



**SUMMARY TEST DATA  
ON  
SDLVA-2020-50 OPTION 26, INDRA**

PL33386/2133

Customer: _____	Tested By: <u>J. Boze</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-2020-50 OPTION 26, INDRA</u>	Date: <u>08/18/2021</u>
Serial No: <u>PL33386/2133</u>	Drawing No: <u>27641280</u> Rev: <u>A1</u>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC	
1	Frequency Range:	2.4 GHz to 5.4 GHz	2.4 GHz to 5.4 GHz	<b>PMI QA3</b>	
2	Dynamic Range:	-45 dBm to +5 dBm	-45 dBm to +5 dBm See Plot	↓	
3	VSWR:	3.0:1 (@ -20 dBm, 2.4-5.4 GHz)	1.89:1 See Plot		
4	RF Gain:	60 dB Min	69 dB See Plot		
5	Frequency Flatness:	±2.0 dB Typ (2.4 GHz to 5.4 GHz)	±0.5 dB See Plot		
6	Log Linearity:	±1.75 dB Max (-45 dBm to +5 dBm)	±1.49 dBm See Plot		
7	Log Slope:	20 mV/dB (±10% Tolerance)	21.3 mV/dB See Plot		
8	Log Temperature Stability:	±1.75dB (0°C to 60°C)	±1.57 dB See Plot		
9	Rise Time (10% to 90%):	30 ns Max, 20 ns Typ	21.2 ns See Plot		
10	Recover Time:	250 ns Max, 150 ns Typ (-45 dBm to +5 dBm)	154 ns See Plot		
11	Limited RF Power Output:	+14 dBm Typ, +10 dBm Min	+15.3 dBm See Plot		
12	Propogation Delay: (10% of RF Input Signal to 90% Output Video)	35 ns Typ, 45 ns Max	Pass		
13	Output Video Load:	100 Ω ±10% or as desired	Pass		
14	DC Power: (No Load)	+15 V @ 600 mA Max -15 V @ 200 mA Max	400 mA 100 mA		<b>PMI QA3</b>

QA/QC Approval: *A. Zimmerman* Date: 8/24/21



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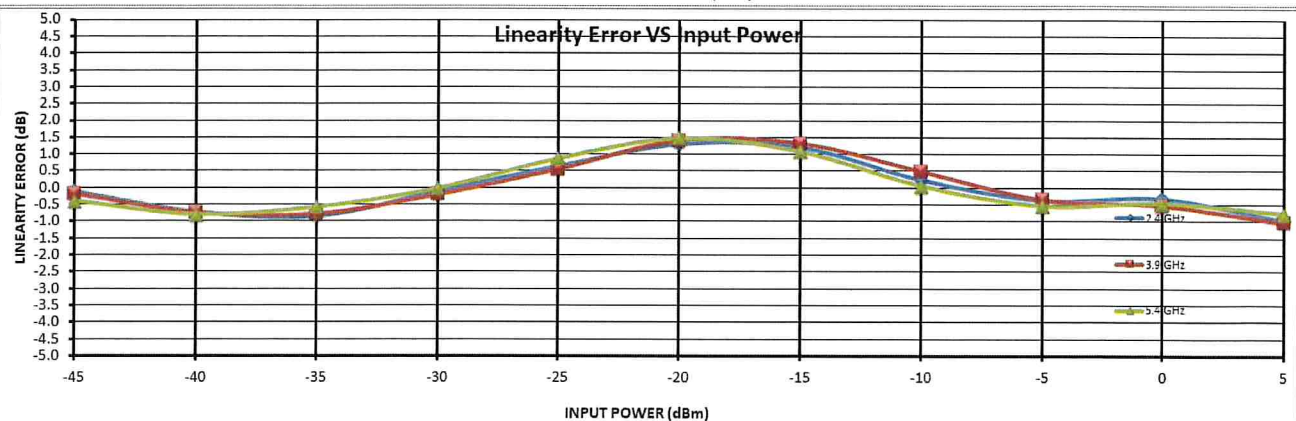
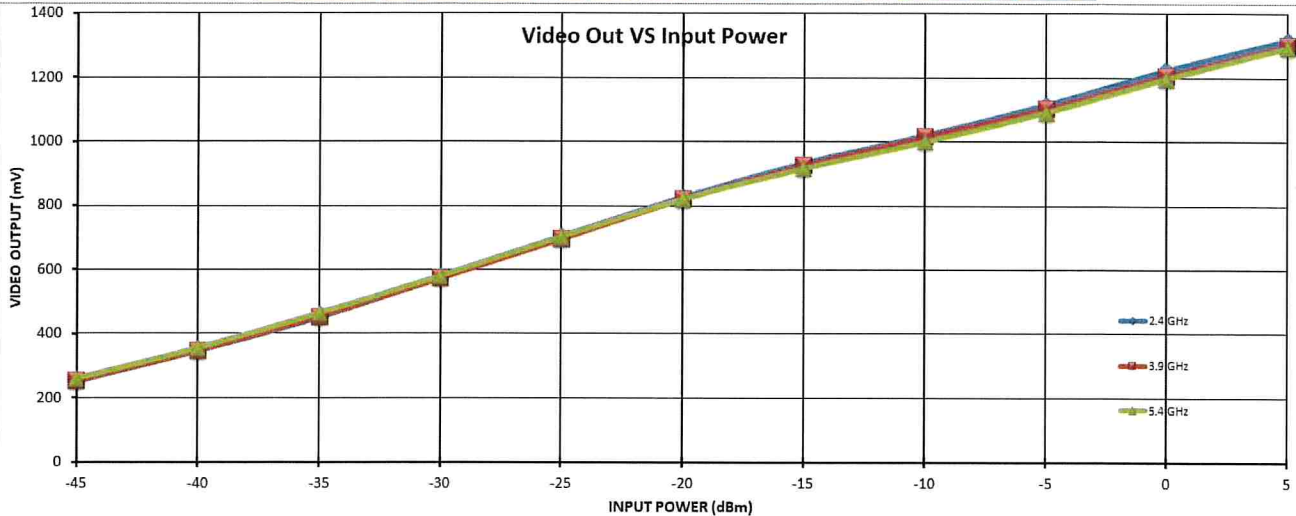
PL33386/2133

MODEL: SDLVA-2020-50-OPTIONS 26, INDRA  
SERIAL NO: PL33386  
DATE: 08/18/21  
TESTED BY: J. Boze  
Test Temp: +25°C

## Log Transfer over Frequency (+25°C)



Frequency		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2.4 GHz	INTERCEPT (mV)	253	348	453	577	701	823	929	1016	1111	1220	1314	Measured Value (mV)
	SLOPE (mV/dB)	-2	-15	-18	-2	14	28	26	5	-8	-7	-21	Error (mV)
		-0.11	-0.71	-0.84	-0.10	0.65	1.30	1.21	0.24	-0.36	-0.31	-0.96	1.30
3.9 GHz	INTERCEPT (mV)	253	348	454	573	696	821	926	1015	1104	1207	1303	Measured Value (mV)
	SLOPE (mV/dB)	-4	-16	-16	-4	12	30	28	10	-7	-11	-22	Error (mV)
		-0.18	-0.73	-0.77	-0.20	0.56	1.41	1.32	0.49	-0.34	-0.52	-1.03	1.41
5.4 GHz	INTERCEPT (mV)	259	355	464	580	703	820	916	999	1091	1197	1295	Measured Value (mV)
	SLOPE (mV/dB)	-8	-17	-12	0	18	31	23	1	-11	-9	-15	Error (mV)
		-0.39	-0.79	-0.57	-0.01	0.88	1.49	1.08	0.06	-0.53	-0.45	-0.76	1.49
Avg. Slope: 21.3 mV/dB Flatness dB: ±0.5 dB		0.1	0.2	0.3	0.2	0.2	0.1	0.3	0.4	0.5	0.5	0.4	





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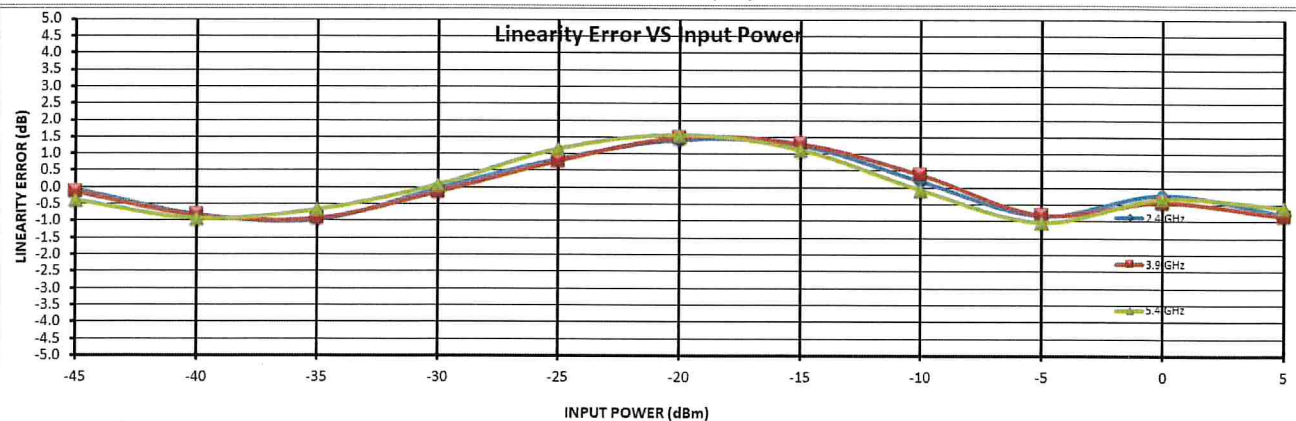
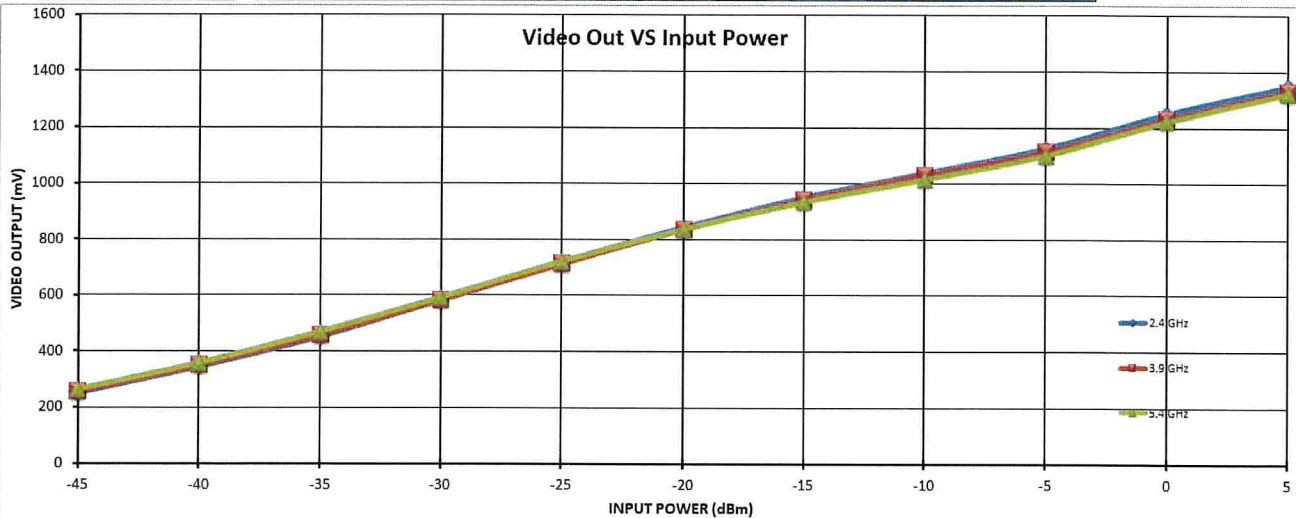
PL33386/2133

MODEL: SDLVA-2020-50-OPTIONS 26, INDRA  
SERIAL NO: PL33386  
DATE: 08/18/21  
TESTED BY: J. Boze  
Test Temp: 0°C

## Log Transfer over Frequency (0°C)



Frequency		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
<b>2.4 GHz</b>	INTERCEPT (mV)	254	348	455	586	716	839	946	1033	1121	1245	1343	Measured Value (mV)
	SLOPE (mV/dB)	-1	-18	-21	-1	19	31	28	4	-18	-5	-17	Error (mV)
		-0.06	-0.81	-0.96	-0.04	0.85	1.41	1.25	0.19	-0.83	-0.22	-0.78	1.41
<b>3.9 GHz</b>	INTERCEPT (mV)	257	351	458	584	713	837	942	1031	1114	1231	1331	Measured Value (mV)
	SLOPE (mV/dB)	-3	-18	-20	-3	17	33	29	9	-17	-9	-18	Error (mV)
		-0.13	-0.82	-0.90	-0.12	0.80	1.49	1.31	0.40	-0.79	-0.42	-0.83	1.49
<b>5.4 GHz</b>	INTERCEPT (mV)	264	359	471	593	722	837	934	1015	1101	1222	1323	Measured Value (mV)
	SLOPE (mV/dB)	-8	-20	-14	2	25	33	24	-1	-22	-7	-12	Error (mV)
		-0.39	-0.92	-0.65	0.09	1.16	1.57	1.13	-0.06	-1.02	-0.33	-0.58	1.57
Avg. Slope: 21.7 mV/dB Flatness dB: ±0.5 dB		0.2	0.3	0.4	0.2	0.2	0	0.3	0.4	0.5	0.5	0.5	





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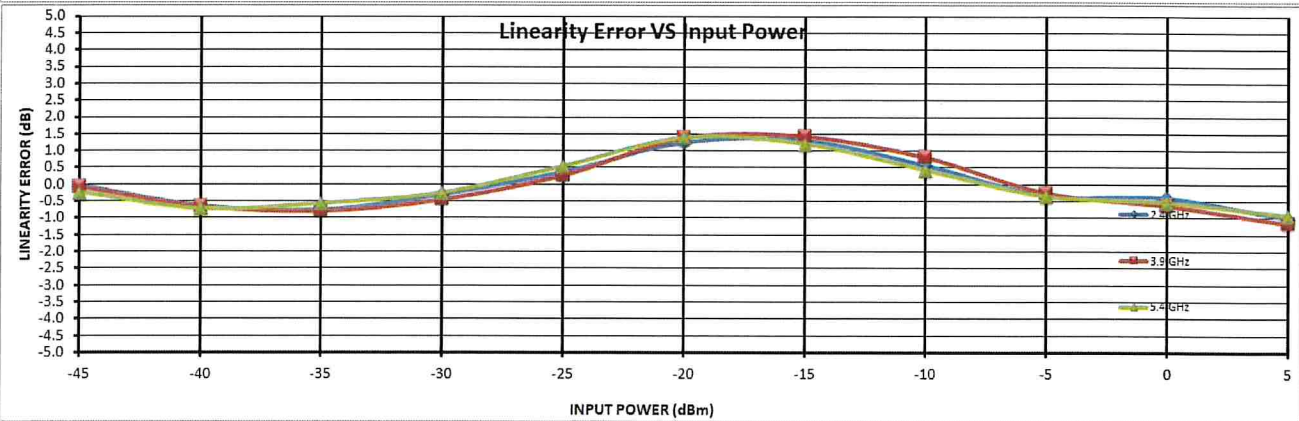
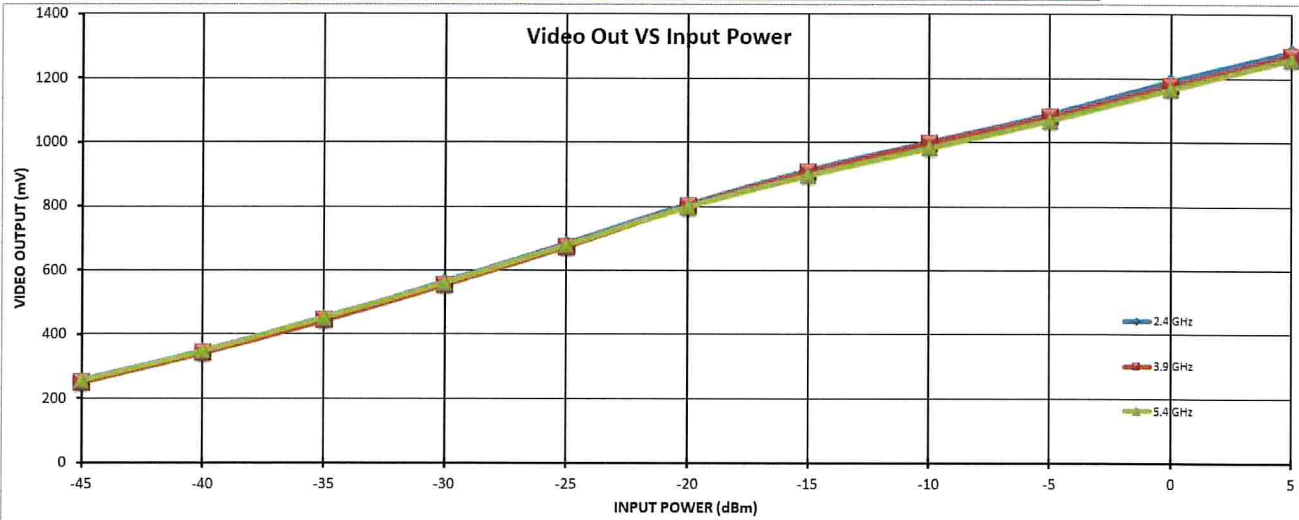
PL33386/2133

MODEL: SDLVA-2020-50-OPTIONS 26, INDRA  
SERIAL NO: PL33386  
DATE: 09/18/21  
TESTED BY: J. Boze  
Test Temp: +60°C

## Log Transfer over Frequency (+60°C)



Frequency		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2.4 GHz	INTERCEPT (mV)	253	345	447	561	680	803	909	998	1084	1187	1279	Measured Value (mV)
	SLOPE (mV/dB)	-1	-13	-16	-7	8	26	27	12	-7	-9	-21	Error (mV)
		-0.03	-0.63	-0.76	-0.32	0.37	1.25	1.31	0.56	-0.33	-0.41	-1.01	1.31
3.9 GHz	INTERCEPT (mV)	252	344	445	556	675	802	907	998	1080	1176	1269	Measured Value (mV)
	SLOPE (mV/dB)	-1	-13	-16	-9	6	29	30	17	-5	-13	-24	Error (mV)
		-0.07	-0.64	-0.78	-0.44	0.28	1.39	1.44	0.82	-0.24	-0.62	-1.15	1.44
5.4 GHz	INTERCEPT (mV)	257	349	454	562	680	799	897	983	1069	1167	1261	Measured Value (mV)
	SLOPE (mV/dB)	-5	-15	-11	-5	11	28	24	9	-7	-11	-19	Error (mV)
		-0.24	-0.72	-0.56	-0.25	0.54	1.39	1.20	0.43	-0.35	-0.53	-0.92	1.39
Avg. Slope: 20.7 mV/dB Flatness dB: ±0.5 dB		0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.4	0.4	0.5	0.4	

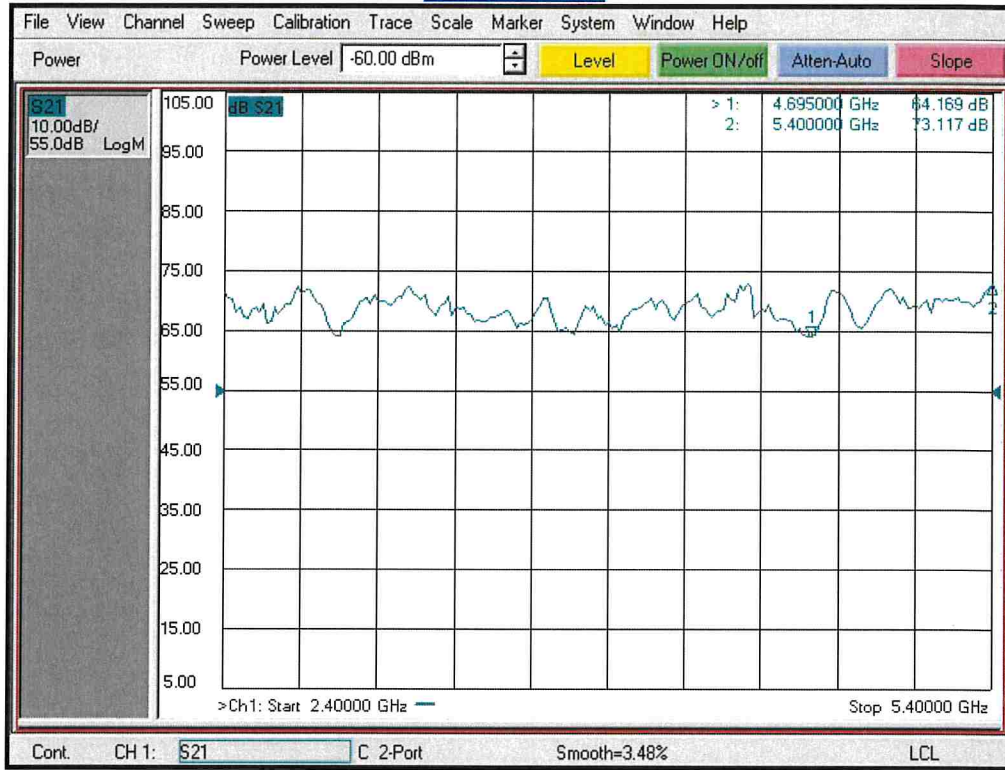




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**RF Gain Plot**



**VSWR Plot**

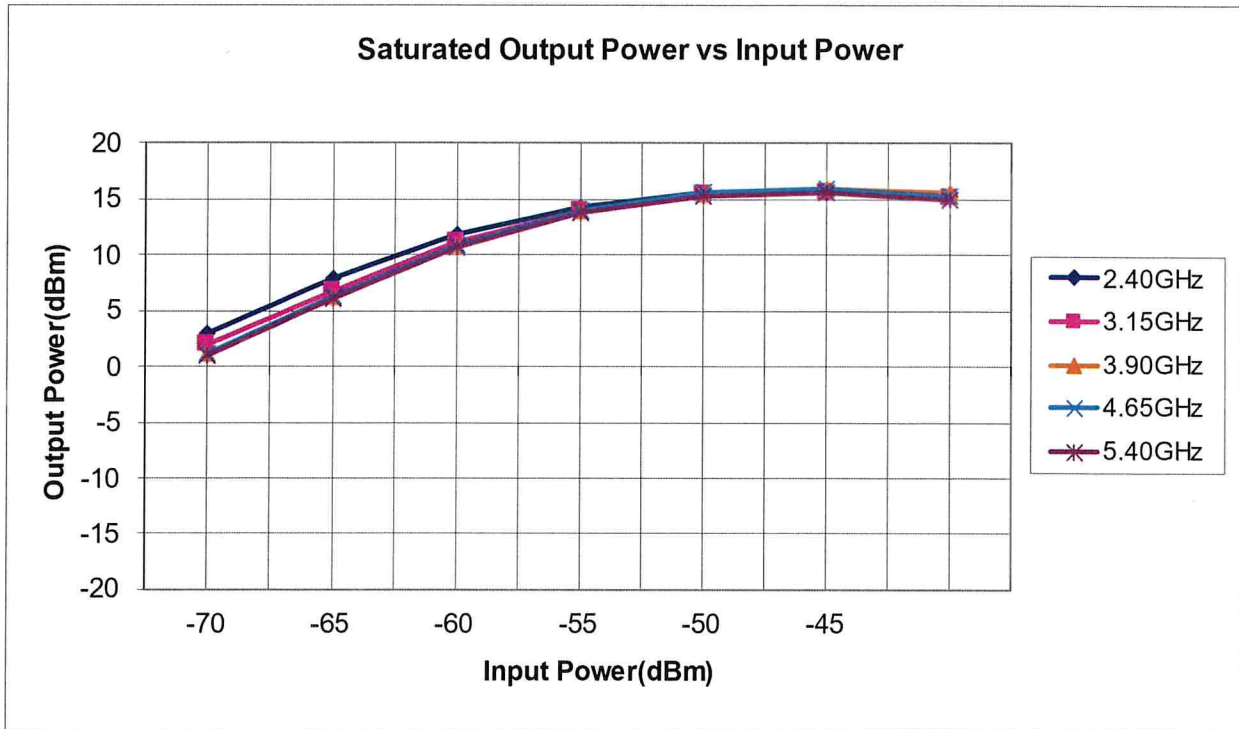




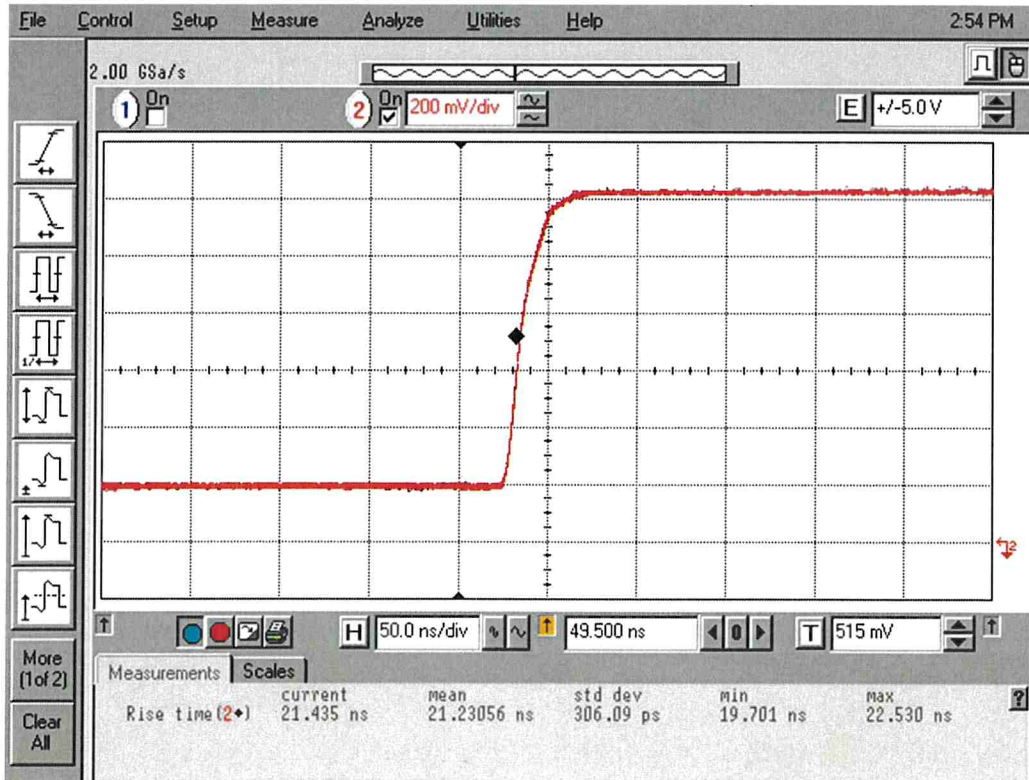
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PSAT Plot



Rise Time Plot





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