



Characterization and Data

Customer Address: Rental Unit

Certificate #: 2208222CC

Product: Solid State Amplifier

Manufacturer: Amplifier Research
 Model: 25A250B
 Serial #: 0359827

Notes: Frequency Range: 10 kHz - 250 MHz
 Power: 25 Watts

Date of Characterization: 8/22/2022
 Next Characterization: *

*The next characterization date is defined by the equipment user/owner. We recommend characterization annually.

The above equipment was tested and found to be within the Manufacturer's specification. The results of the tests performed are held on file at TheEMCShop.com; see the comments below. The Characterization was carried out in accordance with the general requirements of IEC 61000-4-3 using laboratory standards which are traceable to the National Institute of Standards and Technology (NIST) except where none exist. Tests are carried out in environmental conditions controlled to the extent appropriate to the instrument's specification.

Calibration Equipment			
Model	Description	Serial Number	Due Date
ZNB8-2Port	Rohde & Schwarz Vector Analyzer	1311601042103153	11/12/2022
ZV-Z21	Calibration Kit N (50 Ω)	100800	1/26/2023

Ambient Conditions of Laboratory

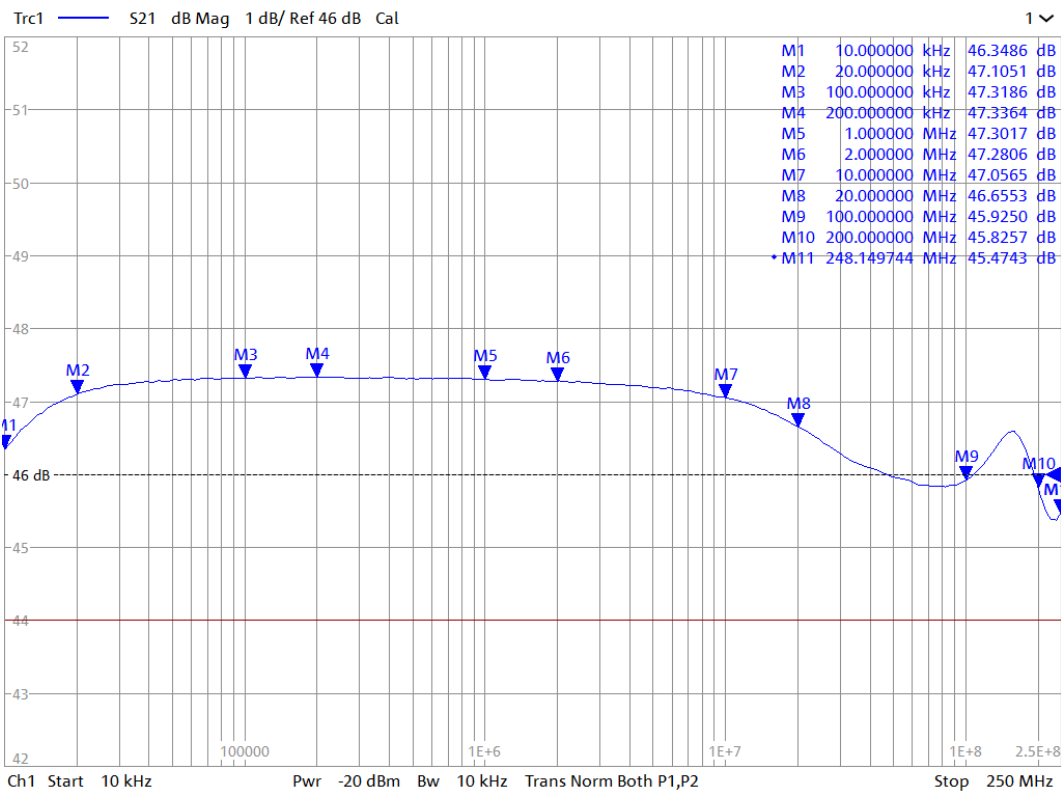
Temperature (°C): 23.5
 Relative Humidity (%): 39

Technician: Caleb Crites

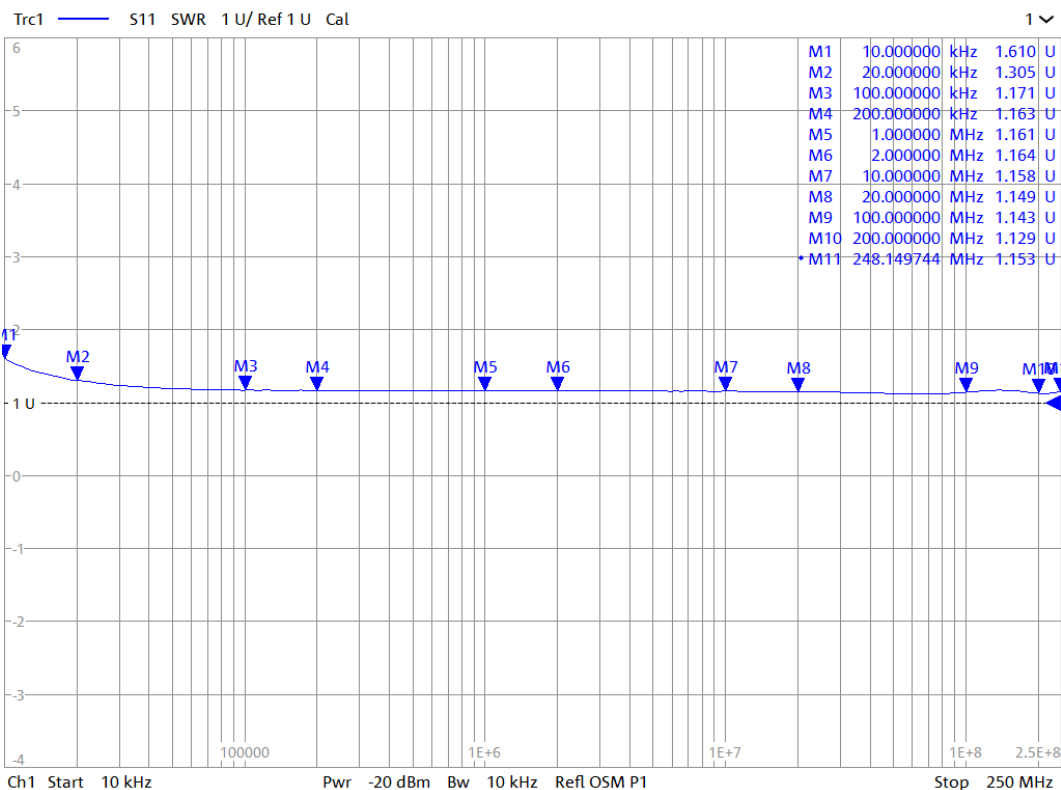
Technician Signature: _____



Gain Through Band



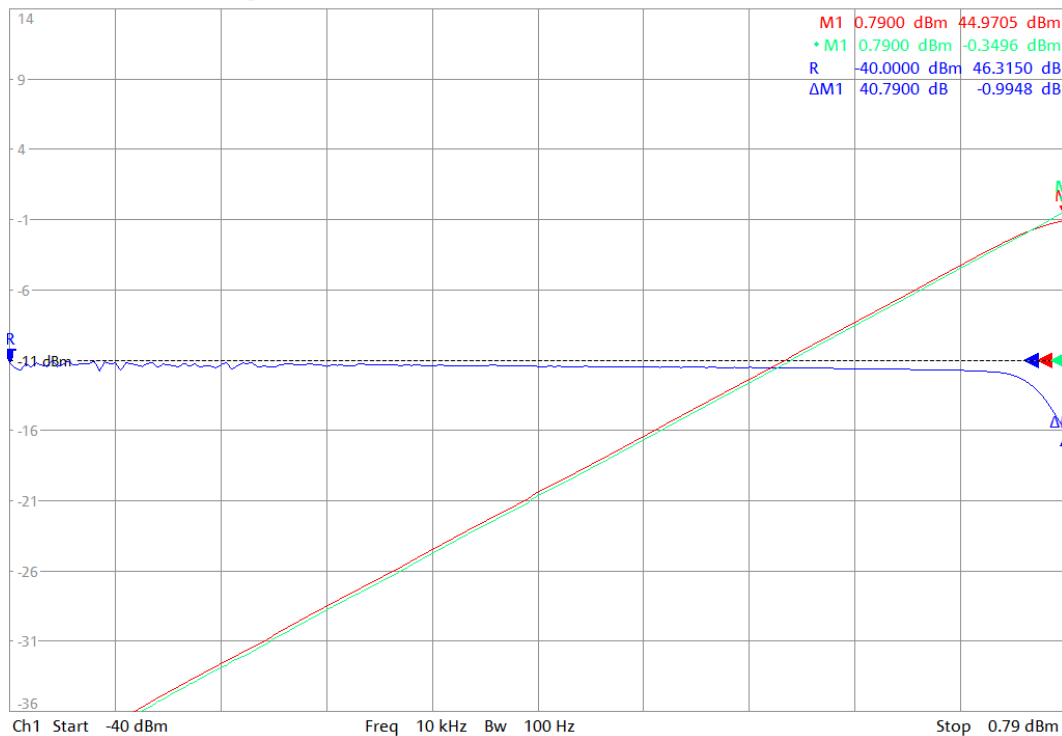
Input VSWR





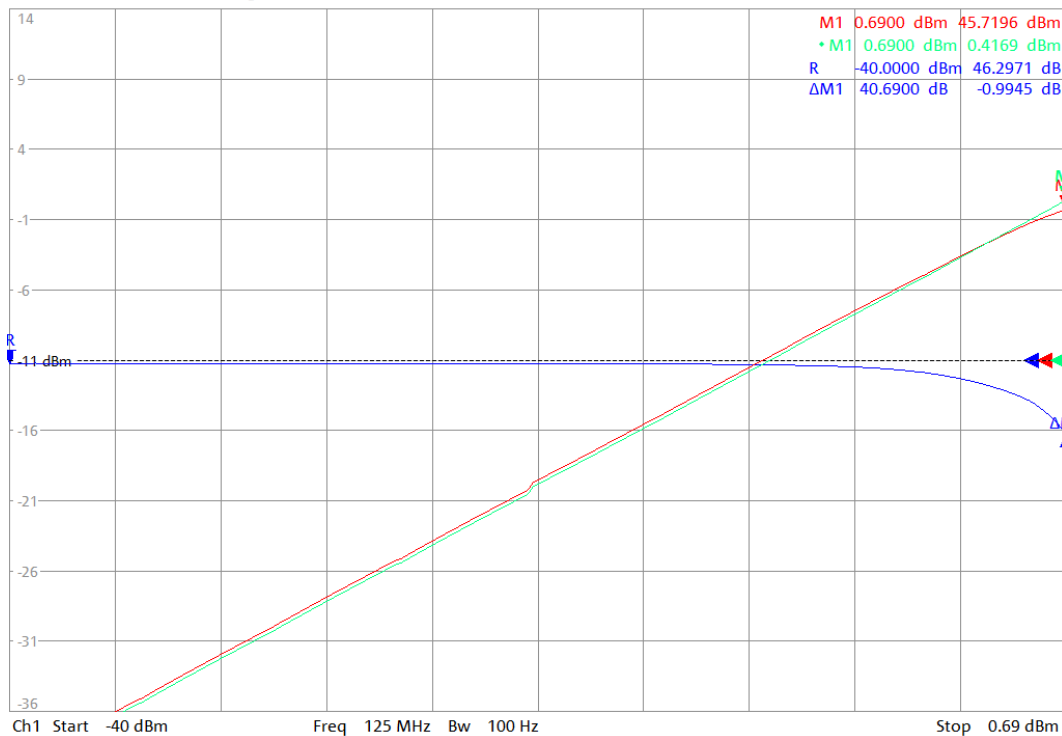
P1dB at 10 kHz : 0.79 dB

Trc1 — S21 dB Mag 1 dB/ Ref 46.35 dB Offs Trc2 — b2(P1) dB Mag 5 dB/ Ref 35 dBm Offs 1 v
 Trc3 — a1(P1) dB Mag 5 dB/ Ref -11 dBm Offs



P1dB at 125 MHz : 0.69 dB

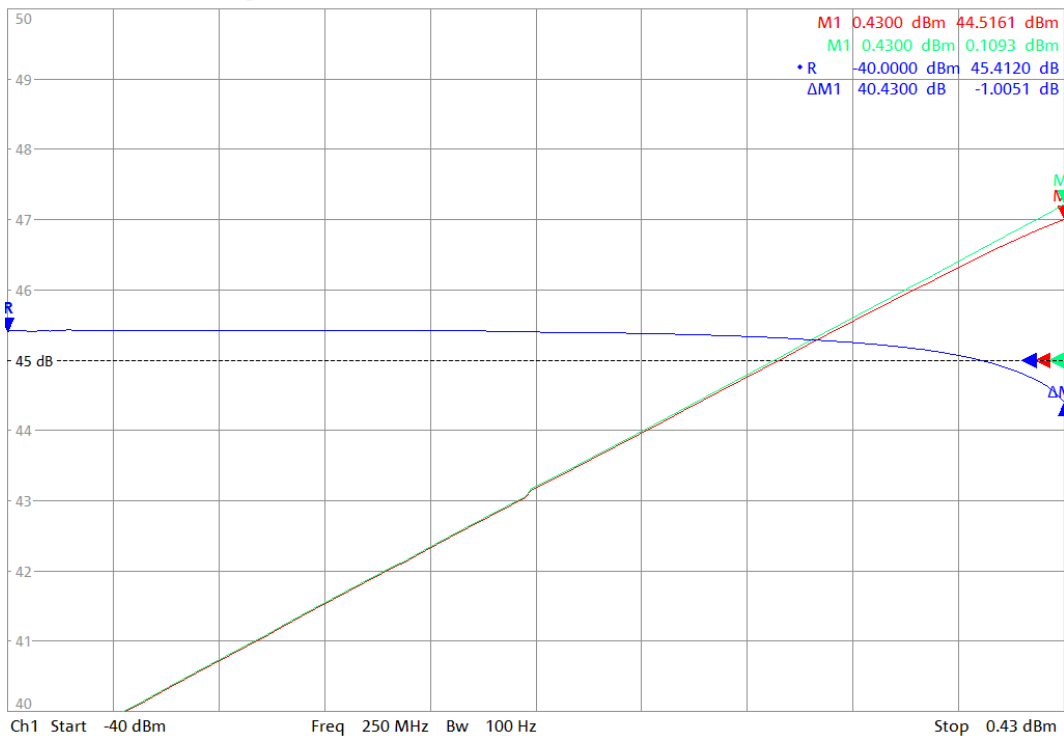
Trc1 — S21 dB Mag 1 dB/ Ref 46.35 dB Offs Trc2 — b2(P1) dB Mag 5 dB/ Ref 35 dBm Offs 1 v
 Trc3 — a1(P1) dB Mag 5 dB/ Ref -11 dBm Offs





P1dB at 250 MHz : 0.43 dB

Trc1 — S21 dB Mag 1 dB/ Ref 45 dB Offs Trc2 — b2(P1) dB Mag 5 dB/ Ref 34.5 dBm Offs 1
 Trc3 — a1(P1) dB Mag 5 dB/ Ref -11 dBm Offs



*CSV Files for Characterizations are available upon request.

Frequency (Hz)	Gain Through Band (dBm)	VSWR at Input (U)
10000	46.35	1.61
10519	46.43	1.56
11066	46.52	1.53
11640	46.62	1.51
12245	46.67	1.47
12881	46.74	1.44
13550	46.81	1.42
14254	46.84	1.41
14994	46.91	1.39
15773	46.96	1.37
16592	46.99	1.36
17454	47.03	1.34
18360	47.06	1.32
19314	47.07	1.31
20317	47.12	1.3
21372	47.14	1.29
22482	47.16	1.29
23650	47.18	1.27
24878	47.18	1.27
26170	47.21	1.26
27529	47.22	1.24
28959	47.24	1.24
30463	47.24	1.24
32045	47.23	1.23
33710	47.25	1.22
35460	47.26	1.22
37302	47.27	1.21
39239	47.28	1.21
41277	47.26	1.21
43421	47.29	1.2
45676	47.28	1.19
48049	47.28	1.2
50544	47.3	1.2
53169	47.3	1.19
55931	47.3	1.19
58836	47.31	1.19
61891	47.3	1.18
65106	47.32	1.19
68487	47.32	1.18
72044	47.32	1.17
75786	47.31	1.18

79722	47.31	1.18
83862	47.32	1.18
88218	47.31	1.17
92800	47.32	1.17
97619	47.32	1.17
102690	47.32	1.17
108023	47.32	1.17
113633	47.34	1.17
119535	47.33	1.17
125743	47.33	1.17
132274	47.33	1.17
139144	47.34	1.17
146371	47.33	1.17
153973	47.32	1.17
161970	47.33	1.17
170382	47.33	1.17
179231	47.34	1.17
188540	47.34	1.17
198332	47.34	1.16
208633	47.34	1.16
219468	47.34	1.17
230867	47.33	1.17
242857	47.33	1.17
255471	47.33	1.16
268739	47.32	1.16
282696	47.31	1.16
297379	47.31	1.16
312824	47.32	1.16
329071	47.33	1.17
346162	47.32	1.17
364140	47.32	1.16
383053	47.34	1.16
402947	47.33	1.16
423875	47.33	1.16
445890	47.32	1.17
469048	47.31	1.16
493409	47.32	1.17
519035	47.31	1.16
545992	47.32	1.17
574349	47.32	1.17
604179	47.31	1.16
635558	47.32	1.16
668567	47.32	1.16
703291	47.31	1.16

739817	47.31	1.16
778241	47.32	1.16
818661	47.32	1.16
861179	47.32	1.17
905906	47.3	1.17
952956	47.3	1.16
1002450	47.3	1.16
1054514	47.3	1.16
1109282	47.29	1.16
1166895	47.29	1.16
1227500	47.3	1.16
1291253	47.3	1.16
1358316	47.31	1.16
1428863	47.29	1.16
1503074	47.3	1.16
1581139	47.29	1.16
1663258	47.28	1.16
1749643	47.29	1.16
1840514	47.27	1.17
1936105	47.27	1.16
2036660	47.28	1.17
2142438	47.28	1.16
2253709	47.26	1.16
2370760	47.27	1.16
2493890	47.27	1.16
2623415	47.26	1.16
2759667	47.26	1.17
2902996	47.25	1.16
3053768	47.25	1.16
3212372	47.24	1.16
3379213	47.23	1.16
3554718	47.23	1.16
3739340	47.23	1.16
3933549	47.22	1.16
4137846	47.21	1.16
4352753	47.22	1.16
4578821	47.21	1.16
4816631	47.2	1.16
5066792	47.2	1.16
5329946	47.18	1.16
5606767	47.18	1.16
5897965	47.19	1.15
6204287	47.16	1.16
6526519	47.16	1.15

6865486	47.15	1.16
7222059	47.14	1.16
7597150	47.12	1.16
7991723	47.11	1.16
8406788	47.1	1.16
8843411	47.08	1.15
9302711	47.06	1.15
9785865	47.07	1.16
10294112	47.04	1.16
10828757	47.03	1.16
11391169	47.01	1.16
11982792	46.99	1.15
12605141	46.96	1.15
13259813	46.94	1.15
13948487	46.9	1.15
14672929	46.88	1.16
15434995	46.84	1.15
16236642	46.82	1.15
17079923	46.78	1.15
17967002	46.74	1.15
18900152	46.7	1.15
19881768	46.66	1.15
20914366	46.62	1.15
22000594	46.58	1.15
23143237	46.54	1.15
24345226	46.49	1.15
25609642	46.43	1.15
26939728	46.39	1.15
28338895	46.34	1.15
29810730	46.3	1.14
31359007	46.24	1.14
32987698	46.2	1.14
34700977	46.16	1.14
36503239	46.14	1.14
38399105	46.11	1.14
40393437	46.09	1.13
42491348	46.06	1.13
44698218	46.03	1.13
47019706	46	1.13
49461765	45.97	1.12
52030657	45.95	1.12
54732969	45.94	1.12
57575631	45.93	1.12
60565932	45.89	1.12

63711541	45.86	1.12
67020522	45.85	1.12
70501362	45.85	1.12
74162986	45.84	1.12
78014784	45.84	1.12
82066631	45.83	1.13
86328920	45.86	1.13
90812579	45.86	1.13
95529105	45.89	1.14
100490593	45.93	1.14
105709765	45.98	1.15
111200005	46.05	1.15
116975392	46.12	1.16
123050734	46.22	1.16
129441611	46.31	1.17
136164410	46.42	1.17
143236371	46.52	1.17
150675627	46.58	1.17
158501256	46.6	1.17
166733324	46.52	1.16
175392940	46.39	1.15
184502310	46.18	1.14
194084793	45.98	1.13
204164960	45.72	1.13
214768661	45.52	1.12
225923084	45.38	1.13
237656835	45.38	1.14
250000000	45.49	1.15