

2 Way-0° 50Ω High Isolation Resistive Splitter DC to 6800 MHz

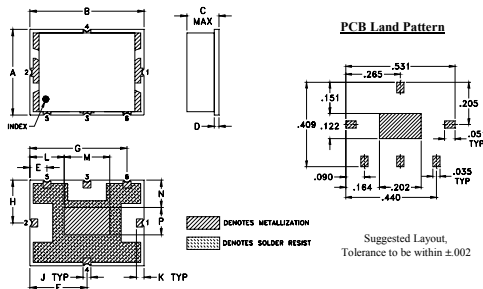
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.5W max.
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

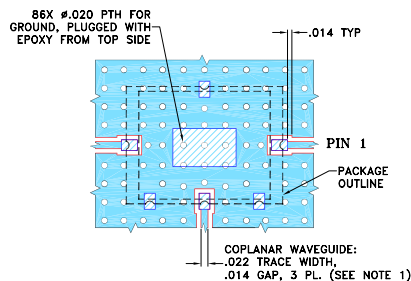
SUM PORT	3
PORT 1	1
PORT 2	2
GROUND	ALL OTHERS

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.38	.50	.15	.020	.075	.250	.425	.187
9.65	12.70	3.81	0.51	1.91	6.35	10.80	4.75
J	K	L	M	N	P	wt.	
.035	.034	.150	.200	.120	.120	grams	
0.89	0.86	3.81	5.08	3.05	3.05	0.8	

Demo Board MCL P/N: TB-658+
Suggested PCB Layout (PL-376)

NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010" ± .001", 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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/MCLStore/terms.jsp

Features

- very wideband, DC to 6800 MHz
- very good phase unbalance, 1 deg. typ.
- excellent amplitude unbalance, 0.1 dB typ.
- rugged shielded case

Applications

- laboratory
- test set-ups
- PCS
- UNII
- WiMAX
- WiFi
- blue tooth

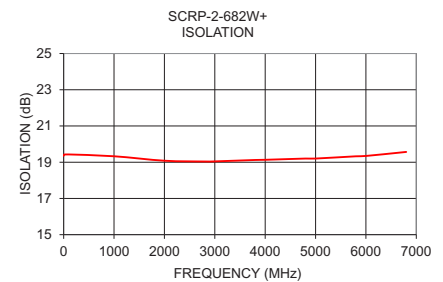
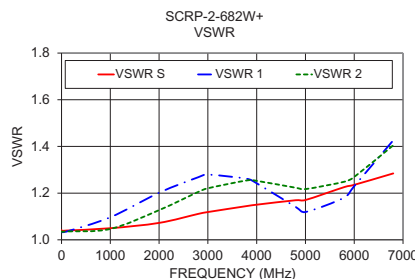
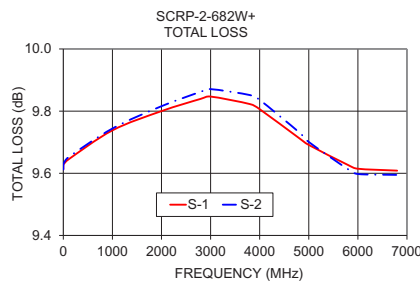
Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC		6800	MHz
Insertion Loss Above 9.5 dB	DC-5000 DC-6800		0.5 0.8	0.9 1.6	dB
Isolation	DC-6800	17	19	—	dB
Phase Unbalance	DC-5000 DC-6800	— —	1.0 3.0	4.0 6.0	Degree
Amplitude Unbalance	DC-5000 DC-6800	— —	0.1 0.3	0.4 0.7	dB
VSWR (Port S)	DC-5000 DC-6800	— —	1.2 1.3	1.5 1.6	:1
VSWR (Port 1-2)	DC-5000 DC-6800	— —	1.3 1.5	1.5 2.2	:1

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2					
0.30	9.61	9.61	0.00	19.35	0.03	1.04	1.03
1.00	9.63	9.63	0.00	19.41	0.02	1.04	1.03
10.00	9.63	9.63	0.00	19.42	0.01	1.04	1.03
100.00	9.64	9.65	0.01	19.43	0.03	1.04	1.04
1000.00	9.74	9.74	0.01	19.33	0.24	1.05	1.10
2000.00	9.80	9.82	0.02	19.08	0.49	1.07	1.20
2800.00	9.84	9.86	0.02	19.04	0.72	1.11	1.27
3000.00	9.85	9.87	0.02	19.05	0.80	1.12	1.28
3800.00	9.82	9.85	0.03	19.12	1.05	1.14	1.26
4000.00	9.81	9.84	0.03	19.13	1.14	1.15	1.24
4800.00	9.71	9.73	0.02	19.20	1.43	1.17	1.14
5000.00	9.69	9.70	0.01	19.20	1.49	1.17	1.12
5800.00	9.63	9.61	0.01	19.33	1.60	1.23	1.18
6000.00	9.61	9.60	0.02	19.35	1.59	1.24	1.23
6800.00	9.61	9.59	0.01	19.57	1.42	1.28	1.43

1. Total Loss = Insertion Loss + 9.5 dB splitter theoretical loss.



Electrical Schematic



Generic photo used for illustration purposes only

CASE STYLE: TTT1732

+RoHS Compliant

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