

FEATURES

- Suitable for tin/lead and RoHS solder systems
- Wideband, 5 to 3000 MHz
- Balanced transmission line
- Good return loss, 20 dB typ. at 1 dB band
- Excellent amplitude unbalance, 0.3 dB typ. and
- Phase unbalance, 3 deg typ. in 1 dB bandwidth
- Aqueous washable



Generic photo used for illustration purposes only

CASE STYLE: AT224-1A

+RoHS CompliantThe +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- Balanced to unbalanced transformation
- Push-pull amplifiers
- PCS/DCS
- Cable TV
- Cellular

Qorvo Part No.	Description
QPL8830	5-1280 MHz, 75Ω. 21 dB CATV Amplifier
QPL8831	5-1280 MHz, 75Ω. 17 dB CATV Amplifier
QPL8832	5-1280 MHz, 75Ω. 19 dB CATV Amplifier
QPL8833	5-1280 MHz, 75Ω. 15 dB CATV Amplifier
QPL8834	5-1280 MHz, 75Ω. 12 dB CATV Amplifier
QPA4425	1218 MHz MMIC, CATV Push Pull, 25 dB Amplifier
QPA4428	1219 MHz MMIC, CATV Push Pull, 28 dB Amplifier
QPB8857	47 - 1218 MHz, 28 dB CATV Doubler Amplifier
QPB8858	47-1218, 34 dB CATV Push Pull Amplifier
QPB8957	47-1000 MHz 28 dB CATV Doupler Amplifier

ELECTRICAL SPECIFICATIONS (T_{AMB} = 25°C)

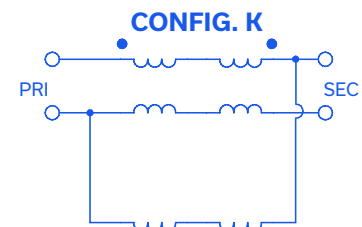
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio			1		
Frequency Range		5		3000	MHz
Insertion Loss*	2000-3000		3		dB
	1200-2000		2		
	5-1200		1		
Phase Unbalance	5 - 1200		3		Deg.
	1200 - 2000		4		
Amplitude Unbalance	5 - 1200		0.3		dB
	1200 - 2000		1.0		

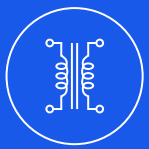
*Insertion Loss is referenced to mid-band loss, 1.0 dB typ.

MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA

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



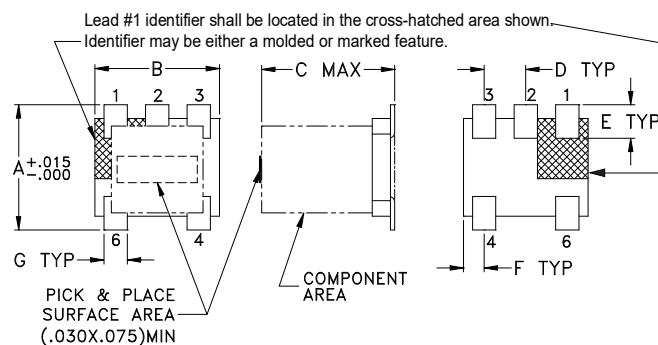


PIN CONNECTIONS

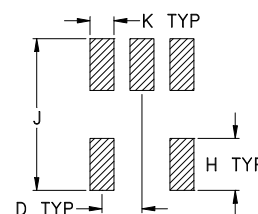
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
NOT USED	2

PRODUCT MARKING: N/A

OUTLINE DRAWING



PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

OUTLINE DIMENSIONS (Inch
mm)

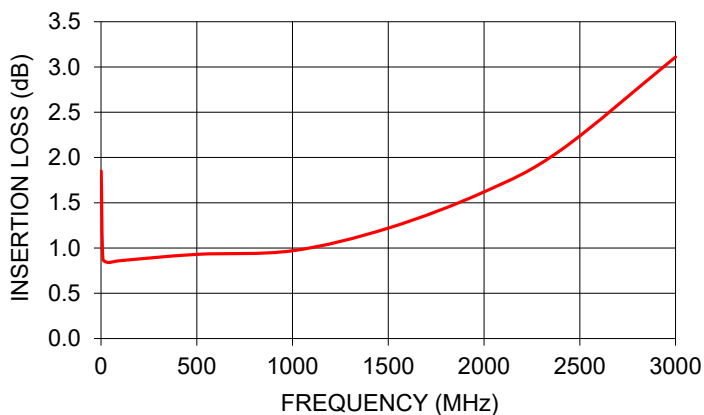
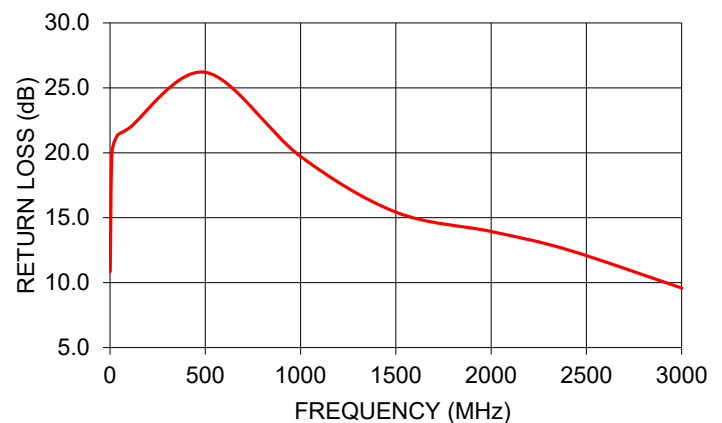
A	B	C	D	E	F
.150	.150	.160	.050	.040	.025
3.81	3.81	4.06	1.27	1.02	0.64
G	H	J	K	wt	
.028	.065	.190	.030	grams	
0.71	1.65	4.83	0.76	0.15	

TAPE & REEL INFORMATION: F17



TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
1.00	1.85	10.86	0.38	2.91
10.00	0.88	20.01	0.04	0.84
40.00	0.84	21.37	0.00	0.58
100.00	0.86	21.90	0.01	0.92
500.00	0.93	26.20	0.10	3.63
1000.00	0.97	19.72	0.18	4.76
1500.00	1.22	15.43	0.77	3.62
2000.00	1.62	13.94	1.40	0.56
2400.00	2.08	12.54	1.84	4.10
3000.00	3.11	9.59	2.06	12.70

TC1-33-75-7+
INSERTION LOSSTC1-33-75-7+
INPUT RETURN LOSS

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/terms/viewterm.html