

20 dB, Surface Mount Power Signal Tap

50Ω DC to 6000 MHz

RBDC-20-63+



CASE STYLE: TT1224-2

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Permanent damage may occur if any of these limits are exceeded.	

Pad Connections

INPUT	3
OUTPUT	4
COUPLED	1
GROUND	2,5,6

Features

- Wideband, DC-6000 MHz
- Low insertion loss, 1.1 dB typ.
- Excellent return loss for input/output ports ideal for signal-tap
- Temperature stable

Applications

- ISM • UMTS
- WiMAX • PCS
- Wi-Fi • LTE

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



Available Tape and Reel at no extra cost

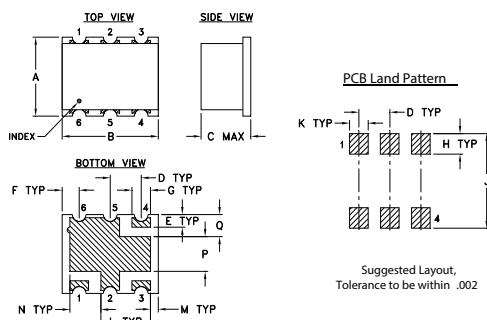
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 4000

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC			MHz
Mainline Loss¹	DC-2000 2000-6000	—	0.98 1.35	1.3 1.6	dB
Nominal Coupling² (IN-CPL, OUT-CPL)	DC-6000	—	20	—	dB
Coupling Flatness(±)	DC-2000 2000-6000	—	0.7 1.3	1.0 1.8	dB
Return Loss (Input)	DC-2000 2000-6000	16 15	20 18	—	dB
Return Loss (Output)	DC-2000 2000-6000	16 15	20 20	—	dB
Return Loss (Coupling)	DC-2000 2000-6000	15 12	19 17	—	dB
Input Power	DC-6000	—	—	0.25	W

1. Mainline loss includes theoretical power loss at coupled port.
2. Coupling can be used for both forward and reversed direction.

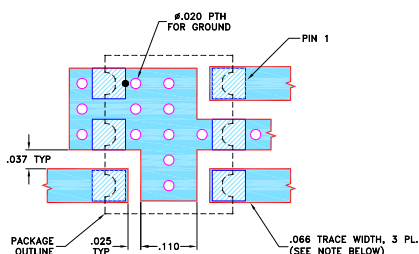
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.25	.31	.16	.100	.040	.055	.060	.065
6.35	7.87	4.06	2.54	1.02	1.40	1.52	1.65
J	K	L	M	N	P	Q	wt.
.300	.060	.160	.025	.100	.110	.070	grams
7.62	1.52	4.06	0.64	2.54	2.79	1.78	0.16

Demo Board MCL P/N: TB-907+ Suggested PCB Layout (PL-511)



NOTES:

1. 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.
 2. 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.

Notes

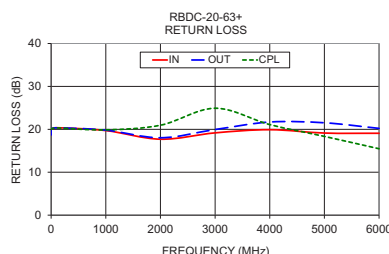
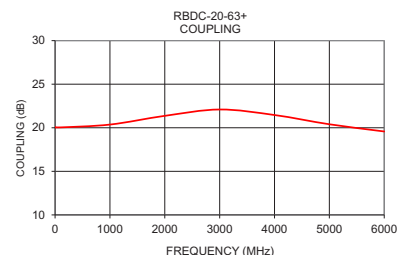
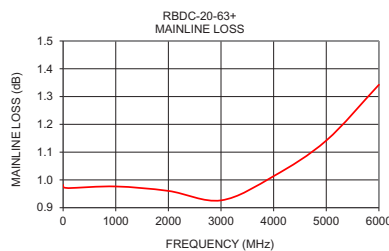
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Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	In	Return Loss (dB) Out	Cpl
0.01	0.98	20.01	18.75	18.67	19.96
0.10	0.98	20.10	19.73	19.73	20.10
10.00	0.97	20.06	20.12	20.18	20.13
100.00	0.97	20.04	20.37	20.35	20.32
1000.00	0.98	20.37	19.71	19.82	19.88
2000.00	0.96	21.37	17.70	18.03	20.95
3000.00	0.93	22.10	19.18	19.95	24.92
4000.00	1.01	21.46	19.91	21.70	21.10
5000.00	1.14	20.40	19.13	21.52	18.35
6000.00	1.34	19.57	19.08	20.22	15.47



Electrical Schematic

