Isolator and Circulator: Microstrip Substrate only 0.25mm Thick

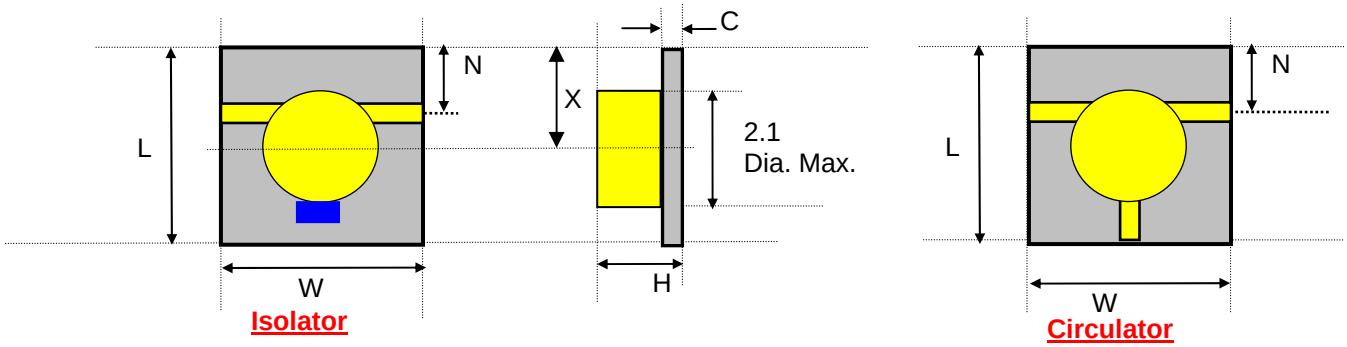
RADI-FLOW-FHIGH-MSS-0.25WR-M-0.25mm-b

These parts are intended for special volume buys (>100) we recommend standard MSS parts typically 0.38mm)

L counter clockwise, R clockwise (default)

(-NM mounted on Non Magnetic material available to 24GHz only) / (-M magnetic for Steel / Kovar mounting (default))

Special very thin substrate unit



The thin film Microstrip lines are suitable for soldering or thermo-compression gap welding.

Units: mm (inch). Not to scale. **Specifications over full operating temperature (-30 to +70 °C)**

I	C	RADI/C:-(GHz)-MSS	W mm	L mm	H mm	N mm	X mm	C mm	In. loss dB	Isol dB	VSWR	Pwr W fwd	Pwr W Rev	NM/M	Bw %
		Tolerance:	±.03	±.03	±.03	±.03	±.03	±.01							
✓	✓	**16.85-20.5**	6	6	2.3	1.0	2	0.25	0.7	18	1.35	2	0.25*	M	20
✓		**22.25-25.3**	6	6	2.3	1.0	2	0.25	0.9	20	1.30	1	0.25	M	13
	✓	**22.25-25.3**	6	6	2.3	1.0	2	0.25	0.9	18	1.30	1	0.25	M	13
✓	✓	**32.4-34.5**	5	5	2.3	1.1	1.5	0.25	1.1	17	1.35	1	0.25*	M	10
✓	✓	**32.5-34.5**	5	5	2.3	1.1	1.5	0.25	1.1	17	1.35	1	0.25*	M	10
✓	✓	**34.7-38.3**	5	5	2.3	1.1	1.5	0.25	1.1	17	1.35	1	0.25*	M	10

Samarium Cobalt magnet, 2 μm thin film Gold on 4μm Copper,
survives non operating 120 °C for up to 10 min..
130 °C for up to 5 Seconds., {***1W dissipation possible if good thermal conductivity to heat sink}**

Maximum Temperature during Welding 350C @ 25 microseconds

1. The MSS Substrate only series is a little more difficult to use than the carrier versions
   a. The magnetic circuit has to be considered,
      i. if the mounting surface is either steel or kovar the magnetic mount version should be selected, lower frequency units must be –M, if steel or kovar mounting is not possible check out the MSSM series which is the same units with a metal back
   b. If a non magnetic mounting surface ie aluminum is used then the non magnetic mount version should be selected.
2. Adhesive is preferably non conductive epoxy, with a very thin smear used, adequately cured, if conductive epoxy is used take great care that none comes out the sides as it can degrade performance significantly.

We have exhaustively tested the Microstrip Drop in's. for shock and vibration .
The units have low mass and are very robust.
-Vibration in frequency range 1-5000Hz with acceleration 400m/sec2 (40g)
- repeated shocks with acceleration 1500m/sec2 (150g) and duration 1-5msec
- single shock with acceleration 150m/sec2 (15g) and duration 0.1-2msec
- linear centrifugal acceleration 5000m/sec2
- acoustic noise 50-10000Hz at sound pressure level up to 140dB
- absence of resonance in frequency range 1-100Hz

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.
Tel: (408) 266-7404 FAX: (408) 266-4483
WEB: www.raditek.com E-mail: sales@raditek.com