

Surface Mount

Low Noise Amplifier

TAMP-242GLN+

50Ω

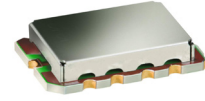
1710 to 2400 MHz

Features

- Ultra low noise figure, 0.85 dB typ.
- High gain, 30 dB typ.
- Output power, up to +20 dBm typ.
- Good output IP3, 36 dBm typ.
- Good return loss
- Unconditionally stable

Applications

- Base transceiver station, tower mounted amplifier, repeater
- WCDMA
- TD SCDMA
- PCS Rx / PCS Tx
- General purpose low noise amplifier



CASE STYLE: JQ1382
 PRICE: \$13.95 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		1710		2400	MHz
Noise Figure	1710 - 1880		0.80	1.00	dB
	1850 - 1990		0.80	1.00	
	1990 - 2200		0.85	1.05	
	2200 - 2400		0.90	1.15	
Gain	1710 - 1880	28.0	31.0		dB
	1850 - 1990	28.0	30.5		
	1990 - 2200	27.0	30.0		
	2200 - 2400	26.0	28.5		
Gain Flatness	1710 - 1880		± 0.45	± 0.90	dB
	1850 - 1990		± 0.45	± 0.90	
	1990 - 2200		± 0.60	± 1.20	
	2200 - 2400		± 0.50	± 1.00	
Output Power at 1dB compression	1710 - 1880	17.5	19.5		dBm
	1850 - 1990	18.0	20.0		
	1990 - 2200	18.5	20.0		
	2200 - 2400	19.0	20.5		
Output third order intercept point (OIP3)	1710 - 1880		36		dBm
	1850 - 1990		36		
	1990 - 2200		36		
	2200 - 2400		36		
Input VSWR	1710 - 1880		1.5		:1
	1850 - 1990		1.3		
	1990 - 2200		1.2		
	2200 - 2400		1.2		
Output VSWR	1710 - 1880		1.5		:1
	1850 - 1990		1.4		
	1990 - 2200		1.4		
	2200 - 2400		1.4		
DC Supply Voltage			5.0		V
Supply Current			120	150	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 RF Power (no damage)	+17 dBm
Power Consumption	825 mW

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



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine



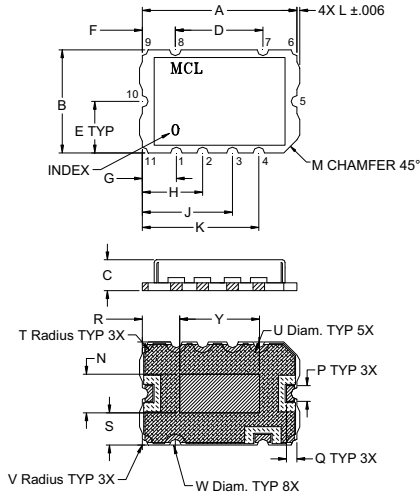
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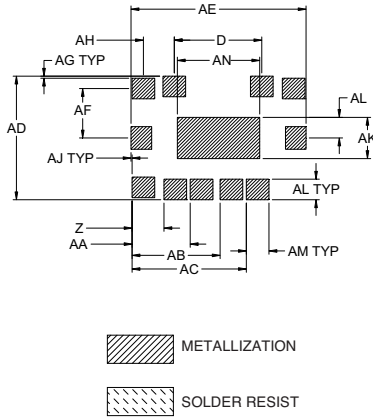
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Outline Drawing



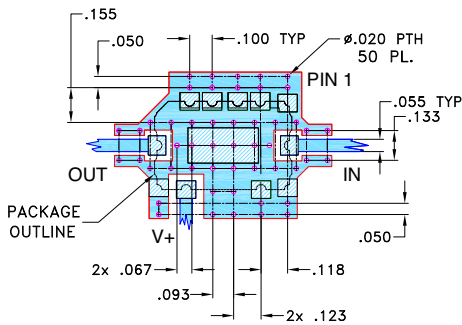
PCB Land Pattern



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	

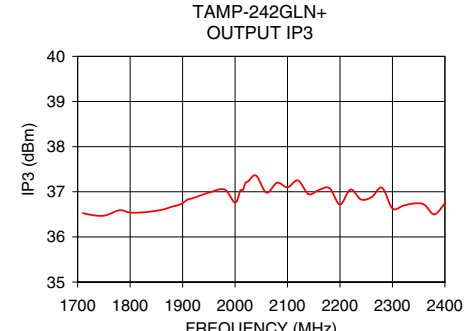
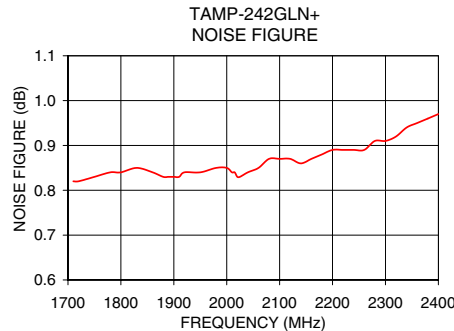
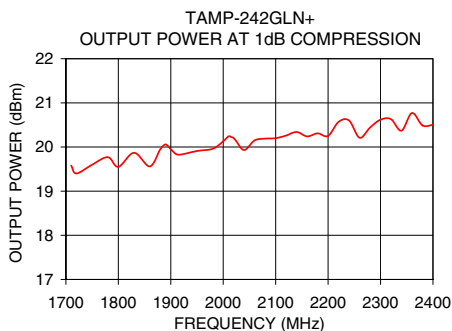
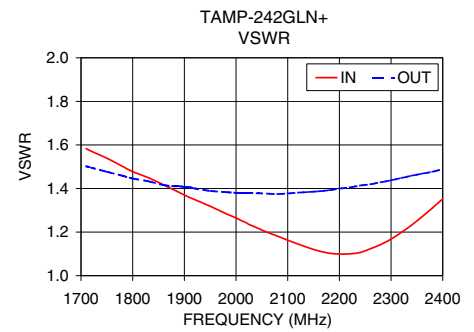
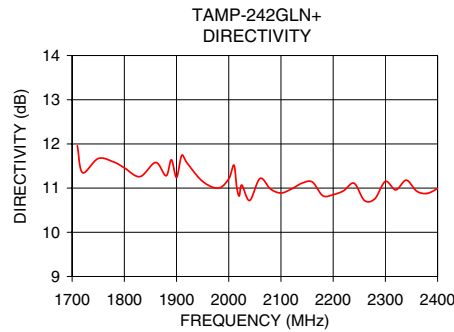
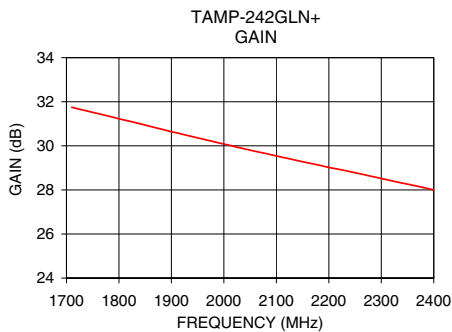
Demo Board MCL P/N: TB-468+ Suggested PCB Layout (PL-293)



NOTES:

- 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.
 - 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

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	NOISE FIGURE (dB)	P. OUT @ 1dB COMPR. (dBm)	OUTPUT IP3 (dBm)
1710.00	31.75	11.96	1.58	1.50	0.82	19.58	36.53
1750.00	31.52	11.67	1.54	1.48	0.83	19.60	36.47
1800.00	31.23	11.46	1.48	1.45	0.84	19.55	36.54
1830.00	31.06	11.26	1.45	1.43	0.85	19.87	36.55
1860.00	30.88	11.58	1.42	1.42	0.84	19.56	36.60
1900.00	30.64	11.24	1.37	1.41	0.83	19.95	36.75
1950.00	30.36	11.15	1.32	1.39	0.84	19.91	36.98
2000.00	30.08	11.21	1.26	1.38	0.85	20.13	36.76
2040.00	29.86	10.72	1.22	1.38	0.84	19.93	37.36
2060.00	29.75	11.22	1.20	1.38	0.85	20.15	36.98
2100.00	29.54	10.89	1.16	1.38	0.87	20.20	37.10
2140.00	29.33	11.11	1.13	1.38	0.86	20.34	36.95
2180.00	29.13	10.83	1.10	1.39	0.88	20.31	37.08
2200.00	29.02	10.85	1.10	1.40	0.89	20.25	36.72
2260.00	28.73	10.72	1.12	1.42	0.89	20.21	36.88
2300.00	28.52	11.15	1.17	1.44	0.91	20.62	36.63
2320.00	28.41	10.96	1.20	1.45	0.92	20.63	36.69
2360.00	28.21	10.93	1.27	1.47	0.95	20.77	36.72
2380.00	28.11	10.88	1.31	1.48	0.96	20.49	36.50
2400.00	28.00	10.99	1.35	1.49	0.97	20.50	36.75



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