



**SUMMARY TEST DATA
ON
SDLVA-18G40G-65-CD-292FF**

Customer: _____ Tested By: E.Benson
 SO No: _____ Temperature: +25°C (Unless otherwise Specified)
 Model No: SDLVA-18G40G-65-CD-292FF Date: 3/02/2016
 Serial No: PL18783/1610 Drawing No: ETD000046

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	18.0 to 40.0GHz	18.0 to 40.0GHz	
2	TSS (See Graph #2)	-65 dBm Max.	-65.4dBm	
3	Power Handling	+10dBm Max.	+10dBm	
4	Dynamic Range:	-63dBm to +2dBm	-63dBm to +2dBm	
5	Log Linearity: @+25C (See Graph #1)	± 2.0 dB Max.	+1.38dB / -1.31dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	25.05 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	±0.34 mV/dB	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	±1.60dB	
9	Pulse Width Range:	30ns to CW	30ns to CW	
10	Rise Time: (See Graph #3)	11ns Max. (8 ns Typ.)	9.80ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	47.26ns	
12	Delay Time:	15ns Max.	12.78ns	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	2.43:1	
14	Power Supply	+12V @ 400mA -12V @ 200mA	+12V @ 373.8mA -12V @ 164.2mA	

QA/QC Approval: _____ Date: _____

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Model: SDLVA-18G40G-65-CD-292FF Serial Number: PL18783

Graph #1

Log Transfer vs Frequency @+25C

Frequency		-63	-58	-53	-48	-43	-38	-33	-28	-23	-18	-13	-8	-3	2	RF Input Power (dBm)	
18 GHz	INTERCEPT (mV)	1743															
	SLOPE (mV/dB)	25.5															
	Measured Value (mV)	158	254	375	501	629	782	929	1046	1168	1297	1433	1534	1651	1772	Error(dB)	
	Error (mV)	19	-12	-19	-20	-19	7	26	16	11	12	21	-5	-15	-22	MAX	MIN
	LINEARITY ERROR (dB)	0.75	-0.48	-0.73	-0.78	-0.75	0.26	1.03	0.63	0.42	0.49	0.83	-0.20	-0.61	-0.86	1.03	-0.86
23.5 GHz	INTERCEPT (mV)	1761															
	SLOPE (mV/dB)	25.2															
	Measured Value (mV)	193	306	429	553	673	803	913	1029	1155	1293	1466	1581	1695	1807	Error(dB)	
	Error (mV)	19	6	3	1	-5	-1	-17	-27	-26	-14	33	22	10	-4	MAX	MIN
	LINEARITY ERROR (dB)	0.75	0.24	0.12	0.05	-0.19	-0.03	-0.66	-1.05	-1.05	-0.57	1.30	0.87	0.39	-0.16	1.30	-1.05
29 GHz	INTERCEPT (mV)	1740															
	SLOPE (mV/dB)	25															
	Measured Value (mV)	175	288	413	538	664	806	912	1026	1150	1282	1442	1545	1665	1786	Error(dB)	
	Error (mV)	9	-3	-3	-3	-2	15	-4	-14	-15	-8	27	5	0	-4	MAX	MIN
	LINEARITY ERROR (dB)	0.36	-0.12	-0.11	-0.11	-0.07	0.62	-0.14	-0.58	-0.62	-0.33	1.07	0.19	0.00	-0.16	1.07	-0.62
34.5 GHz	INTERCEPT (mV)	1742															
	SLOPE (mV/dB)	24.8															
	Measured Value (mV)	174	284	409	536	671	835	954	1072	1194	1328	1425	1522	1642	1766	Error(dB)	
	Error (mV)	-8	-21	-20	-17	-6	34	29	24	22	32	5	-22	-26	-26	MAX	MIN
	LINEARITY ERROR (dB)	-0.30	-0.86	-0.82	-0.69	-0.24	1.38	1.19	0.95	0.87	1.28	0.20	-0.88	-1.04	-1.03	1.38	-1.04
40 GHz	INTERCEPT (mV)	1728															
	SLOPE (mV/dB)	24.9															
	Measured Value (mV)	185	295	419	544	656	754	875	1002	1137	1295	1437	1540	1658	1780	Error(dB)	
	Error (mV)	23	9	8	9	-3	-29	-33	-30	-19	15	32	11	5	3	MAX	MIN
	LINEARITY ERROR (dB)	0.92	0.35	0.34	0.37	-0.13	-1.18	-1.31	-1.20	-0.77	0.59	1.30	0.44	0.19	0.10	1.30	-1.31
	Flatness +/- dB	0.70	1.00	1.10	1.00	0.90	1.60	1.60	1.40	1.10	0.90	0.80	1.20	1.10	0.80		
	Max Video Output Volts	0.19	0.31	0.43	0.55	0.67	0.84	0.95	1.07	1.19	1.33	1.47	1.58	1.70	1.81		
	Min Video Output Volts	0.16	0.25	0.38	0.50	0.63	0.75	0.88	1.00	1.14	1.28	1.43	1.52	1.64	1.77		
	Log Slope Variation: ± mV/dB															0.34	

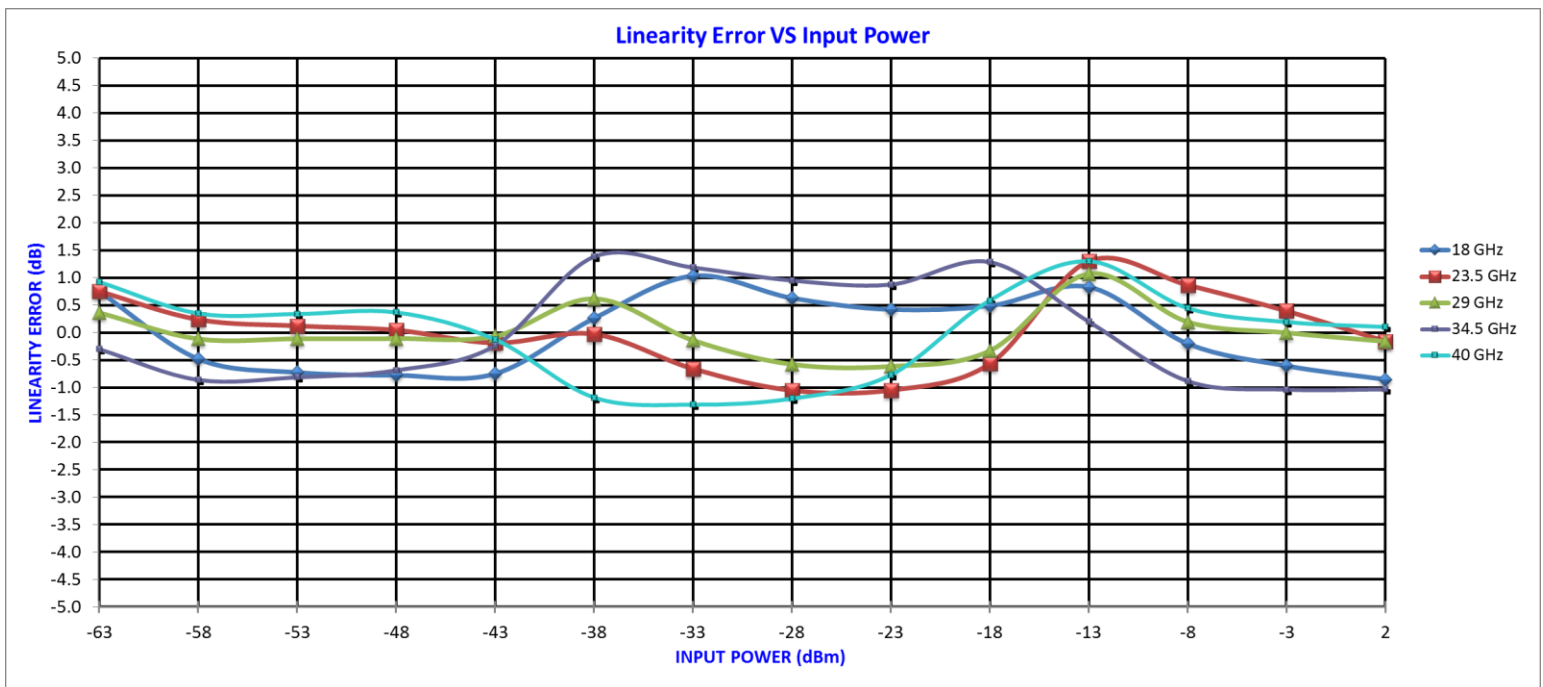


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C

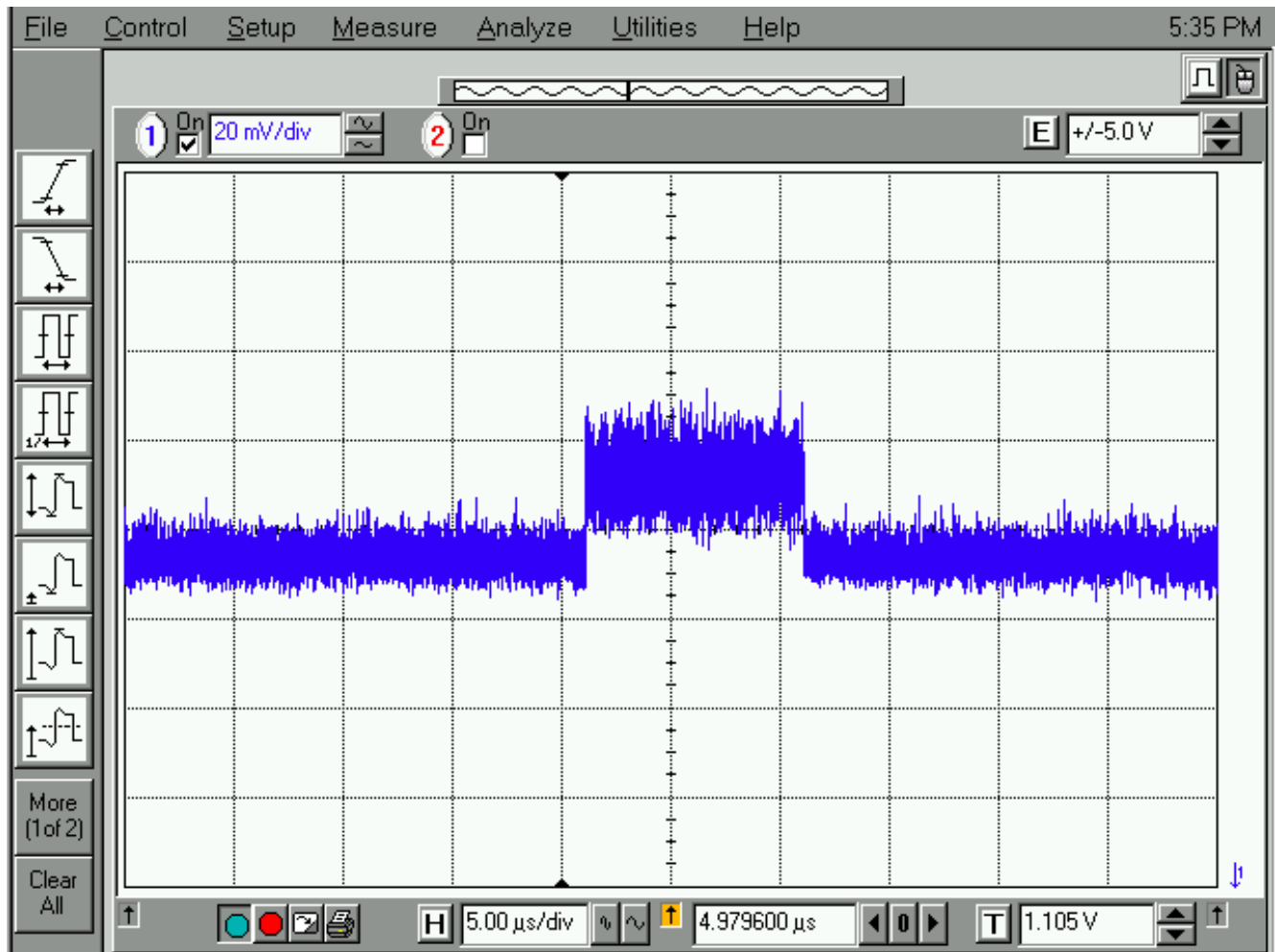




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Graph #2



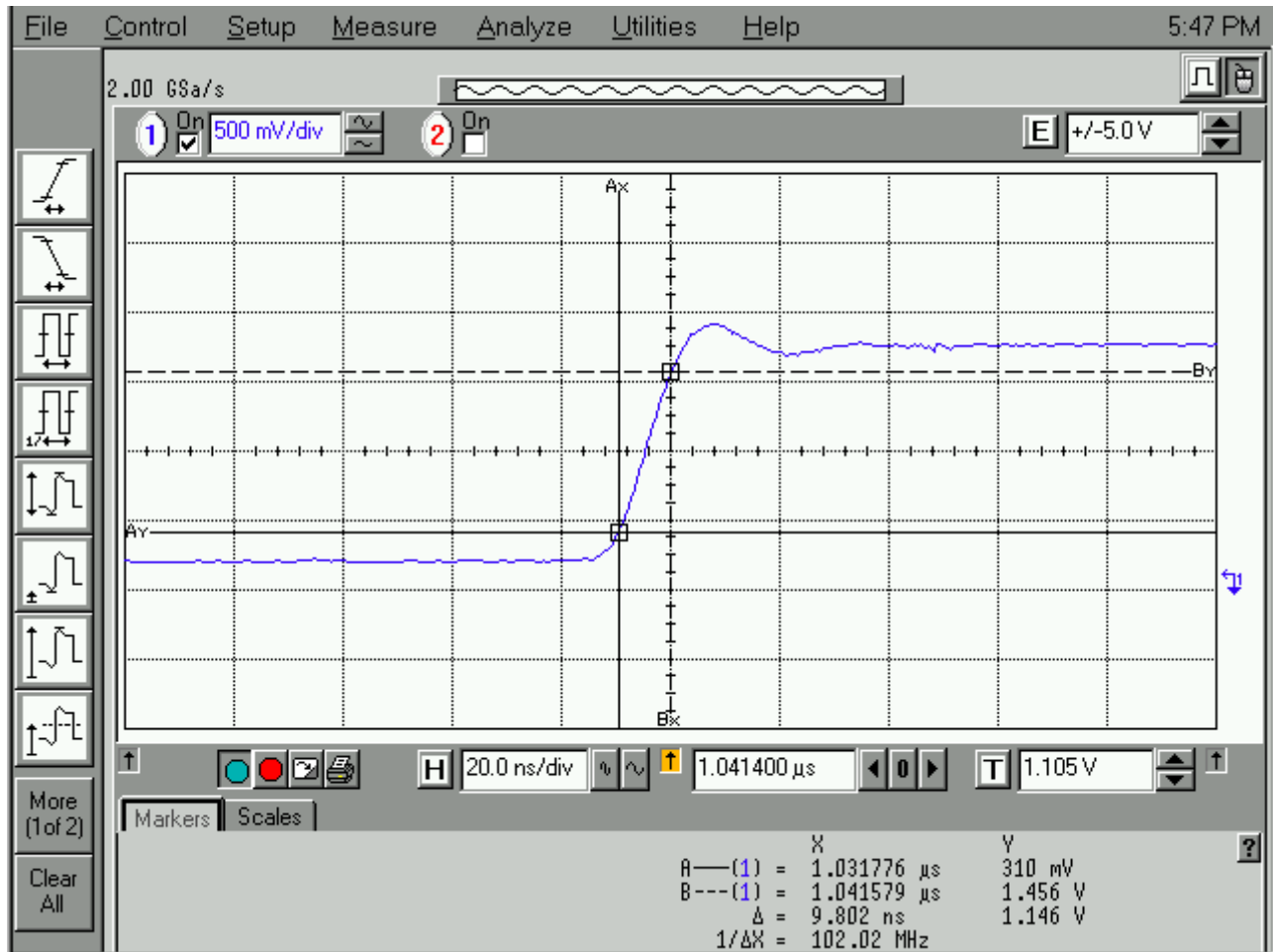
TSS-65.4dBm @+25C



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Graph#3



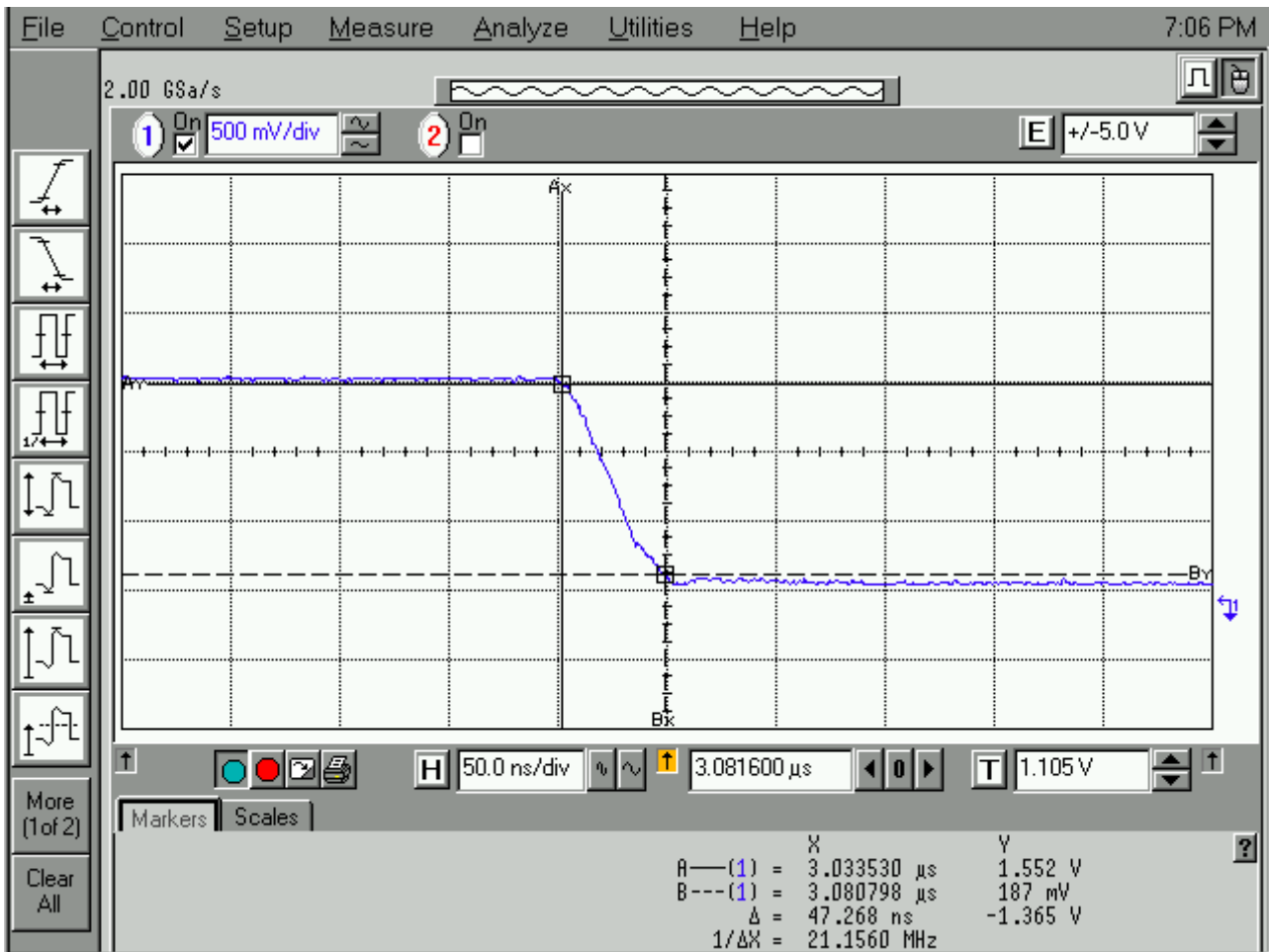
Rise Time 9.80ns @+25C & +2dBm



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Graph#4



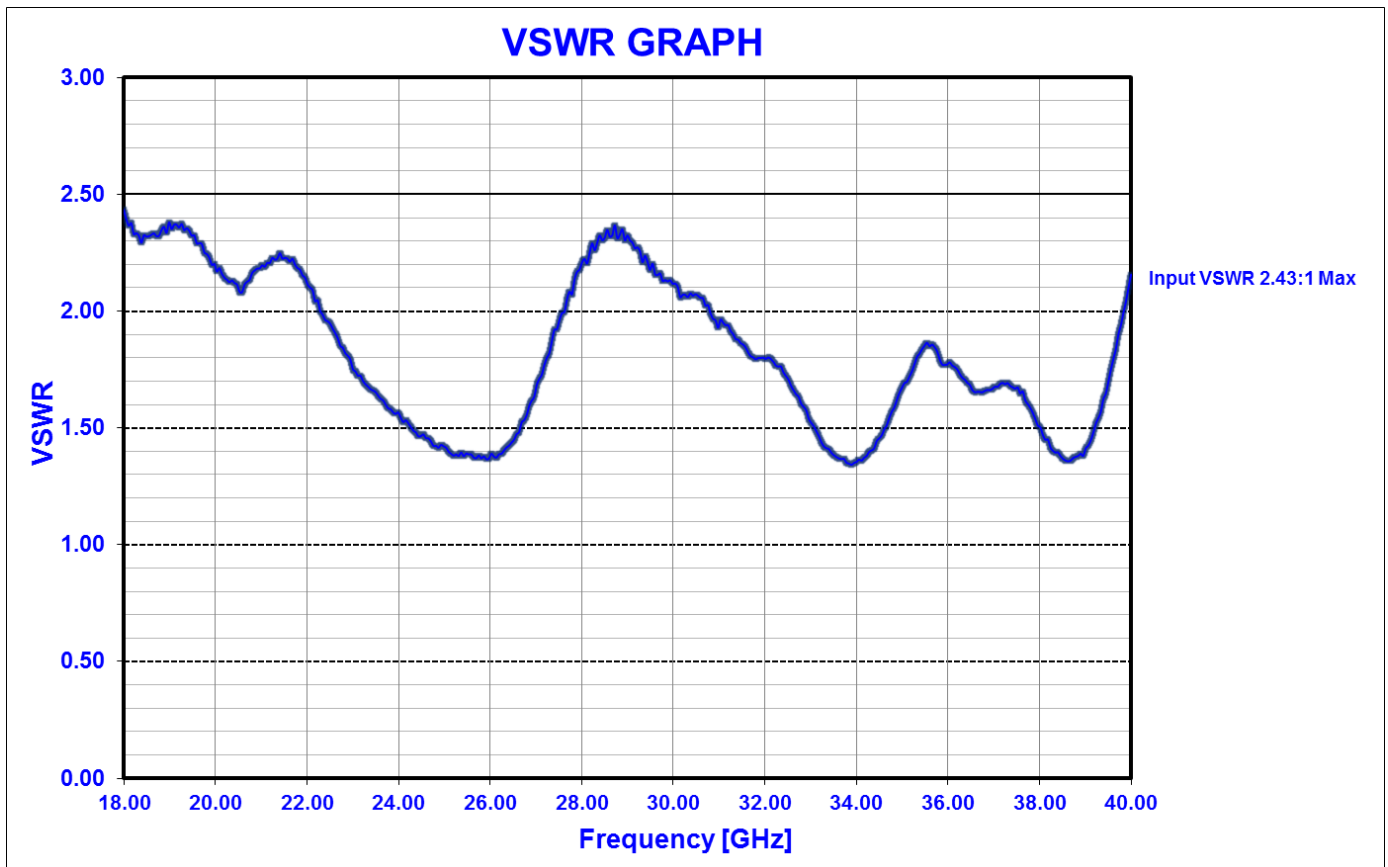
Recovery Time 47.26ns @+25C & +2dBm



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Graph #5



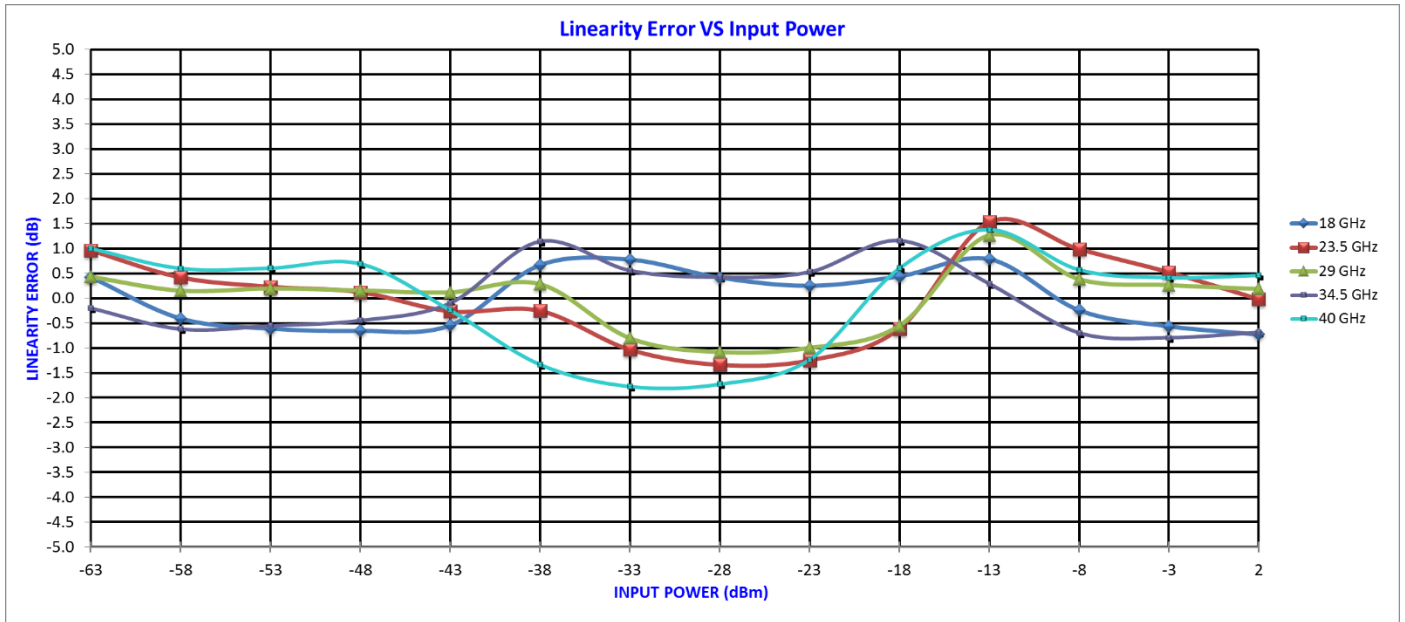
VSWR 2.43:1 @+25C & -20dBm



SUMMARY TEST DATA ON SDLVA-18G40G-65-CD-292FF

Log Transfer vs Frequency @ -54C Serial Number: PL18783

Frequency		-63	-58	-53	-48	-43	-38	-33	-28	-23	-18	-13	-8	-3	2	RF Input Power (dBm)			
18 GHz	INTERCEPT (mV)	1786															Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	25.4	194	300	422	548	678	836	966	1084	1207	1339	1475	1576	1695	1818	Error (mV)	MAX	MIN
			11	-10	-16	-17	-14	17	20	11	6	11	20	-6	-14	-19	LINEARITY ERROR (dB)	0.79	-0.73
			0.43	-0.41	-0.61	-0.66	-0.55	0.67	0.78	0.41	0.25	0.44	0.79	-0.24	-0.56	-0.73			
23.5 GHz	INTERCEPT (mV)	1805															Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	25.4	232	345	467	591	708	835	942	1061	1190	1333	1514	1627	1742	1855	Error (mV)	MAX	MIN
			24	11	6	3	-7	-6	-26	-34	-32	-15	39	25	13	-1	LINEARITY ERROR (dB)	1.53	-1.34
			0.96	0.42	0.23	0.12	-0.26	-0.25	-1.03	-1.34	-1.25	-0.61	1.53	0.99	0.52	-0.02			
29 GHz	INTERCEPT (mV)	1775															Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	24.8	224	341	466	589	712	840	937	1054	1180	1315	1484	1586	1707	1829	Error (mV)	MAX	MIN
			11	4	5	4	3	7	-20	-27	-25	-14	31	9	7	5	LINEARITY ERROR (dB)	1.27	-1.08
			0.43	0.15	0.19	0.16	0.12	0.28	-0.80	-1.08	-1.00	-0.55	1.27	0.38	0.26	0.19			
34.5 GHz	INTERCEPT (mV)	1771															Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	24.7	211	324	449	575	707	861	970	1090	1216	1355	1457	1556	1677	1803	Error (mV)	MAX	MIN
			-5	-15	-14	-11	-2	28	14	10	13	29	7	-17	-20	-17	LINEARITY ERROR (dB)	1.16	-0.79
			-0.20	-0.62	-0.55	-0.45	-0.10	1.14	0.56	0.42	0.53	1.16	0.29	-0.70	-0.79	-0.69			
40 GHz	INTERCEPT (mV)	1762															Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	24.6	238	351	474	599	699	795	907	1031	1166	1334	1476	1579	1698	1822	Error (mV)	MAX	MIN
			25	15	15	17	-6	-33	-44	-43	-30	15	34	14	10	11	LINEARITY ERROR (dB)	1.38	-1.78
			1.00	0.60	0.60	0.69	-0.24	-1.33	-1.78	-1.73	-1.24	0.60	1.38	0.57	0.41	0.46			
Flatness +/- dB		0.90	1.00	1.00	1.00	0.70	1.30	1.30	1.20	1.00	0.80	1.10	1.40	1.30	1.00				
Max Video Output Volts		0.24	0.35	0.47	0.60	0.71	0.86	0.97	1.09	1.22	1.36	1.51	1.63	1.74	1.86				
Min Video Output Volts		0.19	0.30	0.42	0.55	0.68	0.80	0.91	1.03	1.17	1.32	1.46	1.56	1.68	1.80				



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Log Transfer vs Frequency @+85C Serial Number: PL18783

Frequency			RF Input Power (dBm)													Measured Value (mV)		Error(dB)	
18 GHz	INTERCEPT (mV)	1712	164	243	351	472	600	751	909	1026	1146	1270	1402	1507	1625	1745	Measured Value (mV)	MAX	MIN
	SLOPE (mV/dB)	25.2	39	-8	-26	-31	-29	-4	28	19	13	11	17	-4	-12	-18	Error (mV)	MAX	MIN
			1.56	-0.31	-1.02	-1.22	-1.14	-0.15	1.13	0.77	0.53	0.45	0.69	-0.14	-0.46	-0.70	LINEARITY ERROR (dB)	1.56	-1.22
23.5 GHz	INTERCEPT (mV)	1728	191	284	401	523	645	774	891	1006	1129	1262	1430	1551	1666	1778	Measured Value (mV)	MAX	MIN
	SLOPE (mV/dB)	25	36	4	-4	-7	-9	-5	-13	-23	-25	-17	27	23	13	0	Error (mV)	MAX	MIN
			1.44	0.16	-0.15	-0.26	-0.38	-0.21	-0.52	-0.92	-0.99	-0.66	1.07	0.91	0.52	0.00	LINEARITY ERROR (dB)	1.44	-0.99
29 GHz	INTERCEPT (mV)	1710	179	273	390	513	641	786	898	1011	1131	1256	1406	1518	1638	1758	Measured Value (mV)	MAX	MIN
	SLOPE (mV/dB)	24.7	24	-5	-11	-12	-7	14	3	8	-11	-10	17	5	2	-1	Error (mV)	MAX	MIN
			0.99	-0.20	-0.47	-0.48	-0.30	0.57	0.11	-0.31	-0.45	-0.39	0.69	0.22	0.08	-0.06	LINEARITY ERROR (dB)	0.99	-0.48
34.5 GHz	INTERCEPT (mV)	1713	177	268	384	508	644	805	935	1053	1173	1295	1398	1499	1616	1738	Measured Value (mV)	MAX	MIN
	SLOPE (mV/dB)	24.6	11	-21	-27	-26	-13	25	33	28	25	24	4	-17	-23	-24	Error (mV)	MAX	MIN
			0.46	-0.84	-1.11	-1.06	-0.52	1.03	1.33	1.13	1.02	0.99	0.18	-0.70	-0.94	-0.97	LINEARITY ERROR (dB)	1.33	-1.11
40 GHz	INTERCEPT (mV)	1685	184	274	389	513	628	735	856	983	1113	1249	1389	1499	1618	1739	Measured Value (mV)	MAX	MIN
	SLOPE (mV/dB)	24.4	36	4	-3	-1	-8	-23	-24	-19	-11	3	22	10	7	6	Error (mV)	MAX	MIN
			1.48	0.17	-0.12	-0.03	-0.32	-0.93	-0.97	-0.76	-0.43	0.14	0.88	0.39	0.27	0.23	LINEARITY ERROR (dB)	1.48	-0.97
Flatness +/- dB			0.50	0.80	1.00	1.00	0.90	1.40	1.60	1.40	1.20	0.90	0.80	1.10	1.00	0.80			
Max Video Output Volts			0.19	0.28	0.40	0.52	0.65	0.81	0.94	1.05	1.17	1.30	1.43	1.55	1.67	1.78			
Min Video Output Volts			0.16	0.24	0.35	0.47	0.60	0.74	0.86	0.98	1.11	1.25	1.39	1.50	1.62	1.74			

