

Surface Mount

Low Noise Amplifier

TAMP-960LN+

50Ω

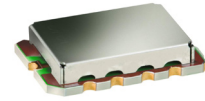
824 to 960 MHz

Features

- Ultra low noise figure, 0.55 dB typ.
- High gain, 18 dB typ.
- Output power, up to +16.5 dBm typ.
- Low current consumption
- Excellent return loss
- Unconditionally stable

Applications

- Base transceiver station, tower mounted amplifier, repeater
- CDMA: 824 to 894 MHz
- GSM Rx: 880 to 915 MHz
- GSM Tx: 925 to 960 MHz
- 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		824		960	MHz
Noise Figure	824 - 960		0.55	0.80	dB
	824 - 894		0.60	0.80	
	880 - 915		0.55	0.70	
	925 - 960		0.55	0.70	
Gain	824 - 960	16.5	18.0		dB
	824 - 894	16.5	18.0		
	880 - 915	16.5	18.0		
	925 - 960	16.5	17.5		
Gain Flatness	824 - 960		± 0.6	± 1.2	dB
	824 - 894		± 0.4	± 0.8	
	880 - 915		± 0.2	± 0.4	
	925 - 960		± 0.2	± 0.4	
Output Power at 1dB compression	824 - 960	15.5	16.5		dBm
	824 - 894	15.5	16.5		
	880 - 915	15.5	16.5		
	925 - 960	15.5	16.5		
Output third order intercept point (OIP3)	824 - 960		30		dBm
	824 - 894		30		
	880 - 915		30		
	925 - 960		30		
Input VSWR	824 - 960		1.1		:1
	824 - 894		1.1		
	880 - 915		1.1		
	925 - 960		1.1		
Output VSWR	824 - 960		1.4		:1
	824 - 894		1.3		
	880 - 915		1.4		
	925 - 960		1.5		
DC Supply Voltage			5.0		V
Supply Current			40	45	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)	+10 dBm
Power Consumption	250 mW

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



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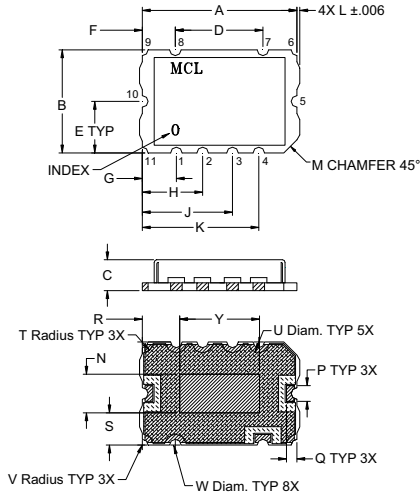
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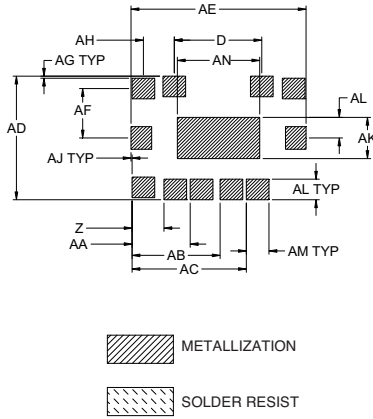
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Outline Drawing



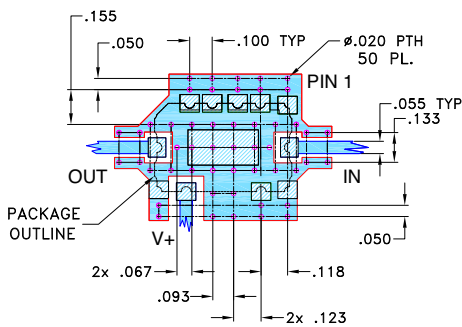
PCB Land Pattern



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U		wt.	
.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					
.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



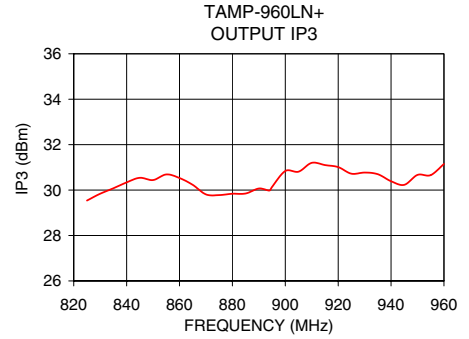
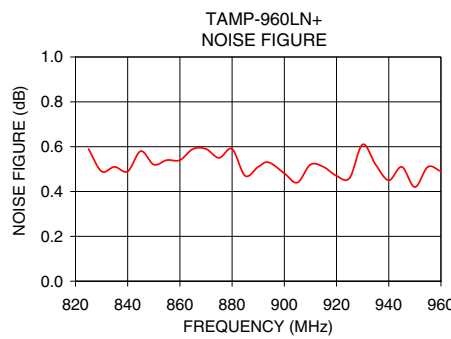
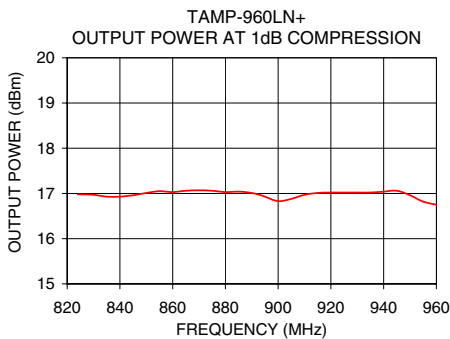
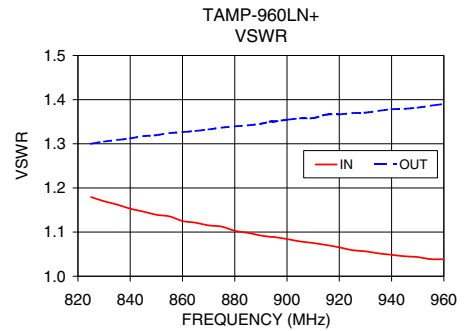
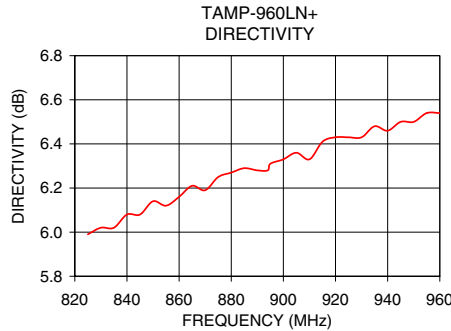
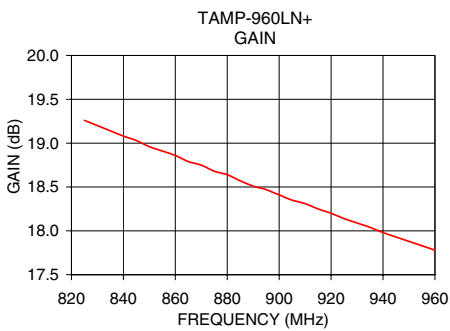
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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	NOISE FIGURE (dB)	P. OUT @ 1dB COMPR. (dBm)	OUTPUT IP3 (dBm)
824.00	19.26	6.03	1.18	1.30	0.67	16.98	29.63
830.00	19.20	6.02	1.17	1.30	0.49	16.97	29.84
835.00	19.14	6.02	1.16	1.31	0.51	16.93	30.08
845.00	19.03	6.08	1.15	1.32	0.58	16.96	30.54
850.00	18.96	6.14	1.14	1.32	0.52	17.01	30.44
855.00	18.91	6.12	1.14	1.32	0.54	17.05	30.69
860.00	18.86	6.16	1.13	1.33	0.54	17.03	30.53
870.00	18.75	6.19	1.12	1.33	0.59	17.07	29.81
875.00	18.68	6.25	1.11	1.34	0.55	17.06	29.78
880.00	18.64	6.27	1.10	1.34	0.59	17.03	29.84
885.00	18.57	6.29	1.10	1.34	0.47	17.04	29.85
894.00	18.48	6.28	1.09	1.35	0.53	16.95	29.98
900.00	18.41	6.33	1.08	1.35	0.48	16.83	30.84
905.00	18.35	6.36	1.08	1.36	0.44	16.88	30.81
915.00	18.25	6.41	1.07	1.37	0.51	17.01	31.10
925.00	18.14	6.43	1.06	1.37	0.46	17.02	30.72
930.00	18.09	6.43	1.06	1.37	0.61	17.02	30.77
935.00	18.04	6.48	1.05	1.37	0.52	17.02	30.70
945.00	17.93	6.50	1.05	1.38	0.51	17.06	30.23
960.00	17.78	6.54	1.04	1.39	0.49	16.75	31.15



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