

**TYPICAL CHARACTERISTICS
FOR
SDLVA-18G40G-CD-1**

PMI MODEL SDLVA-18G40G-CD-1 IS AN SUCCESSIVE DETECTION LOGARITHMIC VIDEO AMPLIFIER DESIGNED TO OPERATE OVER THE 18 GHz TO 40 GHz FREQUENCY RANGE. THIS MODEL IS DESIGNED FOR ULTRA HIGH-SPEED APPLICATIONS WHILE MAINTAINING FLATNESS AND ACCURACY. THE DESIGN ALSO INCORPORATES A LIMITED RF OUTPUT.



October 14, 2024

Prepared & Tested By: Anton L.
Designed By: Edd Benson

1. Product Feature, Specifications & Mechanical Drawing:	Page 4
2. Summary Data: @ 25°C:	Page 5
3. Summary Data: @ -40 °C:	Page 6
4. Summary Data: @ +85°C:	Page 7
5. Tabulated Data @ 25°C:	Page 8
6. Log Linearity Error VS Input Power @ 25°C:	Page 9
7. Transfer Function @ 25°C:	Page 9
8. Typical Gain @ 25°C:	Page 10
9. TSS @ 25°C:	Page 11
10. VSWR Graph @ 25°C:	Page 12
11. Typical Psat @ 25°C:	Page 13
12. Rise Time @ 25°C:	Page 14
13. Recovery Time @ 25°C:	Page 15
14. Delay Time @ 25°C:	Page 16
15. Tabulated Data @ -40°C:	Page 17
16. Log Linearity Error VS Input Power @ -40°C:	Page 18
17. Transfer Function @ -40°C:	Page 18
18. Typical Gain @ -40°C:	Page 19
19. TSS @ -40°C:	Page 20

20. VSWR Graph @ -40°C:	Page 21
21. Typical Psat @ -40°C:	Page 22
22. Rise Time @ -40°C:	Page 23
23. Recovery Time @ -40°C:	Page 24
24. Tabulated Data @ 85°C:	Page 25
25. Log Linearity Error VS Input Power @ 85°C:	Page 26
26. Transfer Function @ 85°C:	Page 26
27. Typical Gain @ 85°C:	Page 27
28. TSS @ 85°C:	Page 28
29. VSWR Graph @ 85°C:	Page 29
30. Typical Psat @ 85°C:	Page 30
31. Rise Time @ 85°C:	Page 31
32. Recovery Time @ 85°C:	Page 32

Product Feature

DESCRIPTION:

PMI MODEL NUMBER SDLVA-18G40G-CD-1 IS AN SDLVA (SUCCESSIVE DETECTION LOGARITHMIC VIDEO AMPLIFIER) DESIGNED TO OPERATE OVER THE 18 GHz TO 40 GHz FREQUENCY RANGE. THIS MODEL IS DESIGNED FOR ULTRA HIGH SPEED APPLICATIONS WHILE MAINTAINING FLATNESS AND ACCURACY.

SPECIFICATIONS:

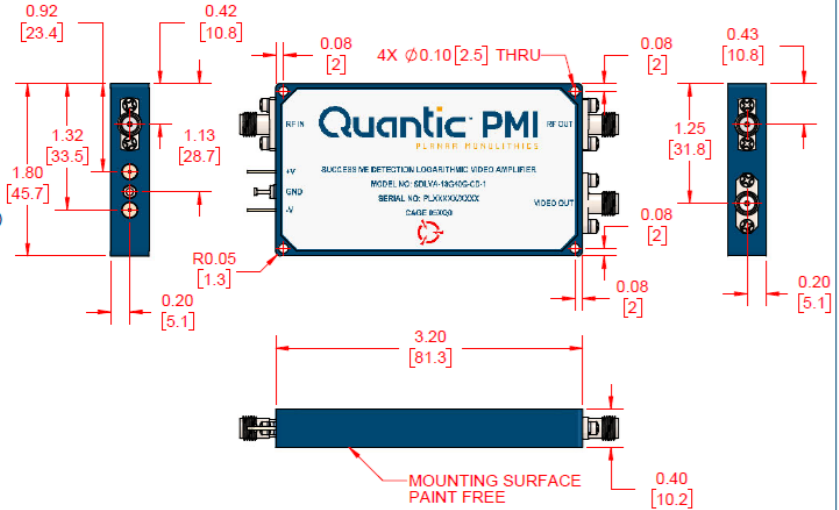
- FREQUENCY RANGE:..... 18 TO 40 GHz
- RF GAIN (SMALL SIGNAL):..... 50 dB TYP
- VIDEO FLATNESS OVER FREQUENCY:..... ±2.5 dB MAX
- TSS:..... -70 dBm TYP, -68 dBm MAX
- VSWR:..... 2.5:1 MAX
- PSAT:..... +12 dBm TYP
- POWER INPUT:..... +17 dBm CW MAX
- LOG SLOPE:..... 25 mV/dB TYP (50Ω LOAD)
- LOG RANGE:..... -70 TO +5 dBm
- LOG LINEARITY:..... ±2.5 dB (-60 TO 0 dBm, -40°C TO +85°C)
- DC OFFSET:..... 150 mV ±50 mV
- PULSE RANGE:..... 30 ns TO CW
- RISE TIME:..... 5 ns TYP, 10 ns MAX
- RECOVERY TIME:..... 40 ns TYP, 60 ns MAX @ +25°C, 100ns MAX OVER TEMP
- POWER SUPPLY:..... +15V OR +12V @ 500 mA MAX
-15V OR -12V @ 180 mA MAX
- CONNECTORS:..... RF: 2.92 mm FEMALE
VIDEO: SMA FEMALE
- FINISH:..... PAINTED BLUE,
MOUNTING SURFACE GOLD PLATED

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -40°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY:..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202F, METHOD 213B COND. B
- VIBRATION:..... MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE:..... MIL-STD-202F, METHOD 105C COND. B
- SALT FOG:..... MIL-STD-202F, METHOD 107D COND. A
- FUNGUS:..... MIL-STD-810C, METHOD 508.2
- TEMPERATURE CYCLE:..... MIL-STD-202F, METHOD 107

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	4/18/2024	
	B1	ECN # 24-0299	10/18/2024	



PMI CONFIDENTIAL AND PROPRIETARY

		730-A CEDAR ROAD, FREDERICK, MARYLAND 21704 USA WEB: WWW.QUANTICPMI.COM	
APPROVALS	DATE	TITLE	
J ESCANO	4/18/2024	OUTLINE	
MEDKAWN		SDLVA-18G40G-CD-1	
ISSUED		SIZE	PSDM NO. / DWG NO.
		B	05XQ0 / 27018630
		SCALE	SHEET 1 OF 1
		1:1	

**TYPICAL CHARACTERISTICS
FOR
SDLVA-18G40G-CD-1**

+25C summary Performance Data

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency:	18 GHz – 40 GHz	18 GHz – 40 GHz See Plots	
2	RF Gain (Small Signal):	50 dB Typical	58.91 dB Avg.	
3	Video Flatness Over Frequency:	± 2.5 dB Maximum	±1.9 dB @+25°C See Plots	
4	TSS:	-70 dBm Typical, -68 dBm Maximum	-71.9 dBm	
5	VSWR:	2.5:1 Maximum	2.05:1 (Input)	
6	Psat:	+12 dBm Typical	12.69 dBm Avg.	
7	Power Input:	+17 dBm CW Maximum	Pass	
8	Log Slope:	25 mV/dB Typical (50Ω Load)	24.8 mV/dB See Plots	
9	Log Range:	-70 to +5 dBm	-70 to +5 dBm See Plots	
10	Log Linearity:	±2.5 dB (-60 to 0 dBm, -40°C to +85°C)	±1.5 dB See Plots	
11	DC Offset:	150 mV ± 50 mV	137 mV	
12	Pulse Range:	30 ns to CW	Pass	
13	Rise Time:	5 ns Typical, 10 ns Maximum	7.8 ns	
14	Recovery Time:	40 ns Typical, 60 ns Maximum	55.3 ns	
15	DC Supply:	+15V or +12V @ 500 mA Maximum -15V or -12V @ 180 mA Maximum	+12V @ 400 mA -12V @ 160 mA	

-40C summary Performance Data

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency:	18 GHz – 40 GHz	18 GHz – 40 GHz See Plots	
2	RF Gain (Small Signal):	50 dB Typical	60.3 dB Avg.	
3	Video Flatness Over Frequency:	± 2.5 dB Maximum	±1.9 dB	
4	TSS:	-70 dBm Typical, -68 dBm Maximum	-71.5 dBm	
5	VSWR:	2.5:1 Maximum	2.13:1 (Input)	
6	Psat:	+12 dBm Typical	13.03 dBm Avg.	
7	Power Input:	+17 dBm CW Maximum	Pass	
8	Log Slope:	25 mV/dB Typical (50Ω Load)	23.8 mV/dB	
9	Log Range:	-70 to +5 dBm	-70 to +5 dBm See Plots	
10	Log Linearity:	±2.5 dB (-60 to 0 dBm, -40°C to +85°C)	±1.4 dB	
11	Pulse Range:	30 ns to CW	Pass	
12	Rise Time:	5 ns Typical, 10 ns Maximum	8.3 ns	
13	Recovery Time:	40 ns Typical, 100 ns Maximum	86.5 ns	
14	DC Supply:	+15V or +12V @ 500 mA Maximum -15V or -12V @ 180 mA Maximum	+12V @ 420 mA -12V @ 160 mA	

+85C Summary Performance Data

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency:	18 GHz – 40 GHz	18 GHz – 40 GHz See Plots	
2	RF Gain (Small Signal):	50 dB Typical	57.87 dB Avg.	
3	Video Flatness Over Frequency:	± 2.5 dB Maximum	±2.0 dB	
4	TSS:	-70 dBm Typical, -68 dBm Maximum	-68.4 dBm	
5	VSWR:	2.5:1 Maximum	1.97:1 (Input)	
6	Psat:	-12 dBm Typical	12.84 dBm Avg.	
7	Power Input:	+17 dBm CW Maximum	Pass	
8	Log Slope:	25 mV/dB Typical (50Ω Load)	26.2 mV/dB	
9	Log Range:	-70 to +5 dBm	-70 to +5 dBm See Plots	
10	Log Linearity:	±2.5 dB (-60 to 0 dBm, -40°C to +85°C)	±1.5 dB See Plots	
11	Pulse Range:	30 ns to CW	Pass	
12	Rise Time:	5 ns Typical, 10 ns Maximum	7.5 ns	
13	Recovery Time:	40 ns Typical, 100 ns Maximum	41.3 ns	
14	DC Supply:	+15V or +12V @ 500 mA Maximum -15V or -12V @ 180 mA Maximum	+12V @ 420 mA -12V @ 160 mA	

Tabulated Data @+25C

**SUMMARY TEST DATA
ON
SDLVA-18G40G-CD-1**

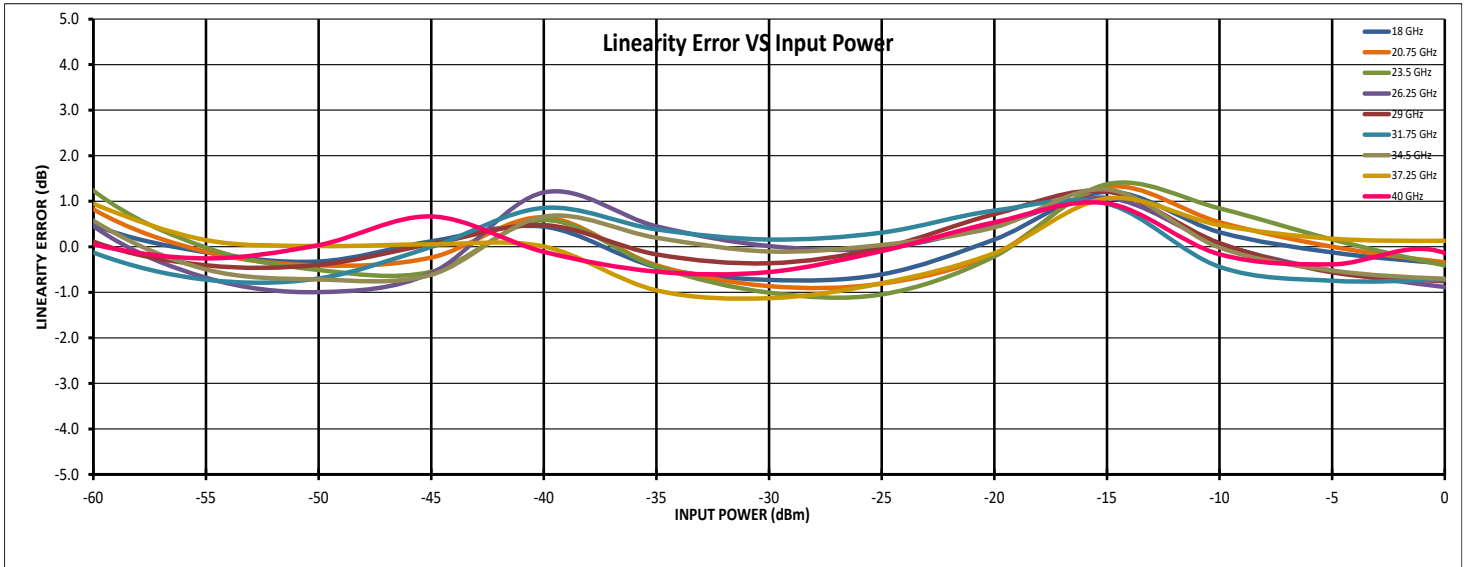
PL49234/2441

Log Transfer Over Frequency +25°C

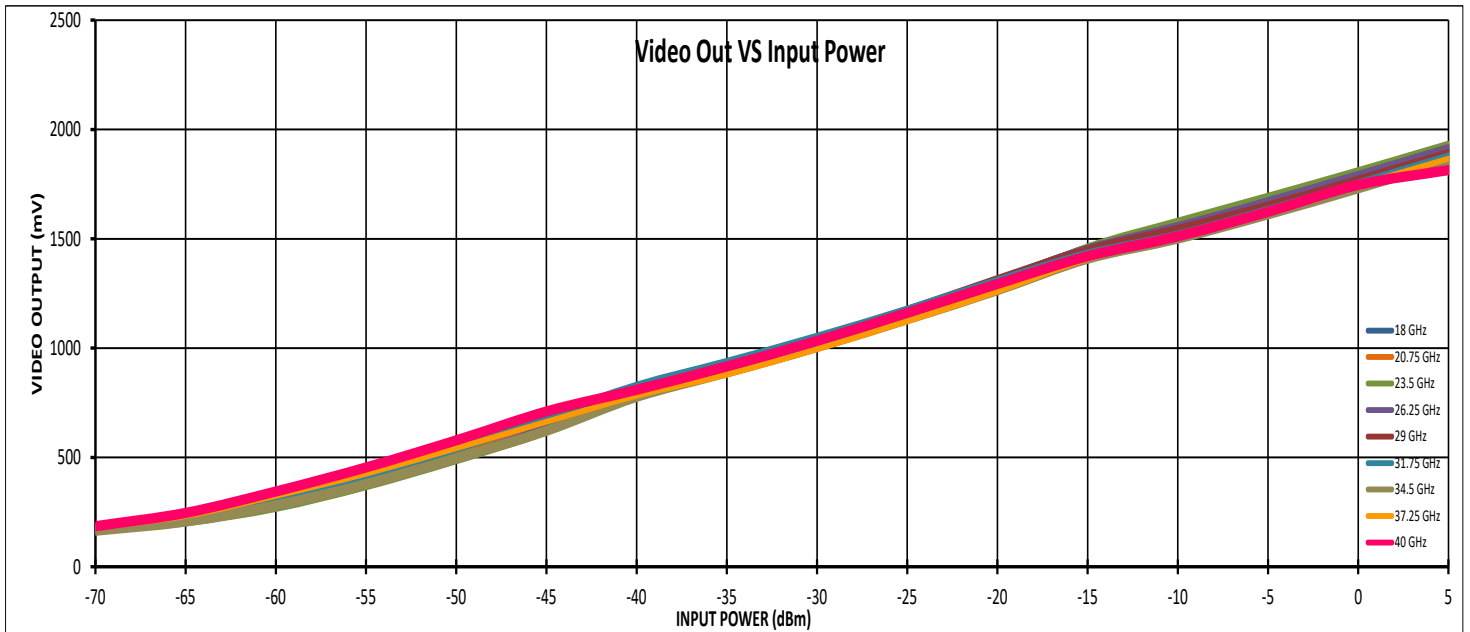
Video offset: 137 mA

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	LIN. ERR. (dB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
18 GHz	1799	24.8	1.2	184	233	323	432	551	686	818	920	1037	1164	1307	1457	1559	1672	1790	1910	Measured Value (mV)
				121	46	12	-3	-8	3	11	-11	-18	-15	4	30	8	-3	-9	-13	ERROR (mV)
				4.88	1.85	0.48	-0.12	-0.32	0.12	0.44	-0.45	-0.73	-0.61	0.16	1.21	0.32	-0.13	-0.37	-0.53	LINEARITY ERROR (dB)
20.75 GHz	1797	25.3	1.3	176	219	298	401	520	651	800	900	1015	1143	1286	1450	1557	1670	1788	1909	Measured Value (mV)
				152	69	21	-3	-10	-6	16	-10	-22	-20	-4	33	14	0	-9	-14	ERROR (mV)
				6.01	2.70	0.82	-0.11	-0.41	-0.24	0.65	-0.40	-0.86	-0.81	-0.16	1.31	0.54	0.00	-0.34	-0.56	LINEARITY ERROR (dB)
23.5 GHz	1821	26.4	1.4	167	203	269	368	487	618	780	885	1002	1133	1287	1461	1579	1693	1810	1931	Measured Value (mV)
				195	99	33	0	-13	-15	15	-12	-27	-28	-6	36	22	4	-11	-22	ERROR (mV)
				7.37	3.73	1.23	-0.02	-0.51	-0.55	0.59	-0.44	-1.01	-1.05	-0.22	1.37	0.84	0.16	-0.41	-0.83	LINEARITY ERROR (dB)
26.25 GHz	1816	25.8	1.2	168	207	277	377	498	638	813	923	1041	1169	1311	1456	1559	1673	1793	1916	Measured Value (mV)
				161	71	12	-18	-26	-15	31	12	0	-1	12	28	2	-14	-23	-29	ERROR (mV)
				6.23	2.74	0.45	-0.68	-1.00	-0.58	1.19	0.45	0.01	-0.03	0.46	1.07	0.06	-0.53	-0.88	-1.13	LINEARITY ERROR (dB)
29 GHz	1791	24.6	1.2	179	229	320	430	553	687	820	927	1045	1176	1317	1452	1547	1654	1772	1894	Measured Value (mV)
				107	35	3	-10	-10	1	12	-4	-9	-1	18	30	2	-14	-19	-19	ERROR (mV)
				4.37	1.41	0.12	-0.40	-0.40	0.06	0.48	-0.17	-0.36	-0.03	0.72	1.21	0.08	-0.56	-0.75	-0.79	LINEARITY ERROR (dB)
31.75 GHz	1765	24.1	0.9	177	228	318	424	545	682	823	932	1047	1171	1303	1427	1514	1627	1748	1871	Measured Value (mV)
				97	27	-3	-17	-17	0	21	9	4	7	19	23	-11	-18	-17	-15	ERROR (mV)
				4.02	1.14	-0.13	-0.72	-0.69	0.00	0.85	0.38	0.16	0.31	0.79	0.95	-0.44	-0.75	-0.72	-0.61	LINEARITY ERROR (dB)
34.5 GHz	1748	24.7	1.3	165	207	281	378	496	622	777	889	1005	1132	1265	1409	1501	1612	1731	1854	Measured Value (mV)
				145	64	14	-12	-18	-15	16	5	-3	1	11	31	0	-13	-17	-18	ERROR (mV)
				5.88	2.58	0.58	-0.50	-0.72	-0.61	0.66	0.20	-0.10	0.04	0.43	1.26	-0.02	-0.52	-0.70	-0.72	LINEARITY ERROR (dB)
37.25 GHz	1743	24.0	1.1	178	232	324	425	542	663	782	879	995	1123	1259	1408	1514	1627	1746	1867	Measured Value (mV)
				117	51	23	4	0	1	0	-23	-27	-19	-3	26	11	4	3	4	ERROR (mV)
				4.87	2.11	0.94	0.15	0.02	0.05	0.01	-0.96	-1.13	-0.80	-0.14	1.06	0.48	0.18	0.13	0.17	LINEARITY ERROR (dB)
40 GHz	1749	23.4	1.0	185	246	344	454	578	710	809	916	1033	1161	1293	1420	1511	1623	1746	1814	Measured Value (mV)
				77	20	1	-6	1	16	-3	-13	-13	-2	13	22	-4	-9	-3	-52	ERROR (mV)
				3.27	0.87	0.05	-0.25	0.04	0.67	-0.11	-0.55	-0.55	-0.09	0.54	0.95	-0.16	-0.39	-0.14	-2.24	LINEARITY ERROR (dB)
Avg. Slope: 24.8 mV/dB				0.4	0.9	1.5	1.7	1.8	1.9	0.9	1.1	1	1.1	1.2	1.1	1.6	1.6	1.6	2.4	Flatness dB: ±1.9 dB

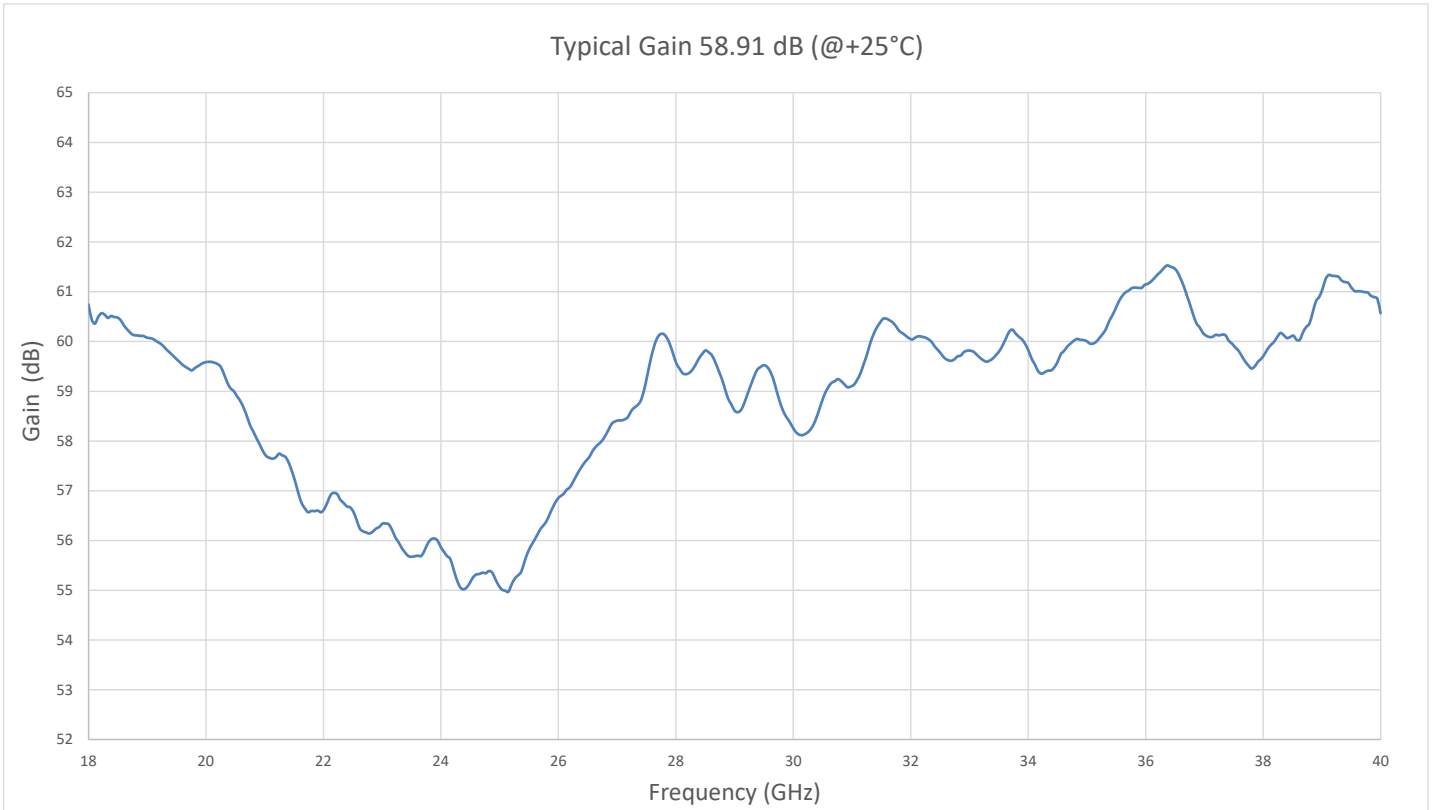
Log Linearity VS Input Power @+25C



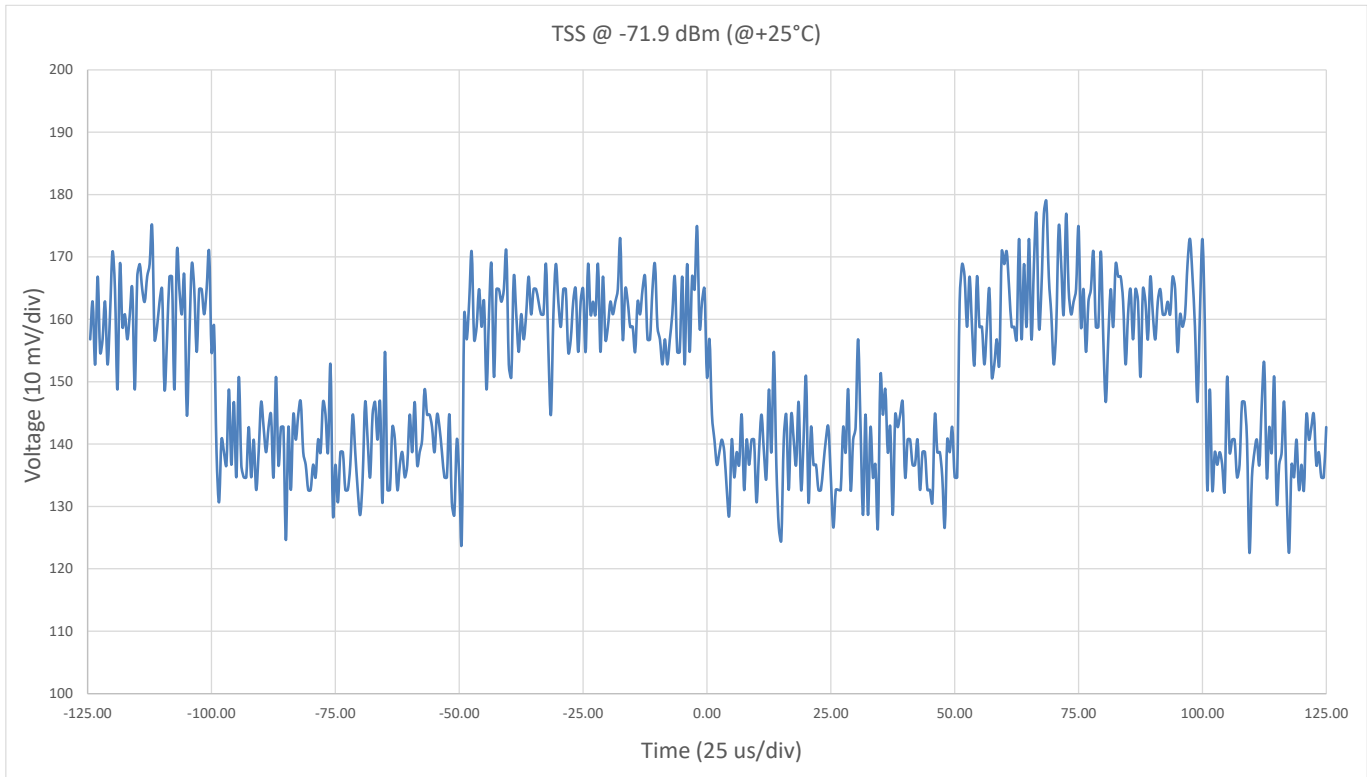
Transfer Function @ +25C



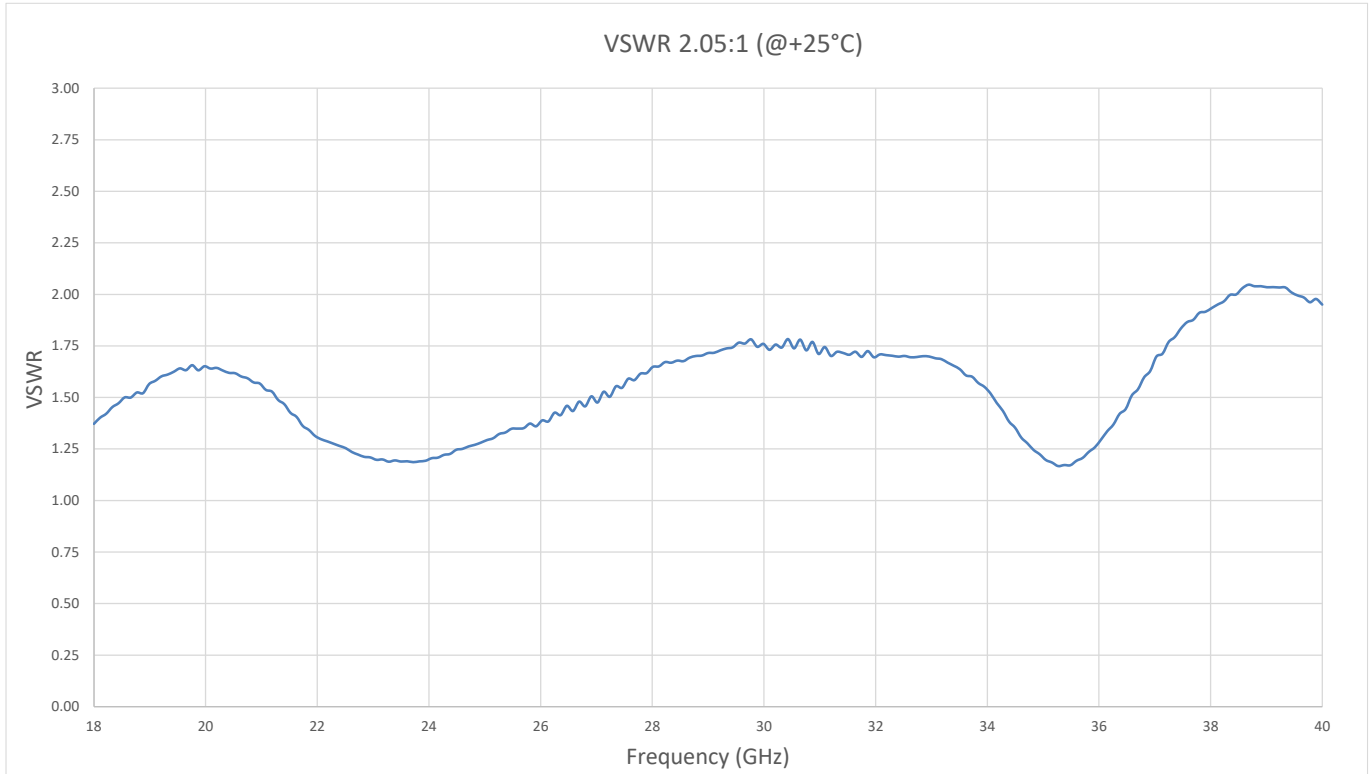
Typical Gain @+25C



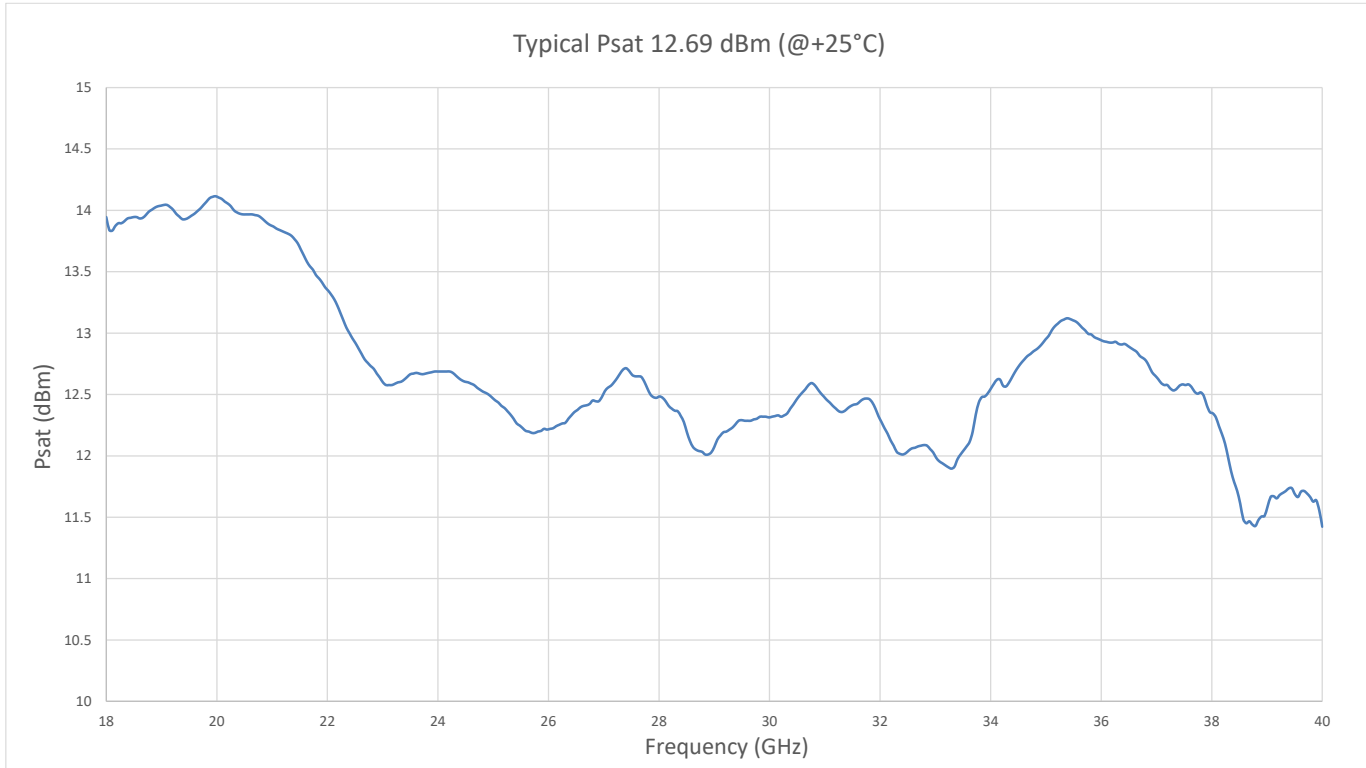
TSS @+25C



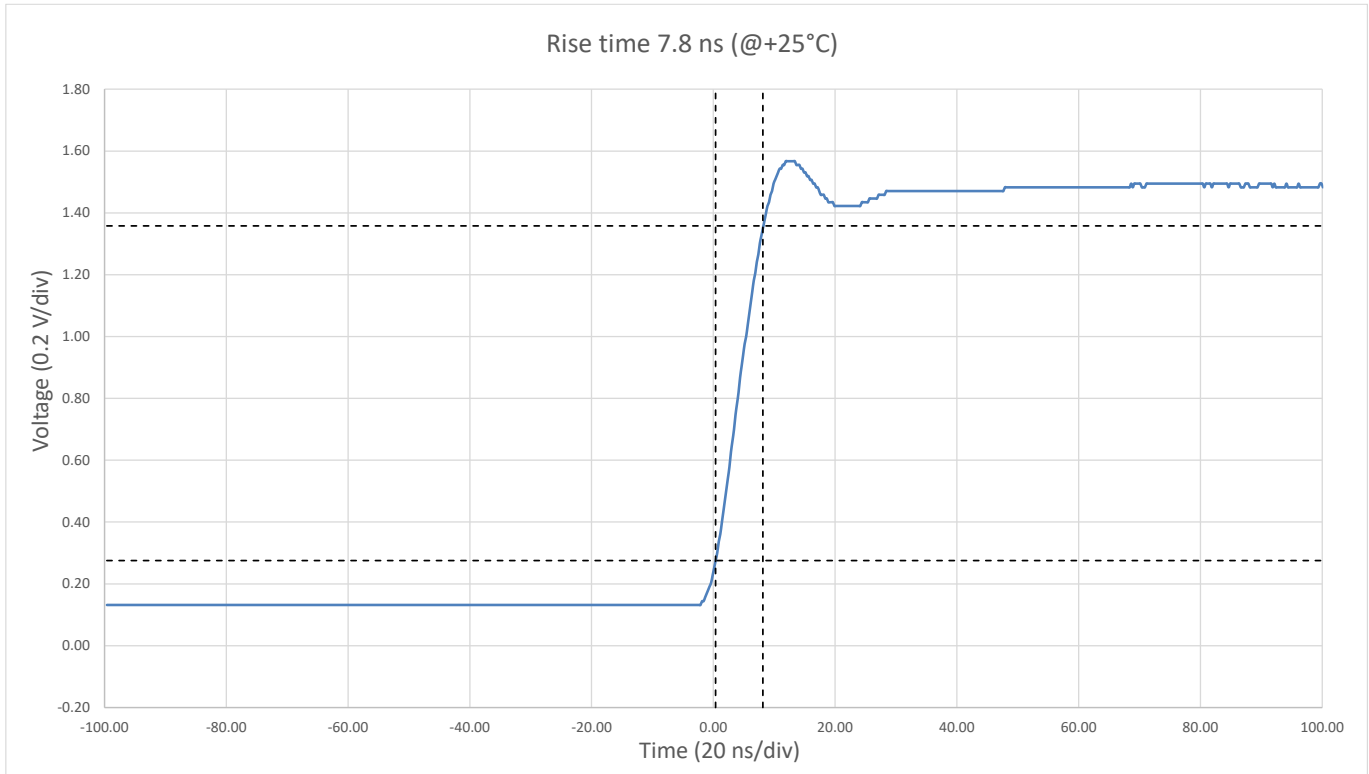
VSWR @+25C



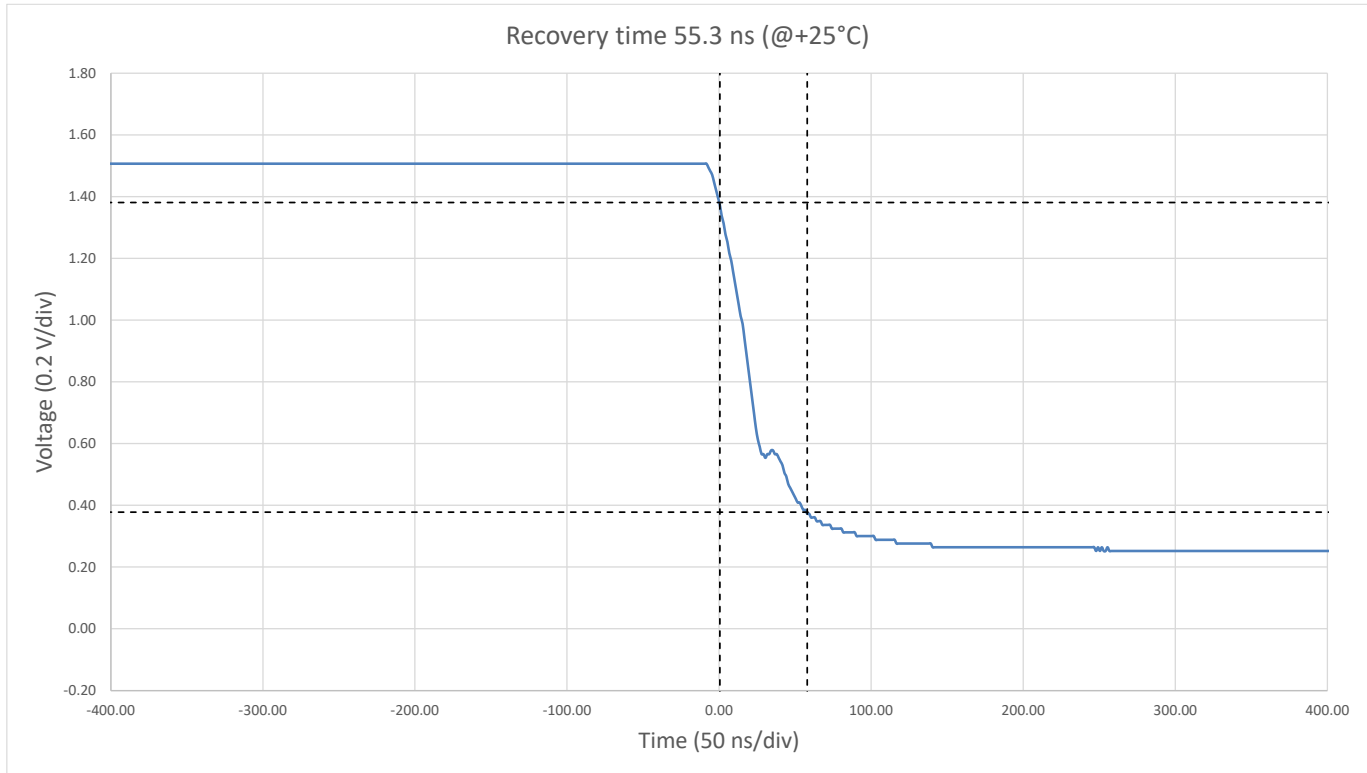
Typical Psat @+25C



Rise Time @+25C



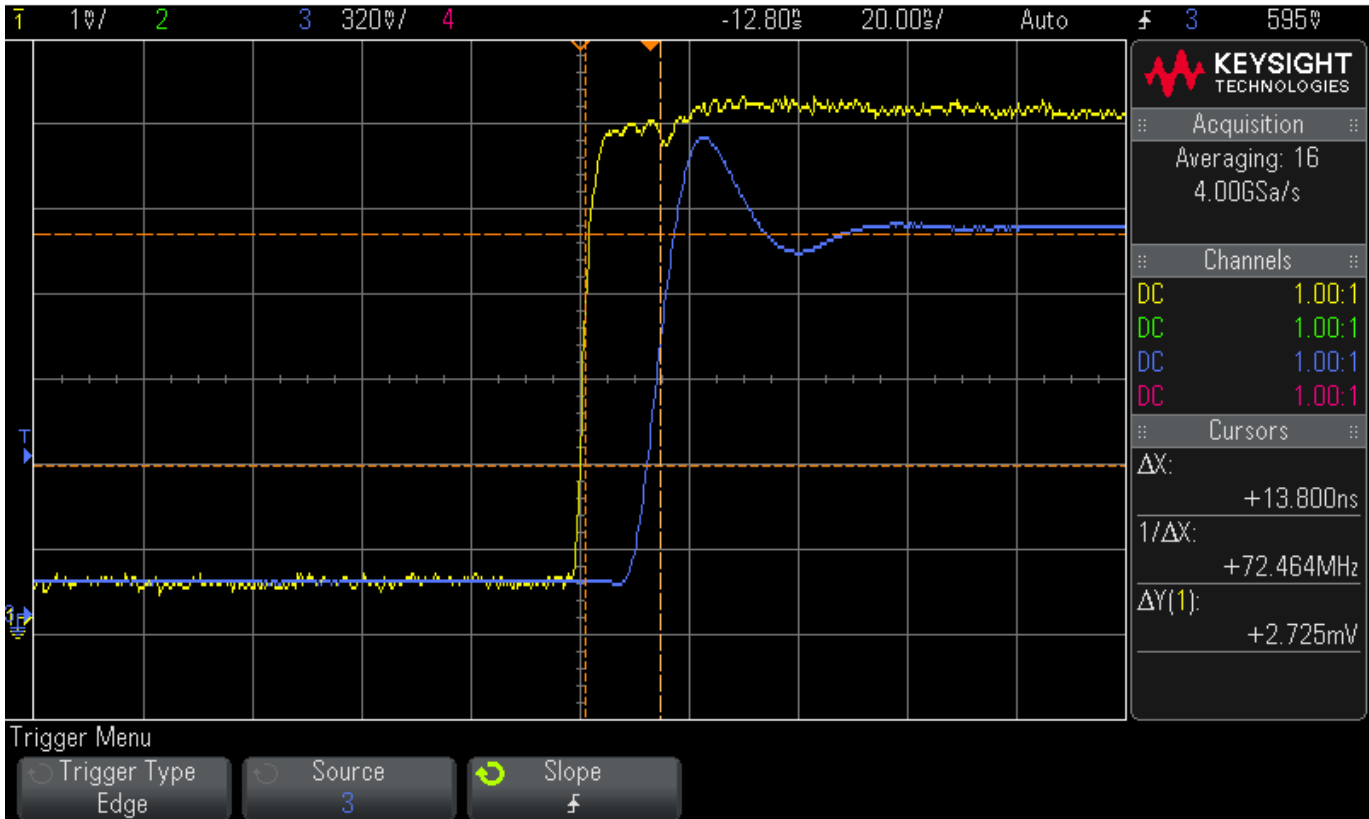
Recovery Time @+25C



TYPICAL CHARACTERISTICS
FOR
SDLVA-18G40G-CD-1

Delay Time 13.8 ns @+25C

MSO-X 3054A, MY53400180: Mon Oct 14 08:52:23 2024



Tabulated Data @ -40C

**SUMMARY TEST DATA
ON
SDLVA-18G40G-CD-1**

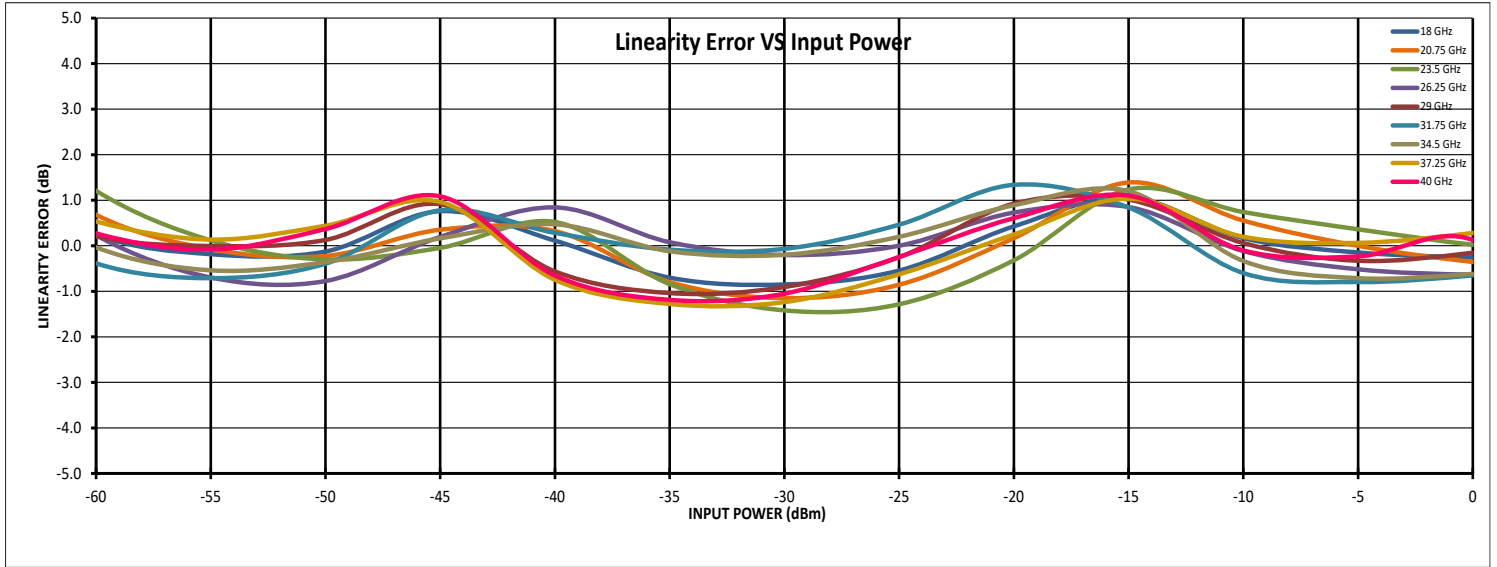
PL49234/2441

Log Transfer Over Frequency -40°C

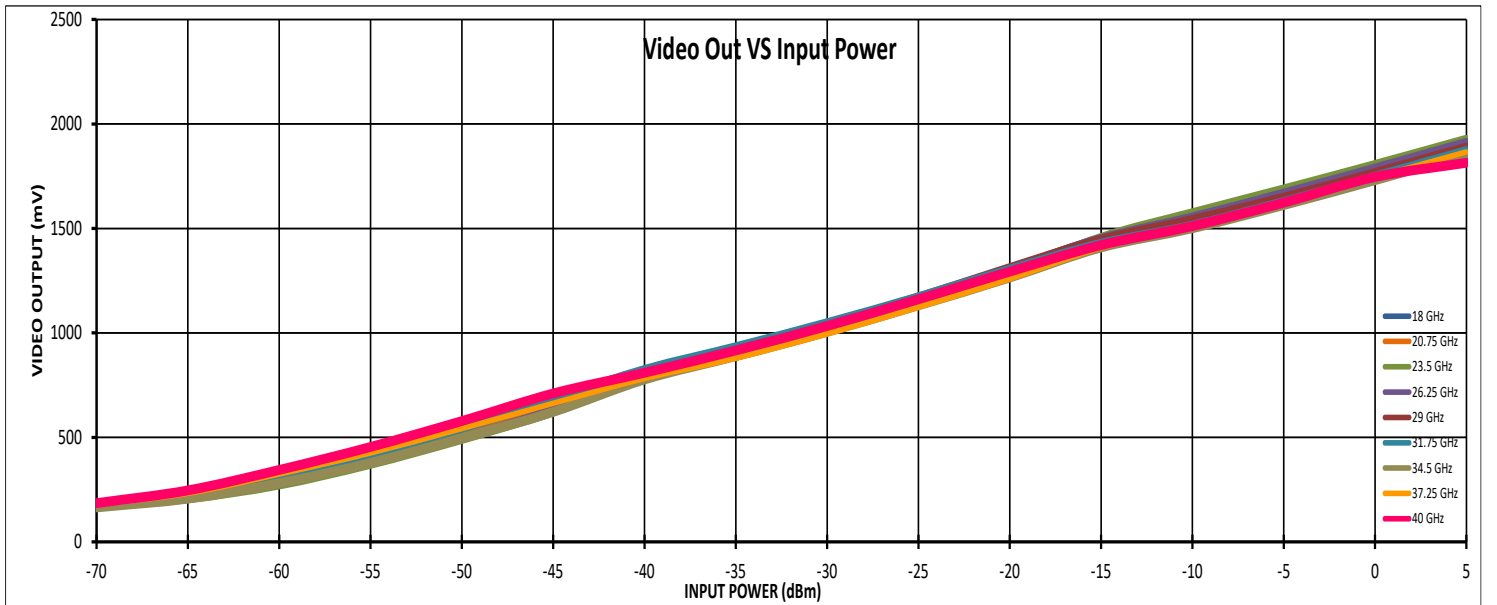
Video offset: 215 mA

Frequency		-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)	
18 GHz	INTERCEPT (mV)	1814																Measured Value (mV)	
	SLOPE (mV/dB)	24.1	244	290	373	483	605	747	852	953	1070	1198	1342	1478	1577	1690	1808	1928	ERROR (mV)
	LIN. ERR. (dB)	1.1	118	44	6	-4	-3	18	3	-17	-20	-13	10	26	4	-4	-6	-7	-7
		4.91	1.82	0.26	-0.18	-0.13	0.76	0.11	-0.70	-0.85	-0.54	0.43	1.07	0.17	-0.15	-0.25	-0.28		
20.75 GHz	INTERCEPT (mV)	1823	235	275	355	460	580	718	841	937	1052	1183	1332	1486	1589	1699	1814	1933	Measured Value (mV)
	SLOPE (mV/dB)	24.7	144	61	17	-2	-6	9	8	-20	-28	-21	4	34	14	0	-9	-14	ERROR (mV)
	LIN. ERR. (dB)	1.4	5.83	2.45	0.68	-0.08	-0.23	0.35	0.32	-0.80	-1.15	-0.86	0.17	1.39	0.55	0.00	-0.35	-0.55	LINEARITY ERROR (dB)
		6.82	3.21	1.21	0.12	-0.30	-0.05	0.52	-0.84	-1.42	-1.28	-0.32	1.24	0.74	0.36	0.02	-0.20		
23.5 GHz	INTERCEPT (mV)	1831	232	267	343	442	558	691	832	924	1036	1166	1317	1483	1597	1714	1832	1953	Measured Value (mV)
	SLOPE (mV/dB)	25.3	173	81	31	3	-8	-1	13	-21	-36	-33	-8	31	19	9	1	-5	Error (mV)
	LIN. ERR. (dB)	1.4	6.82	3.21	1.21	0.12	-0.30	-0.05	0.52	-0.84	-1.42	-1.28	-0.32	1.24	0.74	0.36	0.02	-0.20	LINEARITY ERROR (dB)
		6.82	3.21	1.21	0.12	-0.30	-0.05	0.52	-0.84	-1.42	-1.28	-0.32	1.24	0.74	0.36	0.02	-0.20		
26.25 GHz	INTERCEPT (mV)	1830	232	269	348	449	571	719	859	964	1081	1210	1352	1479	1579	1693	1814	1938	Measured Value (mV)
	SLOPE (mV/dB)	24.8	138	51	6	-17	-19	5	21	2	-5	0	18	21	-3	-13	-16	-16	ERROR (mV)
	LIN. ERR. (dB)	0.9	5.55	2.04	0.23	-0.69	-0.77	0.20	0.84	0.08	-0.20	0.00	0.73	0.85	-0.11	-0.52	-0.63	-0.63	LINEARITY ERROR (dB)
		3.08	1.16	0.21	-0.01	0.13	0.91	-0.56	-1.04	-0.91	-0.25	0.92	1.01	0.06	-0.33	-0.15	0.24		
29 GHz	INTERCEPT (mV)	1797	258	329	422	532	650	783	864	968	1086	1216	1358	1475	1568	1674	1793	1917	Measured Value (mV)
	SLOPE (mV/dB)	23.0	71	27	5	0	3	21	-13	-24	-21	-6	21	23	1	-8	-4	6	Error (mV)
	LIN. ERR. (dB)	1.0	3.08	1.16	0.21	-0.01	0.13	0.91	-0.56	-1.04	-0.91	-0.25	0.92	1.01	0.06	-0.33	-0.15	0.24	LINEARITY ERROR (dB)
		3.08	1.16	0.21	-0.01	0.13	0.91	-0.56	-1.04	-0.91	-0.25	0.92	1.01	0.06	-0.33	-0.15	0.24		
31.75 GHz	INTERCEPT (mV)	1787	241	292	379	488	612	756	861	969	1086	1215	1352	1457	1540	1652	1772	1895	Measured Value (mV)
	SLOPE (mV/dB)	23.3	86	21	-9	-17	-9	18	7	-2	-2	11	31	20	-14	-19	-15	-9	ERROR (mV)
	LIN. ERR. (dB)	1.3	3.70	0.88	-0.39	-0.71	-0.40	0.78	0.28	-0.09	-0.07	0.46	1.34	0.84	-0.60	-0.80	-0.65	-0.38	LINEARITY ERROR (dB)
		3.70	0.88	-0.39	-0.71	-0.40	0.78	0.28	-0.09	-0.07	0.46	1.34	0.84	-0.60	-0.80	-0.65	-0.38		
34.5 GHz	INTERCEPT (mV)	1771	239	285	369	474	595	724	848	951	1066	1192	1325	1449	1530	1638	1757	1879	Measured Value (mV)
	SLOPE (mV/dB)	23.4	103	32	-1	-13	-8	4	11	-3	-5	5	21	28	-8	-17	-14	-9	ERROR (mV)
	LIN. ERR. (dB)	1.2	4.40	1.37	-0.03	-0.54	-0.36	0.16	0.47	-0.12	-0.20	0.20	0.89	1.20	-0.33	-0.71	-0.62	-0.40	LINEARITY ERROR (dB)
		4.40	1.37	-0.03	-0.54	-0.36	0.16	0.47	-0.12	-0.20	0.20	0.89	1.20	-0.33	-0.71	-0.62	-0.40		
37.25 GHz	INTERCEPT (mV)	1776	256	326	419	524	645	771	846	948	1063	1191	1325	1457	1552	1663	1782	1904	Measured Value (mV)
	SLOPE (mV/dB)	22.8	77	33	12	3	10	22	-17	-29	-28	-14	6	24	5	1	6	14	ERROR (mV)
	LIN. ERR. (dB)	1.3	3.39	1.46	0.53	0.14	0.44	0.96	-0.75	-1.28	-1.24	-0.63	0.25	1.03	0.20	0.06	0.28	0.63	LINEARITY ERROR (dB)
		3.39	1.46	0.53	0.14	0.44	0.96	-0.75	-1.28	-1.24	-0.63	0.25	1.03	0.20	0.06	0.28	0.63		
40 GHz	INTERCEPT (mV)	1749	256	323	412	516	638	766	839	939	1054	1184	1315	1438	1523	1632	1752	1814	Measured Value (mV)
	SLOPE (mV/dB)	22.4	74	29	6	-2	8	24	-15	-27	-24	-5	14	25	-2	-5	3	-47	ERROR (mV)
	LIN. ERR. (dB)	1.2	3.30	1.30	0.27	-0.08	0.37	1.08	-0.65	-1.19	-1.05	-0.24	0.61	1.10	-0.10	-0.23	0.13	-2.10	LINEARITY ERROR (dB)
		3.30	1.30	0.27	-0.08	0.37	1.08	-0.65	-1.19	-1.05	-0.24	0.61	1.10	-0.10	-0.23	0.13	-2.10		
Avg. Slope: 23.8 mV/dB		0.5	1.3	1.7	1.9	1.9	1.9	0.7	0.9	1.1	1.1	0.9	1	1.6	1.7	1.7	2.9	Flatness dB: ±1.9 dB	

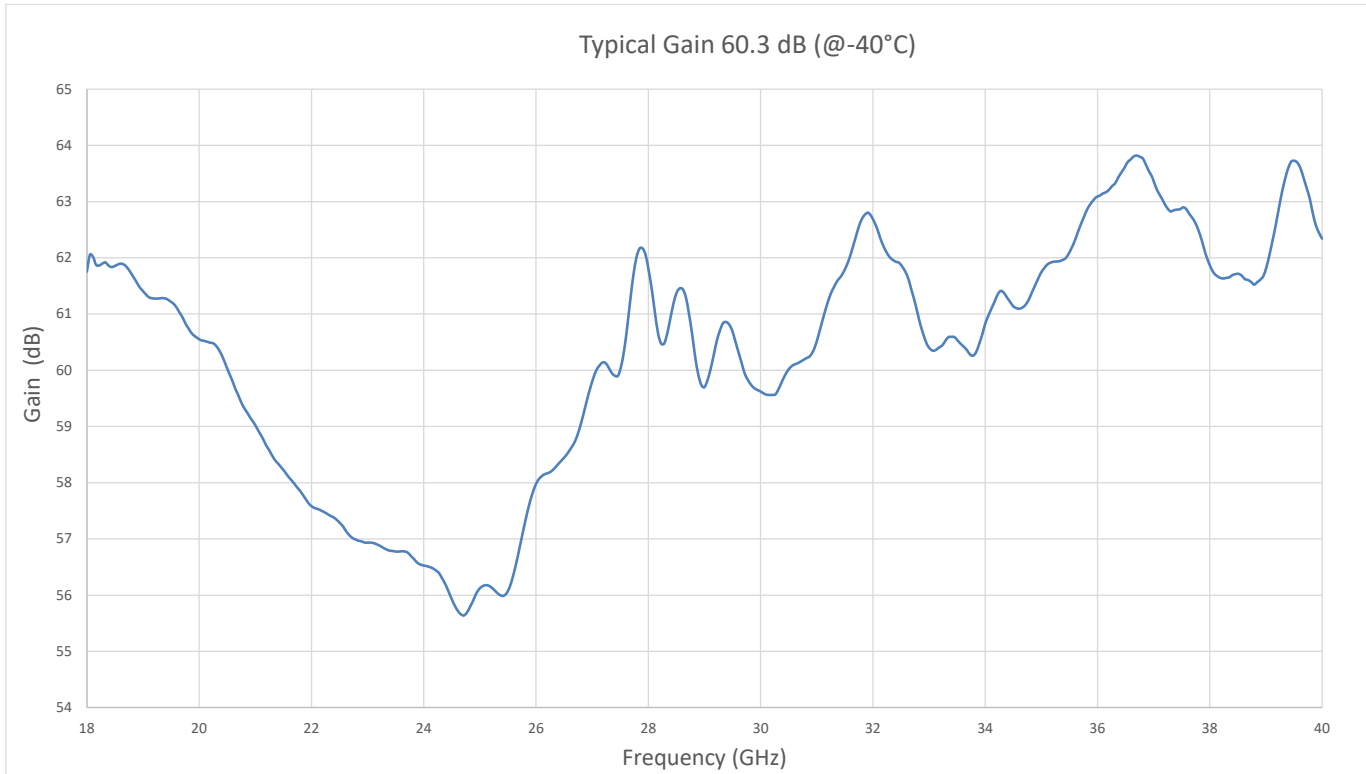
Log Linearity VS Input Power @-40C



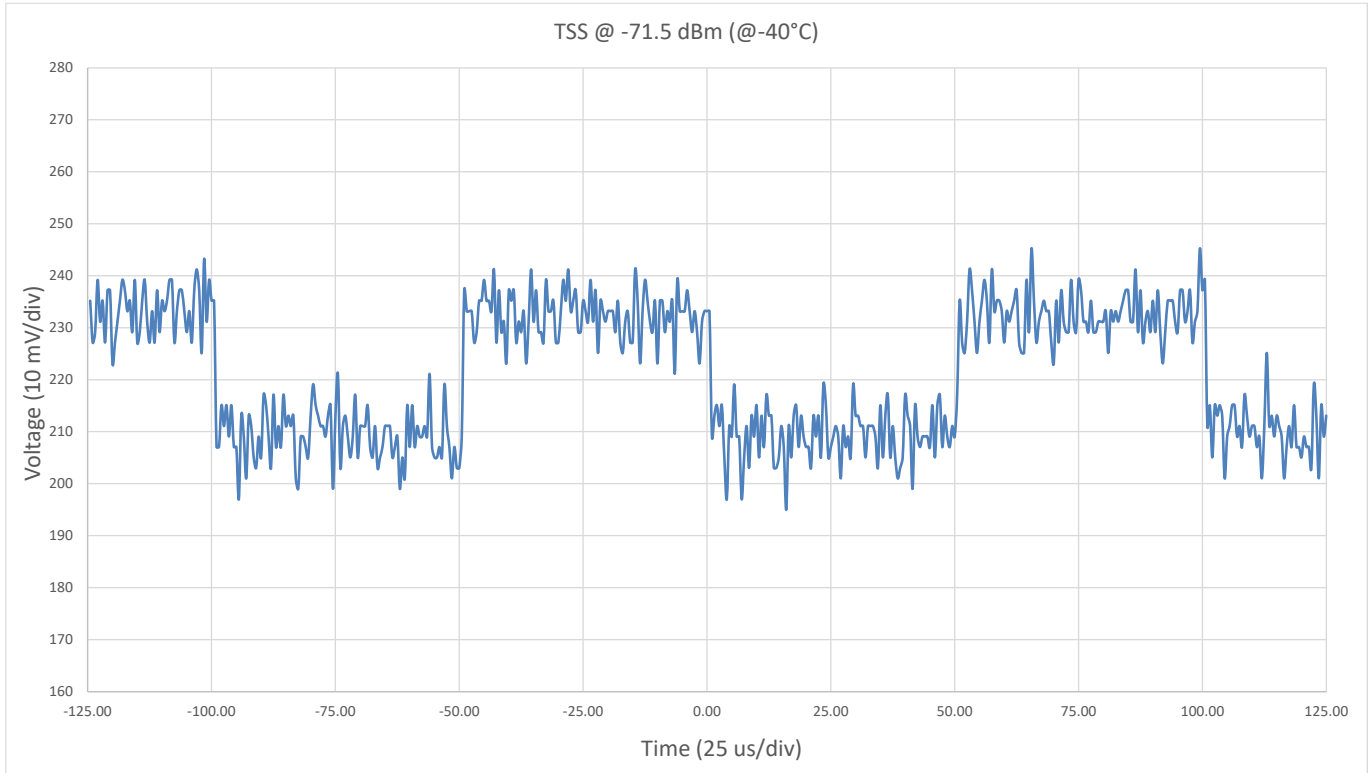
Transfer Function @-40C



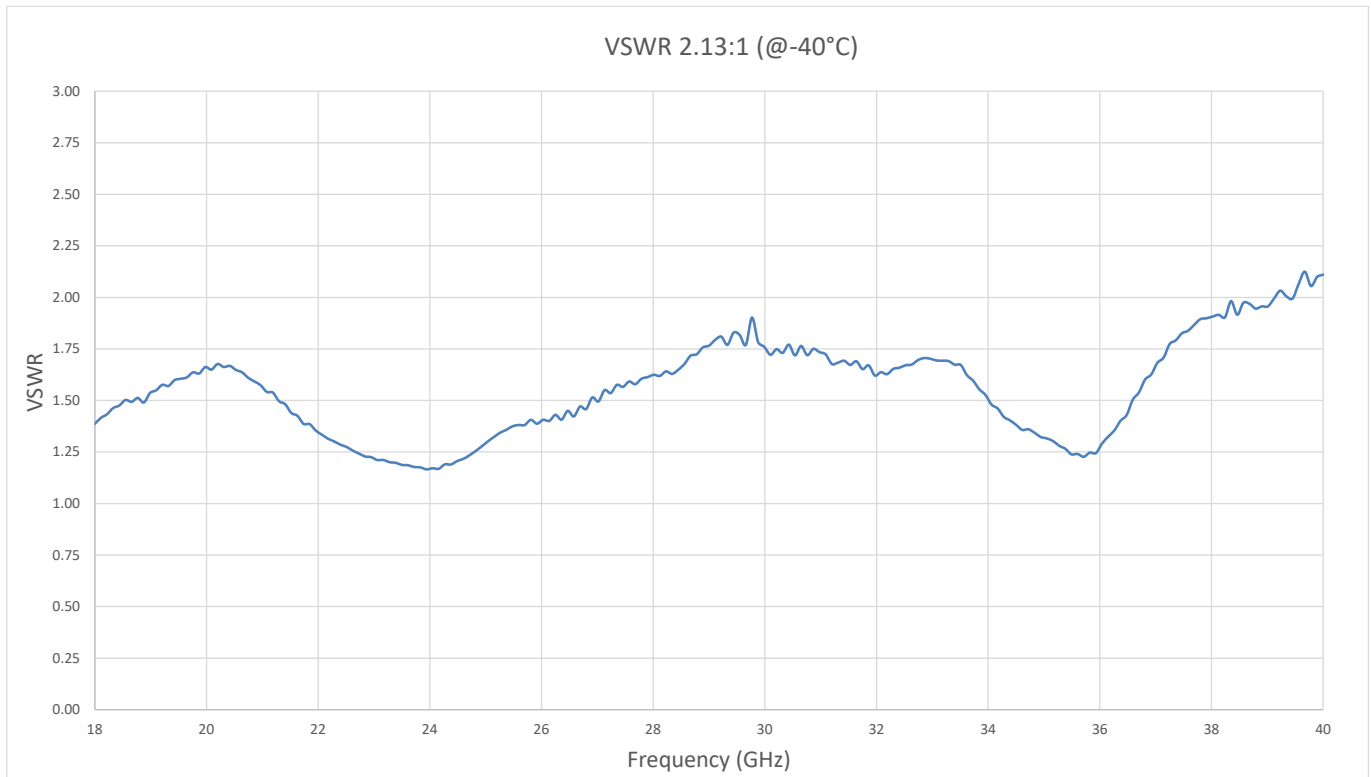
Typical Gain @ -40C



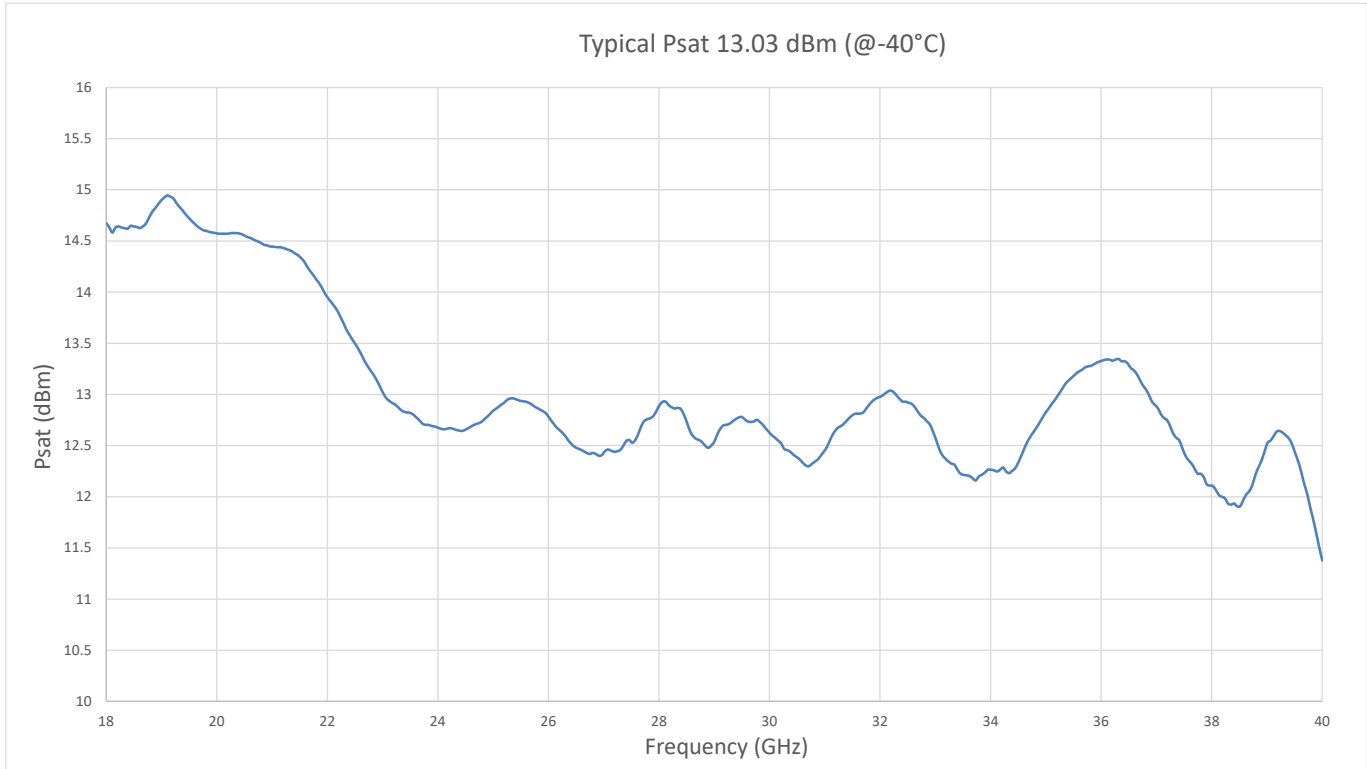
TSS @ -40C



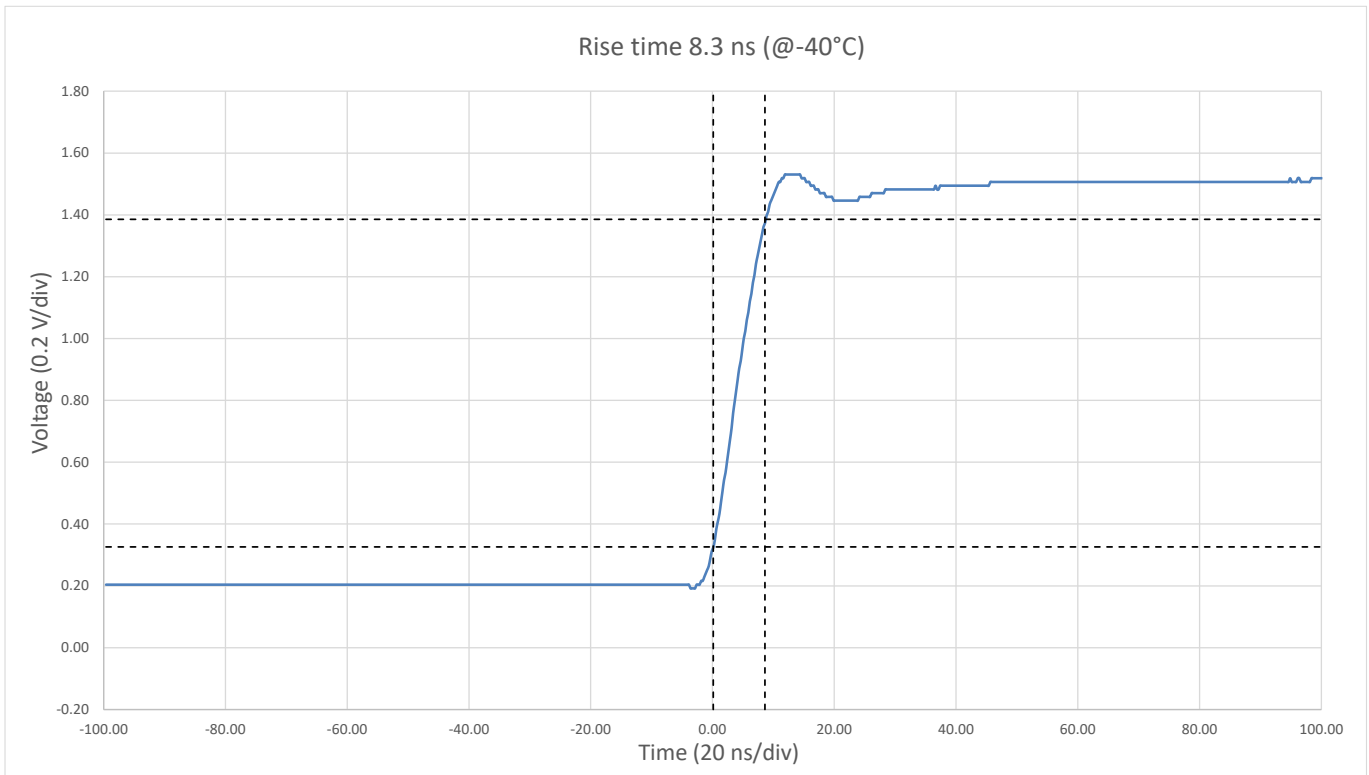
VSWR @ -40C



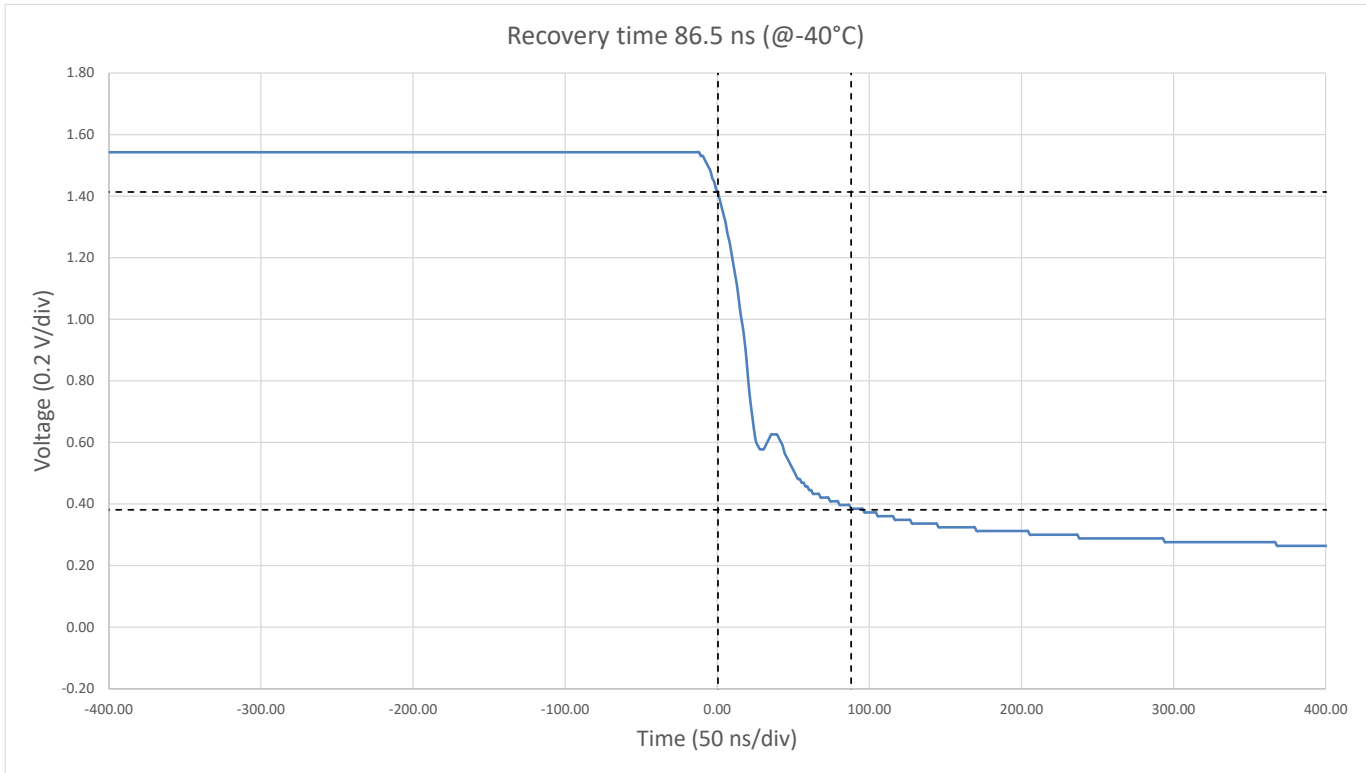
Typical Psat @ -40C



Rise Time @ -40C



Recovery Time @-40C



Tabulated Data @+85C

**SUMMARY TEST DATA
ON
SDLVA-18G40G-CD-1**

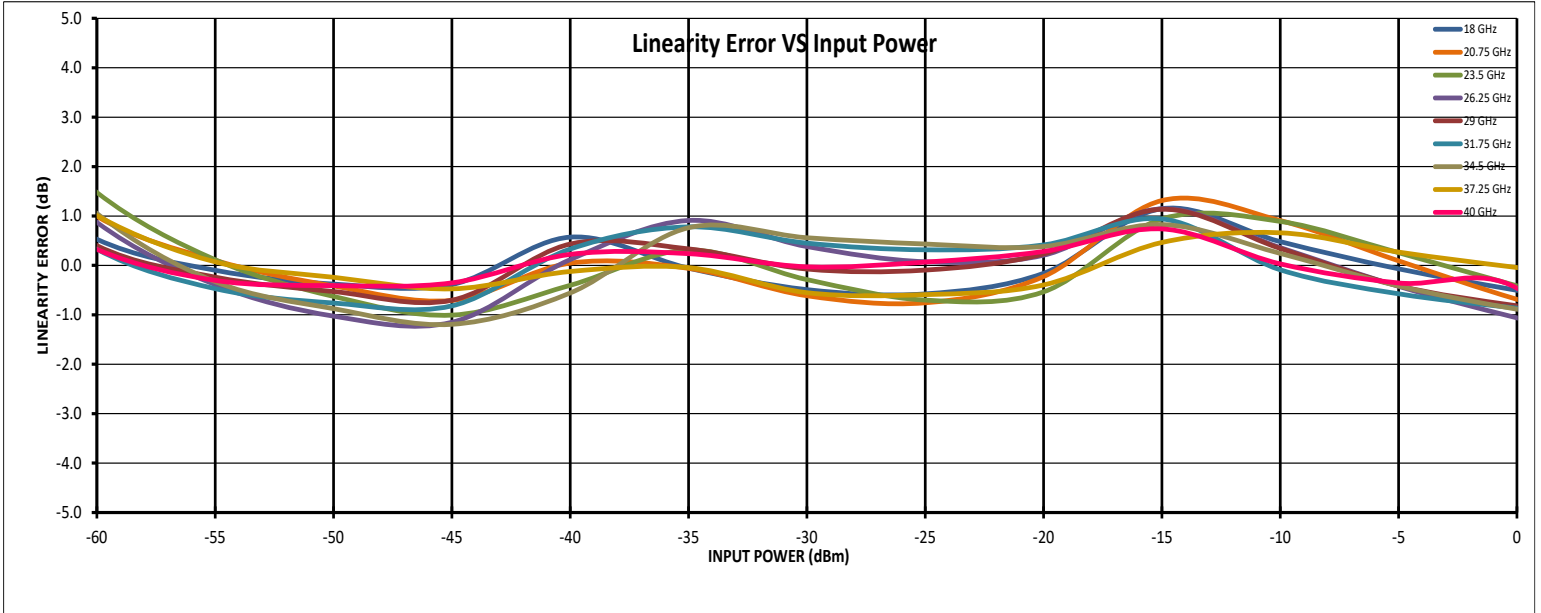
PL49234/2441

Log Transfer Over Frequency +85°C

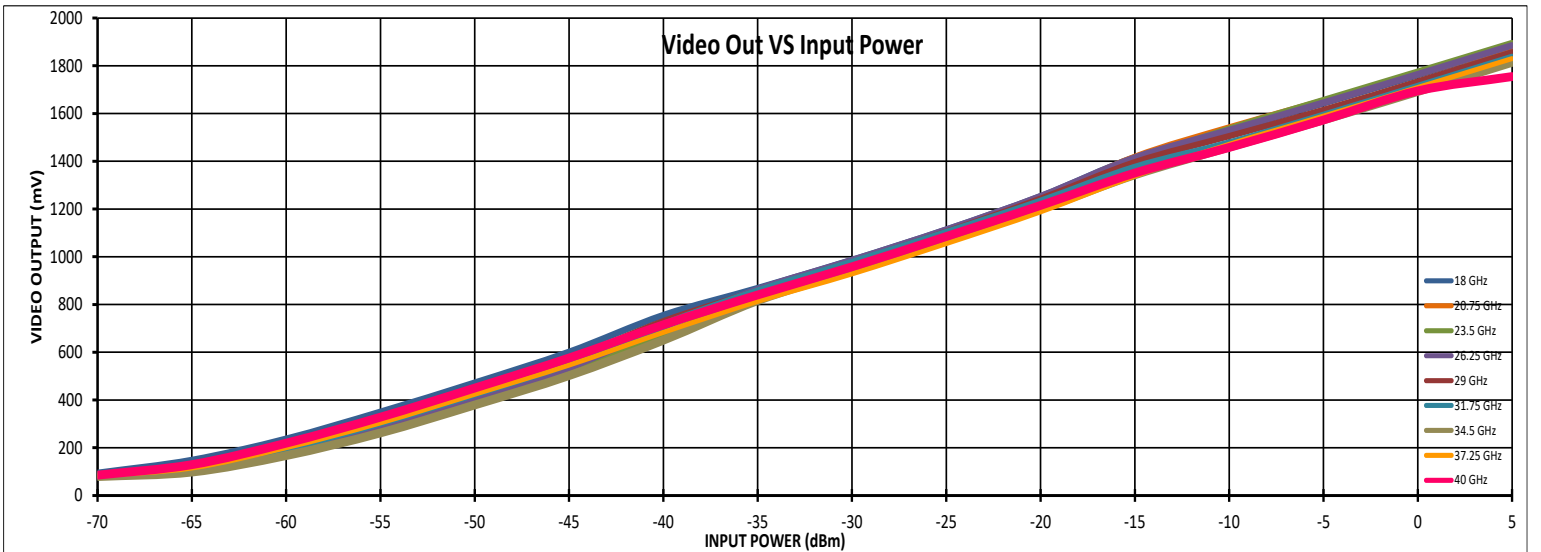
Video offset: 73 mA

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	LIN. ERR. (dB)	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
18 GHz	INTERCEPT (mV)	1774		94	148	237	350	472	601	755	868	986	1113	1253	1416	1528	1643	1761	1880	Measured Value (mV)
	SLOPE (mV/dB)	25.8		129	54	14	-3	-10	-10	15	-1	-13	-15	-4	30	12	-2	-13	-23	ERROR (mV)
	LIN. ERR. (dB)	1.1		5.00	2.08	0.53	-0.10	-0.38	-0.39	0.57	-0.06	-0.49	-0.58	-0.16	1.15	0.48	-0.07	-0.50	-0.90	LINEARITY ERROR (dB)
20.75 GHz	INTERCEPT (mV)	1784		87	122	205	315	435	561	715	846	965	1095	1243	1418	1541	1653	1766	1883	Measured Value (mV)
	SLOPE (mV/dB)	26.8		176	77	27	3	-11	-19	1	-2	-16	-20	-6	35	24	2	-18	-35	ERROR (mV)
	LIN. ERR. (dB)	1.3		6.58	2.89	0.99	0.10	-0.41	-0.71	0.05	-0.06	-0.61	-0.76	-0.23	1.31	0.91	0.09	-0.68	-1.31	LINEARITY ERROR (dB)
23.5 GHz	INTERCEPT (mV)	1786		82	105	178	278	395	522	676	833	954	1080	1222	1400	1536	1656	1775	1895	Measured Value (mV)
	SLOPE (mV/dB)	27.5		219	105	41	3	-17	-28	-11	8	-8	-19	-15	26	24	7	-11	-29	ERROR (mV)
	LIN. ERR. (dB)	1.5		7.98	3.82	1.48	0.11	-0.63	-1.01	-0.40	0.31	-0.29	-0.70	-0.54	0.94	0.89	0.26	-0.41	-1.05	LINEARITY ERROR (dB)
26.25 GHz	INTERCEPT (mV)	1793		81	105	180	282	401	534	705	863	985	1113	1253	1415	1530	1645	1764	1885	Measured Value (mV)
	SLOPE (mV/dB)	27.3		198	85	24	-11	-28	-31	3	25	10	2	6	31	10	-12	-29	-44	ERROR (mV)
	LIN. ERR. (dB)	1.2		7.24	3.12	0.87	-0.39	-1.03	-1.15	0.12	0.91	0.38	0.07	0.21	1.14	0.36	-0.42	-1.06	-1.63	LINEARITY ERROR (dB)
29 GHz	INTERCEPT (mV)	1755		85	125	211	324	446	571	730	857	976	1105	1243	1396	1505	1615	1734	1856	Measured Value (mV)
	SLOPE (mV/dB)	25.9		143	54	10	-6	-14	-18	11	9	-2	-2	6	29	9	-11	-21	-29	ERROR (mV)
	LIN. ERR. (dB)	1.1		5.54	2.08	0.40	-0.24	-0.53	-0.71	0.43	0.33	-0.07	-0.10	0.23	1.14	0.34	-0.41	-0.82	-1.11	LINEARITY ERROR (dB)
31.75 GHz	INTERCEPT (mV)	1732		83	115	199	307	428	555	713	853	973	1098	1229	1371	1473	1589	1710	1832	Measured Value (mV)
	SLOPE (mV/dB)	25.7		149	53	8	-12	-20	-21	9	20	12	8	11	24	-2	-15	-22	-29	ERROR (mV)
	LIN. ERR. (dB)	0.9		5.81	2.06	0.33	-0.47	-0.76	-0.82	0.33	0.78	0.45	0.32	0.42	0.94	-0.09	-0.57	-0.86	-1.12	LINEARITY ERROR (dB)
34.5 GHz	INTERCEPT (mV)	1715		79	98	167	262	379	502	650	816	942	1070	1200	1343	1459	1573	1692	1814	Measured Value (mV)
	SLOPE (mV/dB)	26.3		202	90	28	-9	-23	-31	-15	20	15	11	10	22	6	-11	-23	-33	ERROR (mV)
	LIN. ERR. (dB)	1.2		7.70	3.43	1.05	-0.33	-0.88	-1.19	-0.56	0.76	0.56	0.43	0.38	0.83	0.24	-0.42	-0.89	-1.24	LINEARITY ERROR (dB)
37.25 GHz	INTERCEPT (mV)	1710		82	115	200	304	424	546	683	813	928	1055	1188	1338	1471	1589	1709	1830	Measured Value (mV)
	SLOPE (mV/dB)	25.6		164	69	26	2	-6	-12	-3	-1	-14	-15	-10	12	17	7	-1	-8	ERROR (mV)
	LIN. ERR. (dB)	1.0		6.40	2.69	1.01	0.07	-0.24	-0.48	-0.12	-0.05	-0.55	-0.59	-0.40	0.46	0.66	0.27	-0.04	-0.32	LINEARITY ERROR (dB)
40 GHz	INTERCEPT (mV)	1706		85	129	219	328	450	576	715	840	958	1085	1215	1351	1458	1573	1695	1755	Measured Value (mV)
	SLOPE (mV/dB)	24.9		123	43	8	-8	-10	-9	6	6	-1	2	7	18	1	-9	-11	-76	ERROR (mV)
	LIN. ERR. (dB)	0.7		4.95	1.71	0.32	-0.30	-0.41	-0.35	0.22	0.24	-0.03	0.07	0.28	0.74	0.03	-0.36	-0.46	-3.05	LINEARITY ERROR (dB)
Avg. Slope: 26.2 mV/dB				0.3	1	1.3	1.7	1.8	1.9	2	1	1.1	1.1	1.2	1.5	1.6	1.6	1.6	2.7	Flatness dB: ±2 dB

Log Linearity @+85C

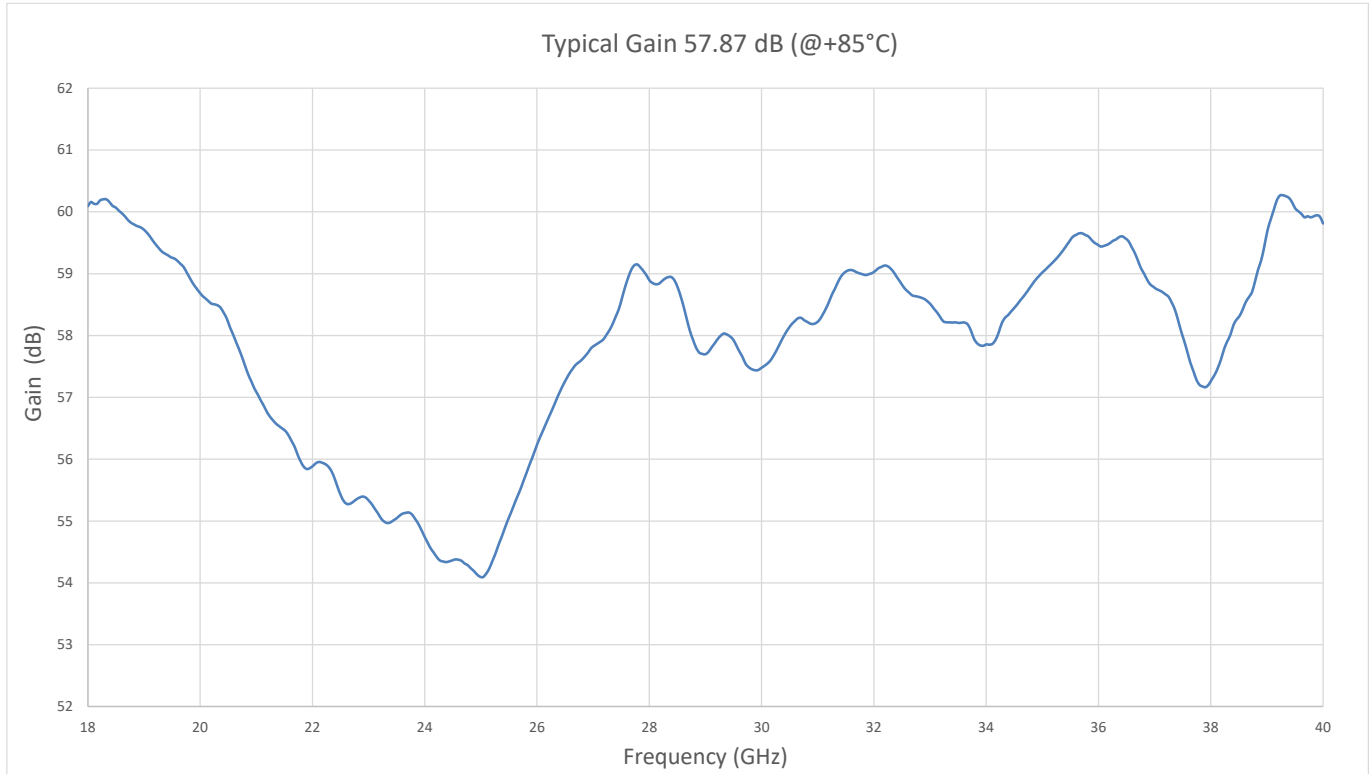


Transfer Function @+85C

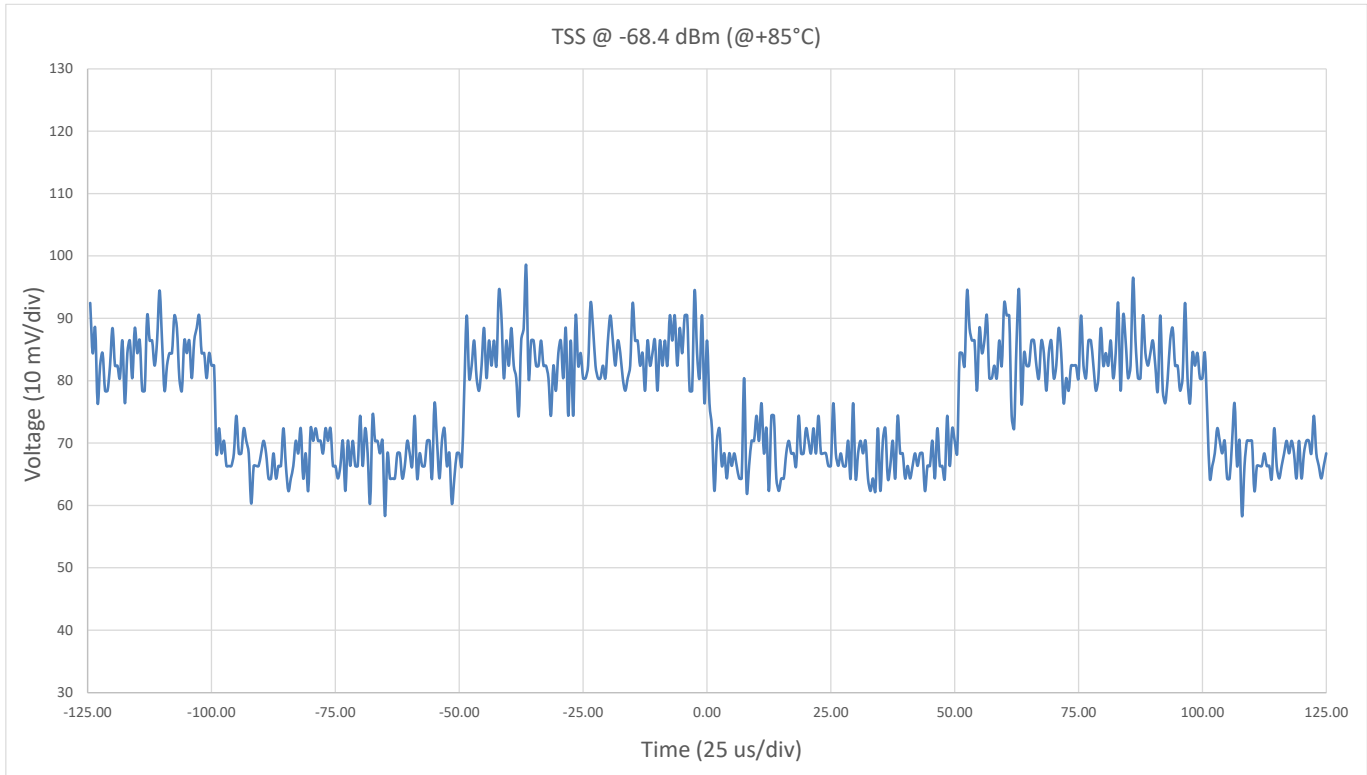


**TYPICAL CHARACTERISTICS
FOR
SDLVA-18G40G-CD-1**

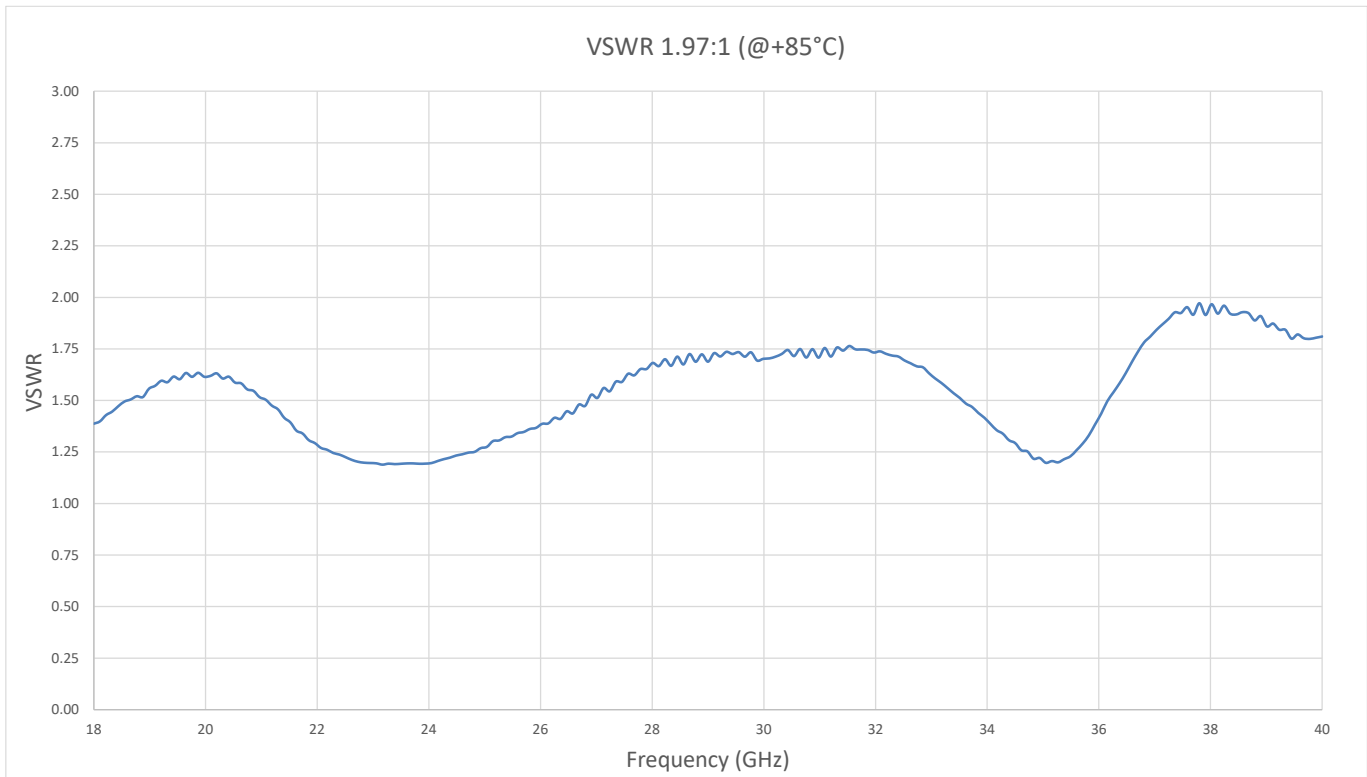
Typical Gain @+85C



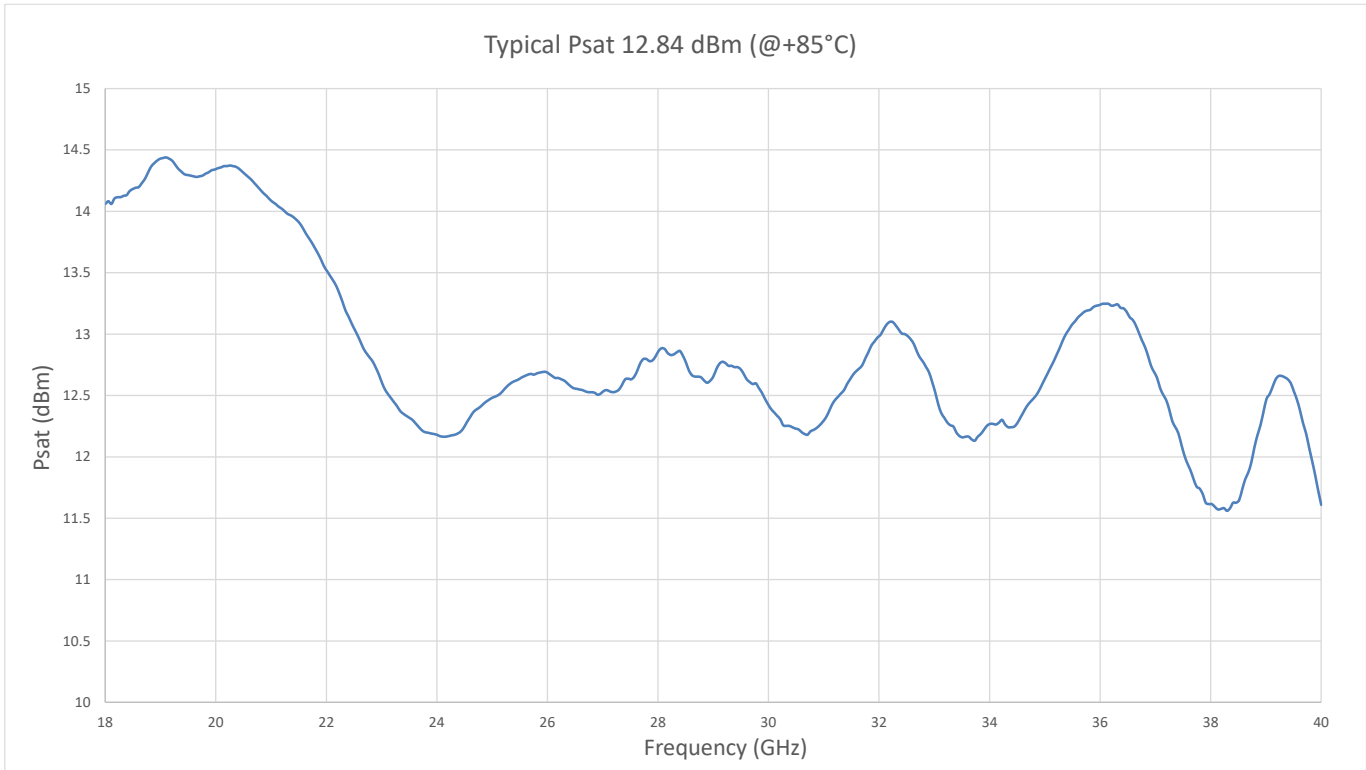
TSS @+85C



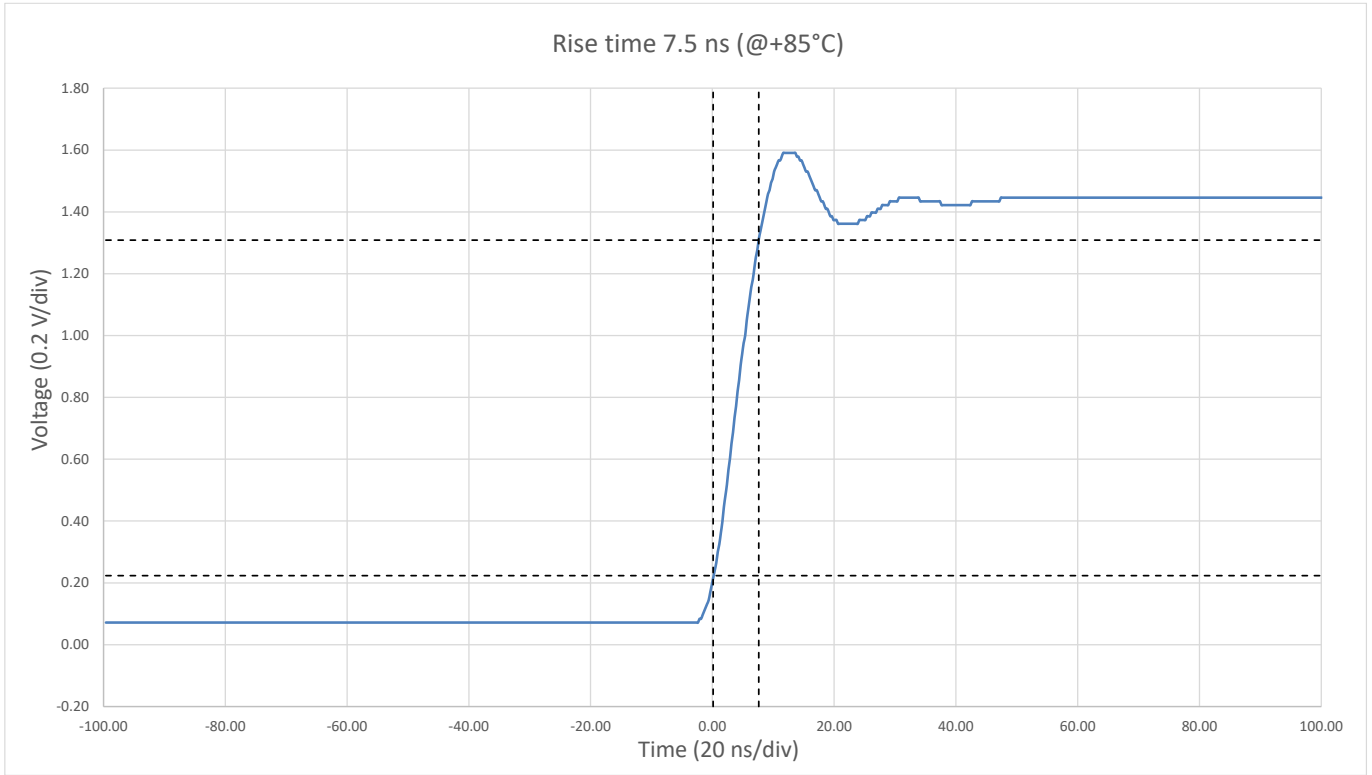
VSWR @+85C



Typical Psat @+85C



Rise Time @+85C



Recovery Time @+85C

