

Power Splitter/Combiner

Features

- Isolation resistor, external 100 ohms
- Low insertion loss, 0.5 dB typ.
- Excellent amplitude unbalance, 0.1 dB typ.
- Excellent phase unbalance, 2.0 deg. typ.
- High isolation.
- Excellent power handling, 4W as splitter
- Small size
- ESD non-sensitive
- Temperature stable LTCC technology
- Low cos

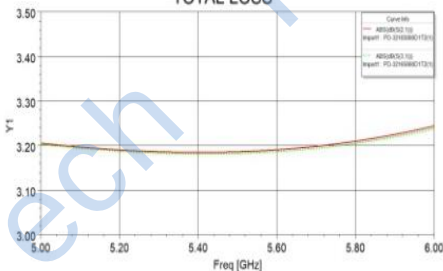
Applications

- WLAN
- ISM

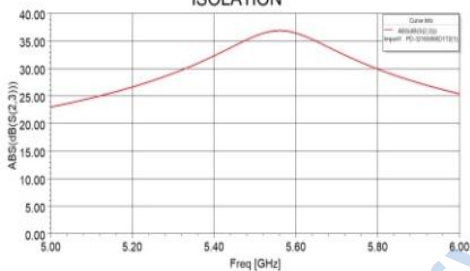
Electrical Specifications at 25°C

Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Frequency Range		5000	-	6000	MHz
Insertion Loss Above 3.0 dB	5000-6000		0.8	1.1	dB
Isolation	5000-6000	11	17		dB
Phase Unbalance	5000-6000		3	8	Degree
Amplitude Unbalance	5000-6000		0.1	0.6	dB
Return Loss (Input)	5000-6000		15		dB
Return Loss (Output)	5000-6000		18		dB

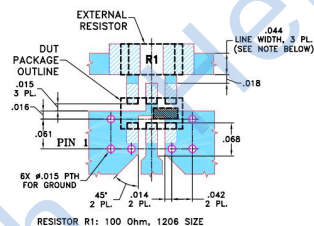
TOTAL LOSS



ISOLATION



Suggested PCB Layout



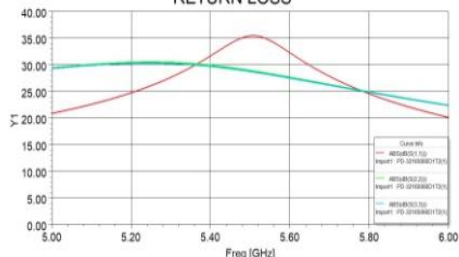
NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS $0.020" \pm 0.0015"$; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

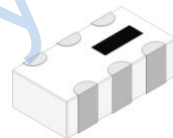
 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

RETURN LOSS



HT-SCN-2-65+



2 Way-0° 50Ω 5000 to 6000 MHz

Maximum Ratings

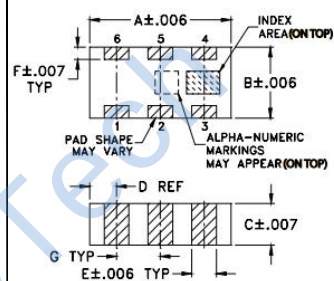
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	4W max.

*Derate linearly to 1.3W at 100°C ambient, power input as combiner is limited by rating of external 100Ω Resistor.
Permanent damage may occur if any of these limits are exceeded.

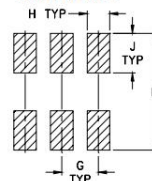
Pin Connections

SUM PORT	2
PORT 1	6
PORT 2	4
GROUND	1,3,5
PORT 1-2	resistor external 100 ohms

Outline Drawing



PCB Land Pattern



Suggested Layout, Tolerance to be within ± 0.02

Outline Dimensions: Unit ([mm](#))

A	3.20	B	1.60
C	0.89	D	0.61
E	0.56	F	0.28
G	0.99	H	0.61
J	1.07	K	3.12
wt	0.02g		