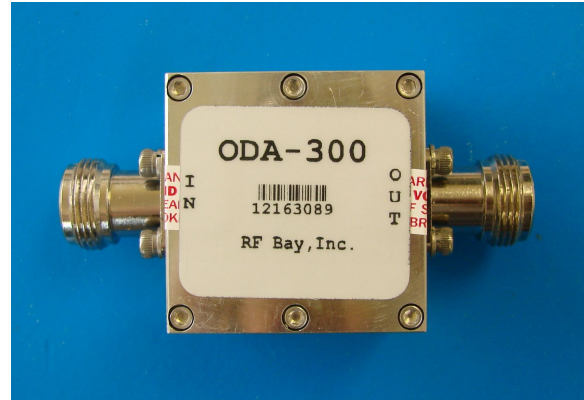


ODA Series 20–2500MHz Outdoor Low Noise Amplifier

Features

- Frequency Range: 20-2500MHz
- Gain: 17dB
- P_{1dB}: +18dBm
- IP3: +31dBm
- Noise Figure: 1.2dB
- DC Power: 12V/75mA
- Type N Connector

Picture



Description

ODA-300 is a 17dB Outdoor Low Noise Amplifier designed in waterproof housing from 20 to 2500MHz with DC Power via RF output port.

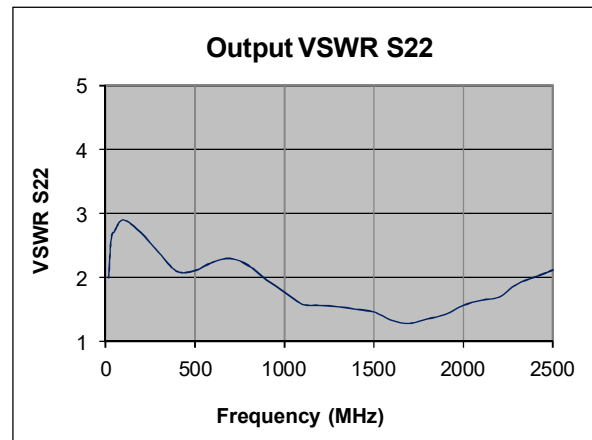
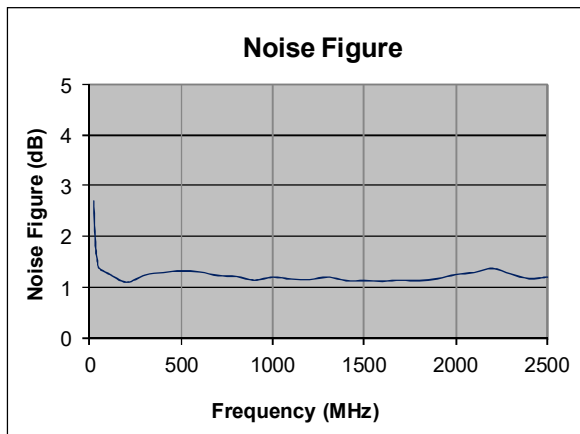
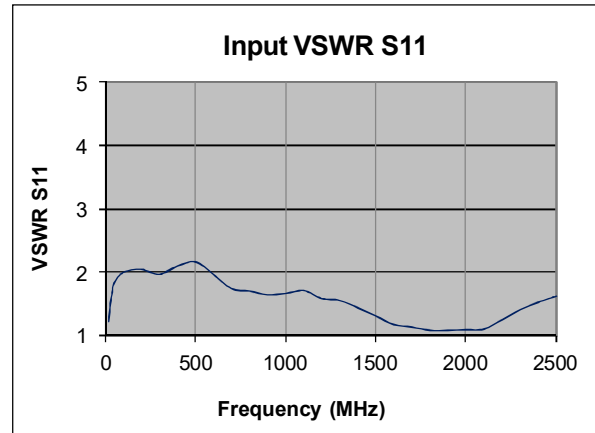
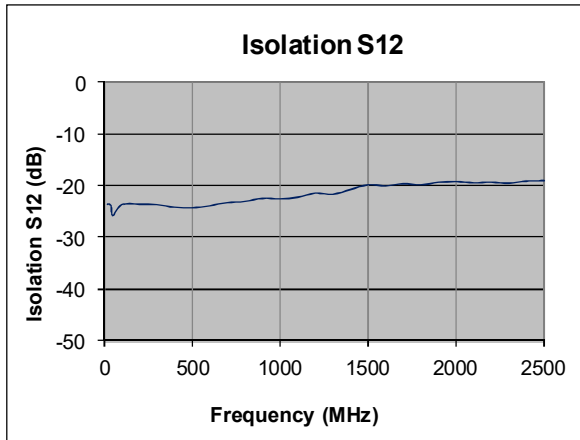
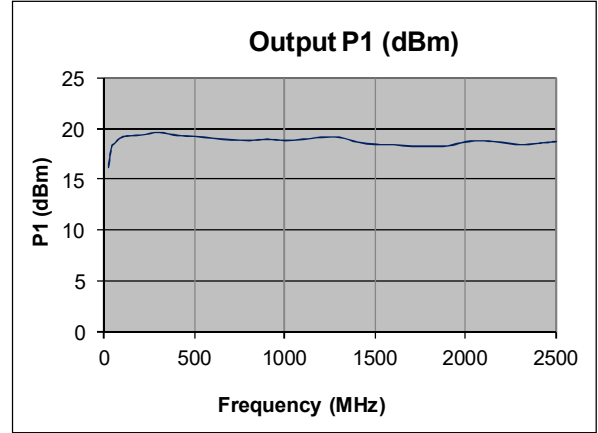
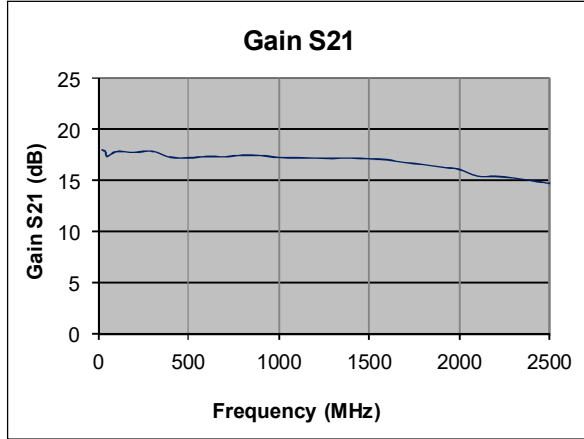
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, V_{supply} = 12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	20		2500
Gain S21 f = 20MHz	dB		18.0	
f = 600MHz	dB		17.0	
f = 1200MHz	dB		17.0	
f = 1800MHz	dB		16.5	
f = 2500MHz	dB		14.5	
Gain Flatness	dB		± 2.3	
P _{1dB} @ 1200MHz	dBm		+18	
Output IP3 @ 1200MHz	dBm		+31	
Noise Figure @ 1200MHz	dB		1.2	1.5
Reverse Isolation S12	dB		-20	
VSWR Input VSWR S11			1.6:1	
Output VSWR S22			1.6:1	
DC Power Supply	V		12 to 15	
Supply Current	mA		75	

Performance tested with Mini-Circuits Bias-Tee ZNBT-60-1W+

ODA Series 20–2500MHz Outdoor Low Noise Amplifier

Typical Performance @ +25 °C



ODA Series 20–2500MHz Outdoor Low Noise Amplifier

Typical Performance @ +25 °C

Frequency (MHz)	Noise Figure (dB)	Gain S_{21} (dB)	VSWR S_{11}	VSWR S_{22}	P_{1dB} (dBm)
20	2.69	18.01	1.21	2.00	+16.10
30	1.81	17.93	1.50	2.50	+17.41
40	1.52	17.87	1.68	2.69	+18.30
50	1.37	17.38	1.83	2.71	+18.44
100	1.27	17.84	2.00	2.90	+19.17
200	1.10	17.77	2.05	2.70	+19.33
300	1.24	17.88	1.97	2.39	+19.60
400	1.29	17.30	2.10	2.10	+19.30
500	1.32	17.24	2.17	2.11	+19.21
600	1.30	17.37	1.97	2.24	+19.02
700	1.23	17.35	1.74	2.30	+18.85
800	1.21	17.49	1.70	2.19	+18.80
900	1.14	17.46	1.64	1.97	+18.90
1000	1.20	17.28	1.66	1.78	+18.80
1100	1.16	17.25	1.71	1.59	+18.90
1200	1.15	17.21	1.58	1.57	+19.10
1300	1.20	17.20	1.55	1.55	+19.10
1400	1.13	17.21	1.43	1.51	+18.61
1500	1.13	17.17	1.30	1.47	+18.40
1600	1.12	17.06	1.16	1.34	+18.36
1700	1.14	16.77	1.12	1.29	+18.22
1800	1.13	16.60	1.07	1.36	+18.20
1900	1.17	16.35	1.07	1.43	+18.26

ODA Series 20–2500MHz Outdoor Low Noise Amplifier

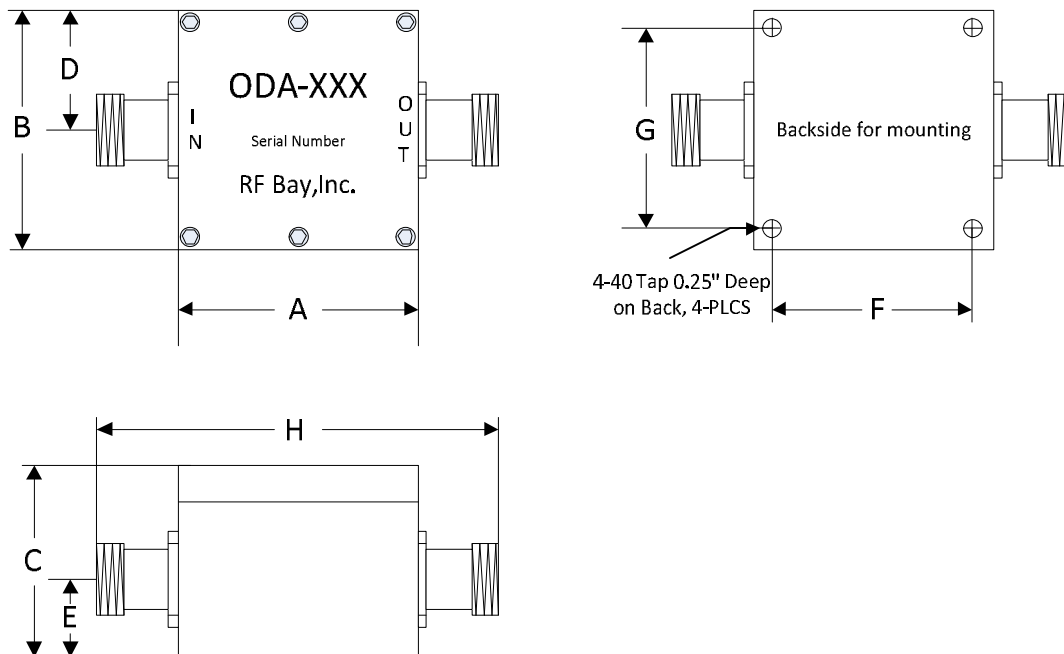
2000	1.25	16.13	1.08	1.57	+18.67
2100	1.29	15.48	1.09	1.65	+18.75
2200	1.37	15.45	1.24	1.70	+18.58
2300	1.26	15.30	1.40	1.90	+18.37
2400	1.17	15.05	1.52	2.01	+18.50
2500	1.20	14.77	1.62	2.12	+18.69

ODA Series 20–2500MHz Outdoor Low Noise Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage	+25V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline



	A	B	C	D	E	F	G	H
Inch	1.50	1.50	1.25	0.75	0.45	1.25	1.25	3.00
mm	38.1	38.1	31.8	19.0	11.3	31.8	31.8	76.2