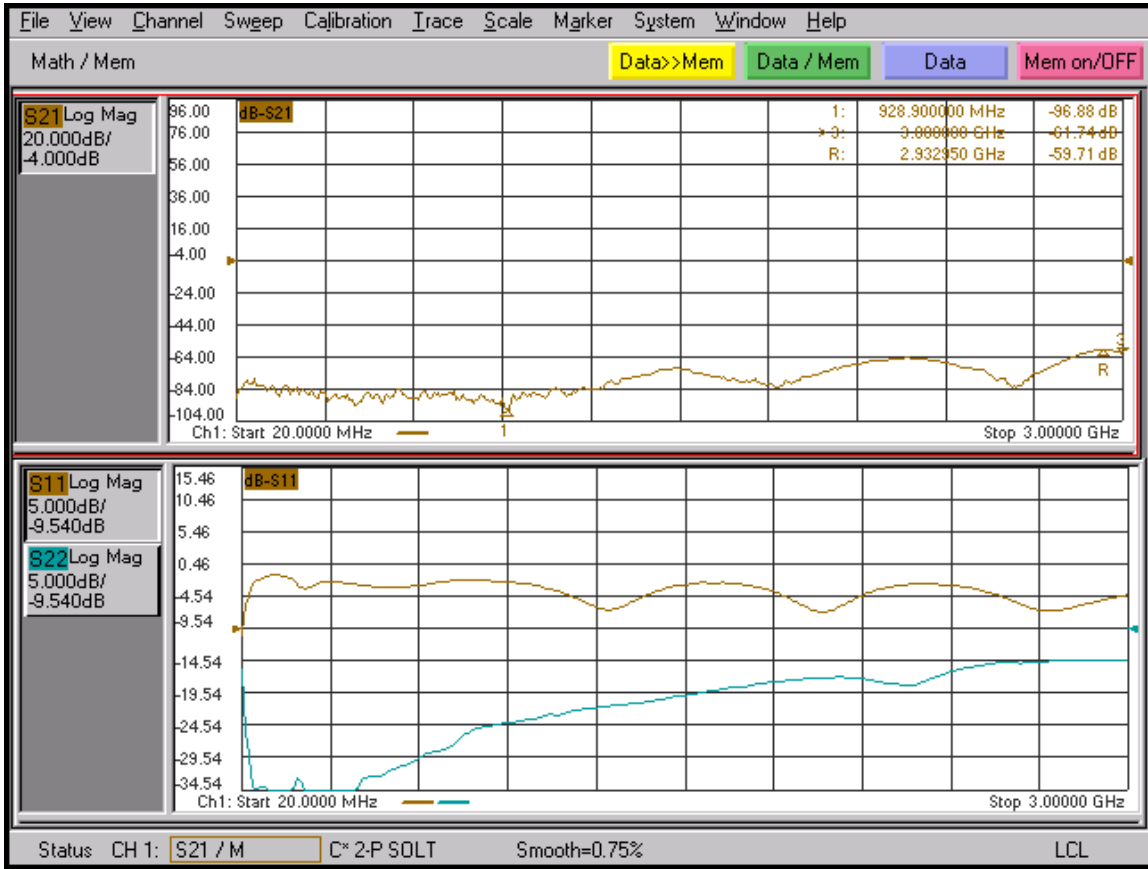




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Typ. Isolation and Return Loss J6-J9

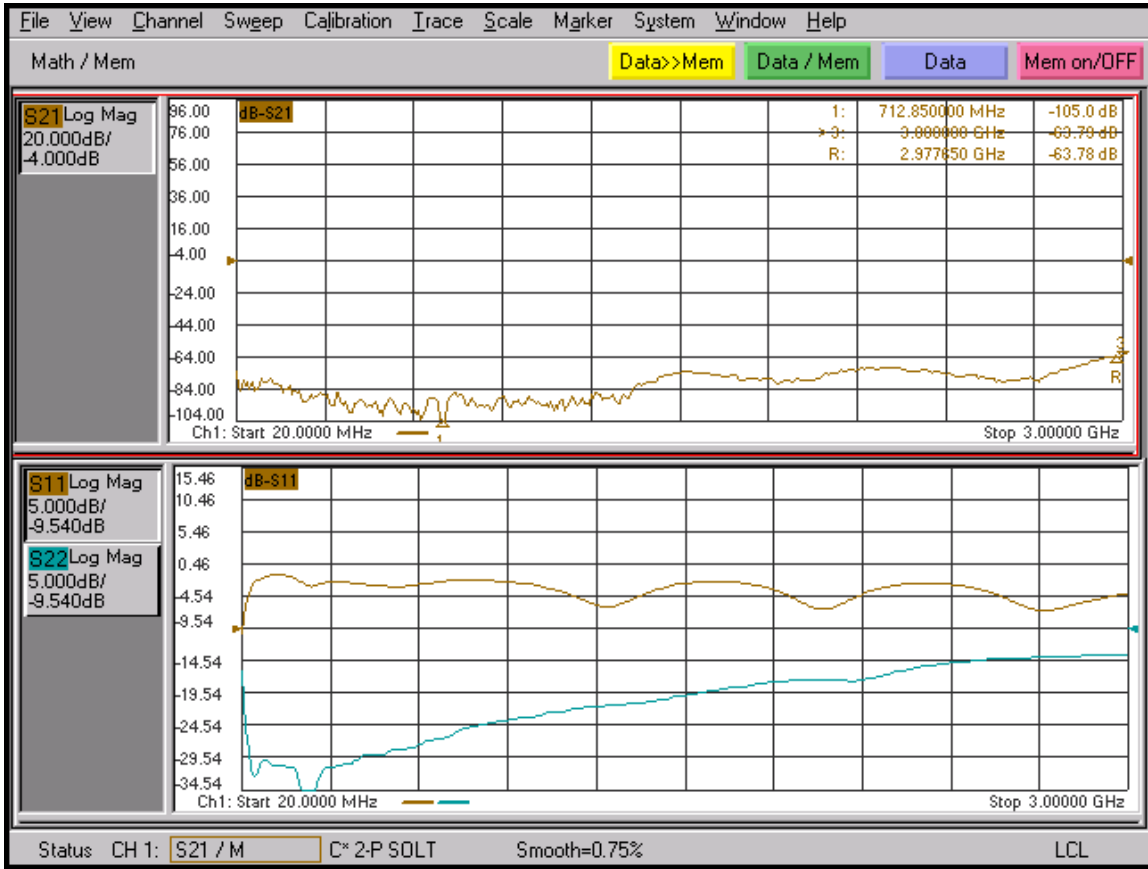




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Typ. Isolation and Return Loss J7-J9

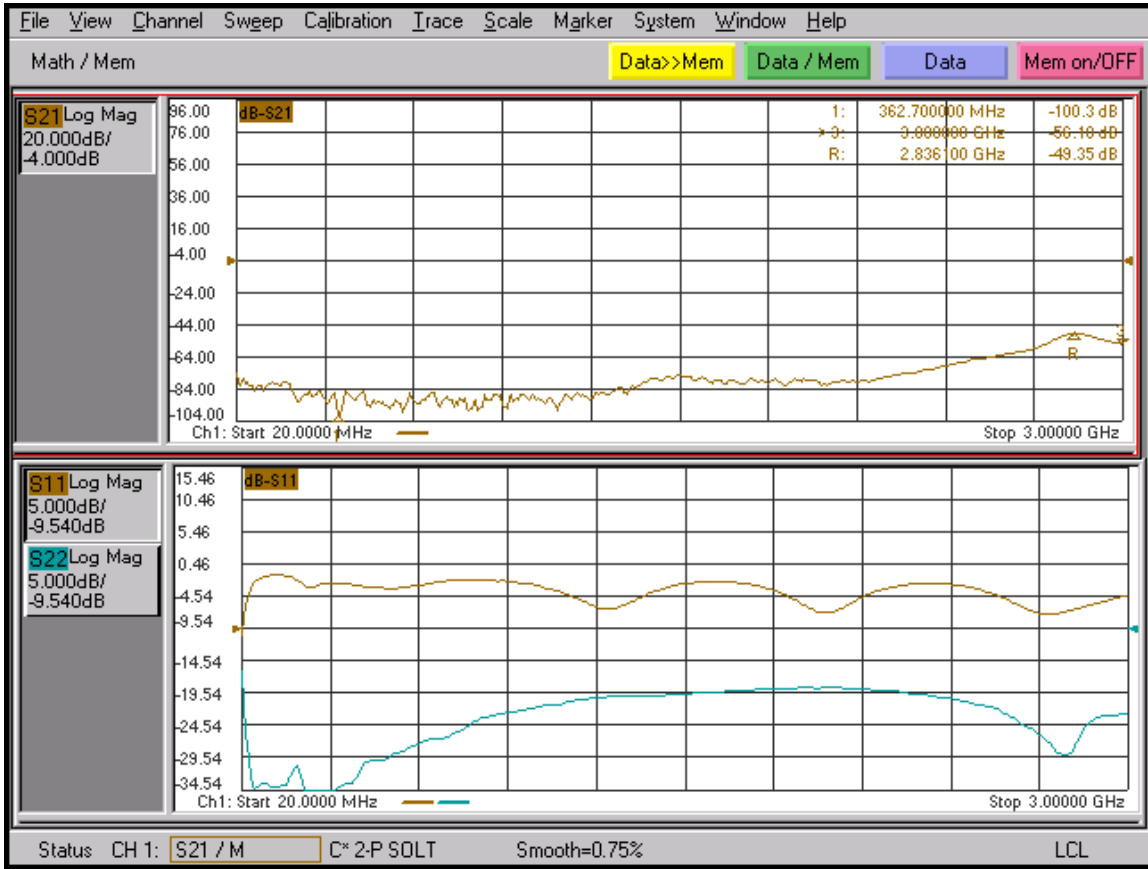




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Typ. Isolation and Return Loss J8-J9

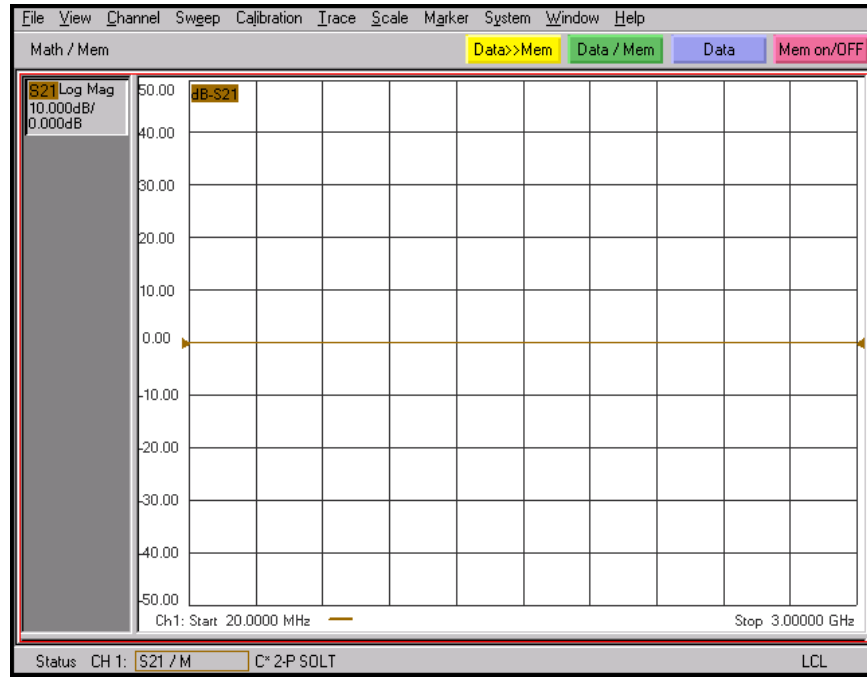




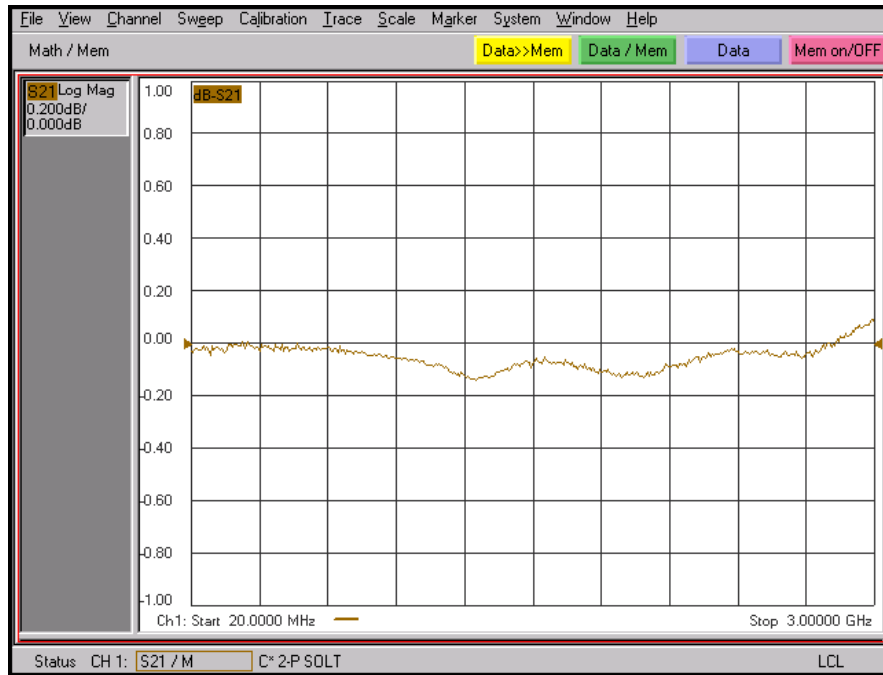
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Amplitude Balance Reference J8-J9



Amplitude Balance (Compared to J8-J9) J1-J9





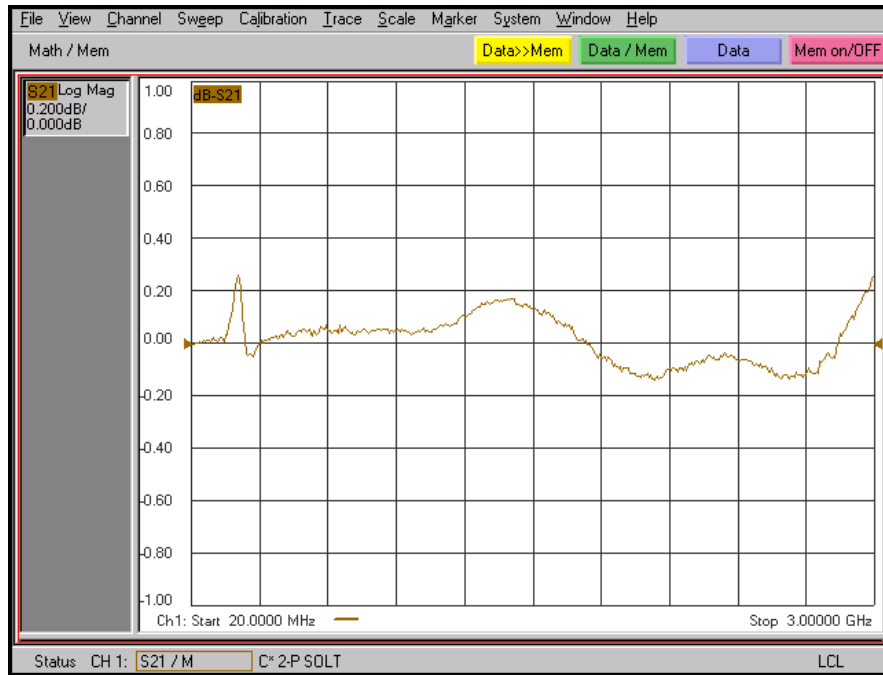
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Amplitude Balance (Compared to J8-J9) J2-J9



Amplitude Balance (Compared to J8-J9) J3-J9

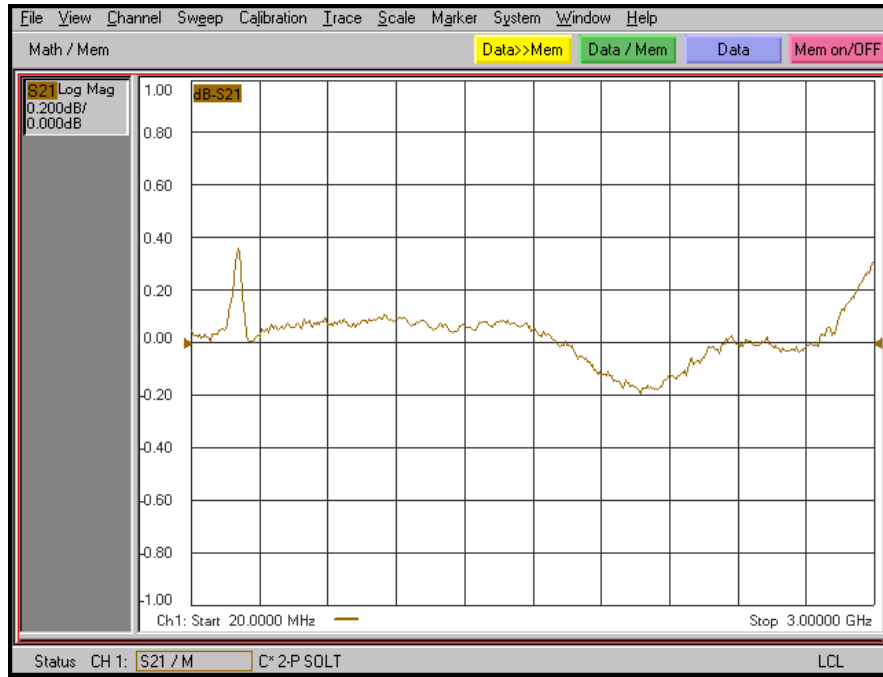




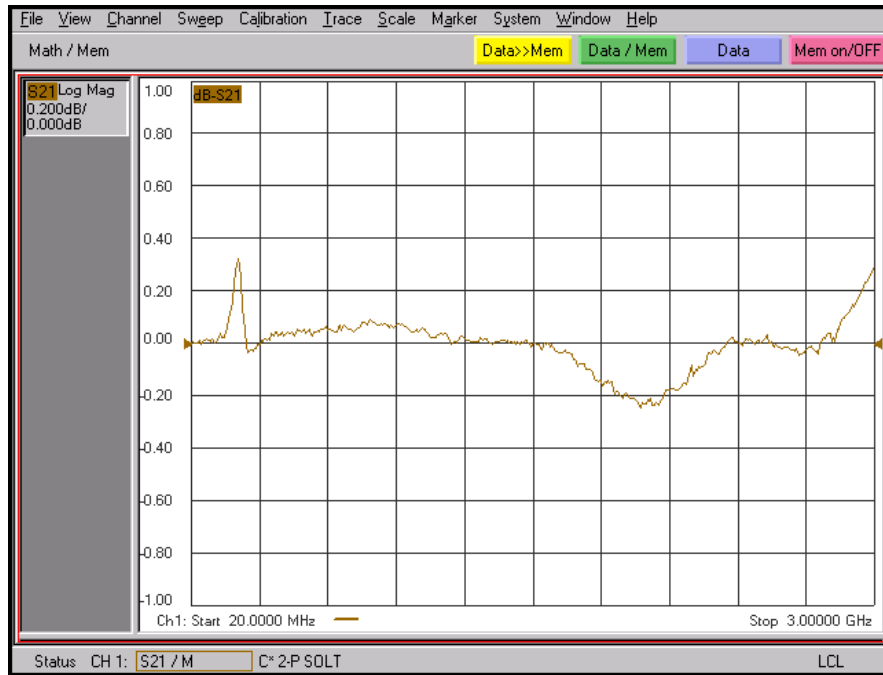
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Amplitude Balance (Compared to J8-J9) J4-J9



Amplitude Balance (Compared to J8-J9) J5-J9





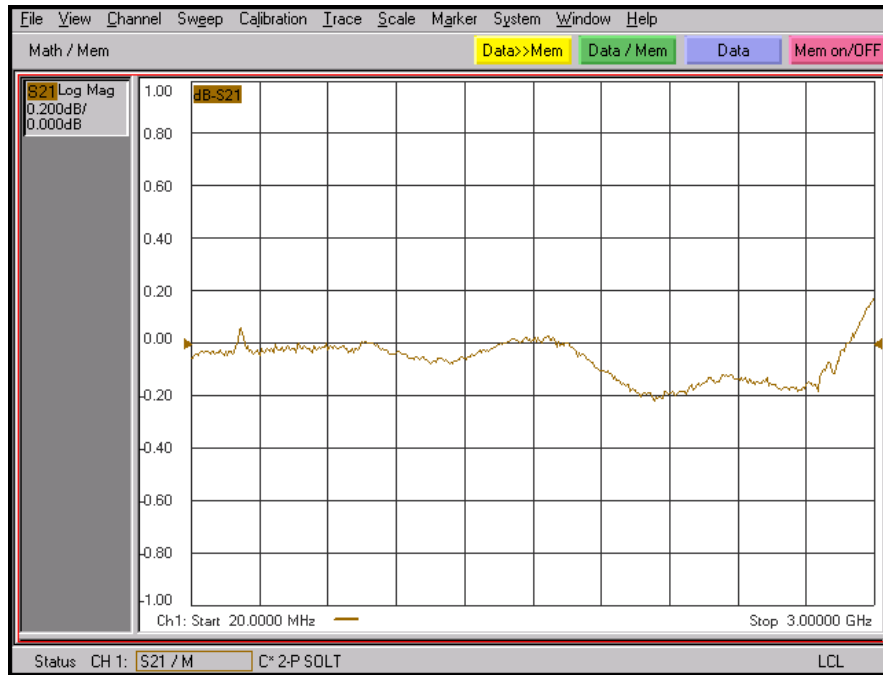
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Amplitude Balance (Compared to J8-J9) J6-J9



Amplitude Balance (Compared to J8-J9) J7-J9

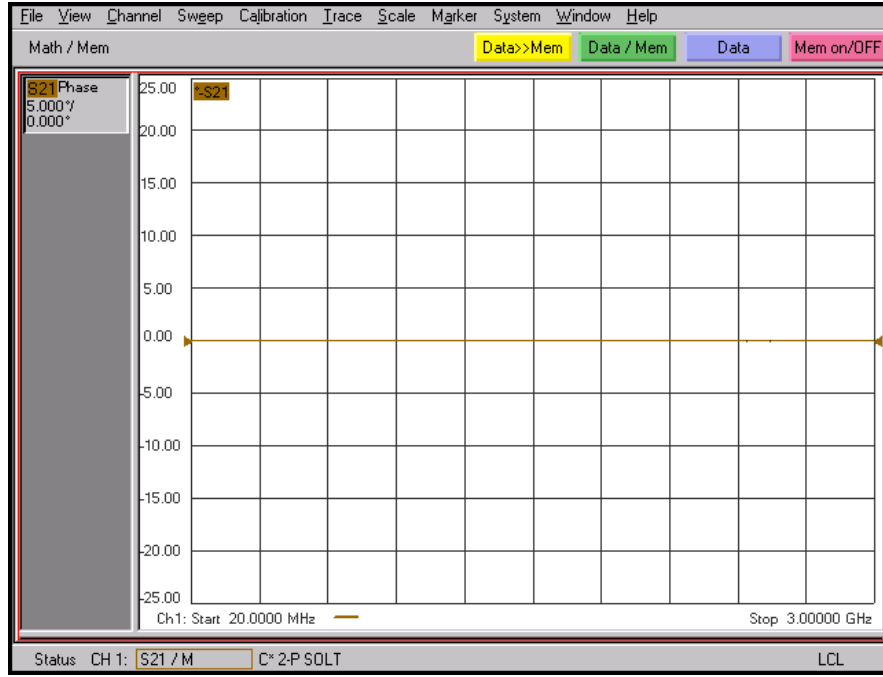




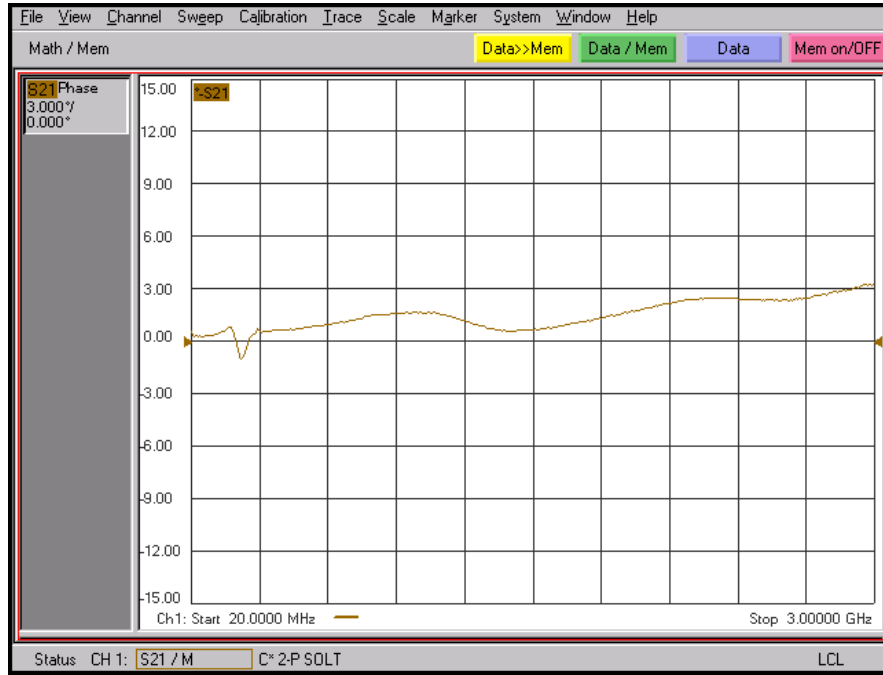
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Phase Balance Reference (J2-J9)



Phase Balance Reference (Compared to J2-J9) J3-J9





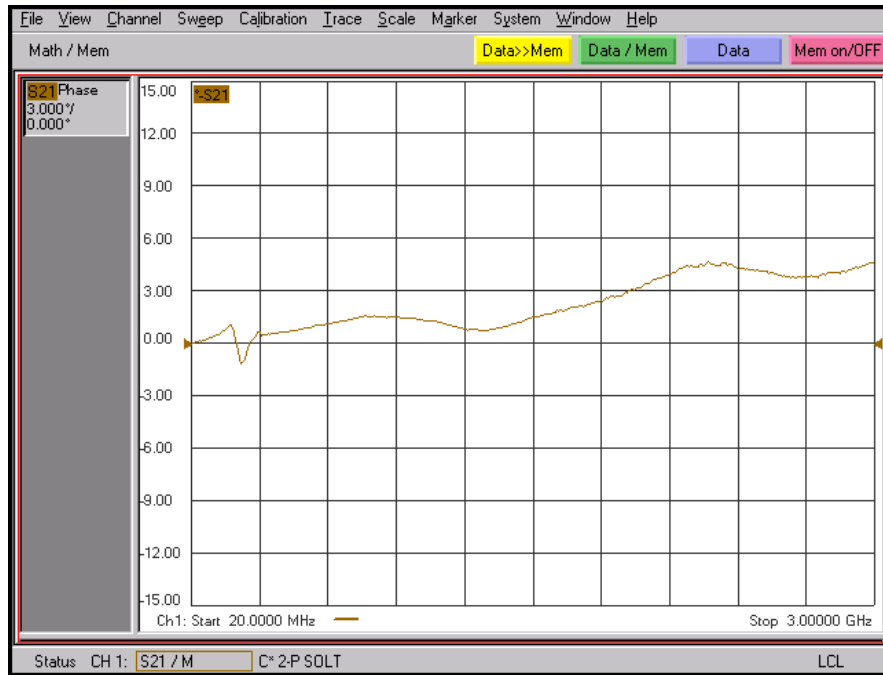
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Phase Balance Reference (Compared to J2-J9) J4-J9



Phase Balance Reference (Compared to J2-J9) J5-J9

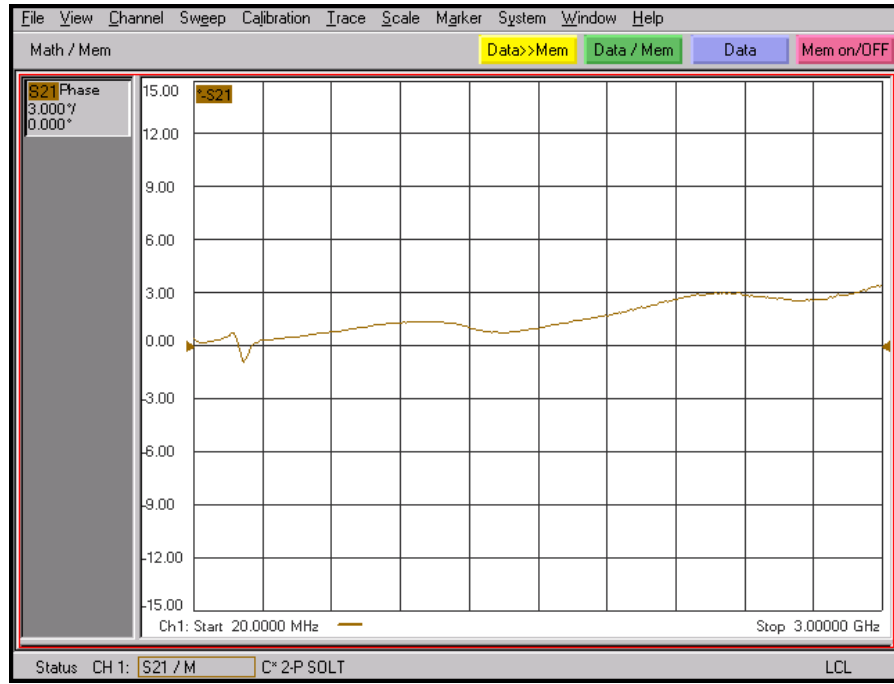




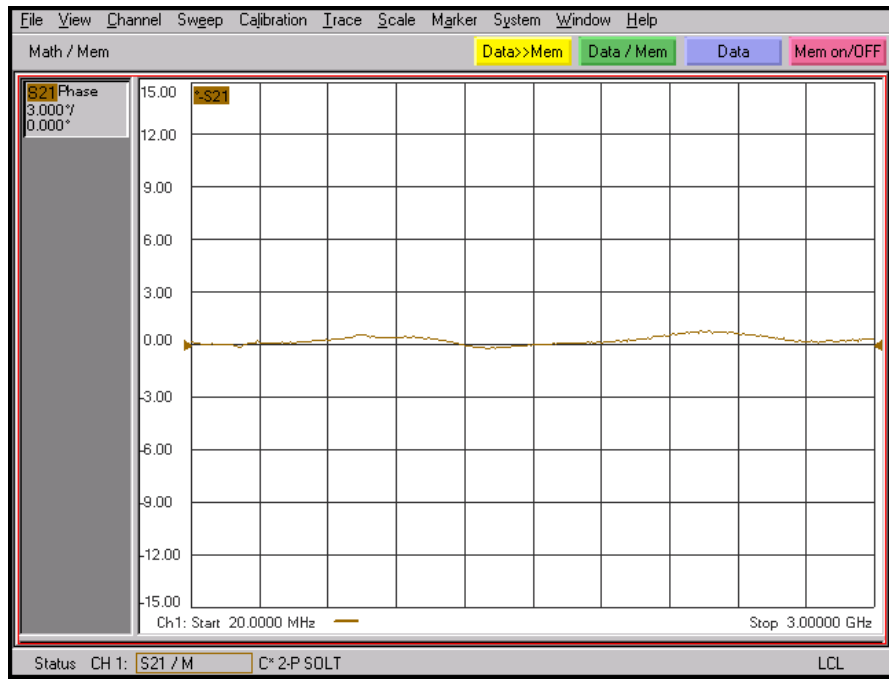
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Phase Balance Reference (Compared to J2-J9) J6-J9



Phase Balance Reference (Compared to J2-J9) J7-J9





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Phase Balance Reference (Compared to J2-J9) J1-J9



Phase Balance Reference (Compared to J2-J9) J8-J9

