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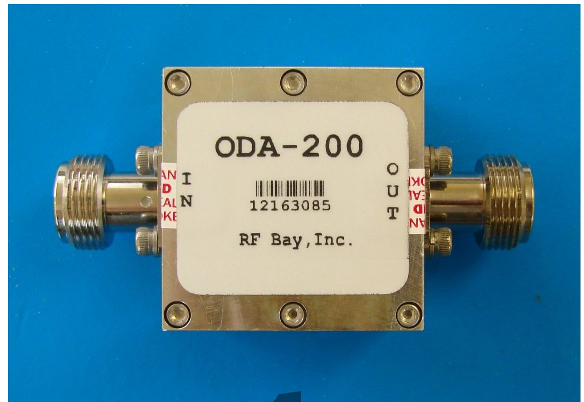
ODA-200

ODA Series 50–1250MHz Outdoor Low Noise Amplifier

Features

- Frequency Range: 50-1250MHz
- Gain: 17dB
- P_{1dB}: +17dBm
- IP3: +30dBm
- Noise Figure: 1.0dB
- DC Power: 12V/75mA
- Type N Connector

Picture



Description

ODA-200 is a 17dB Outdoor Low Noise Amplifier designed in waterproof housing from 50 to 1250MHz with DC Power via RF output port.

Electrical Specifications @ +25 °C, $Z_{in} = Z_{out} = 50\ \Omega$, Vsupply = 12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	50		1250
Gain S21 f = 50MHz	dB		21.5	
f = 300MHz	dB		21.0	
f = 600MHz	dB		19.5	
f = 900MHz	dB		18.0	
f = 1250MHz	dB		16.5	
Gain Flatness	dB		± 2.5	
P_{1dB} @ 600MHz	dBm		+17	
Output IP3 @ 600MHz	dBm		+30	
Noise Figure @ 600MHz	dB		1.0	1.2
Reverse Isolation S12	dB		-26	
VSWR Input VSWR S11			1.2:1	
Output VSWR S22			1.2:1	
DC Power Supply	V		12 to 15	
Supply Current	mA		75	

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

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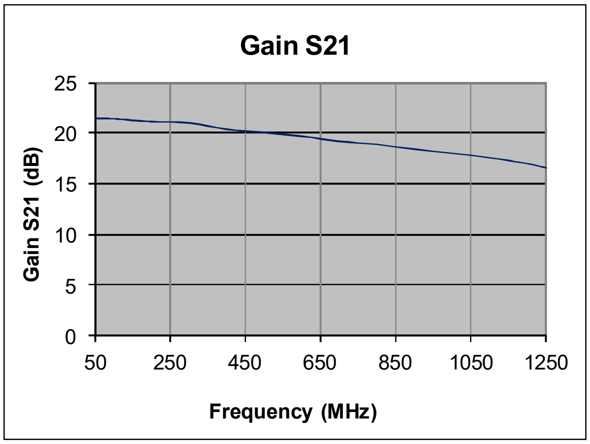
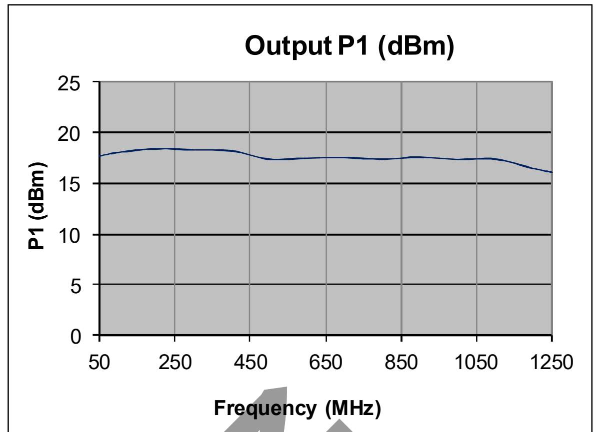
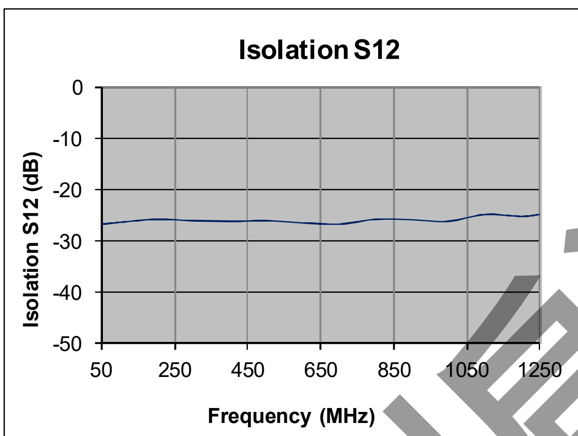
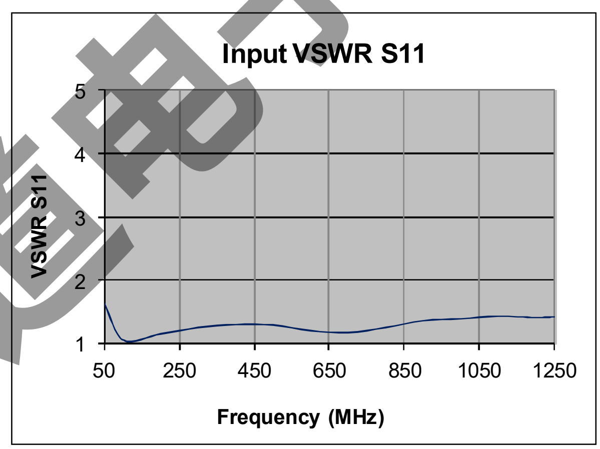
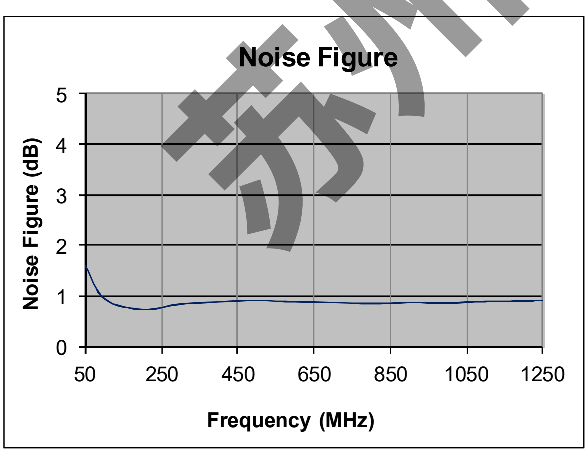
Typical Performance @ +25 °C

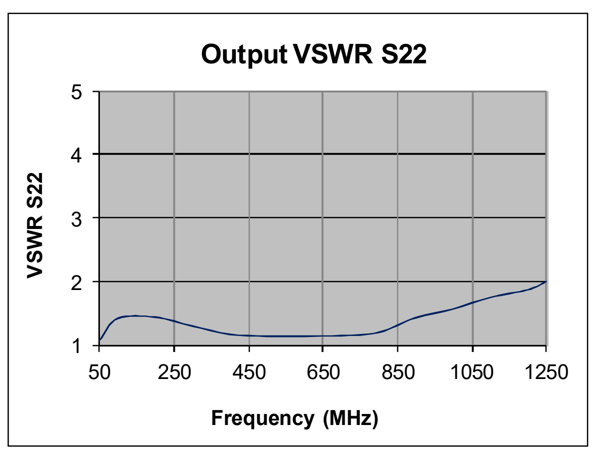












ODA Series 50–1250MHz Outdoor Low Noise Amplifier

Typical Performance @ +25 °C

Frequency (MHz)	Noise Figure (dB)	Gain S_{21} (dB)	VSWR S_{11}	VSWR S_{22}	P_{1dB} (dBm)
50	1.60	21.46	1.63	1.07	+17.71
100	0.94	21.42	1.05	1.42	+18.06
200	0.73	21.13	1.15	1.44	+18.41
300	0.84	21.02	1.25	1.30	+18.30
400	0.88	20.36	1.30	1.17	+18.21
500	0.91	20.04	1.29	1.14	+17.40
600	0.88	19.68	1.20	1.14	+17.50
700	0.87	19.16	1.17	1.15	+17.55
800	0.85	18.86	1.25	1.20	+17.40
900	0.87	18.37	1.36	1.43	+17.60
1000	0.86	17.98	1.39	1.57	+17.38
1100	0.89	17.52	1.43	1.75	+17.41
1200	0.90	16.94	1.41	1.87	+16.50
1250	0.91	16.52	1.42	2.00	+16.11

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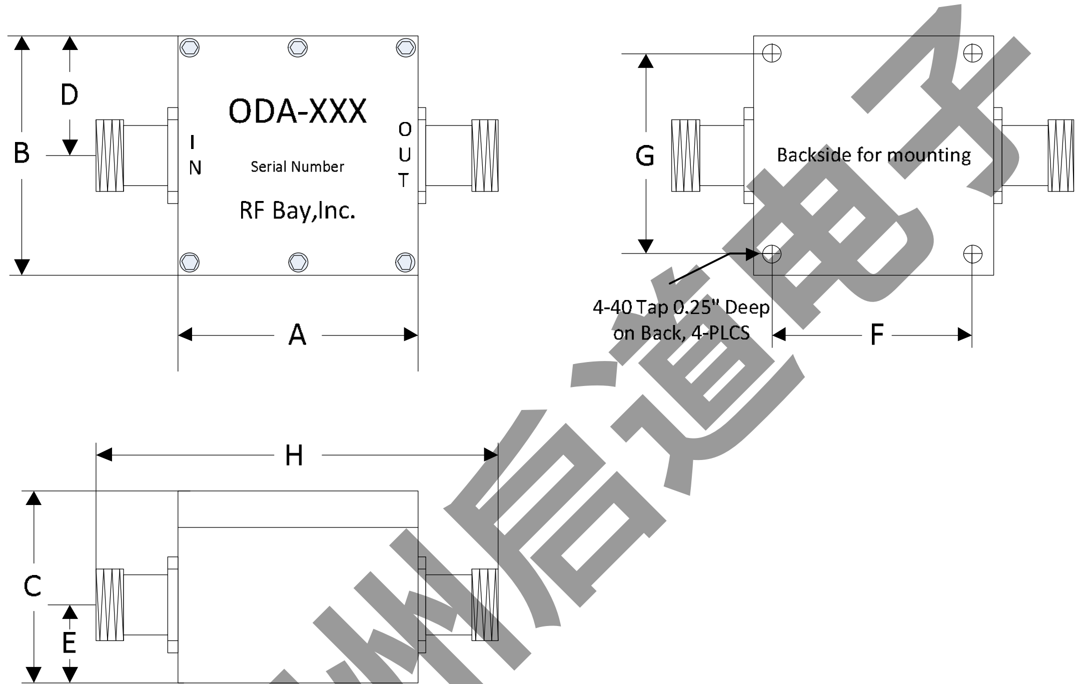
Absolute Maximum Ratings

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