Self-Cooled

High Power Amplifier

LZY-2+

50Ω 32W 500 to 1000 MHz

Features

- saturated power 32W typ.
- high power with low distortion, -45 dBc typ.
- wide bandwidth, usable 475 to 1050 MHz
- high gain, 47 dB typ.
- unconditionally stable
- self protected against excessive drive, high case temp., reverse
- polarity and shorting/unshorting transients at dc input
- electronic shutoff by grounding the shut-off terminal, reduces output by 50 dB
- ungrounding the shutoff terminal restores full power within 40 ms
- cool operation with integral fan, 15° C typ. rise
- graceful degradation, +20 to +30V DC
- can withstand short and open circuit at output for 2 minutes while delivering 20 watts

Applications

- AM/FM
- Multi-carrier amplification
- Broadband swept signal
- Linear Pulse
- Feed forward

Not Recommended for New Designs

Recommended Replacement Part:
ZHL-20W-13+
ZHL-20W-13X+

Model No.	LZY-2+	LZY-2X+▲
Case Style	BT451	
Connectors	SMA	

+RoHS Compliant

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

Electrical Specifications

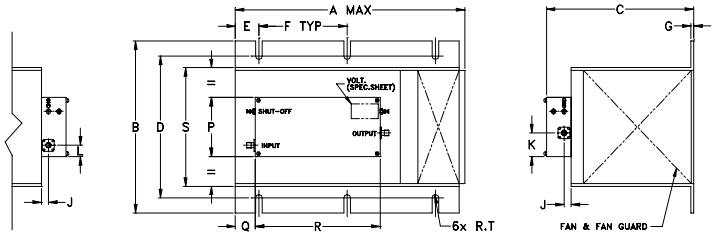
Parameter	LZY-2+			LZY-2X+▲			Units
	Min.	Typ.	Max.	Min	Typ.	Max.	
Frequency Range	500		1000	500		1000	MHz
Gain	40			40			dB
Gain Flatness			±1.5			±1.5	dB
Output Power at 1dB compression	+43	+45		+43	+45		dBm
Noise Figure[1]		8.0			8.0		dB
Output third order intercept point		+54			+54		dBm
Input VSWR		2.0			2.0		:1
Output VSWR		3.5			3.5		:1
DC Supply Voltage		+28			+28		V
Supply Current[1]			8.0			8.0	A

1. At 20W output including operation of fan.

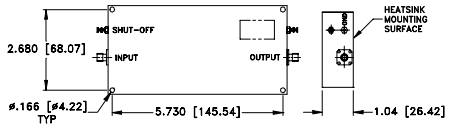
Open load is not recommended, potentially can cause damage.

▲ Heat sink and fan not included. Alternative heat sinking and heat removal must be provided by the customer to ensure proper performance. See Application Note AN-60-004

Outline Drawing



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK.



Maximum Ratings

Parameter	Ratings
Operating Temperature	-10°C to 50°C
Storage Temperature	-55°C to 100°C
DC Voltage	+30V
Input RF Power (no damage)	+10 dBm

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

Outline Dimensions (inch / mm)

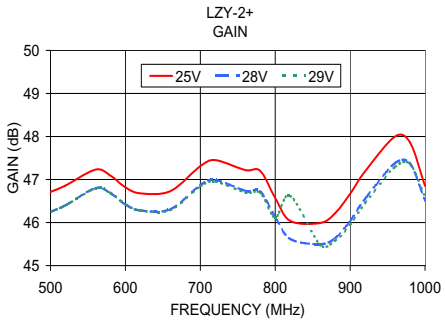
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
9.85	7.3	6.3	6.0	.98	3.75	.13	__	.31	1.48	1.48	__	__	2.95	.5	6.00	5.1	.135	grams*
250.19	185.42	160.02	152.40	24.89	95.25	3.30	__	7.87	37.59	37.59	__	__	74.93	12.70	152.40	129.54	3.43	4130

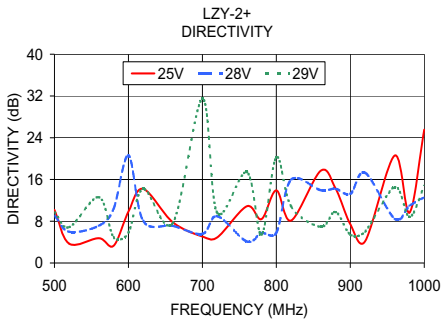
*455 grams without heatsink

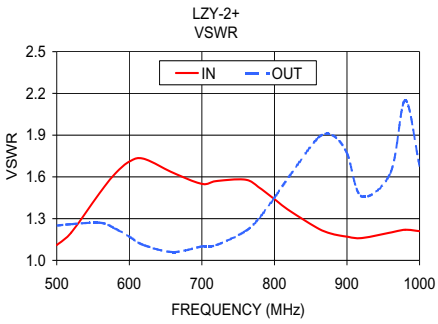
Notes

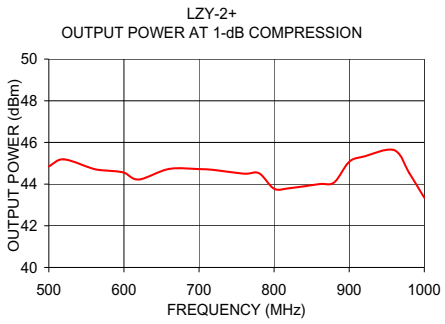
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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

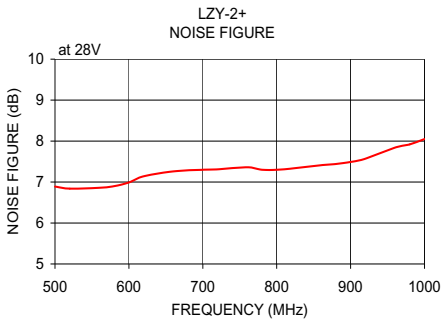
FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		POUT at 1 dB COMPR. (dBm)	NOISE FIGURE (dB)
	25V	28V	29V	25V	28V	29V	IN	OUT	28V	28V
500.00	46.71	46.25	46.25	10.19	9.10	9.74	1.11	1.25	44.85	6.89
520.00	46.86	46.40	46.40	3.69	5.99	6.85	1.20	1.26	45.19	6.84
560.00	47.23	46.80	46.79	4.75	7.13	12.62	1.49	1.27	44.73	6.86
580.00	47.09	46.68	46.69	3.31	10.37	4.95	1.62	1.23	44.64	6.90
600.00	46.82	46.42	46.43	9.84	20.59	5.82	1.71	1.17	44.55	6.99
620.00	46.68	46.28	46.28	14.20	8.08	14.23	1.73	1.11	44.22	7.14
660.00	46.73	46.31	46.29	7.80	7.12	7.68	1.63	1.06	44.73	7.26
700.00	47.31	46.87	46.84	5.07	5.58	31.47	1.55	1.10	44.72	7.30
720.00	47.45	46.99	46.95	4.89	8.97	9.59	1.57	1.11	44.68	7.31
760.00	47.22	46.74	46.70	10.86	4.13	17.40	1.58	1.21	44.50	7.36
780.00	47.20	46.72	46.69	8.41	5.76	5.47	1.52	1.31	44.52	7.30
800.00	46.57	46.13	46.12	13.90	5.77	20.27	1.44	1.45	43.78	7.30
820.00	46.04	45.62	46.62	8.14	15.95	10.83	1.36	1.60	43.80	7.33
860.00	45.99	45.50	45.48	17.67	13.95	6.92	1.23	1.88	44.00	7.41
880.00	46.22	45.64	45.58	14.30	14.22	9.78	1.19	1.90	44.08	7.44
900.00	46.67	46.04	45.95	7.45	13.25	5.41	1.17	1.77	45.07	7.49
920.00	47.19	46.55	46.45	4.18	17.28	6.01	1.16	1.46	45.33	7.57
960.00	48.00	47.38	47.29	20.58	8.48	14.53	1.20	1.63	45.63	7.84
980.00	47.86	47.37	47.36	9.66	10.95	8.83	1.22	2.15	44.53	7.92
1000.00	46.85	46.51	46.60	25.54	12.59	14.78	1.21	1.68	43.35	8.05











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