



**SUMMARY TEST DATA
ON
HADA-D2001**

PL45095/2413

14	Power Supply:	+12 ± 1VDC @ 125 mA Max -12 ± 1VDC @ 75 mA Max	115 mA 65 mA	PMI QAS
15	Warm Up Time:	2 Minutes Max	2 Minutes	

*Notes: Includes Frequency Flatness. Input Power, Temperature Deviation and Deviation for DC Offset. The test shall be performed using RG-316 (or equivalent), 20cm, 93±0.5 Ohms terminated.

QA/QC Approval: *H. Luttrell* Date: 3-27-24



SUMMARY TEST DATA ON HADA-D2001

PL45095/2413

Log Linearity and Log Accuracy @ +25°C

DC Offset= 0.093 V

Frequency

0.5 GHz	INTERCEPT (mV)	2352
	SLOPE (mV/dB)	50.2

1 GHz	INTERCEPT (mV)	2374
	SLOPE (mV/dB)	50.1

2 GHz	INTERCEPT (mV)	2380
	SLOPE (mV/dB)	50.3

Flatness +/- dB		
Max Video Output Volts		
Min Video Output Volts		

	-40	-35	-30	-25	-20	-15	-10	-5	0
0.5 GHz	344	597	842	1085	1357	1613	1830	2089	2367
	2	3	-3	-11	10	15	-20	-12	15
	0.03	0.07	-0.05	-0.22	0.20	0.29	-0.39	-0.23	0.30
	-0.12	-0.06	-0.16	-0.30	0.14	0.26	-0.40	-0.22	0.34
1 GHz	370	621	871	1114	1382	1637	1856	2116	2382
	0	0	0	-8	10	14	-17	-7	8
	-0.01	0.00	0.00	-0.15	0.20	0.29	-0.34	-0.15	0.16
	0.40	0.42	0.42	0.28	0.64	0.74	0.12	0.32	0.64
2 GHz	368	620	869	1112	1383	1639	1859	2121	2391
	1	2	-1	-10	9	14	-18	-8	11
	0.02	0.03	-0.02	-0.20	0.19	0.27	-0.36	-0.15	0.21
	0.38	0.40	0.38	0.24	0.98	0.79	0.18	0.42	0.82
	0.30	0.20	0.30	0.30	0.30	0.30	0.30	0.30	0.20
	0.37	0.62	0.87	1.11	1.38	1.64	1.86	2.12	2.39
	0.34	0.60	0.84	1.09	1.36	1.61	1.83	2.09	2.37

RF Input Power (dBm)

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.30	-0.39
LOGGING ACCURACY (dB)	0.34	-0.40

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.29	-0.34
LOGGING ACCURACY (dB)	0.74	0.12

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.27	-0.36
LOGGING ACCURACY (dB)	0.82	0.18

Logging Linearity vs Frequency	Error(dB)	
	MAX	MIN
TOTAL LOG LINEARITY (dB)	0.30	-0.39

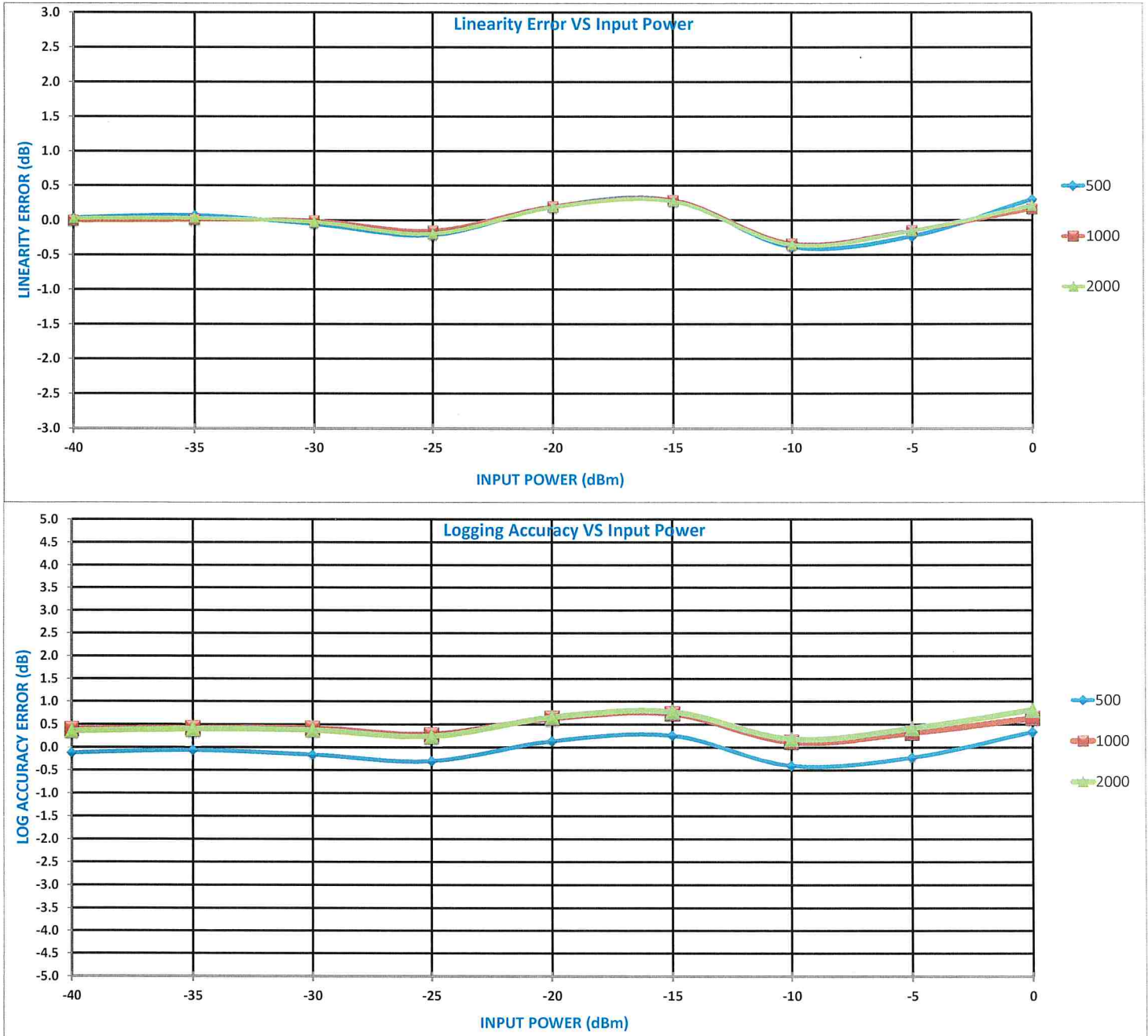
Logging Accuracy vs Frequency	Error(dB)	
	MAX	MIN
TOTAL LOGGING ACCURACY (dB)	0.82	-0.40



SUMMARY TEST DATA ON HADA-D2001

PL45095/2413

Log Linearity and Log Accuracy @ +25°C



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SUMMARY TEST DATA ON HADA-D2001

PL45095/2413

Log Linearity and Log Accuracy @ -40°C

DC Offset= 0.079 V

Frequency		
0.5 GHz	INTERCEPT (mV)	2325
	SLOPE (mV/dB)	49.6

1 GHz	INTERCEPT (mV)	2346
	SLOPE (mV/dB)	49.3

2 GHz	INTERCEPT (mV)	2352
	SLOPE (mV/dB)	49.5

Flatness +/- dB	
Max Video Output Volts	
Min Video Output Volts	

	-40	-35	-30	-25	-20	-15	-10	-5	0
	347	584	832	1075	1346	1603	1817	2066	2329
	5	-6	-5	-10	13	22	-12	-11	4
	0.11	-0.11	-0.11	-0.21	0.26	0.44	-0.24	-0.22	0.09
	-0.06	-0.32	-0.36	-0.50	-0.08	0.06	-0.66	-0.68	-0.42
	377	611	863	1109	1375	1629	1848	2093	2340
	2	-10	-5	-5	14	22	-5	-7	-6
	0.05	-0.21	-0.09	-0.10	0.29	0.45	-0.11	-0.14	-0.13
	0.54	0.22	0.26	0.18	0.50	0.58	-0.04	-0.14	-0.20
	376	610	861	1107	1376	1630	1851	2097	2349
	5	-9	-6	-7	14	21	-6	-8	-3
	0.09	-0.18	-0.11	-0.15	0.28	0.41	-0.12	-0.16	-0.07
	0.52	0.20	0.22	0.14	0.52	0.50	0.52	-0.06	-0.02
	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.20
	0.38	0.61	0.86	1.11	1.38	1.63	1.85	2.10	2.35
	0.35	0.58	0.83	1.08	1.35	1.60	1.82	2.07	2.33

RF Input Power (dBm)

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.44	-0.24
LOGGING ACCURACY (dB)	0.06	-0.68

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.45	-0.21
LOGGING ACCURACY (dB)	0.58	-0.20

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.41	-0.18
LOGGING ACCURACY (dB)	0.60	-0.06

Logging Linearity vs Frequency	Error(dB)	
	MAX	MIN
TOTAL LOG LINEARITY (dB)	0.45	-0.24

Logging Accuracy vs Frequency	Error(dB)	
	MAX	MIN
TOTAL LOGGING ACCURACY (dB)	0.60	-0.68

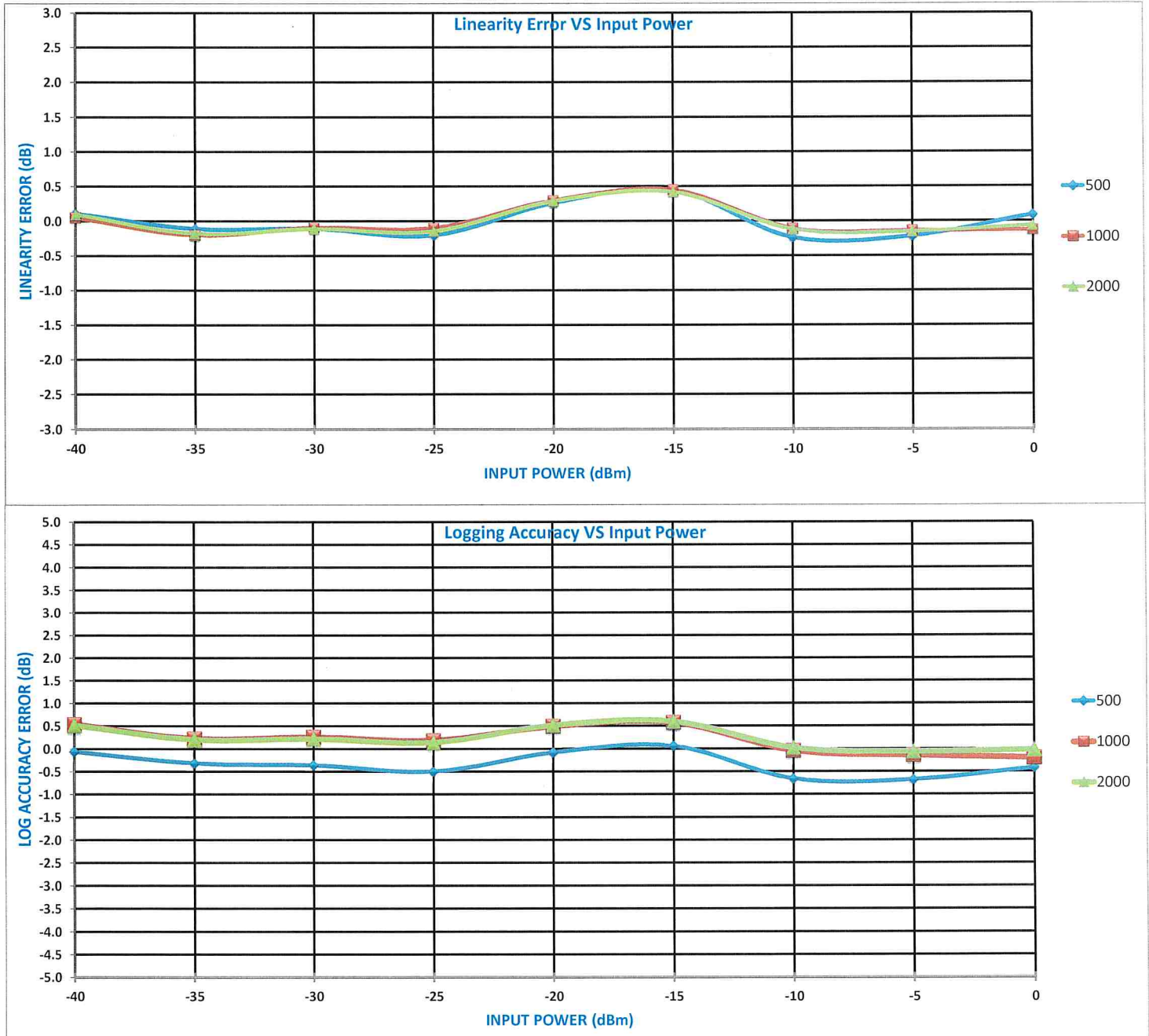
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SUMMARY TEST DATA ON HADA-D2001

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Log Linearity and Log Accuracy @ -40°C



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**SUMMARY TEST DATA
ON
HADA-D2001**

PL45095/2413

Log Linearity and Log Accuracy @ +85°C

DC Offset= 0.103 V

Frequency		
0.5 GHz	INTERCEPT (mV)	2354
	SLOPE (mV/dB)	50.7

1 GHz	INTERCEPT (mV)	2382
	SLOPE (mV/dB)	50.7

2 GHz	INTERCEPT (mV)	2388
	SLOPE (mV/dB)	50.9

Flatness +/- dB		
Max Video Output Volts		
Min Video Output Volts		

	-40	-35	-30	-25	-20	-15	-10	-5	0
	325	588	829	1074	1346	1602	1826	2084	2377
	1	10	-3	-11	7	9	-20	-16	23
	0.01	0.20	-0.05	-0.22	0.14	0.18	-0.40	-0.31	0.46
	-0.50	-0.24	-0.42	-0.52	-0.08	0.04	-0.48	-0.32	0.54
	351	616	862	1105	1375	1631	1856	2120	2397
	-3	8	1	-10	7	9	-19	-9	15
	-0.06	0.17	0.02	-0.19	0.14	0.19	-0.38	-0.17	0.29
	0.02	0.32	0.24	0.10	0.50	0.62	0.12	0.40	0.94
	349	615	859	1104	1376	1632	1858	2124	2406
	-1	10	-1	-11	7	8	-21	-9	18
	-0.03	0.19	-0.02	-0.21	0.13	0.16	-0.40	-0.18	0.35
	-0.02	0.30	0.18	0.08	0.52	0.64	0.16	0.48	1.12
	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.30
	0.35	0.62	0.86	1.11	1.38	1.63	1.86	2.12	2.41
	0.33	0.59	0.83	1.07	1.35	1.60	1.83	2.08	2.38

RF Input Power (dBm)

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.46	-0.40
LOGGING ACCURACY (dB)	0.54	-0.52

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.29	-0.38
LOGGING ACCURACY (dB)	0.94	0.02

Measured Value (mV)	Error(dB)	
Error (mV)	MAX	MIN
LINEARITY ERROR (dB)	0.35	-0.40
LOGGING ACCURACY (dB)	1.12	-0.02

Logging Linearity vs Frequency	Error(dB)	
	MAX	MIN
TOTAL LOG LINEARITY (dB)	0.46	-0.40

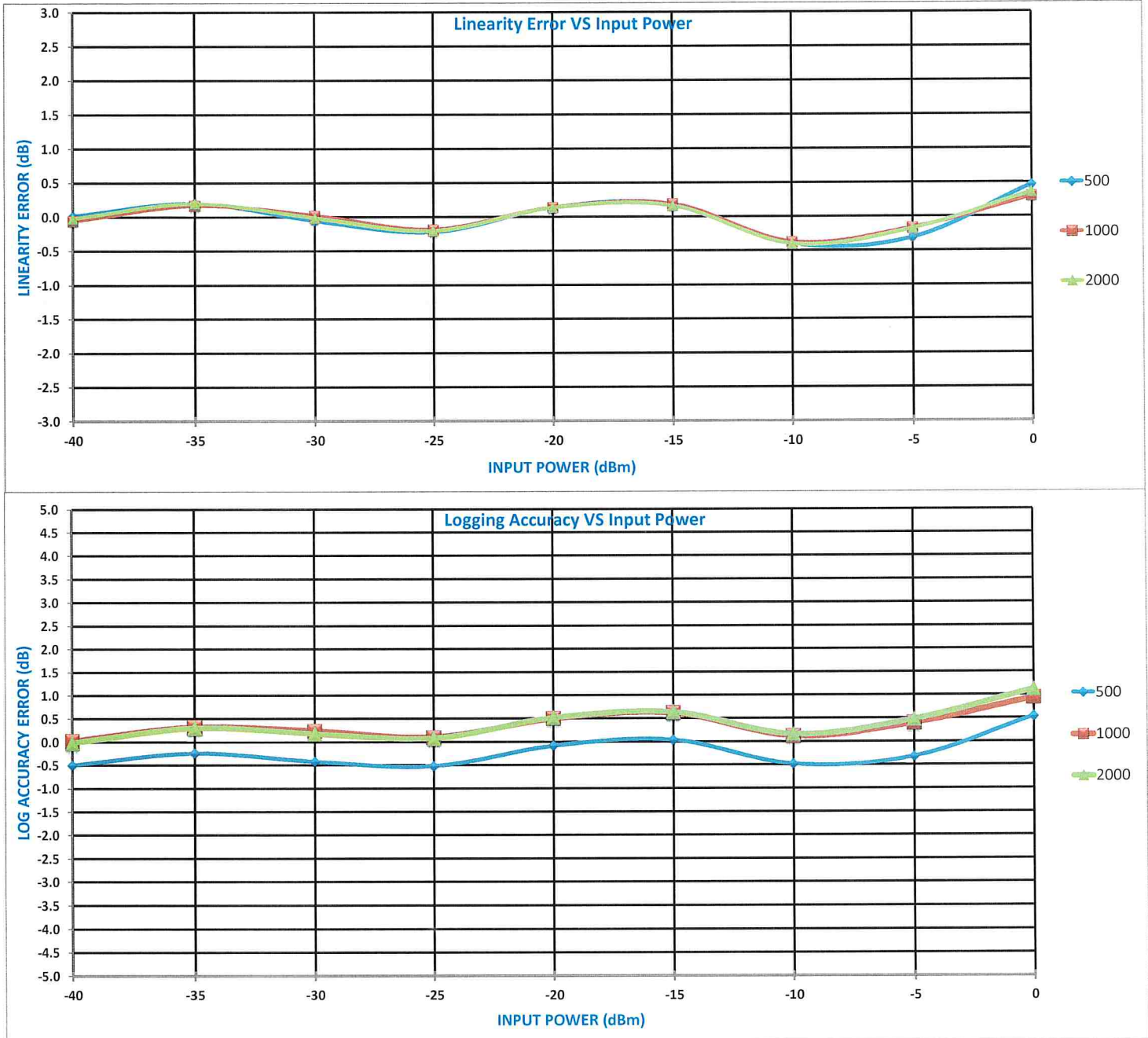
Logging Accuracy vs Frequency	Error(dB)	
	MAX	MIN
TOTAL LOGGING ACCURACY (dB)	1.12	-0.52



SUMMARY TEST DATA ON HADA-D2001

PL45095/2413

Log Linearity and Log Accuracy @ +85°C



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**SUMMARY TEST DATA
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PL45095/2413

TSS -46 dBm



MSO-X 3034T, MY59241076, 07.50.2021102830: Tue Mar 26 08:46:15 2024



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SUMMARY TEST DATA
ON
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PL45095/2413

Rise Time 22.3 ns



MSO-X 3034T, MY59241076, 07.50.2021102830: Tue Mar 26 08:11:00 2024



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**SUMMARY TEST DATA
ON
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PL45095/2413

Fall Time 159 ns



MSO-X 3034T, MY59241076, 07.50.2021102830: Tue Mar 26 08:02:15 2024



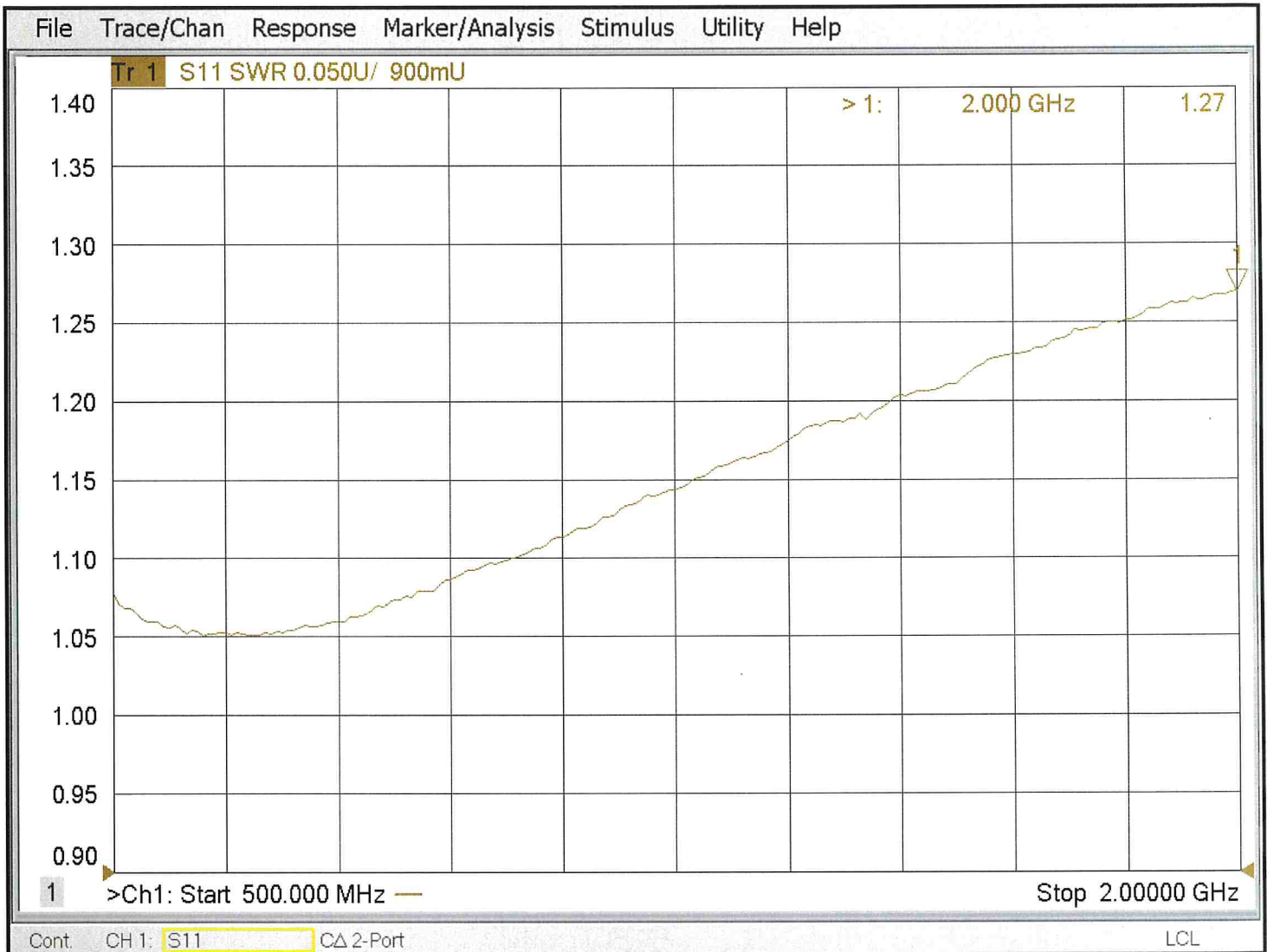
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SUMMARY TEST DATA
ON
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VSWR 1.27:1



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