

**SUMMARY TEST DATA
ON
HADA-D2002**

Customer: _____
SO No: _____
Model No: **HADA-D2002**
Serial No: **PL55554/2543**

Tested By: **Dani d W.**
Temperature: **+25°C (Unless otherwise specified)**
Date: **2/9/2026**
Drawing No: **27620222** Rev: **A2**

Test. Item No	PARAMETERS	SPECIFIED VALUE	TEST RESULTS			QA
			+25°C	-40°	+85°C	QC
1	Frequency Range:	2.0 GHz – 18.0 GHz	2.0 GHz – 18.0 GHz			PMI QA3
2	TSS:	-40 dBm Min	-43.6 dBm	NA	NA	
3	Frequency Flatness:	±1.65 dB Max	± 0.53 dB	± 0.52 dB	± 0.57 dB	
4	Input / Output Characteristics: (93 Ω)	Y = 2150 + 50X [X: Input (dBm), Y: Output (mv)]	Pass	Pass	Pass	
5	Logging Accuracy	±1.5 dB Max (@ +25°C, 10 GHz)* [-36 dBm ≤ INPUT ≤ +4 dBm] ±3.1 dB Max (Note)	0.12 dB / -0.6 dB @ 10GHZ 0.64 dB / -0.8 dB @ ALL OTHER FREQUENCY	0.9 dB / -0.92 dB	-0.66 dB / -2.1 dB	
6	Log Linearity:	±0.5 dB Max @ +25°C ±0.75 dB Max @ -40°C to +85°C	0.29 dB / -0.33 dB	0.55 dB / -0.58 dB	0.3 dB / -0.42 dB	
7	Maximum Input Power (CW):	+23 dBm	Pass	Pass	Pass	
8	Duty Cycle:	100%	Pass	Pass	Pass	
9	Rise Time:	30 ns Max (10% to 90%)	18 ns			
10	Fall Time:	500 ns Max (@ Pulse width 100µs input) (90% to 10%)	86.2 ns			
11	DC Offset: (Input 50 Ω terminated)	+95 mV +55/-100 mV	94 mV @ +25°c	115 mV @ -40°c	46 mV @ +85°c	

*Notes: Includes Frequency Flatness. Input Power, Temperature Deviation and Deviation for DC Offset. The test shall be performed using RG-62 (or equivalent), 5 meter, 93±0.5 Ohms terminated.

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12	Input VSWR:	3.0:1 Max @ +23 dBm	1.55:1	NA	NA	PMI QA3
13	Propagation Delay:	60 ns Max	Pass	Pass	Pass	
14	Power Supply:	+12 ± 1VDC @ 125 mA Max -12 ± 1VDC @ 75 mA Max	+12 ± 1VDC @ 120 mA Max -12 ± 1VDC @ 70 mA Max	NA	NA	
15	Warm Up Time:	2 Minutes Max	<2 Minutes	<2 Minutes	<2 Minutes	

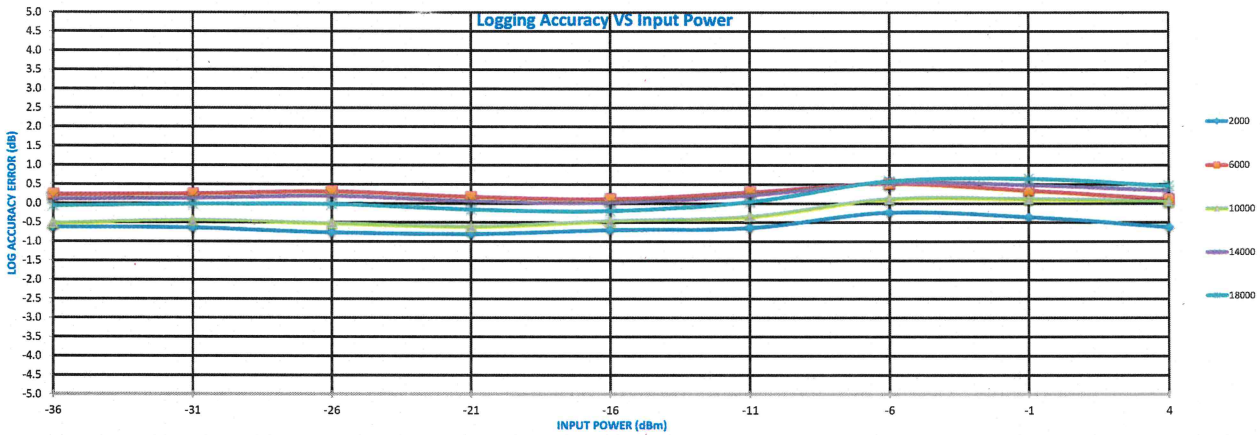
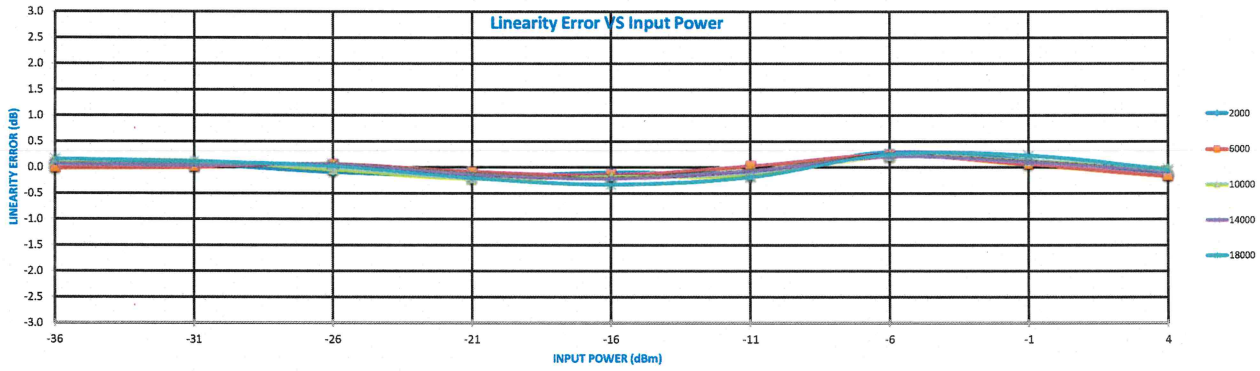
QA/QC Approval: *K. Manning*

Date: 2-10-26



SUMMARY TEST DATA ON HADA-D2002

LOG TRANSFER WITH FREQUENCY @ +25C
MODEL: HADA-D2002
SERIAL NO: PL55554
TESTED BY: Daniel W.





SUMMARY TEST DATA ON HADA-D2002

LOG TRANSFER WITH FREQUENCY @ -40C
 MODEL: HADA-D2002
 SERIAL NO: PL55554
 TESTED BY: Daniel W.
 DATE: 10/23/2025



PLANAR MONOLITHICS INDUSTRIES
 4921 Robert J. Mathews Parkway Suit 1
 El Dorado Hills, CA 95762
 TEL: 916-542-1401 FAX: 916-265-2597
 EMAIL: SALES@PMI-RF.COM

GRAPH #2

Output Voltage Offset= 0.115 Volts

Frequency

2 GHz	INTERCEPT (mV)	2130
	SLOPE (mV/dB)	49.7

6 GHz	INTERCEPT (mV)	2166
	SLOPE (mV/dB)	49.4

10 GHz	INTERCEPT (mV)	2146
	SLOPE (mV/dB)	50.2

14 GHz	INTERCEPT (mV)	2163
	SLOPE (mV/dB)	49.8

18 GHz	INTERCEPT (mV)	2163
	SLOPE (mV/dB)	50.3

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

										RF Input Power (dBm)	
	-36	-31	-26	-21	-16	-11	-6	-1	4		
2 GHz	355	579	827	1071	1327	1597	1859	2091	2304	Measured Value (mV)	Error(dB)
	15	-9	-10	-15	-7	14	27	10	-25	Error (mV)	MAX MIN
	0.31	-0.19	-0.20	-0.30	-0.15	0.28	0.55	0.21	-0.51	LINEARITY ERROR (dB)	0.55 -0.51
	0.10	-0.42	-0.46	-0.58	-0.46	-0.06	0.18	-0.18	-0.92	LOGGING ACCURACY (dB)	0.18 -0.92
6 GHz	393	621	879	1122	1369	1644	1895	2121	2335	Measured Value (mV)	Error(dB)
	6	-13	-2	-6	-6	22	25	4	-29	Error (mV)	MAX MIN
	0.12	-0.27	-0.05	-0.13	-0.13	0.44	0.52	0.09	-0.58	LINEARITY ERROR (dB)	0.52 -0.58
	0.86	0.42	0.58	0.44	0.38	0.88	0.90	0.42	-0.30	LOGGING ACCURACY (dB)	0.90 -0.30
10 GHz	352	582	831	1075	1333	1604	1870	2106	2325	Measured Value (mV)	Error(dB)
	15	-6	-9	-16	-9	11	26	10	-22	Error (mV)	MAX MIN
	0.29	-0.13	-0.17	-0.31	-0.18	0.22	0.51	0.21	-0.43	LINEARITY ERROR (dB)	0.51 -0.43
	0.04	-0.36	-0.38	-0.50	-0.34	0.08	0.40	0.12	-0.50	LOGGING ACCURACY (dB)	0.40 -0.50
14 GHz	378	608	864	1107	1355	1630	1888	2121	2339	Measured Value (mV)	Error(dB)
	9	-10	-3	-9	-11	15	24	8	-23	Error (mV)	MAX MIN
	0.19	-0.20	-0.06	-0.19	-0.21	0.31	0.48	0.16	-0.47	LINEARITY ERROR (dB)	0.48 -0.47
	0.56	0.16	0.28	0.14	0.10	0.60	0.76	0.42	-0.22	LOGGING ACCURACY (dB)	0.76 -0.22
18 GHz	368	597	848	1093	1342	1617	1887	2125	2346	Measured Value (mV)	Error(dB)
	16	-6	-7	-13	-16	7	26	12	-19	Error (mV)	MAX MIN
	0.33	-0.12	-0.14	-0.27	-0.32	0.14	0.51	0.24	-0.37	LINEARITY ERROR (dB)	0.51 -0.37
	0.36	-0.06	-0.04	-0.14	-0.16	0.34	0.74	0.50	-0.08	LOGGING ACCURACY (dB)	0.74 -0.16
	0.411	0.421	0.521	0.511	0.421	0.471	0.361	0.341	0.421		
	0.393	0.621	0.879	1.122	1.369	1.644	1.895	2.125	2.346		
	0.352	0.579	0.827	1.071	1.327	1.597	1.859	2.091	2.304		

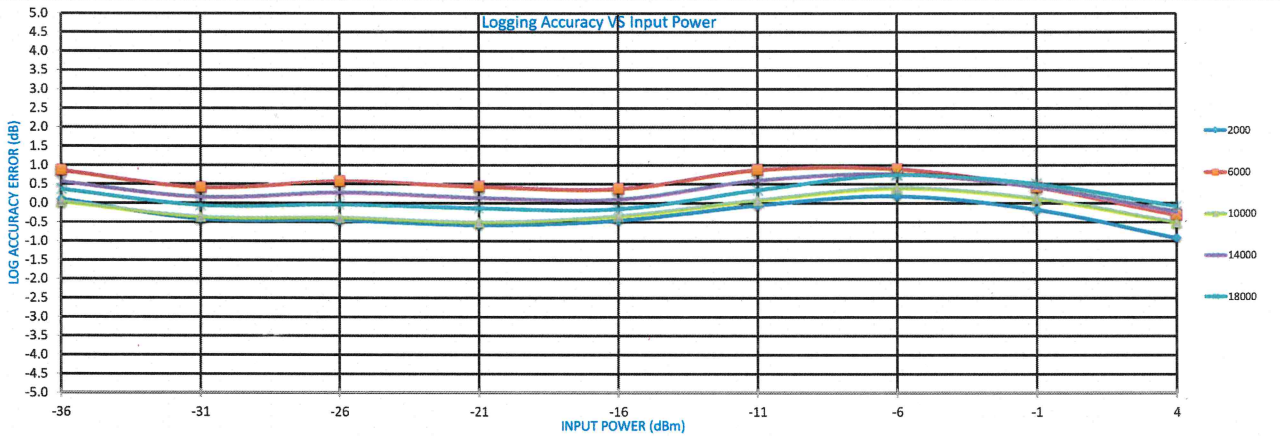
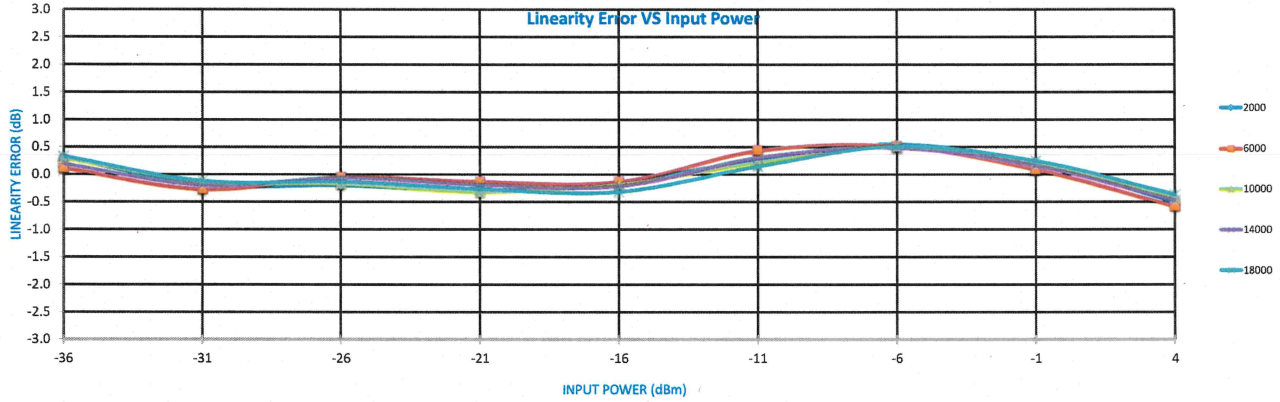
Logging Linearity vs Frequency	Error(dB)
	MAX MIN
LOGGING LINEARITY ERROR (dB)	0.55 -0.58

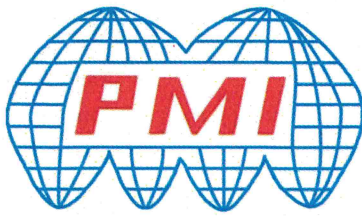
Logging Accuracy vs Frequency	Error(dB)
	MAX MIN
LOGGING ACCURACY ERROR (dB)	0.90 -0.92



SUMMARY TEST DATA ON HADA-D2002

LOG TRANSFER WITH FREQUENCY @ -40C
MODEL: HADA-D2002
SERIAL NO: PL55554
TESTED BY: Daniel W.





SUMMARY TEST DATA ON HADA-D2002

LOG TRANSFER WITH FREQUENCY @ +85C
 MODEL: HADA-D2002
 SERIAL NO: PL55554
 TESTED BY: Daniel W.
 DATE: 10/23/2025



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GRAPH #3

Output Voltage Offset= 0.046 Volts

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)
2 GHz	2064	50.4

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)
6 GHz	2110	50.3

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)
10 GHz	2096	51.1

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)
14 GHz	2103	50.5

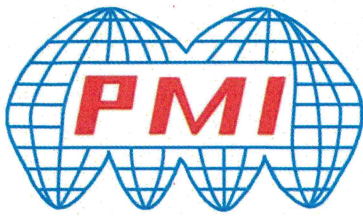
Frequency	INTERCEPT (mV)	SLOPE (mV/dB)
18 GHz	2104	50.8

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

	-36	-31	-26	-21	-16	-11	-6	-1	4	RF Input Power (dBm)
2 GHz	246	511	754	1004	1253	1495	1767	2018	2269	Measured Value (mV)
	-3	10	1	-1	-4	-15	5	4	3	Error (mV)
	-0.06	0.20	0.02	-0.03	-0.09	-0.29	0.10	0.08	0.06	MAX MIN
	-2.08	-1.78	-1.92	-1.92	-1.94	-2.10	-1.66	-1.64	-1.62	LINEARITY ERROR (dB)
										LOGGING ACCURACY (dB)
6 GHz	293	564	812	1053	1300	1544	1811	2061	2317	Measured Value (mV)
	-8	12	8	-2	-6	-13	2	1	6	Error (mV)
	-0.16	0.23	0.17	-0.04	-0.12	-0.27	0.05	0.02	0.12	MAX MIN
	-1.14	-0.72	-0.76	-0.94	-1.00	-1.12	-0.78	-0.78	-0.66	LINEARITY ERROR (dB)
										LOGGING ACCURACY (dB)
10 GHz	258	527	771	1017	1270	1514	1791	2049	2311	Measured Value (mV)
	-1	15	3	-6	-8	-20	2	4	11	Error (mV)
	-0.02	0.29	0.07	-0.12	-0.17	-0.39	0.04	0.09	0.22	MAX MIN
	-1.88	-1.46	-1.58	-1.66	-1.60	-1.72	-1.18	-1.02	-0.78	LINEARITY ERROR (dB)
										LOGGING ACCURACY (dB)
14 GHz	280	551	798	1040	1286	1530	1802	2056	2312	Measured Value (mV)
	-6	13	8	-3	-9	-17	2	4	8	Error (mV)
	-0.11	0.26	0.15	-0.05	-0.18	-0.34	0.05	0.08	0.15	MAX MIN
	-1.40	-0.98	-1.04	-1.20	-1.28	-1.40	-0.96	-0.88	-0.76	LINEARITY ERROR (dB)
										LOGGING ACCURACY (dB)
18 GHz	274	545	789	1032	1278	1524	1807	2064	2310	Measured Value (mV)
	-2	15	5	-6	-13	-21	8	11	3	Error (mV)
	-0.04	0.30	0.10	-0.11	-0.26	-0.42	0.16	0.22	0.06	MAX MIN
	-1.52	-1.10	-1.22	-1.36	-1.44	-1.52	-0.86	-0.72	-0.80	LINEARITY ERROR (dB)
										LOGGING ACCURACY (dB)
Flatness +/- dB	0.464	0.524	0.573	0.484	0.464	0.484	0.435	0.455	0.474	
Max Video Output V	0.293	0.584	0.812	1.053	1.300	1.544	1.811	2.064	2.317	
Min Video Output V	0.246	0.511	0.754	1.004	1.253	1.495	1.767	2.018	2.269	

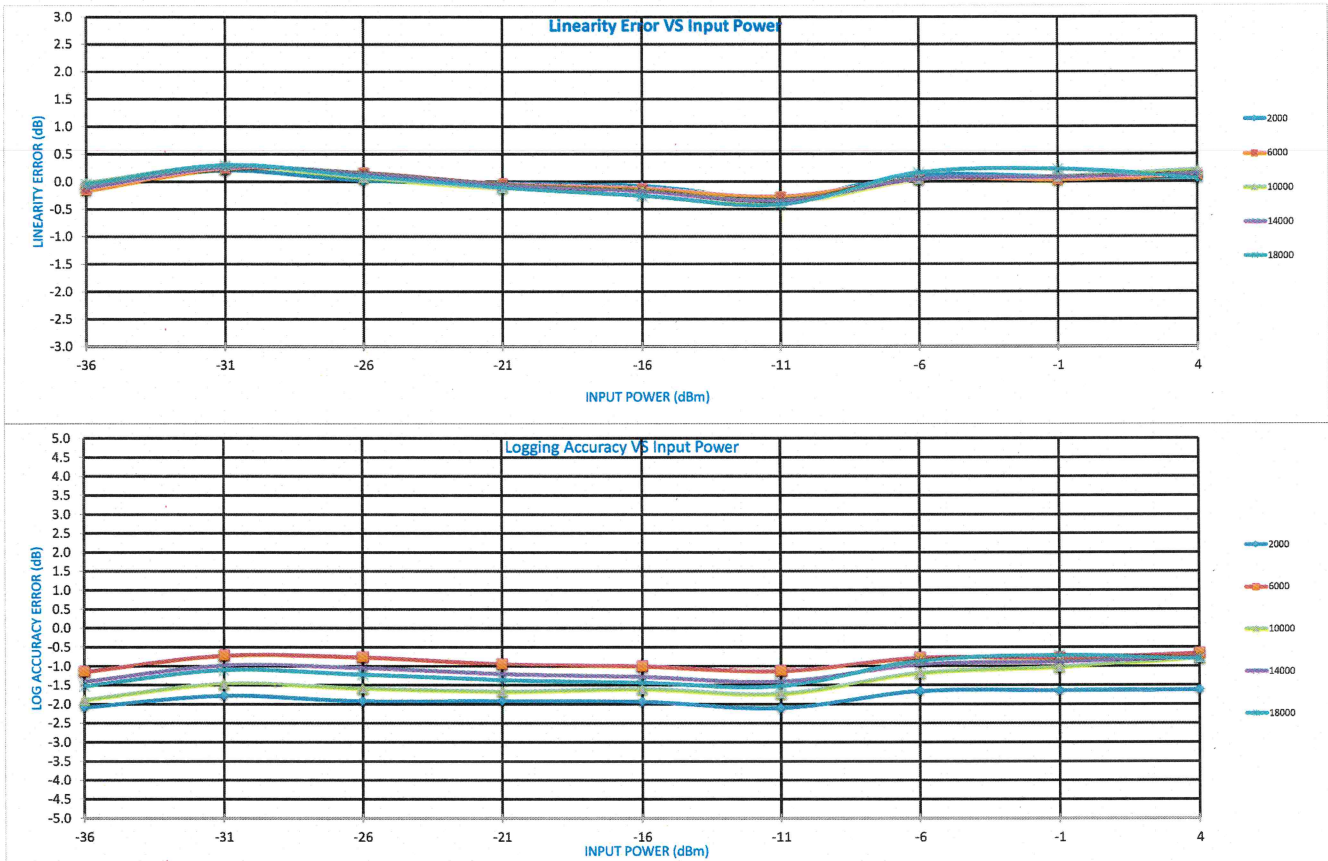
Logging Linearity vs Frequency	Error(dB)
	MAX MIN
LOGGING LINEARITY ERROR (dB)	0.30 -0.42

Logging Accuracy vs Frequency	Error(dB)
	MAX MIN
LOGGING ACCURACY ERROR (dB)	-0.66 -2.10



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LOG TRANSFER WITH FREQUENCY @ +85C
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TESTED BY: Daniel W.

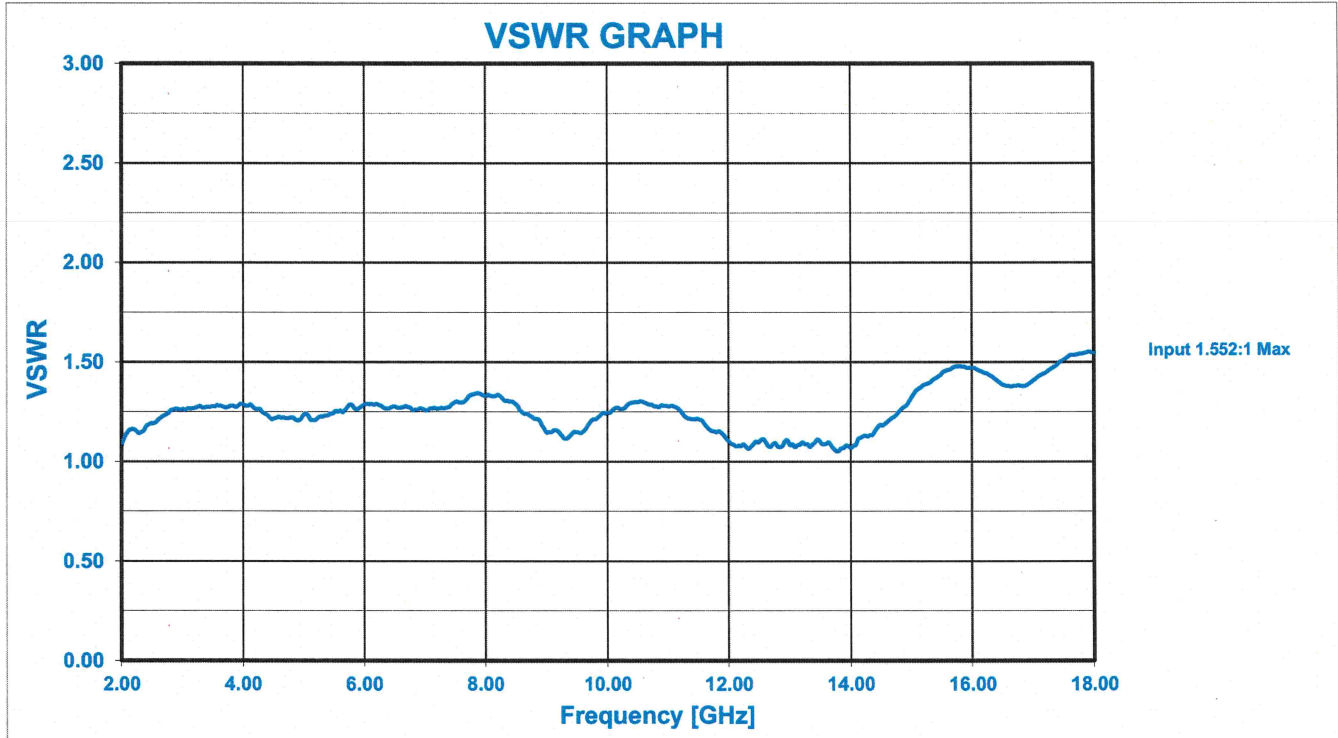




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HADA-D2002**

Model Number: HADA-D2002
Serial Number: PL55554

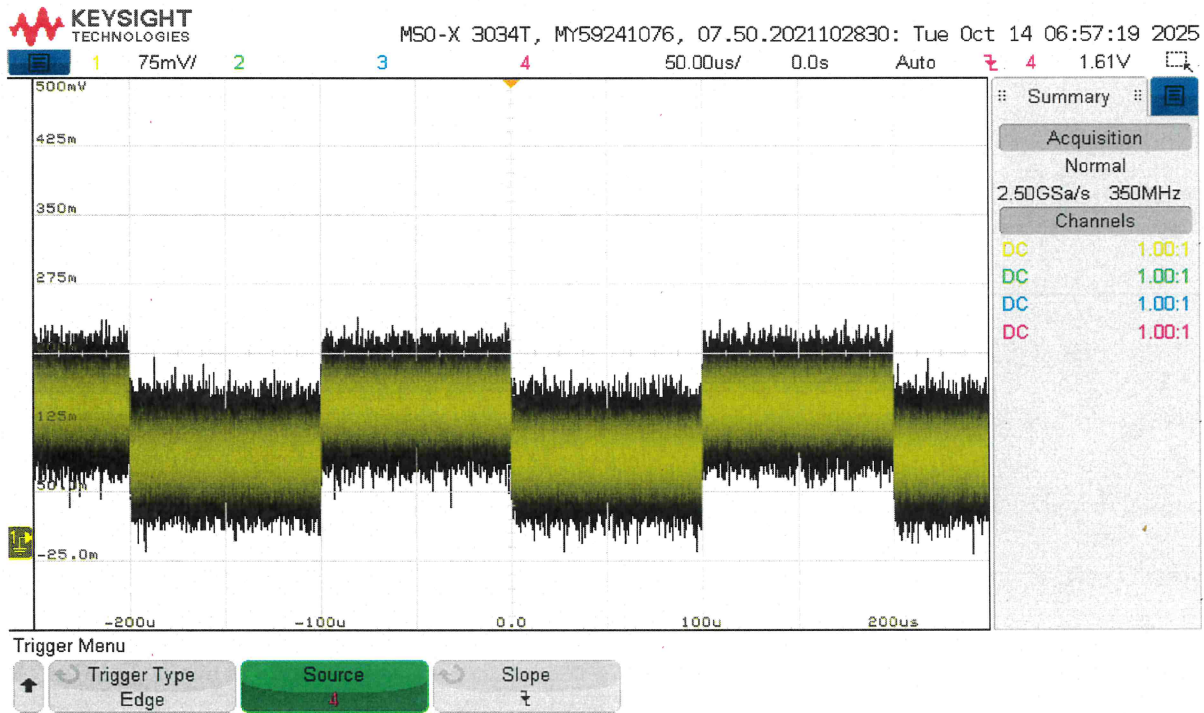
Temperature: +25C





SUMMARY TEST DATA ON HADA-D2002

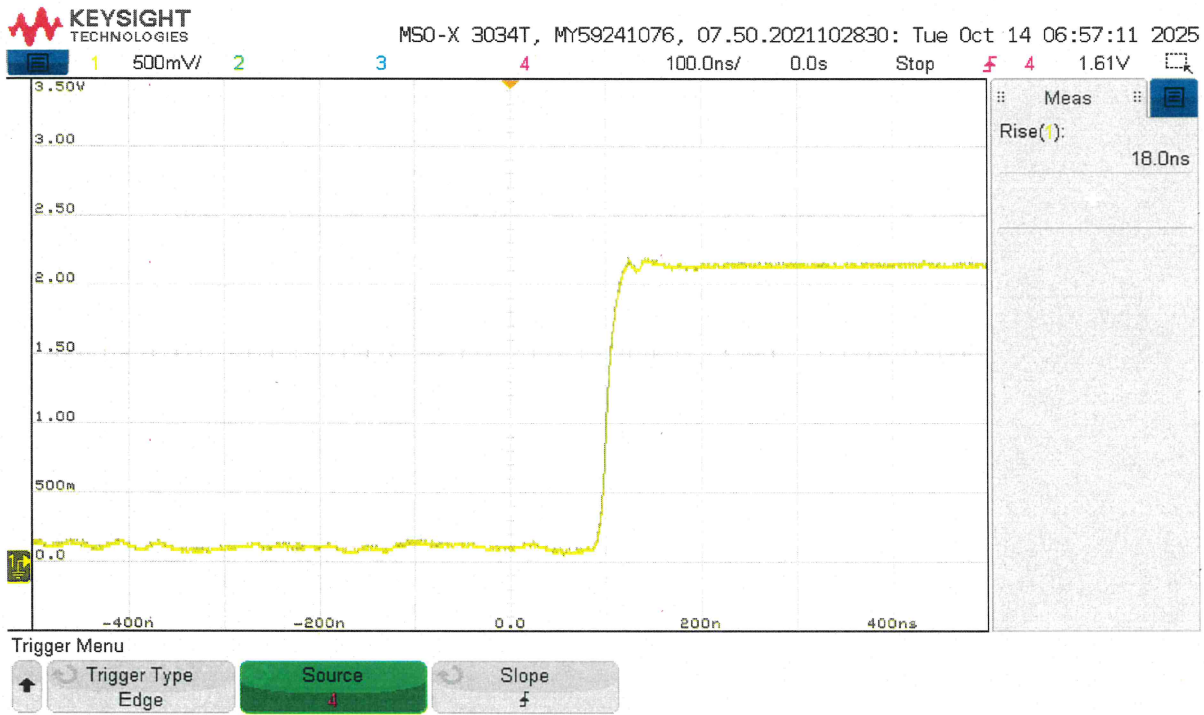
TSS = -43.6 dBm





**SUMMARY TEST DATA
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Rise Time = 18 ns





**SUMMARY TEST DATA
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Fall Time = 86.2 ns

