

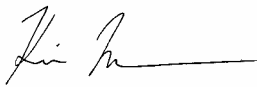



**SUMMARY TEST DATA ON SSPA**

Job No	: <u>PE508301</u>
Model No	: <u>PEC-35-614R5-VGC-SSPA</u>
Serial No	: <u>PL1903</u>

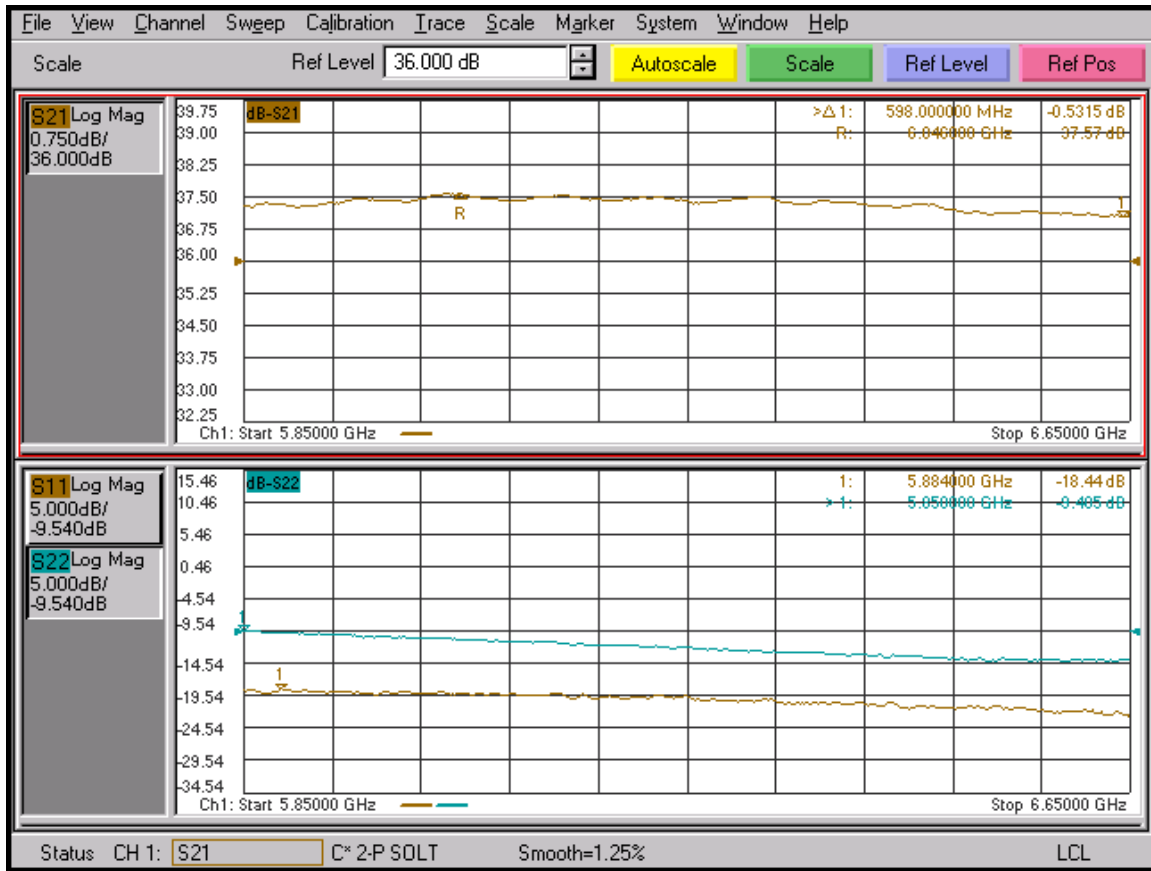
Tested By	: <u>Kevin Mason</u>
Temperature	: <u>+25°C</u>
Date	: <u>11/22/05</u>

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range:	5.85 to 6.65GHz 7.9 to 8.4GHz 13.75 to 14.5GHz	Pass (See Plots)	
2	Gain:	30 to 37dB	(See plot)	
3	Gain Flatness:	0.75dB <sub>p-p</sub> Max. (per sub-band)	Pass (See plots)	
4	Gain Slope:	0.08dB <sub>p-p</sub> Max/80MHz 0.05dB <sub>p-p</sub> Max/40MHz	(See Plots)	
5	Gain variation over Temperature:	±0.35dB/10°C Change	Pass	
6	Gain Stability:	±0.25dB Max. over a 24 Hour period with constant Frequency and Temperature	Pass	
7	Noise Figure:	10.0dB Max. @ +25°C	Pass (See NF Plots)	
8	OP1dB:	+22dBm Min.	Pass	
9	Gain Attenuation:	35dB Min. Linearized to 7.0dB/volt and ±1.0dB	(See Plots)	
10	Gain Control Voltage:	0 to 5 volts	Pass	
11	Intermodulation:	-30dBc @ +18dBm Pout, 0dBm In	Pass	
12	2 <sup>ND</sup> Harmonics:	-30dBc Max. (C-Band) -40dBc Max. (X & Ku Band)	(See Plots)	
13	VSWR:	2.0:1 Max.	Pass (See Plots)	
14	DC Power and Current:	450mA@+15VDC Max.	454mA	
15	TTL On/Off:	Hi/Open=ON Lo=Off	Pass	

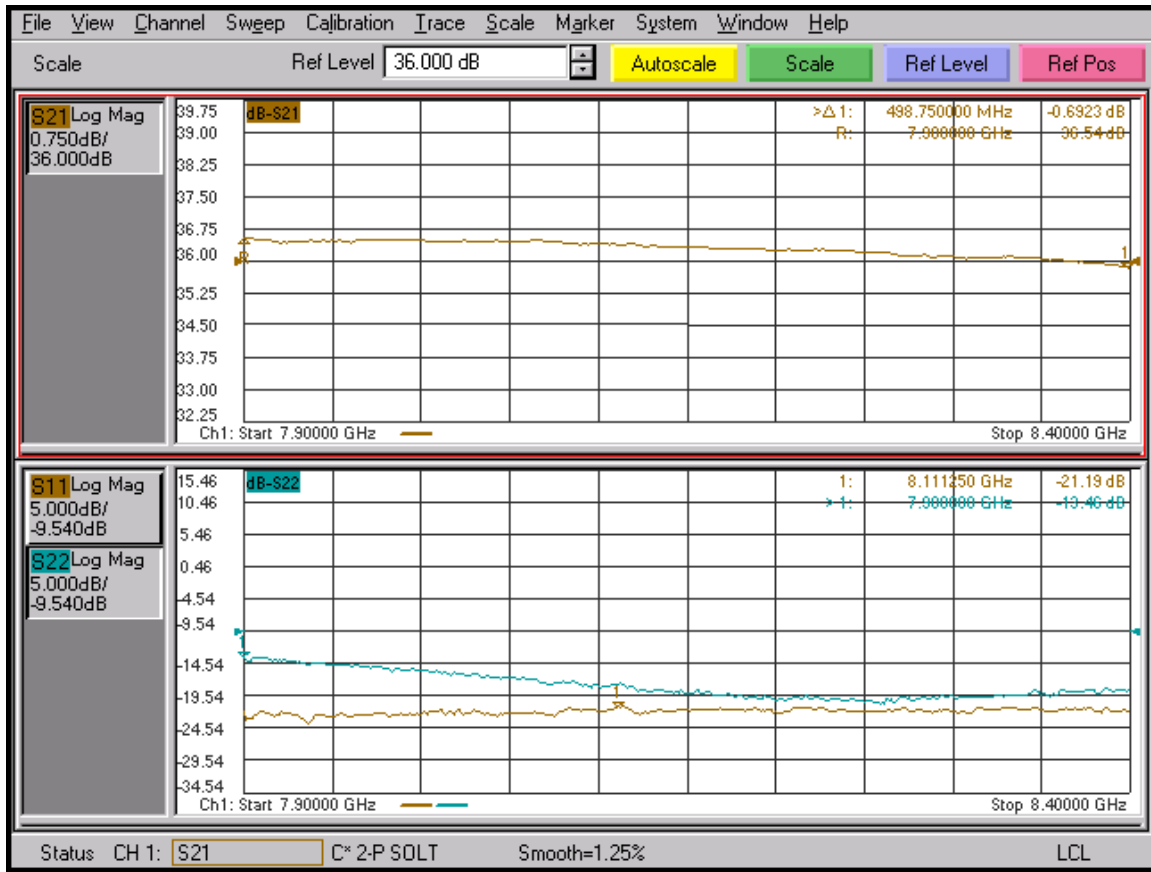
Production Manager Approval:  Date: 11/22/05

QA/QC Approval:  Date: 11/22/05

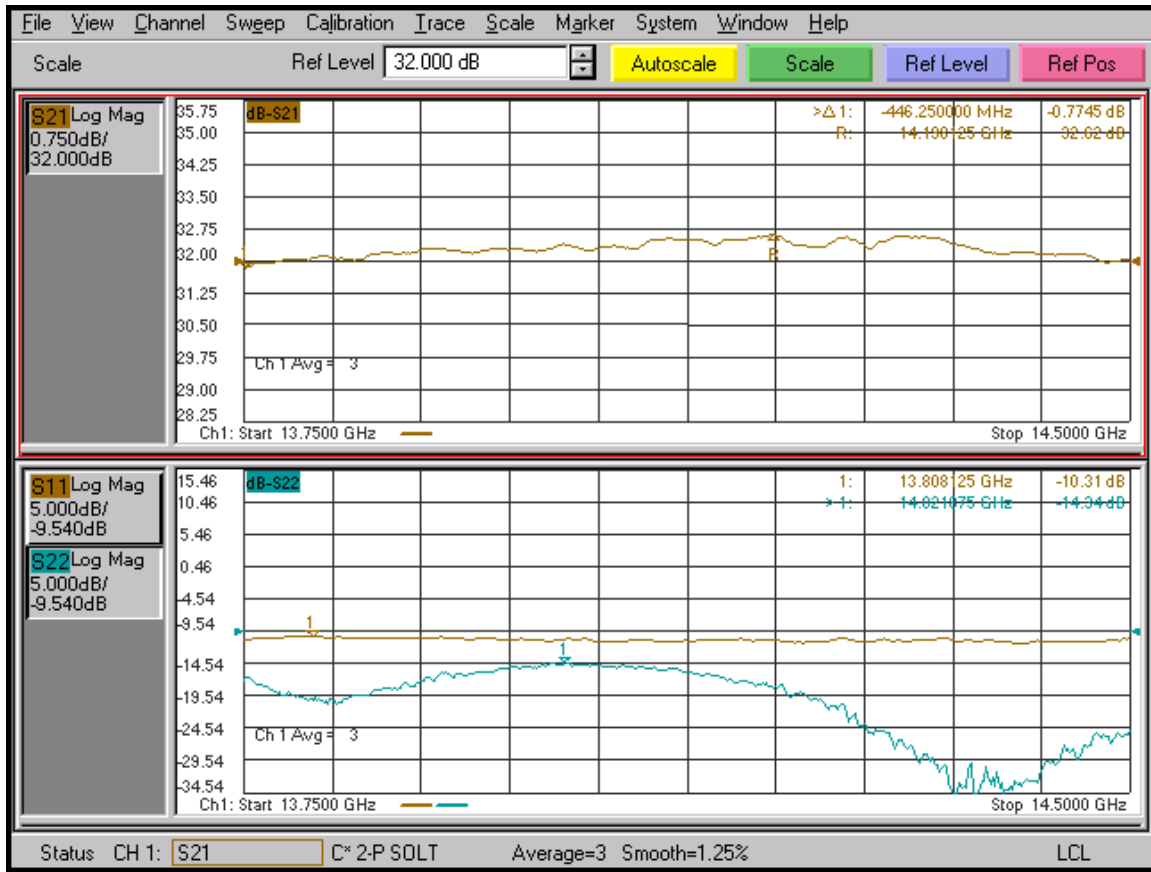
**Low-Band (5.85 to 6.65GHz) S-Parameter Measurements**



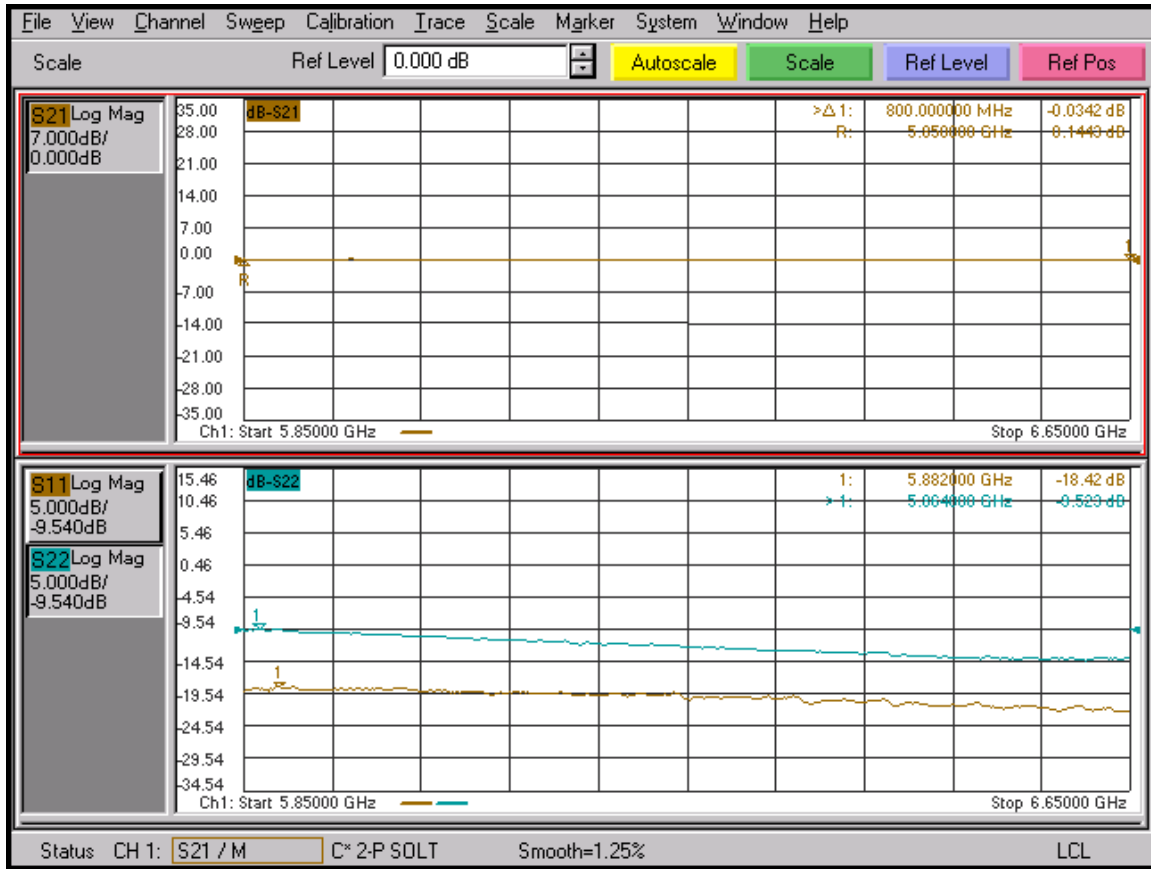
### Mid-Band (7.9 to 8.4GHz) S-Parameter Measurements



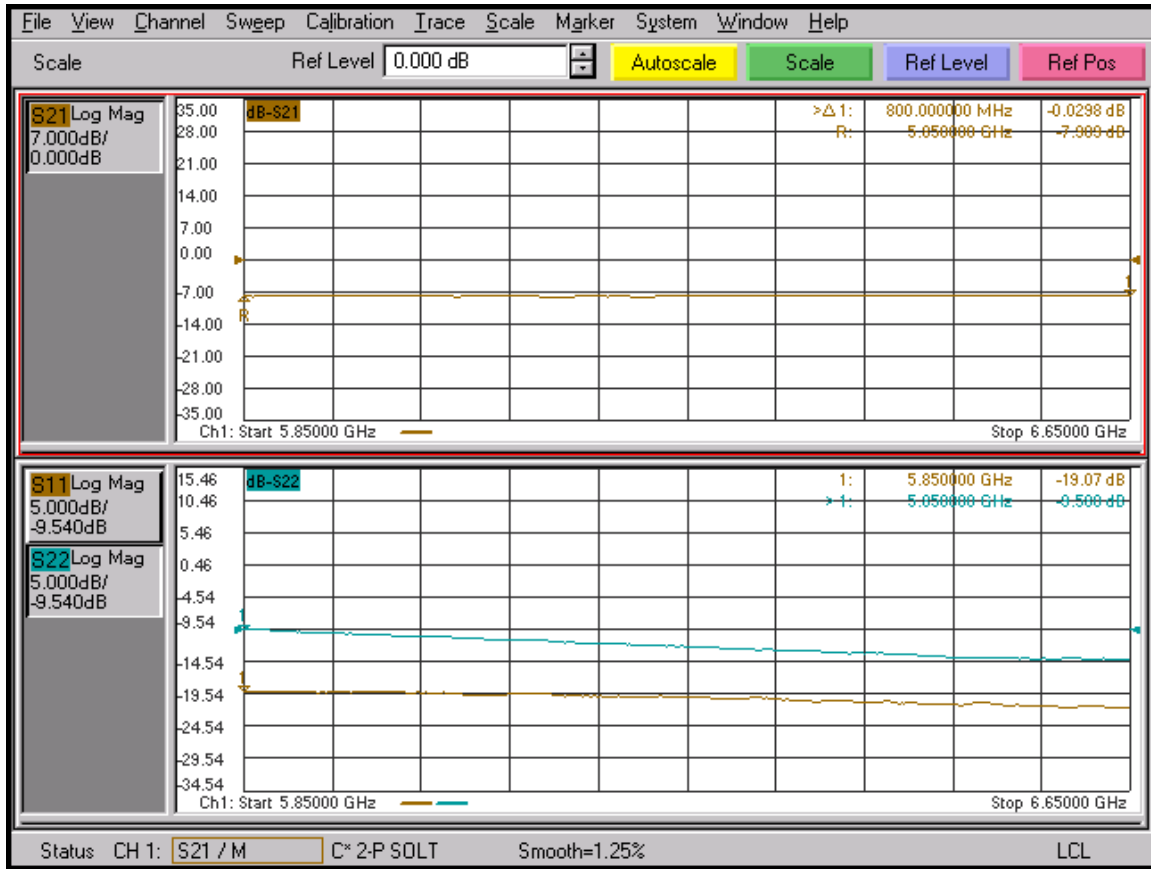
### High-Band (13.75 to 14.5GHz) S-Parameter Measurements



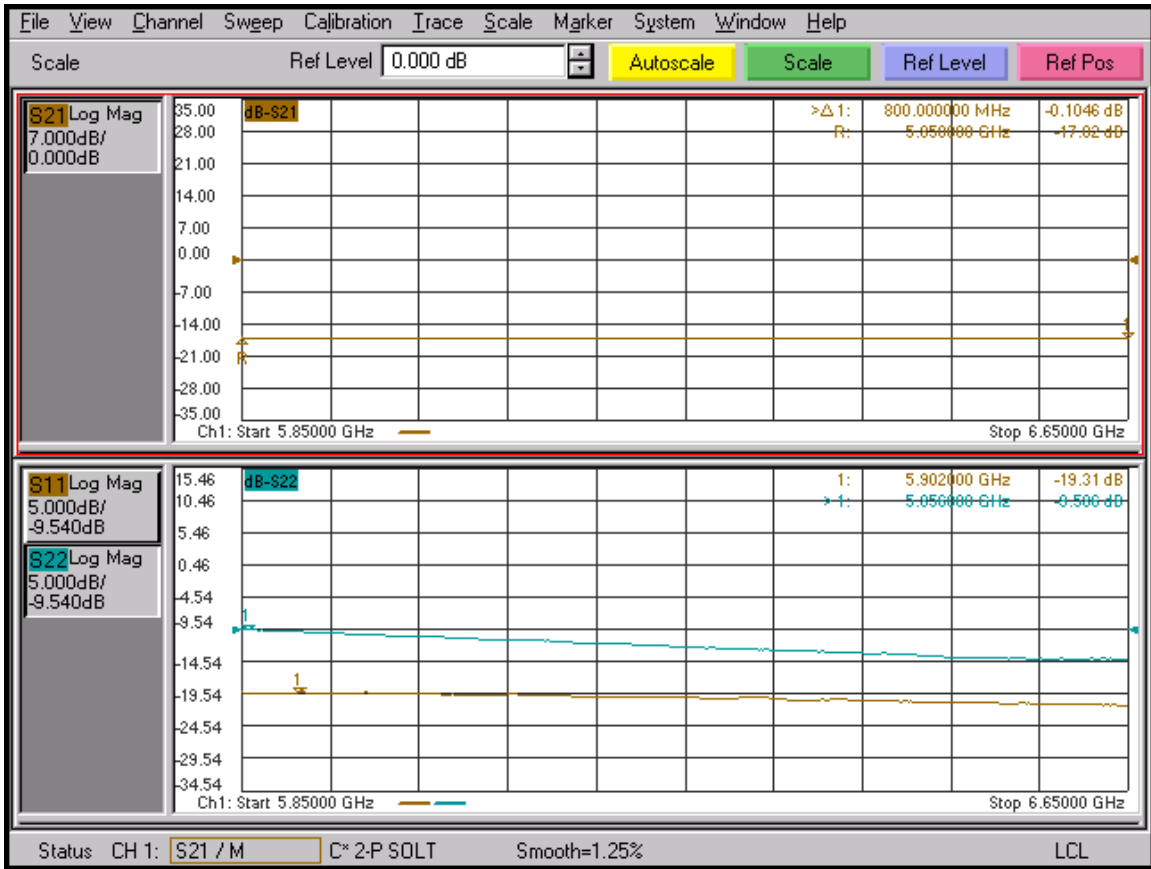
**Low-Band (5.85 to 6.65GHz) Normalized Gain with No Attenuation**  
**Attenuation Control = 0 volts**



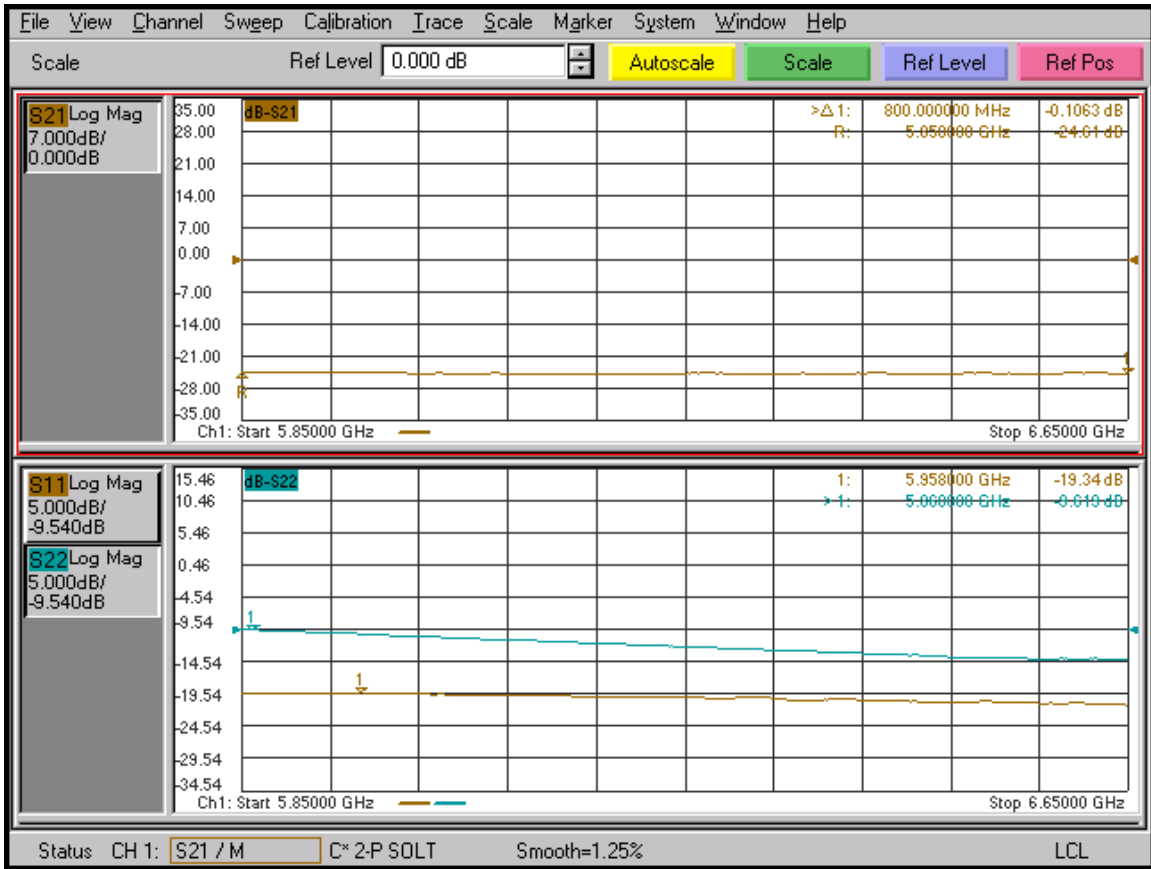
**Low-Band (5.85 to 6.65GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 1 volt**



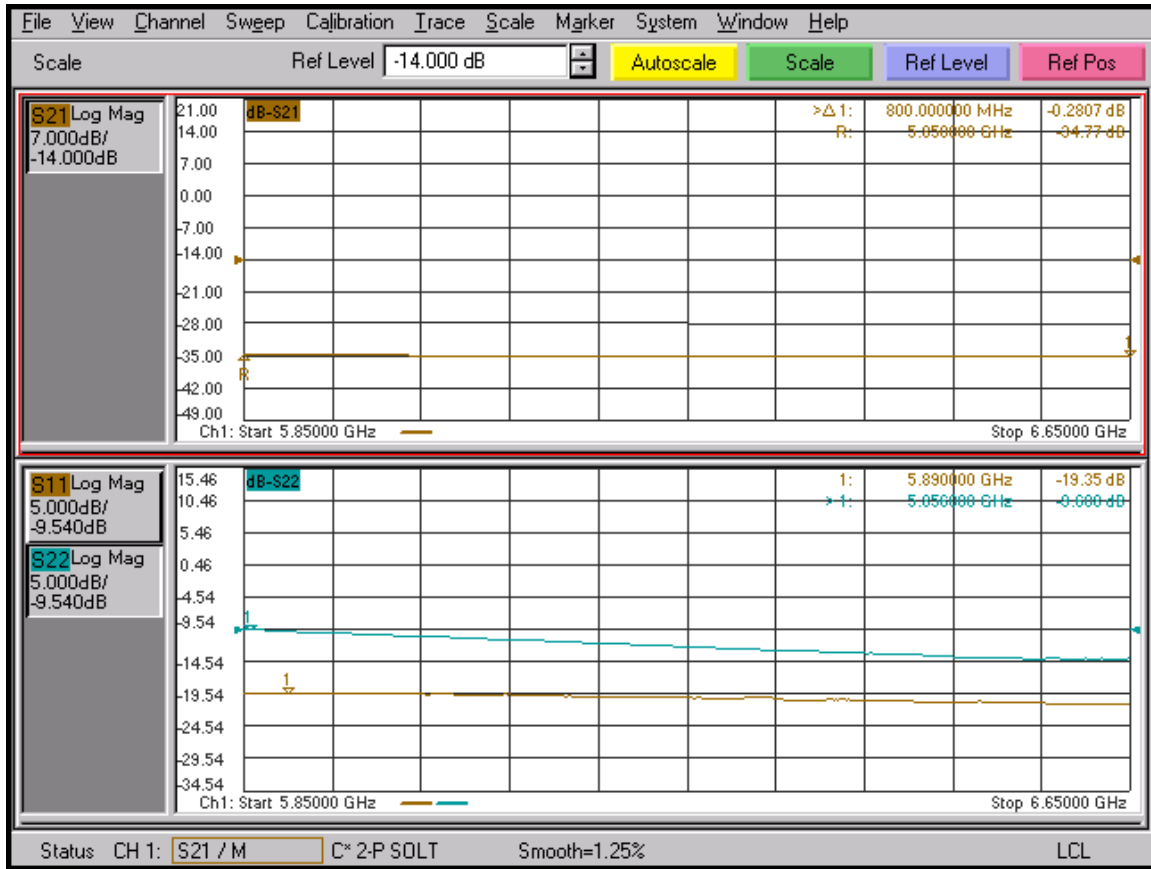
**Low-Band (5.85 to 6.65GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 2 volts**



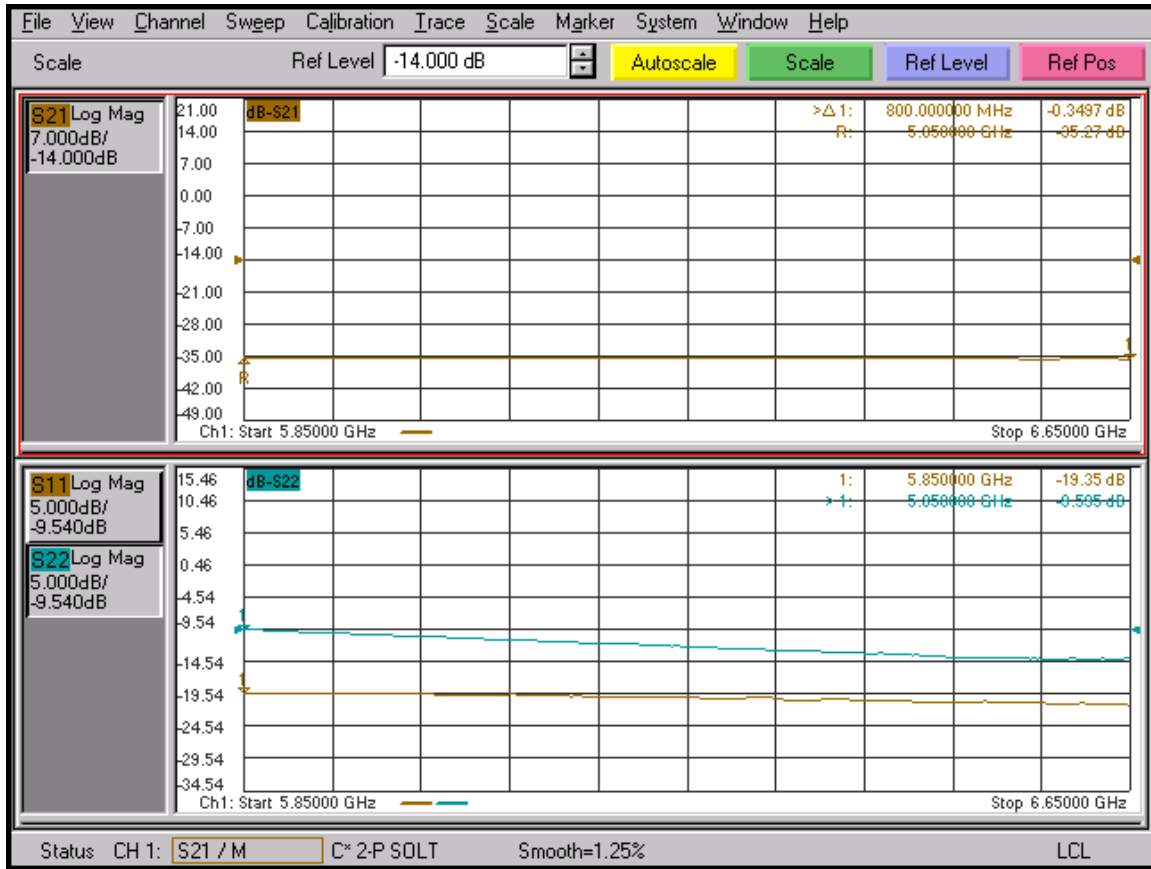
**Low-Band (5.85 to 6.65GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 3 volts**



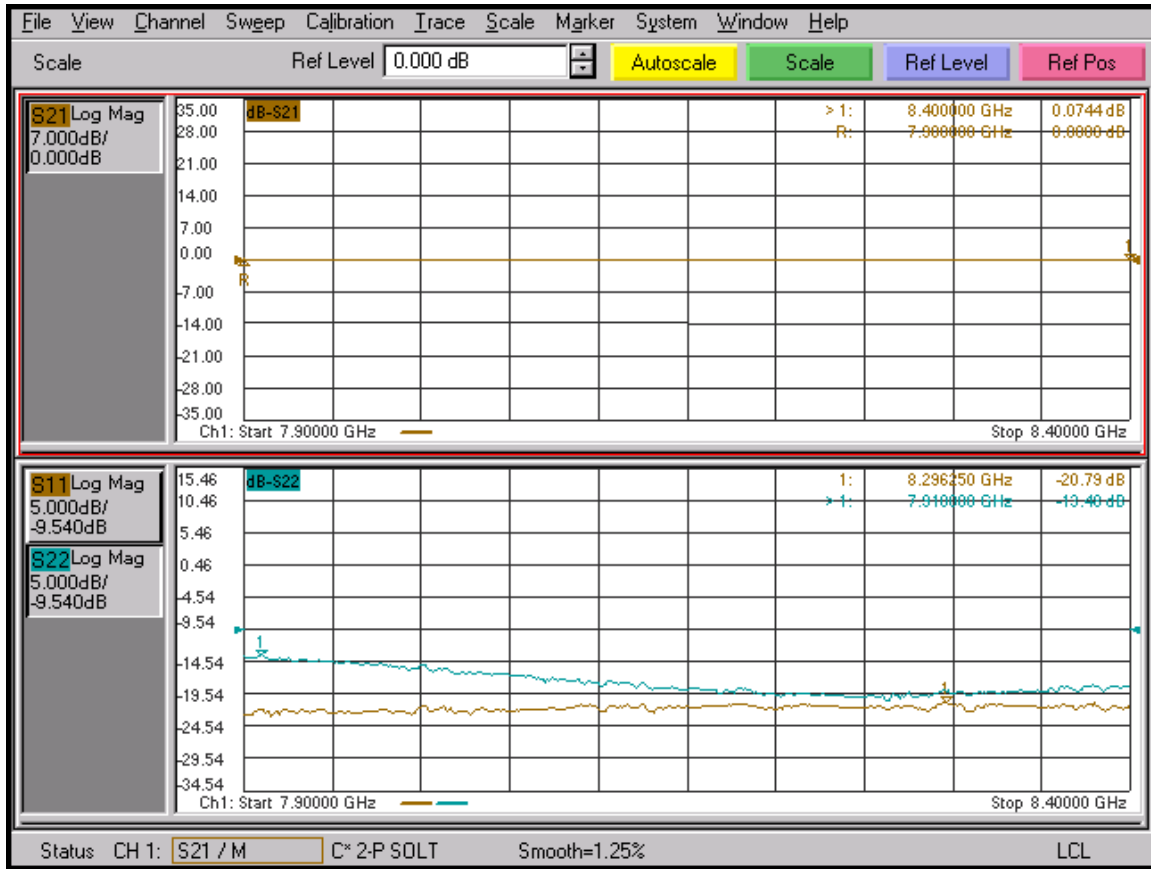
**Low-Band (5.85 to 6.65GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 4 volts**



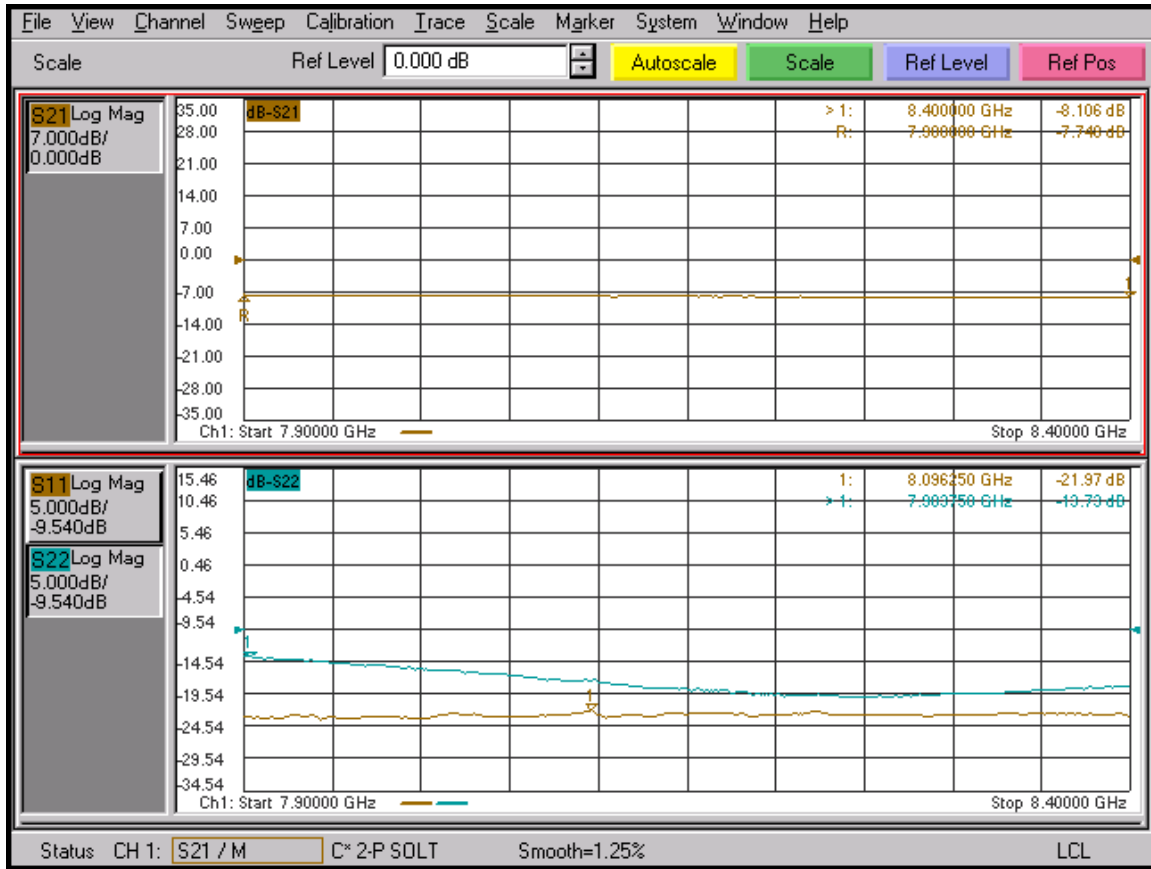
**Low-Band (5.85 to 6.65GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 5 volts**



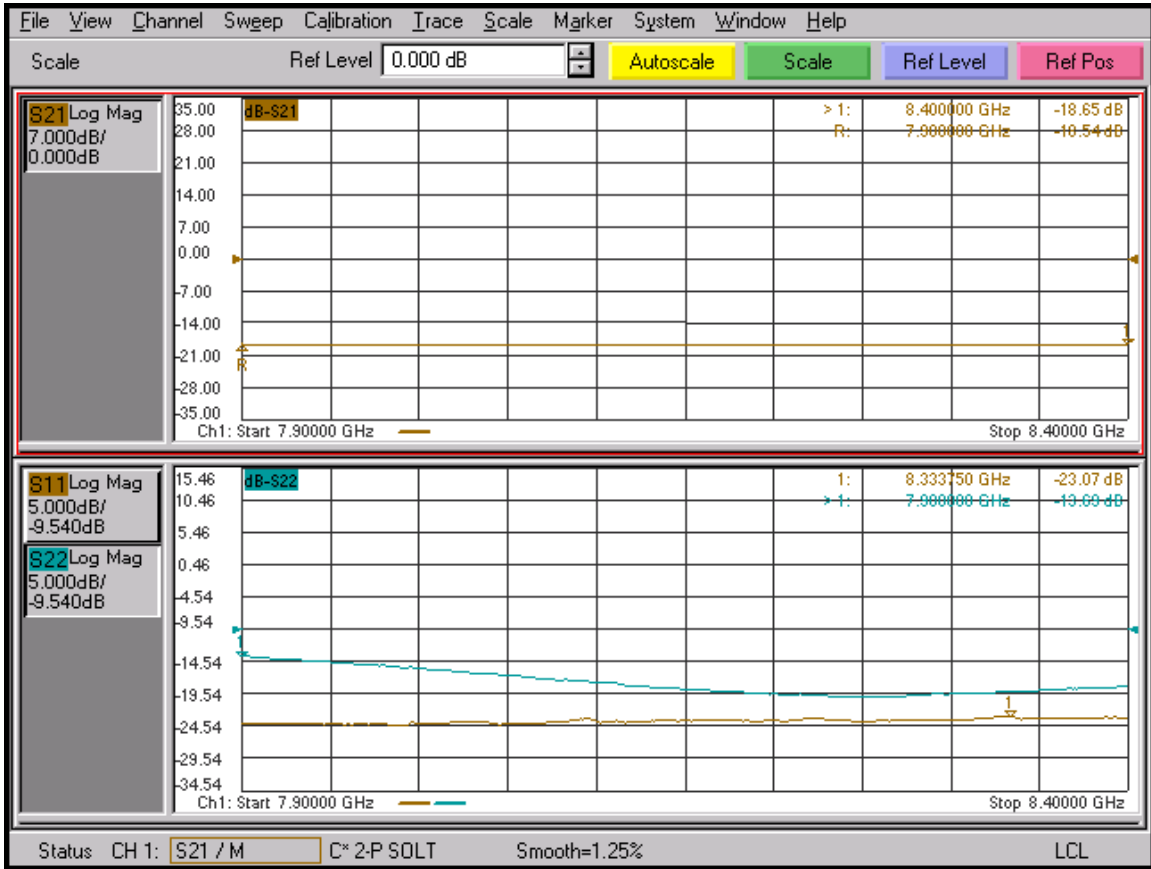
**Mid-Band (7.9 to 8.4GHz) Normalized Gain with No Attenuation**  
**Attenuation Control = 0 volts**



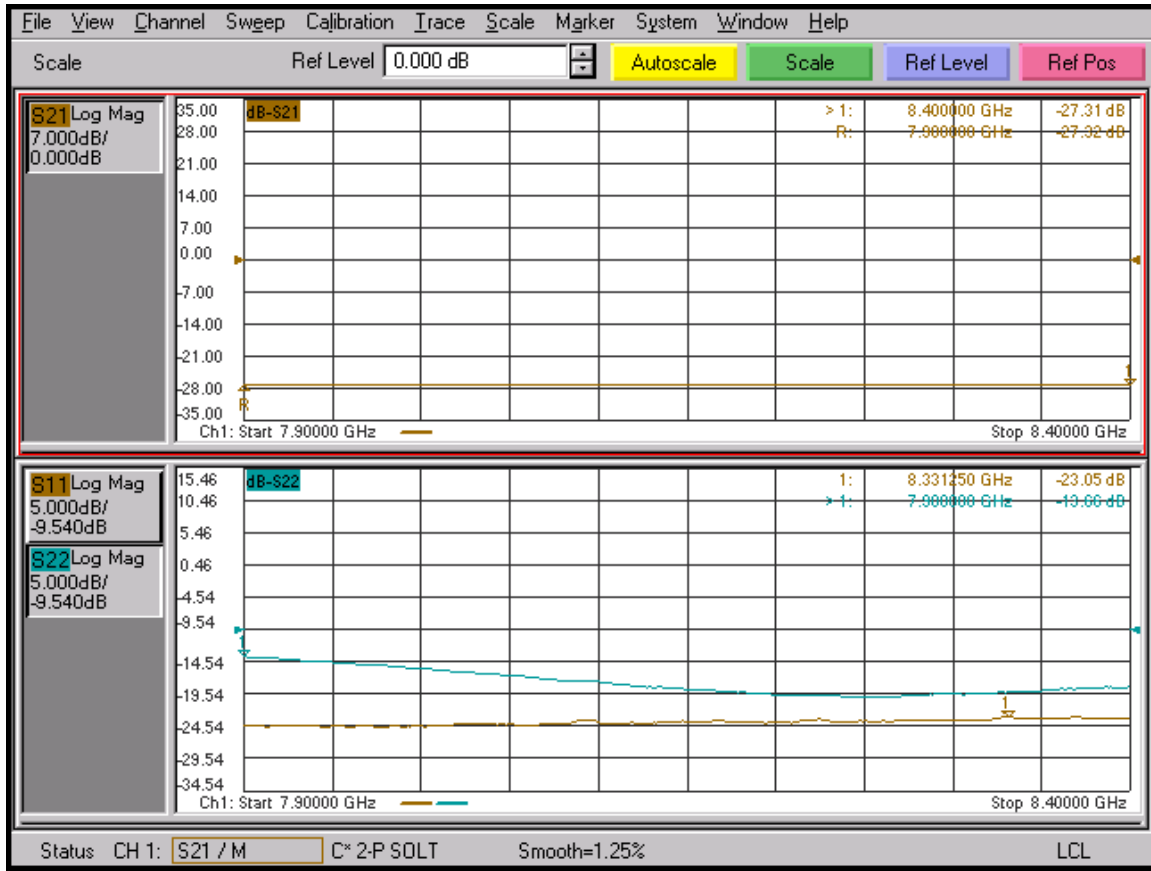
**Mid-Band (7.9 to 8.4GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 1 volt**



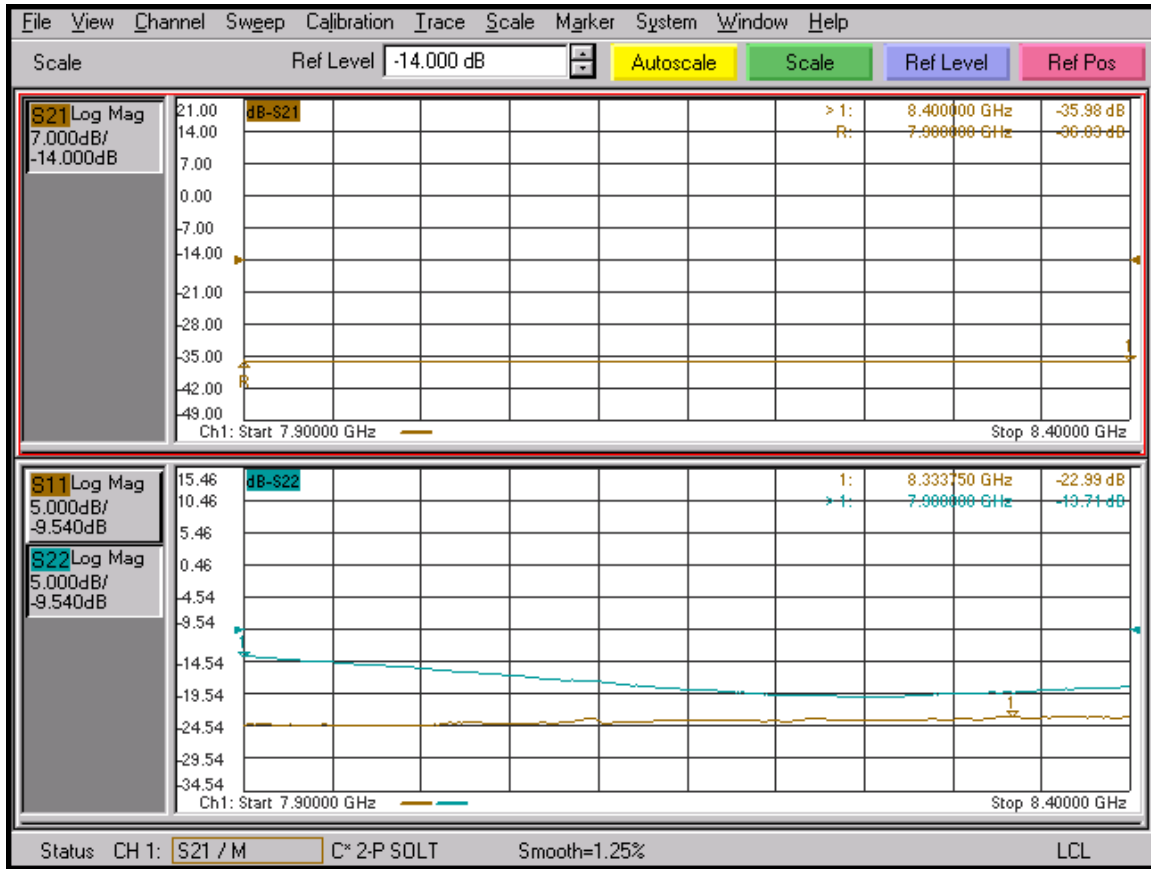
**Mid-Band (7.9 to 8.4GHz) Normalized Gain with Attenuation**  
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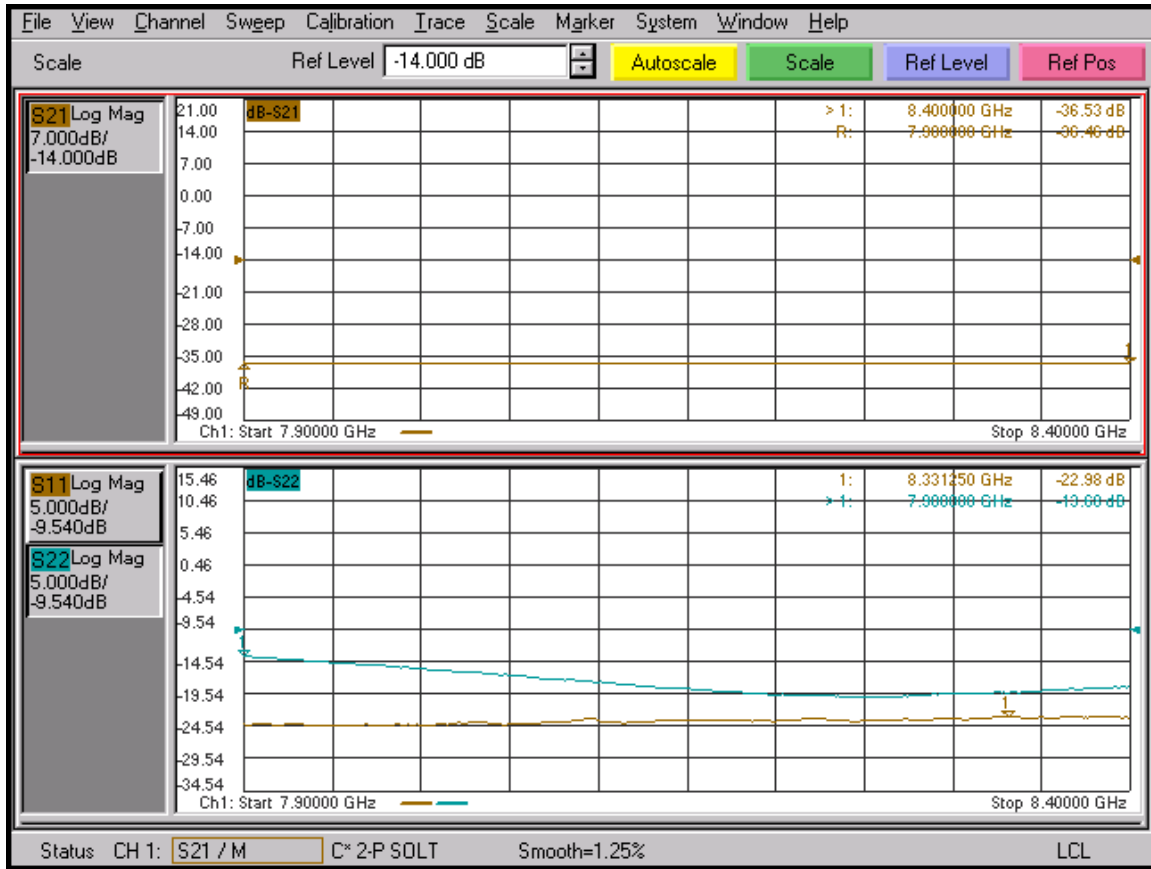
**Mid-Band (7.9 to 8.4GHz) Normalized Gain with Attenuation**  
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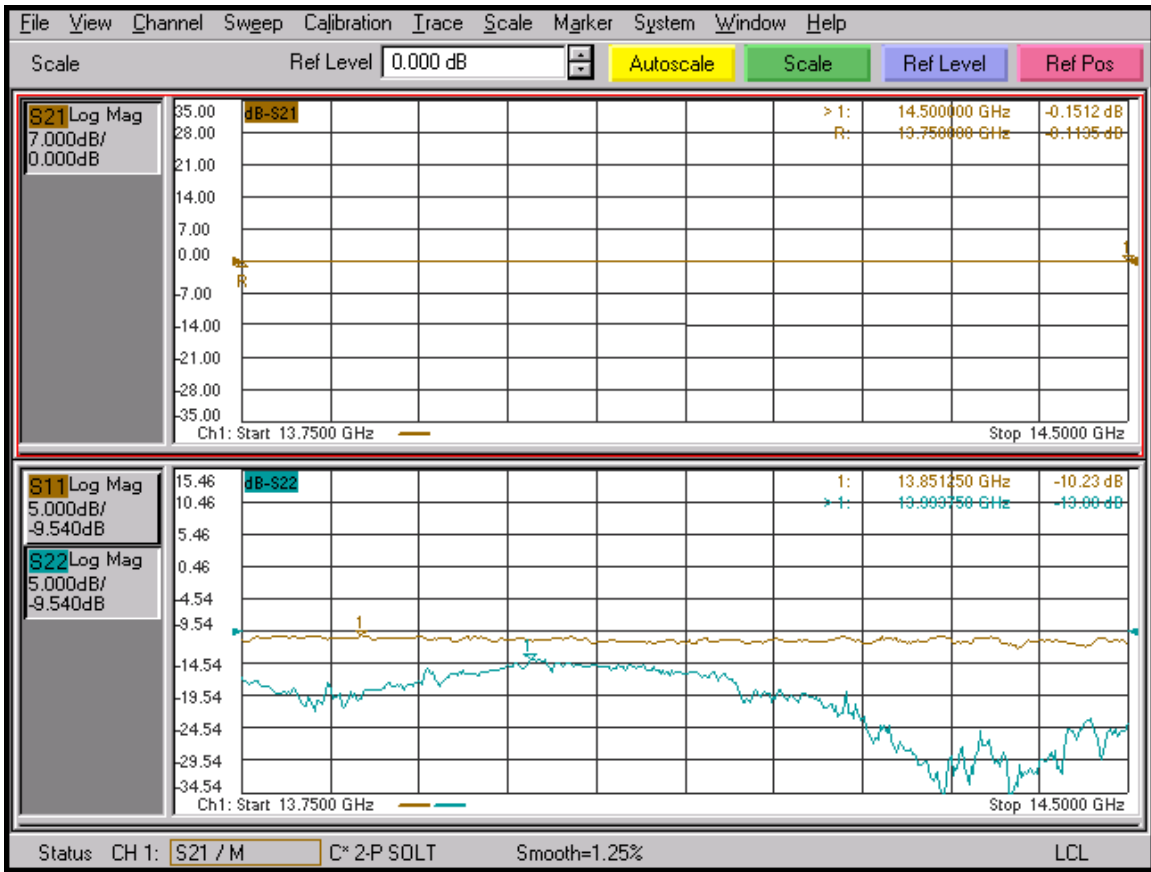
**Mid-Band (7.9 to 8.4GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 4 volts**



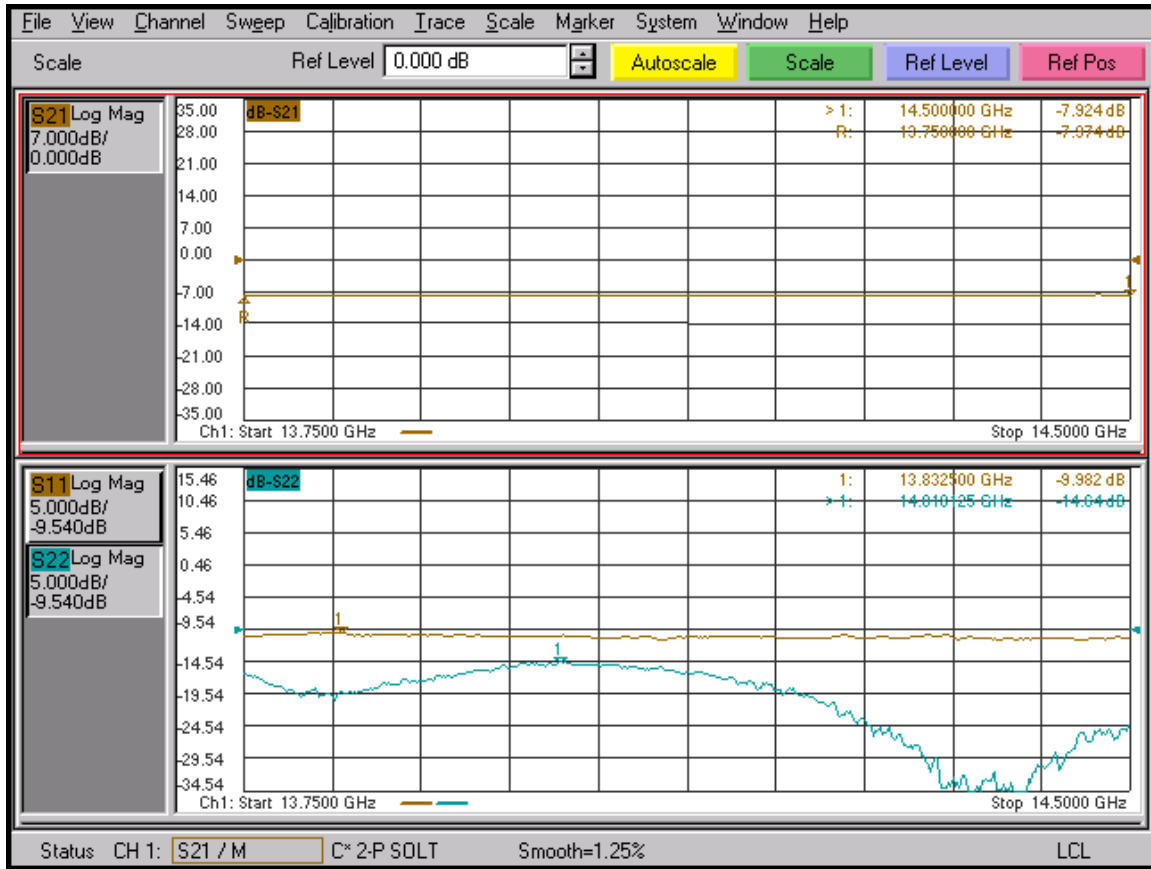
**Mid-Band (7.9 to 8.4GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 5 volts**



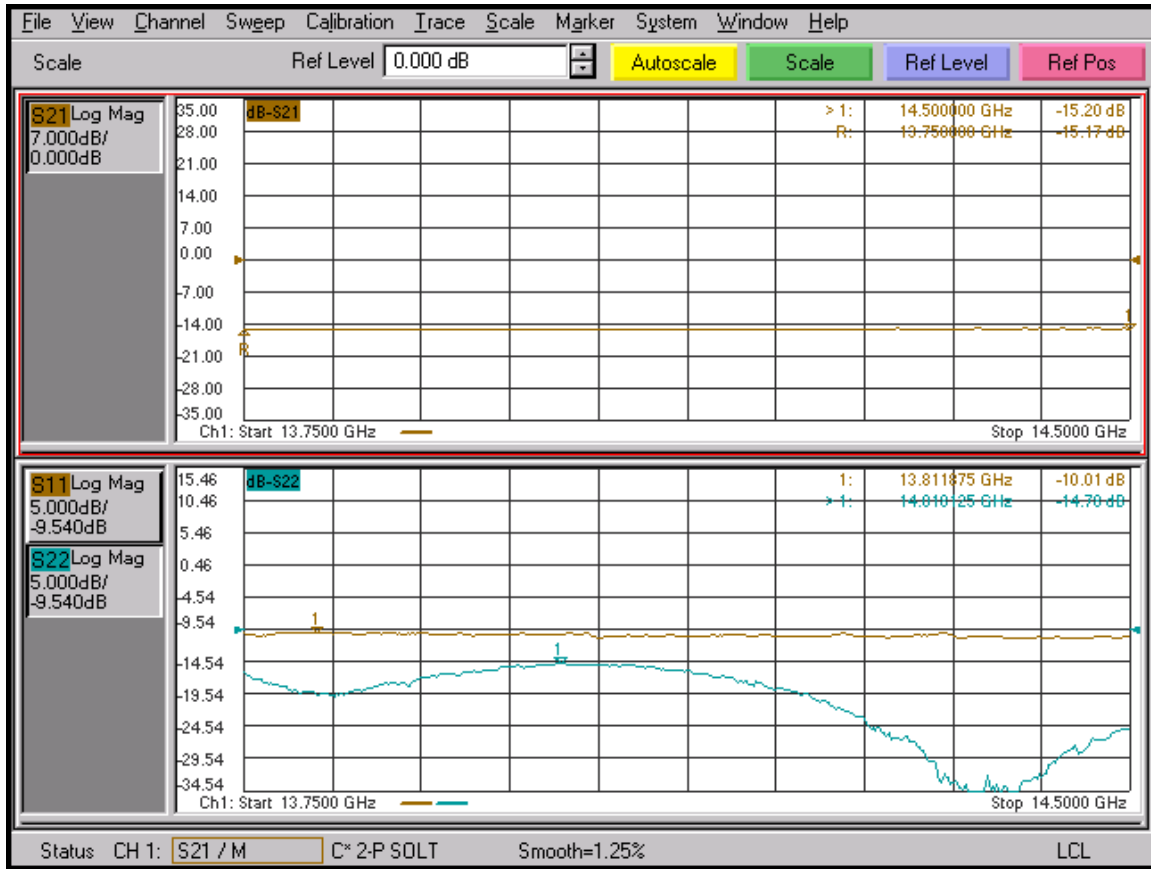
**High-Band (13.75 to 14.5GHz) Normalized Gain with No Attenuation**  
**Attenuation Control = 0 volts**



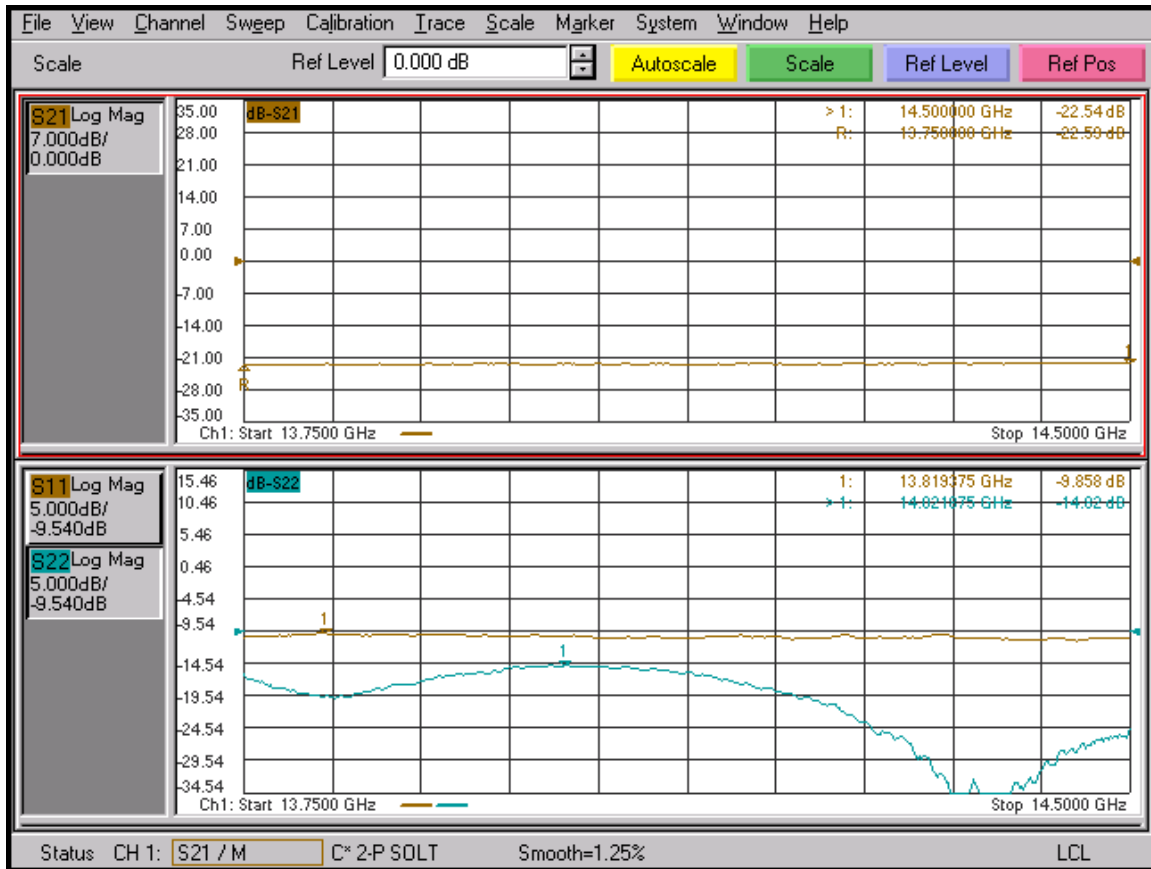
**High-Band (13.75 to 14.5GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 1 volt**



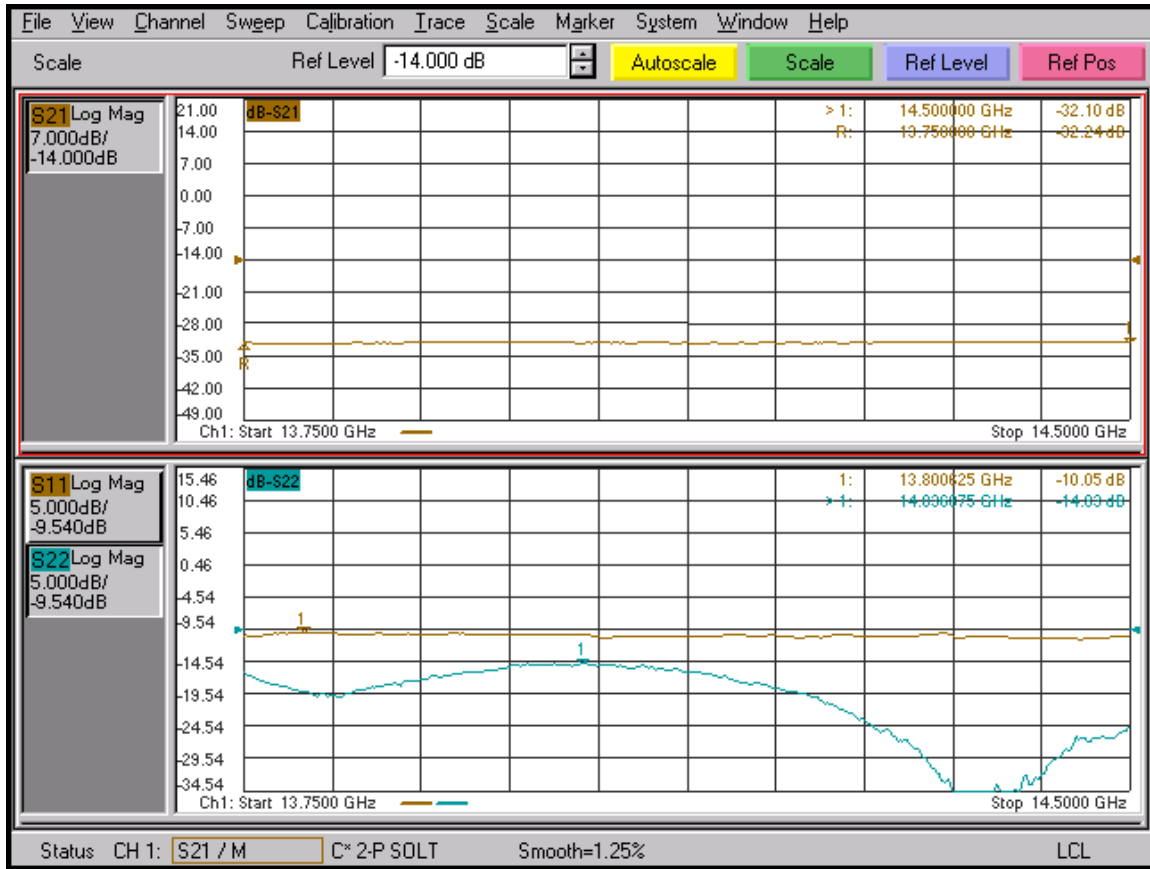
**High-Band (13.75 to 14.5GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 2 volts**



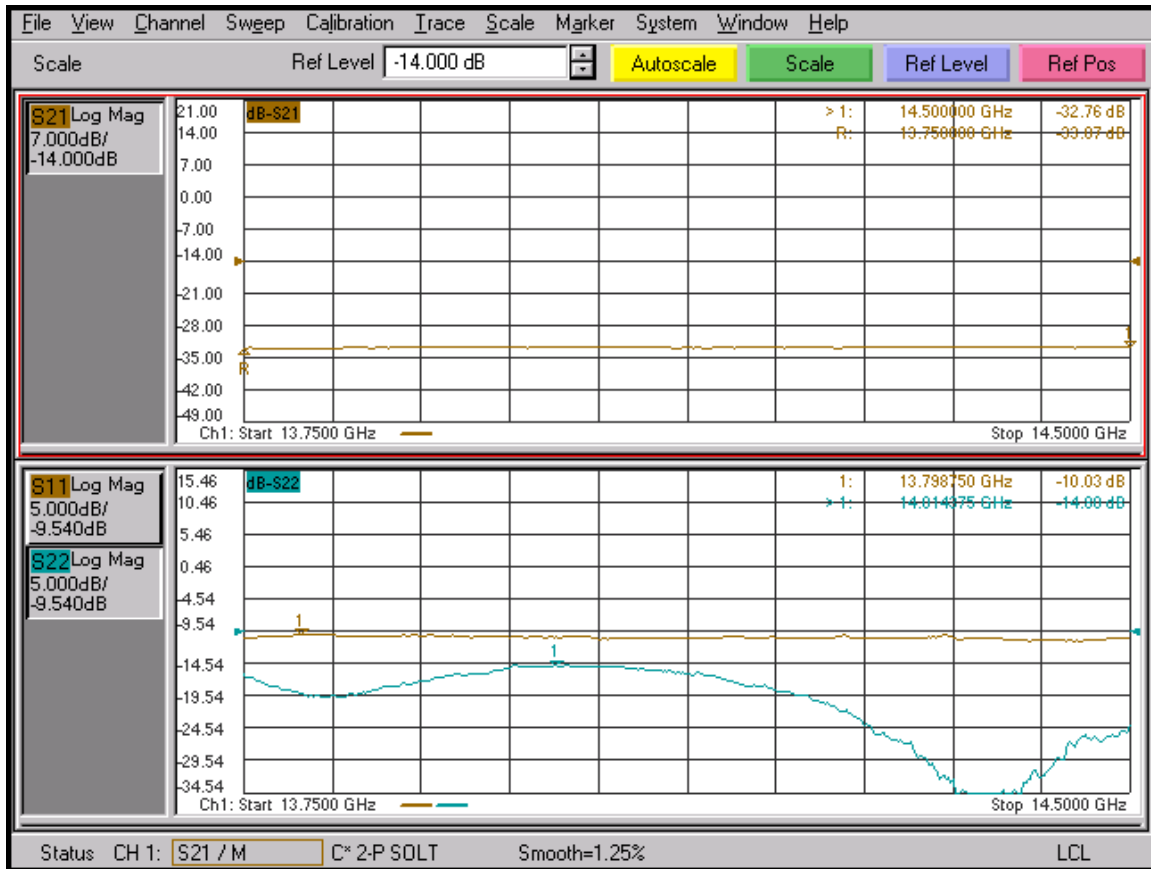
**High-Band (13.75 to 14.5GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 3 volts**



**High-Band (13.75 to 14.5GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 4 volts**



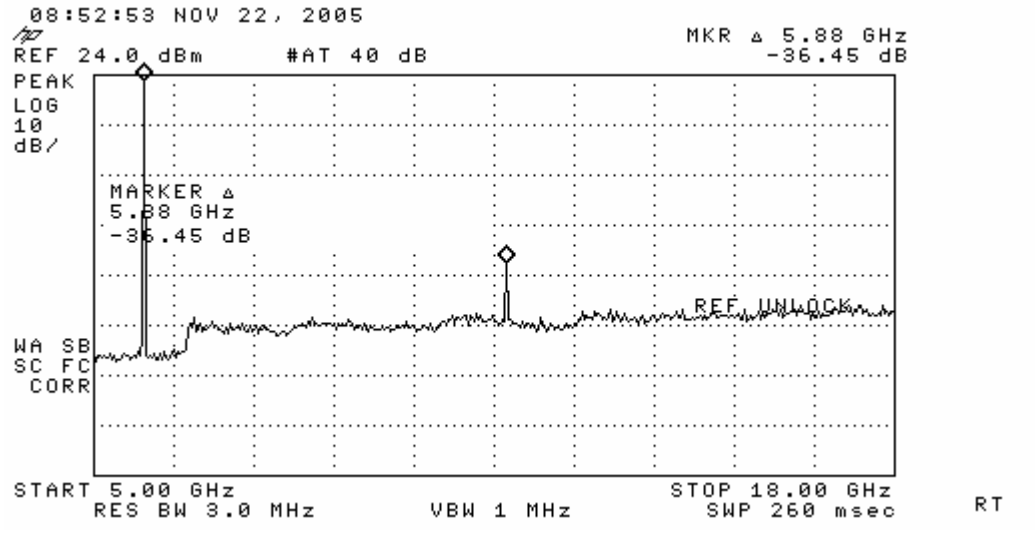
**High-Band (13.75 to 14.5GHz) Normalized Gain with Attenuation**  
**Attenuation Control = 5 volts**



**Harmonic Measurement**

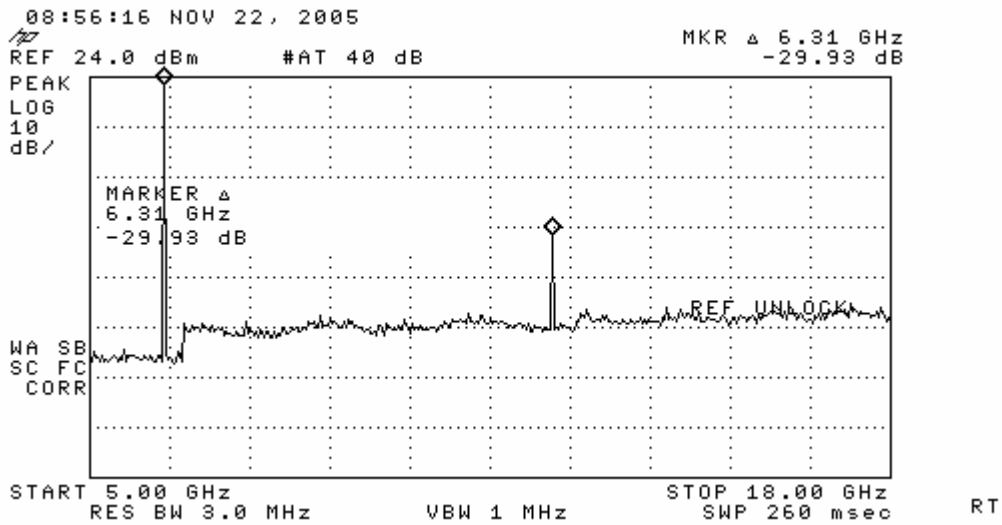
Input Frequency = 5.85GHz

Input Power Level = 0dBm



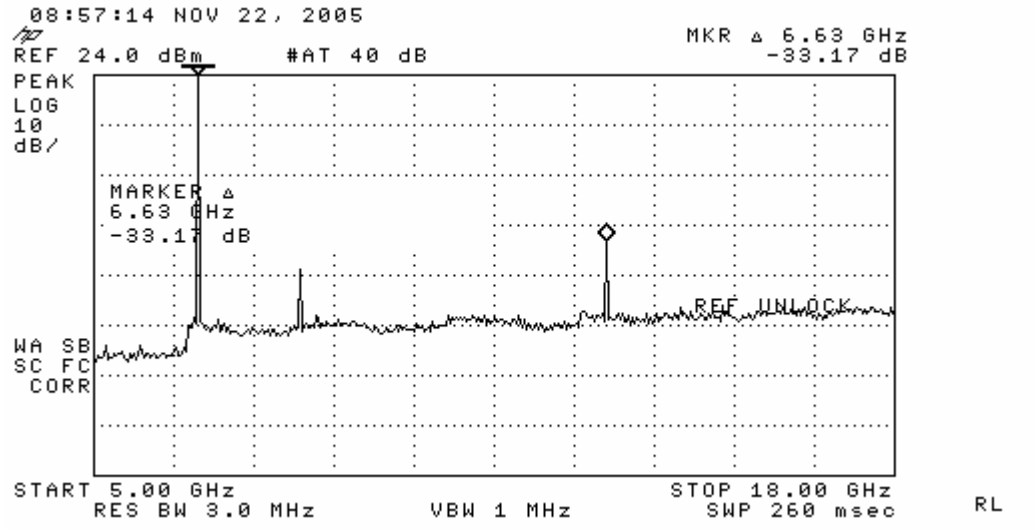
**Harmonic Measurement**

Input Frequency = 6.25GHz  
Input Power Level = 0dBm



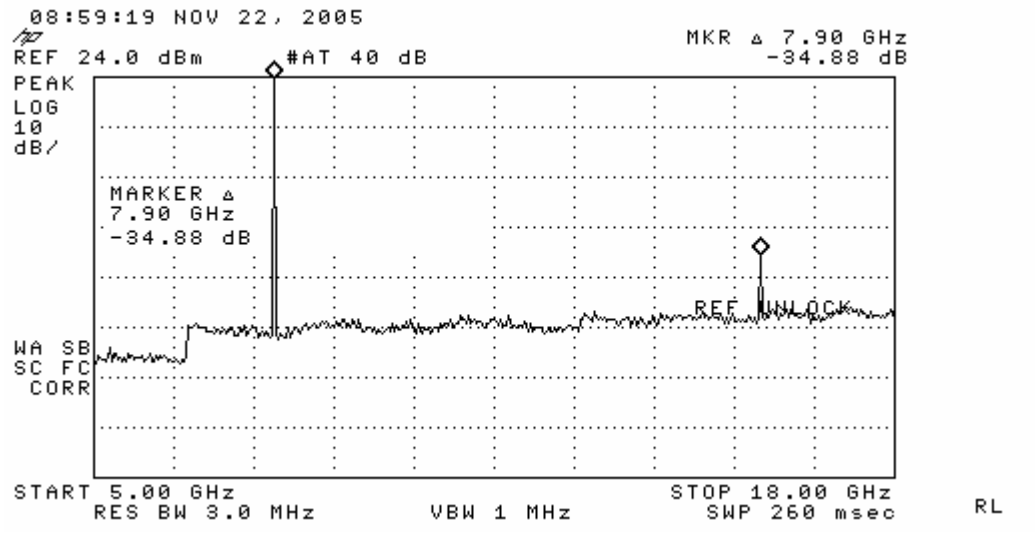
**Harmonic Measurement**

Input Frequency = 6.65GHz  
Input Power Level = 0dBm



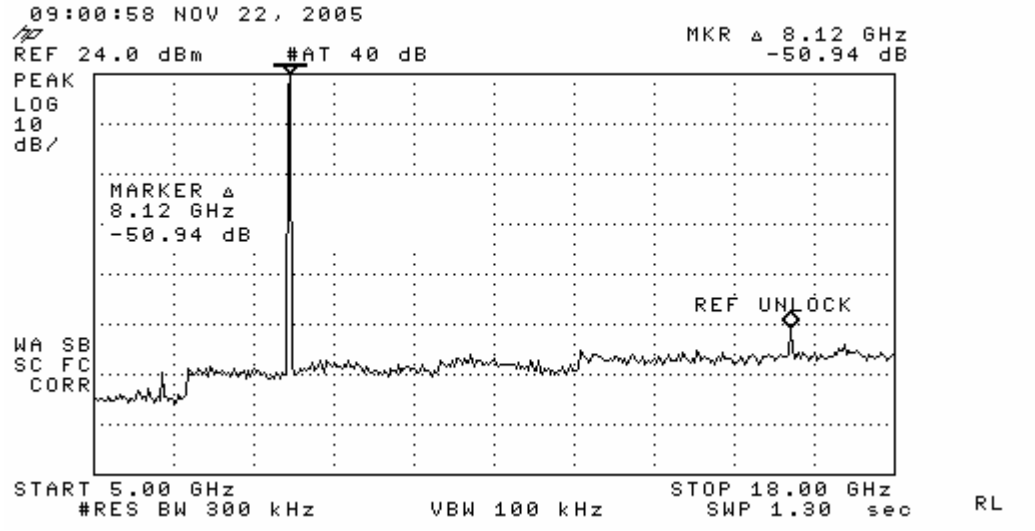
**Harmonic Measurement**

Input Frequency = 7.9GHz  
Input Power Level = 0dBm



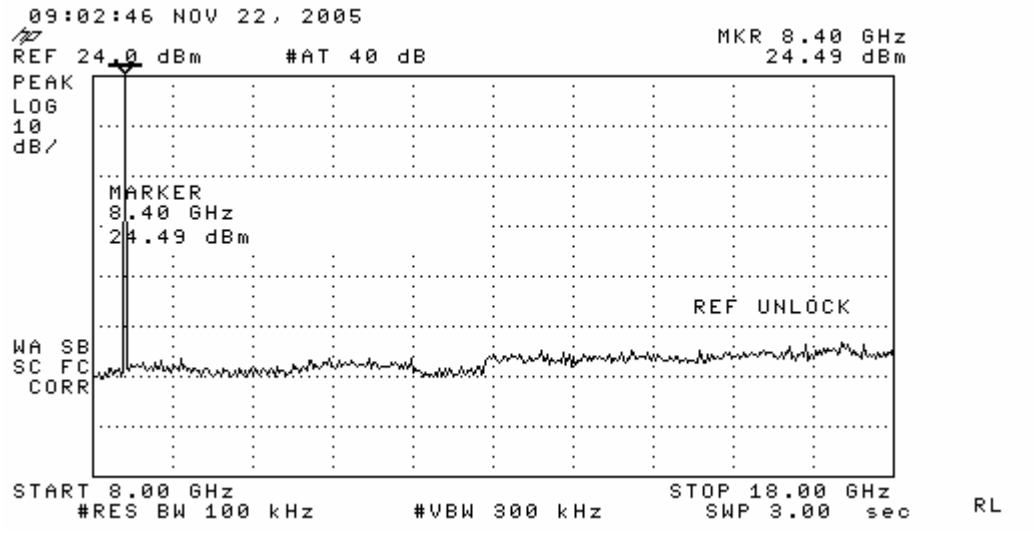
**Harmonic Measurement**

Input Frequency = 8.15GHz  
Input Power Level = 0dBm

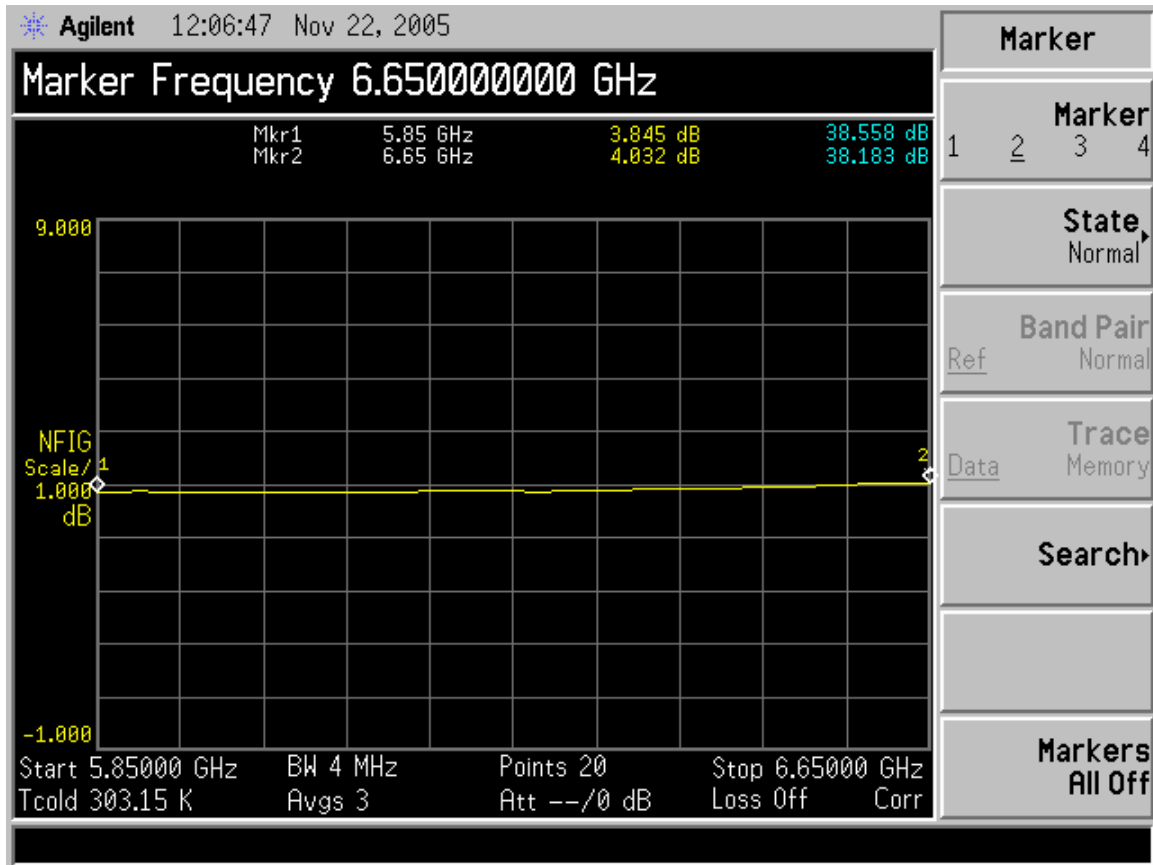


**Harmonic Measurement**

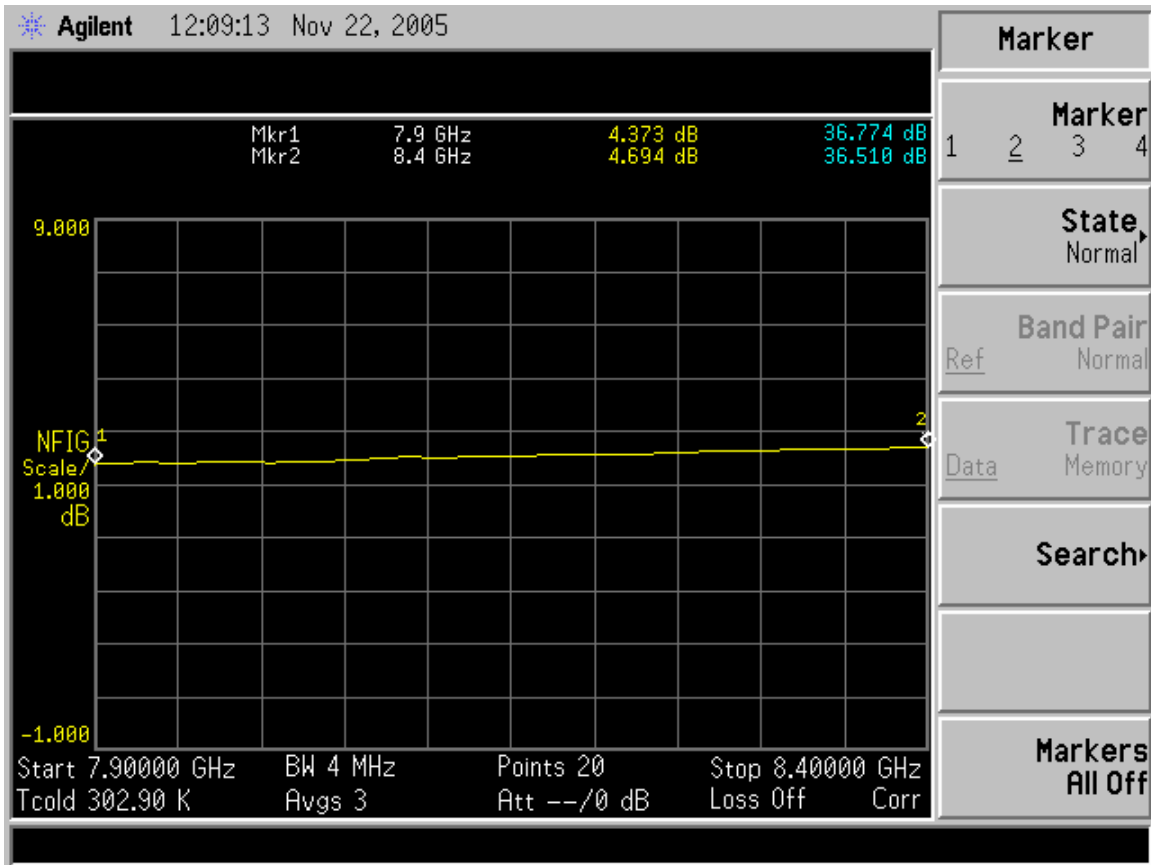
Input Frequency = 8.4GHz  
Input Power Level = 0dBm



Low-Band (5.85 to 6.65GHz) Noise Figure Plot



**Mid-Band (7.9 to 8.4GHz) Noise Figure Plot**



High-Band (13.75 to 14.5GHz) Noise Figure Plot

