

Coaxial Amplifier

ZFL-2500+

50Ω Medium Power 500 to 2500 MHz

Features

- wideband, 500 to 2500 MHz
- high gain, 31 dB typ.
- protected by US Patent, 6,943,629

Applications

- spread-spectrum and optical communications
- cellular base stations
- GPS
- test instrumentation



Generic photo used for illustration purposes only

CASE STYLE: Y460

Connectors Model
SMA ZFL-2500+
BRACKET (OPTION "B")

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)		MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	f_L	f_U	Min.	Flatness Max.	Output (1 dB Compr.)	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (mA) Max.
ZFL-2500+	500	2500	28	±1.5	+15	+5	8.0	+27	2.5	2.5	5	220

Open load is not recommended, potentially can cause damage.
With no load derate max input power by 20 dB

Maximum Ratings

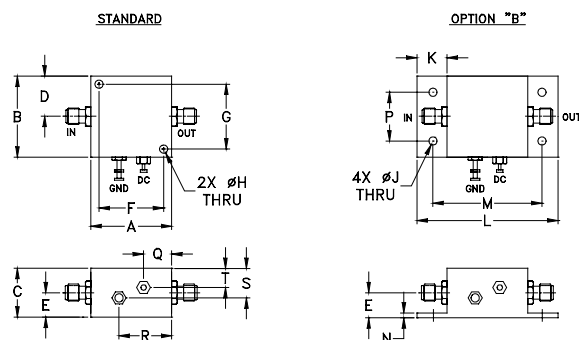
Operating Temperature -20°C to 65°C

Storage Temperature -55°C to 100°C

DC Voltage +6V Max.

Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt.
1.25	1.25	.75	.63	.36	1.000	1.000	.125	.125	.46	2.18	1.688	.06	.750	.50	.80	.45	.29	grams
31.75	31.75	19.05	16.00	9.14	25.40	25.40	3.18	3.18	11.68	55.37	42.88	1.52	19.05	12.70	20.32	11.43	7.37	38

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



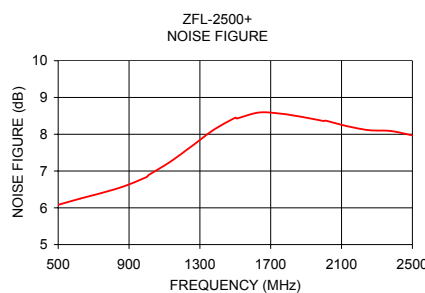
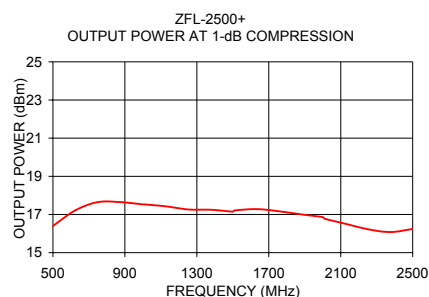
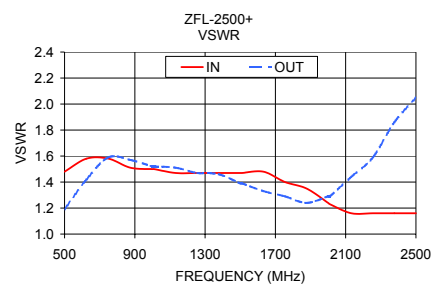
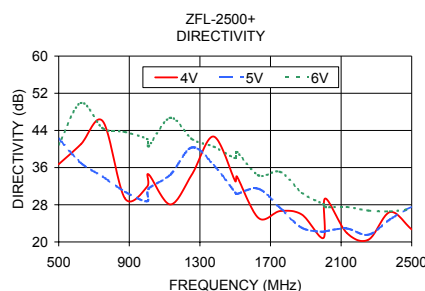
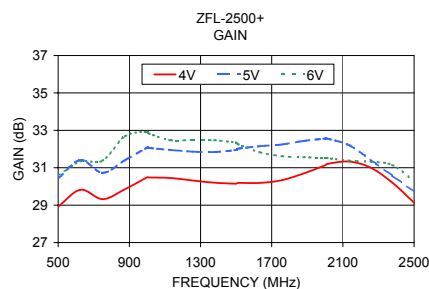
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Typical Performance Data/Curves

ZFL-2500+

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1) 5V		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	4V	5V	6V	4V	5V	6V	IN	OUT		
500.00	28.92	30.43	30.59	36.73	42.23	40.95	1.48	1.19	6.08	16.40
625.00	29.82	31.41	31.34	41.02	37.01	49.91	1.58	1.42	6.25	17.22
750.00	29.32	30.73	31.38	45.97	34.04	44.45	1.58	1.59	6.41	17.65
875.00	29.85	31.40	32.68	29.38	30.82	43.66	1.51	1.57	6.59	17.65
1000.00	30.49	32.08	32.93	31.84	28.74	42.15	1.50	1.52	6.84	17.53
1010.00	30.48	32.06	32.83	34.51	31.45	40.63	1.50	1.52	6.89	17.53
1132.50	30.45	31.95	32.47	28.07	34.48	46.73	1.47	1.51	7.25	17.42
1255.00	30.32	31.86	32.49	34.55	40.35	42.13	1.47	1.47	7.68	17.26
1377.50	30.20	31.84	32.47	42.68	36.54	40.51	1.47	1.46	8.12	17.25
1500.00	30.15	31.95	32.34	33.08	30.64	38.03	1.47	1.39	8.45	17.15
1510.00	30.19	32.05	32.26	34.08	30.33	39.34	1.47	1.39	8.43	17.21
1632.50	30.19	32.15	31.83	25.14	31.44	34.32	1.48	1.33	8.59	17.28
1755.00	30.33	32.24	31.62	26.65	27.32	35.09	1.40	1.29	8.56	17.17
1877.50	30.69	32.43	31.56	25.90	23.05	30.59	1.35	1.24	8.47	17.01
2000.00	31.13	32.56	31.53	20.85	22.18	28.08	1.24	1.29	8.36	16.86
2010.00	31.20	32.56	31.52	29.35	22.29	27.47	1.23	1.29	8.37	16.78
2132.00	31.33	32.22	31.38	21.96	22.88	27.51	1.16	1.44	8.22	16.50
2255.00	31.01	31.43	31.32	20.48	21.56	26.74	1.16	1.59	8.11	16.22
2377.00	30.21	30.58	31.15	26.43	24.85	26.58	1.16	1.86	8.09	16.08
2500.00	29.13	29.72	30.29	22.69	27.61	27.12	1.16	2.05	7.97	16.24



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Amplifier

ZFL-2500+

Typical Performance Data

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR IN (:1) 5V	VSWR OUT (:1) 5V	NOISE FIGURE (dB) 5V	Pout at 1dB Comp. (dBm) 5V
	4V	5V	6V	4V	5V	6V				
500.0	28.9	30.4	30.59	36.73	42.23	40.95	1.48	1.19	6.08	16.40
625.0	29.8	31.4	31.34	41.02	37.01	49.91	1.58	1.42	6.25	17.22
750.0	29.3	30.7	31.38	45.97	34.04	44.45	1.58	1.59	6.41	17.65
875.0	29.9	31.4	32.68	29.38	30.82	43.66	1.51	1.57	6.59	17.65
1000.0	30.5	32.1	32.93	31.84	28.74	42.15	1.50	1.52	6.84	17.53
1010.0	30.5	32.1	32.83	34.51	31.45	40.63	1.50	1.52	6.89	17.53
1132.5	30.5	32.0	32.47	28.07	34.48	46.73	1.47	1.51	7.25	17.42
1255.0	30.3	31.9	32.49	34.55	40.35	42.13	1.47	1.47	7.68	17.26
1377.5	30.2	31.8	32.47	42.68	36.54	40.51	1.47	1.46	8.12	17.25
1500.0	30.2	32.0	32.34	33.08	30.64	38.03	1.47	1.39	8.45	17.15
1510.0	30.2	32.1	32.26	34.08	30.33	39.34	1.47	1.39	8.43	17.21
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2377.0	30.2	30.6	31.15	26.43	24.85	26.58	1.16	1.86	8.09	16.08
2500.0	29.1	29.7	30.29	22.69	27.61	27.12	1.16	2.05	7.97	16.24

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IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant

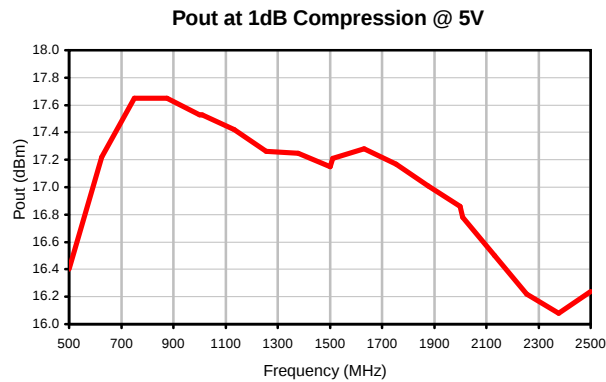
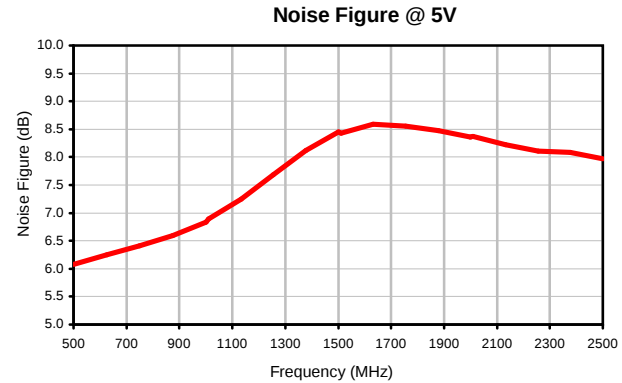
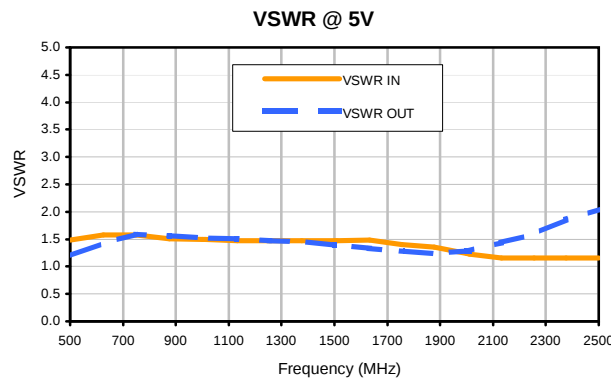
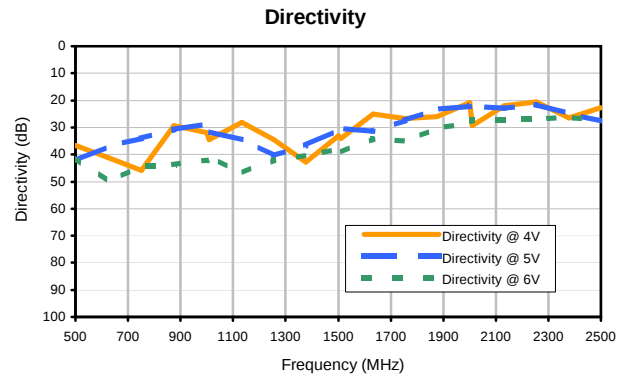
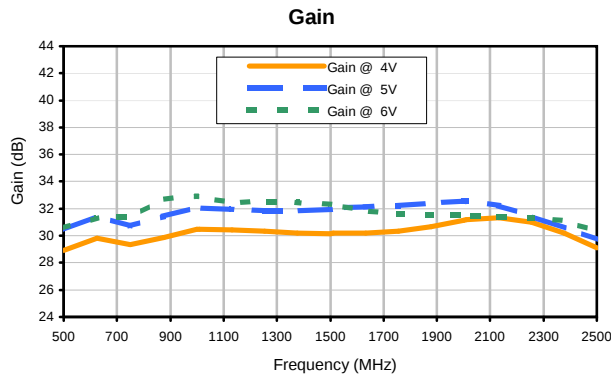
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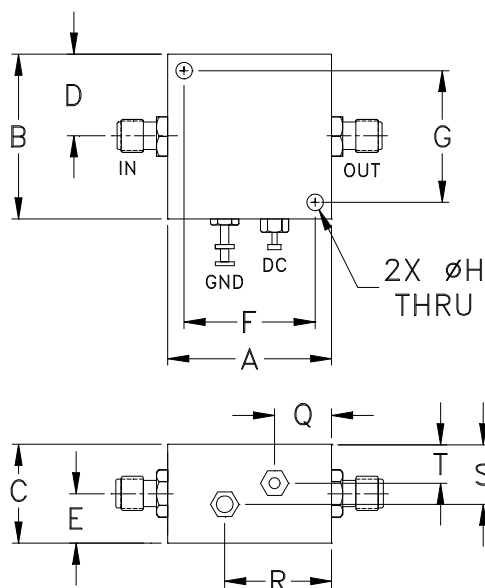


Typical Performance Curves

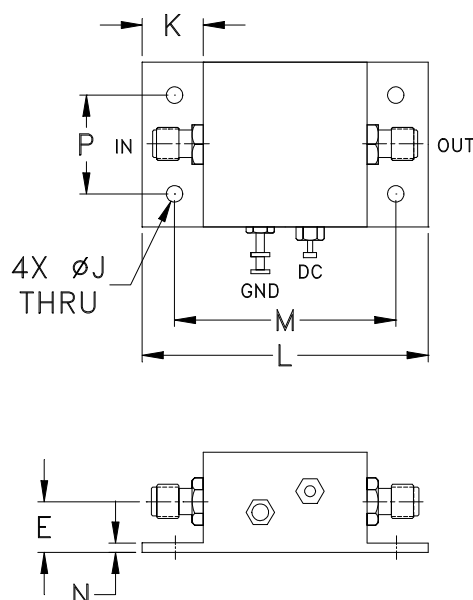


Outline Dimensions

STANDARD



OPTION "B"



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
Y460	1.25 (31.75)	1.25 (31.75)	.75 (19.05)	.63 (16.0)	.36 (9.15)	1.000 (25.4)	1.000 (25.4)	.125 (3.2)	.125 (3.2)	.46 (11.7)	2.18 (55.4)	1.688 (42.9)	.06 (1.5)

CASE#	P	Q	R	S	T	WT. GRAMS
Y460	.750 (19.0)	.50 (12.7)	.80 (20.3)	.45 (11.4)	.29 (7.4)	38

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Case material: Aluminum alloy.
- Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Mounting bracket available on request. Add suffix B to part number



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Mini-Circuits ISO 9001 & ISO 14001 Certified



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-20° to 65° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Stabilization Bake	(non-operating) 125°C, 24 hours	- - -
Burn-in at Elevated Temp.	(DC on) 160 hours at 85° C	MIL-STD-202, Method 108
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, Condition A, except 100°C