

**FEATURES**

- Wideband, DC to 8 GHz
- Miniature package, 3x3 mm MCLP™
- Specified to 8 GHz, useable to 10 GHz
- Excellent VSWR, 1.15:1 typ.



Generic photo used for illustration purposes only

CASE STYLE: FG873

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

- Cellular
- PCS
- Communications
- Radar
- Defense

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	8	GHz
Attenuation, Nominal			20±0.4		dB
Attenuation, Flatness ¹	DC - 1		0.15		dB
	1 - 5		0.2		
	5 - 8		0.2		
VSWR	DC - 1		1.05	1.2	:1
	1 - 5		1.15	1.3	
	5 - 8		1.35		
Input Power ²				0.5	W

1. Flatness= variation over band divided by 2

2. RF power at 25°C case temperature: ½Watt. Derate linearly to 0.2 Watt at 85°C.

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-45°C to +85°C
Storage Temperature	-55°C to +100°C

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



MINIATURE PLASTIC

Fixed Attenuator

GAT-20+

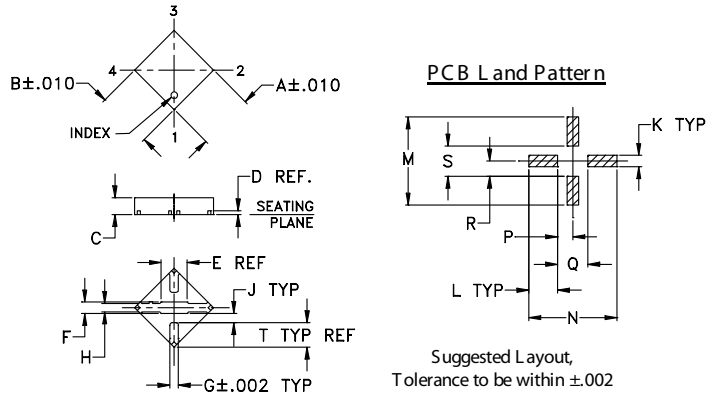
Mini-Circuits

50Ω 0.5 W 20 dB DC to 8 GHz

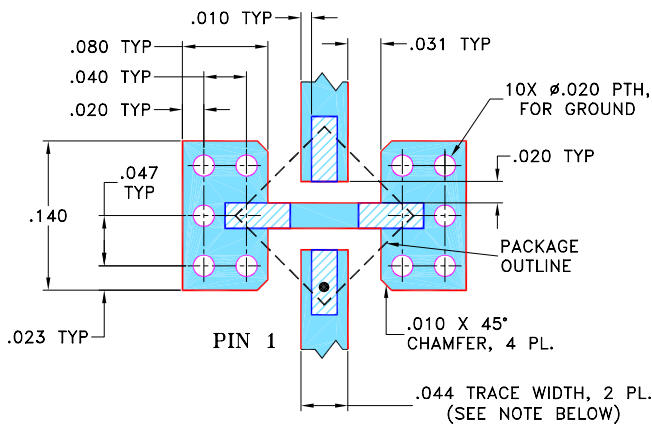
PAD CONNECTIONS

INPUT	1
OUTPUT	3
GROUND	2,4

OUTLINE DRAWING



DEMO BOARD MCL P/N: TB-154 SUGGESTED PCB LAYOUT (PL-126)



OUTLINE DIMENSIONS (Inch/mm)

A	B	C	D	E	F	G	H	J	
0.118	0.118	0.035	0.008	0.07	0.024	0.017	0.018	0.021	
3.00	3.00	0.89	0.20	1.78	0.61	0.43	0.46	0.53	
K	L	M	N	P	Q	R	S	T	wt
0.024	0.061	0.186	0.186	0.032	0.064	0.032	0.064	0.05	grams
0.61	1.55	4.72	4.72	0.81	1.63	0.81	1.63	1.27	0.02

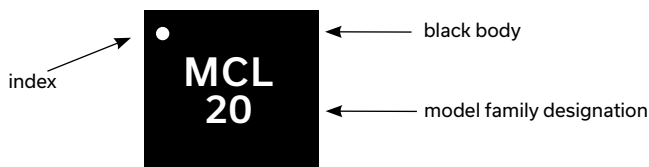
TAPE & REEL INFORMATION: F68

NOTES:

- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; 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

PRODUCT MARKING



Marking may contain other features or characters for internal lot control





MINIATURE PLASTIC

Fixed Attenuator

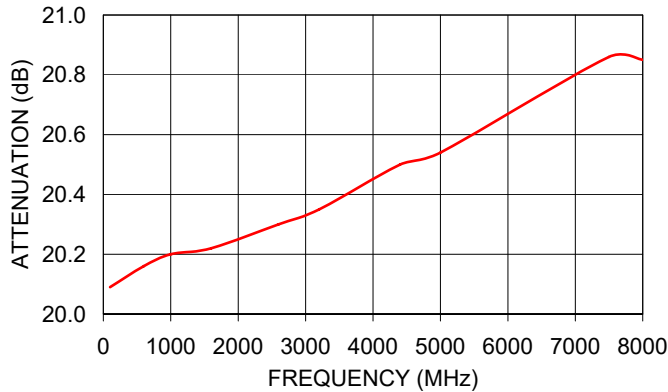
GAT-20+

50Ω 0.5 W 20 dB DC to 8 GHz

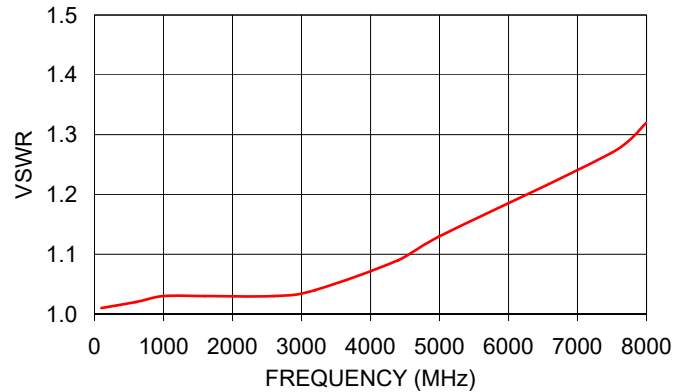
TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
100.00	20.09	1.01
600.00	20.16	1.02
1000.00	20.20	1.03
1600.00	20.22	1.03
2600.00	20.30	1.03
3200.00	20.35	1.04
4400.00	20.50	1.09
5000.00	20.54	1.13
7500.00	20.86	1.27
8000.00	20.85	1.32

GAT-20+
ATTENUATION



GAT-20+
VSWR



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-Circuits' 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

