

# Low Noise Amplifier

## TAMP-272LN+

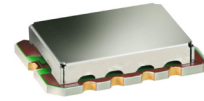
50Ω      2300 to 2700 MHz

### Features

- Ultra low noise figure, 0.85 dB typ.
- Output power, up to +19.5 dBm typ.
- Good output IP3, 30 dBm typ.
- Good return loss
- Unconditionally stable

### Applications

- WiMAX 2.5GHz
- Base transceiver station, tower mounted amplifier, repeater
- General purpose low noise amplifier



CASE STYLE: JQ1382  
PRICE: \$9.95 ea. QTY (5-49)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

*The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.*

### Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		2300		2700	MHz
Noise Figure	2300 - 2700		0.85	1.15	dB
Gain	2300 - 2700	11.5	14.0		dB
Gain Flatness	2300 - 2700		± 0.5	± 1.0	dB
Output Power at 1dB compression	2300 - 2700	17.5	19.5		dBm
Output third order intercept point (OIP3)	2300 - 2700		30		dBm
Input VSWR	2300 - 2700		1.30		:1
Output VSWR	2300 - 2700		1.45		:1
DC Supply Voltage			5.0		V
Supply Current			55	70	mA

### Pin Connections

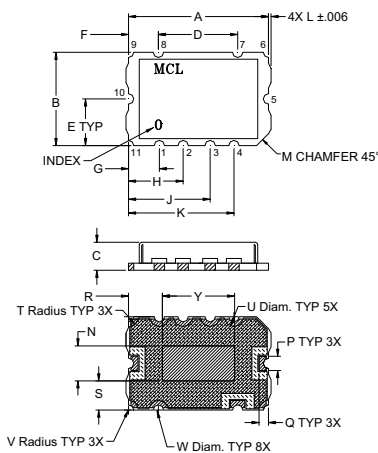
RF IN	10
RF OUT	5
V+	7
GROUND	1,2,3,4,6,8,9,11

### Maximum Ratings

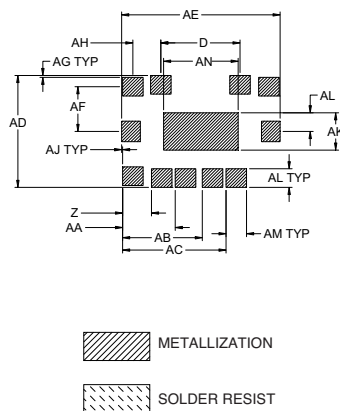
Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Operating Voltage	5.5 V
Input Power (no damage)	+17 dBm
Power Consumption	385 mW

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

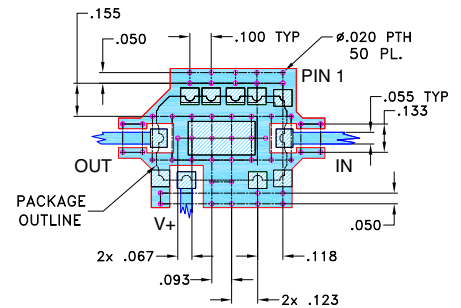
### Outline Drawing



### PCB Land Pattern



### Demo Board MCL P/N: TB-468+ Suggested PCB Layout (PL-293)



#### NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002; COPPER 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
  - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
.591	.394	.118	.335	.197	.126	.130	.230	.344	.445	.011	.050	.148	.060	.040	.143	.123	.042	.084
15.0	10.0	3.0	8.5	5.0	3.2	3.3	5.85	8.75	11.3	.28	1.27	3.75	1.52	1.02	3.63	3.13	1.07	2.13
V	W	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	wt.	
.022	.044	.305	.122	.222	.337	.437	.472	.669	.189	.008	.118	.004	.158	.079	.087	.315	grams	
.56	1.12	7.75	3.1	5.65	8.55	11.1	12.0	17.0	4.8	.20	3.0	.10	4.0	2.0	2.2	8.0	0.8	



For detailed performance specs & shopping online see web site

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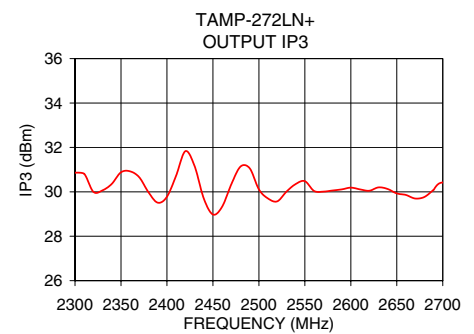
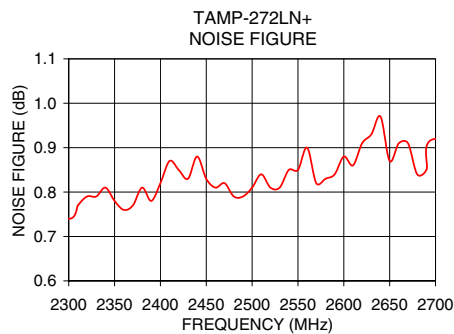
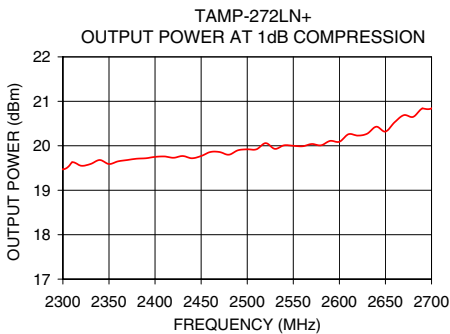
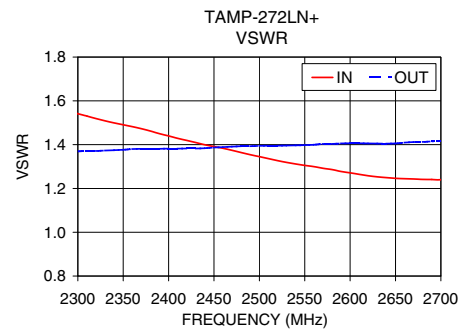
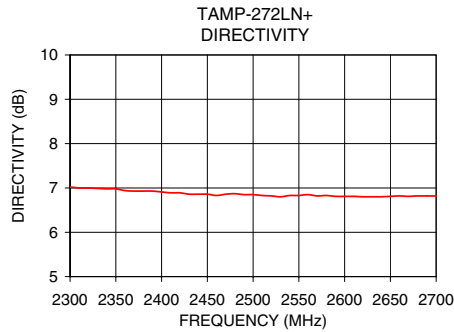
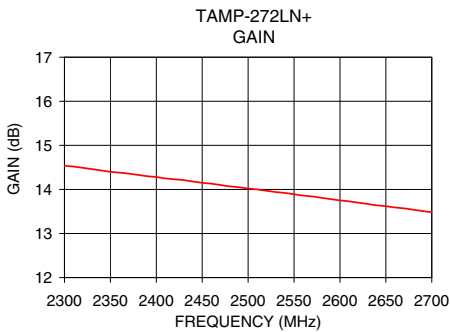


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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	NOISE FIGURE (dB)	P. OUT @ 1dB COMPR. (dBm)	OUTPUT IP3 (dBm)
2300.00	14.54	7.02	1.54	1.37	0.74	19.47	30.86
2320.00	14.49	7.00	1.52	1.37	0.79	19.55	30.00
2340.00	14.43	6.98	1.50	1.37	0.81	19.68	30.36
2360.00	14.38	6.94	1.48	1.38	0.76	19.65	30.92
2380.00	14.33	6.93	1.46	1.38	0.81	19.71	29.98
2400.00	14.28	6.91	1.44	1.38	0.82	19.75	29.78
2420.00	14.23	6.89	1.42	1.38	0.85	19.73	31.83
2440.00	14.18	6.86	1.40	1.38	0.88	19.72	29.71
2460.00	14.13	6.83	1.38	1.39	0.81	19.86	29.33
2480.00	14.07	6.87	1.36	1.39	0.79	19.80	31.14
2500.00	14.02	6.85	1.35	1.39	0.81	19.92	30.11
2520.00	13.97	6.82	1.33	1.40	0.81	20.06	29.57
2540.00	13.92	6.83	1.31	1.40	0.85	20.01	30.35
2560.00	13.86	6.85	1.30	1.40	0.90	19.99	30.04
2580.00	13.81	6.83	1.29	1.40	0.83	20.01	30.06
2600.00	13.75	6.81	1.27	1.41	0.88	20.09	30.19
2620.00	13.70	6.80	1.26	1.41	0.91	20.23	30.05
2640.00	13.64	6.80	1.25	1.40	0.97	20.43	30.13
2680.00	13.54	6.82	1.24	1.41	0.84	20.65	29.77
2700.00	13.48	6.82	1.24	1.42	0.92	20.84	30.42



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