SURFACE MOUNT

RF Transformer

TC4-19G2+

50Ω 10 to 1900 MHz

FEATURES

- Suitable for Tin/Lead and RoHS Solder Systems
- Wideband, 10 to 1900 MHz
- Balanced Transmission Line with Secondary Center Tap
- Aqueous Washable

Generic photo used for illustration purposes only

CASE STYLE: AT224-3

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

APPLICATIONS

- PCS
- Cellular

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (Secondary/Primary)			4		
Frequency Range		10		1900	MHz
Insertion Loss[1]	10-1900			3	dB
	20-1000			2	
	30-700			1	
Amplitude Unbalance	30-700		0.3		dB
	20-1000		0.5		
	10-1900		1.2		
Phase Unbalance	30-700		4		Degree
	20-1000		6		
	10-1900		11		

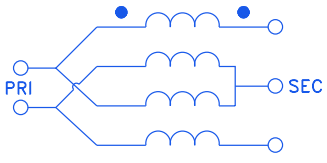
1. Insertion Loss is referenced to mid-band loss, 1.0 dB typ.

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-20°C to +85°C
Storage Temperature	-55°C to +100°C
RF Power	0.25 W
DC Current	30 mA

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

CONFIG. H



REV. D
ECO-027946
TC4-19G2+
MCL NY
260205

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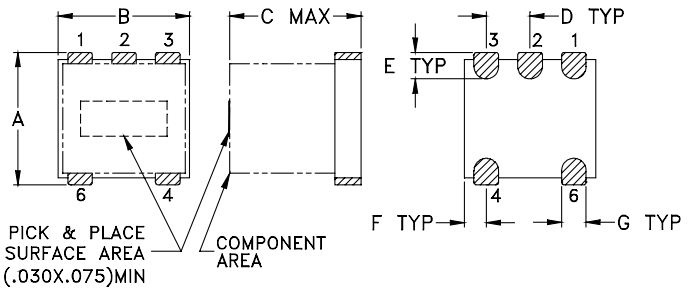
PIN CONNECTIONS

PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	3
SECONDARY	1
SECONDARY CT	2

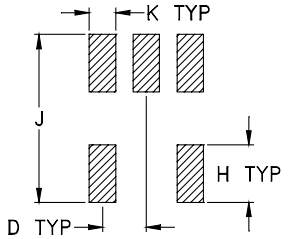
PRODUCT MARKING: NA

DEMO BOARD MCL P/N: TB-TC4-19G2+

OUTLINE DRAWING



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002 in

OUTLINE DIMENSIONS (Inch / mm)

A	B	C	D	E	F
.150	.150	.150	.050	.030	.025
3.81	3.81	3.81	1.27	0.76	0.64

G	H	J	K		wt
.028	.065	.190	.030		grams
0.71	1.65	4.83	0.76		0.10

TAPE & REEL INFORMATION: F17

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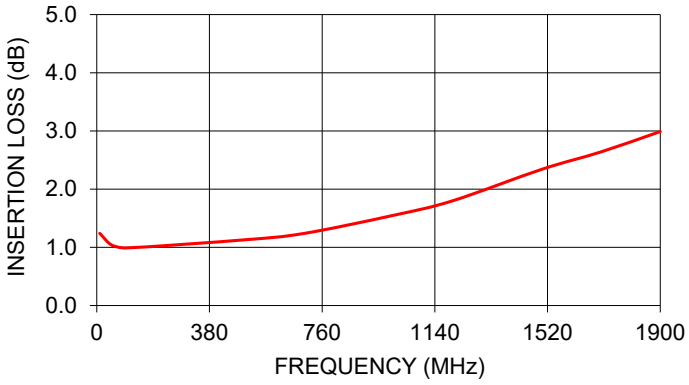
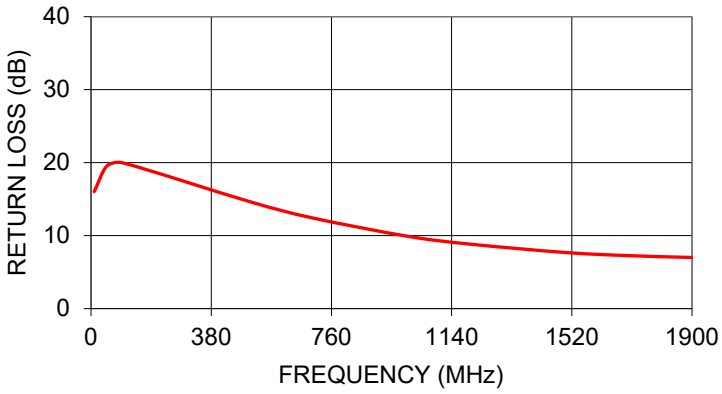
TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (deg.)
10	1.24	16.03	0.06	0.03
50	1.04	19.54	0.04	0.39
100	0.99	19.98	0.01	0.83
500	1.13	14.68	0.02	3.20
700	1.24	12.43	0.17	3.49
1000	1.55	9.92	0.49	3.74
1200	1.80	8.83	0.85	3.53
1500	2.34	7.69	1.47	3.59
1700	2.64	7.26	1.74	4.43
1900	2.99	7.01	1.95	4.99

INSERTION LOSS



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