

Power Splitter/Combiner

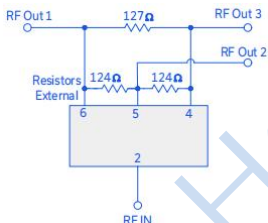
Features

- isolation resistor, external 100 ohms
- low insertion loss, 1.0 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.
- excellent phase unbalance, 1 deg. typ.
- high isolation, 1 dB typ.
- excellent power handling, 15W as splitter
- small size, 0.12"×0.06"×0.035"
- ESD non-sensitive
- temperature stable LTCC technology
- wrap around terminations for excellent solderability
- low cost

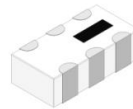
Applications

- DSS
- GSM, GPS
- WLAN
- ISM applications
- Satellite communication
- Defense applications

electrical schematic



HT-SCN-3-13+



2 Way-0° 50Ω 750 to 1325 MHz

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	15W max. at 25°C

*Derate linearly to 6W at 100°C ambient.
Power input as combiner is limited by rating of external 100Ω Resistor.

Pin Connections

SUM PORT	2
PORT 1	6
PORT 2	5
PORT 3	4
GROUND	1,3
PORT 1-2 ,2-3	resistor external 124 OHMS
PORT 1-3	resistor external 127 OHMS

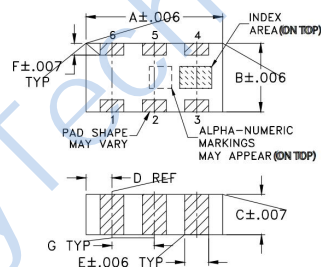
Electrical Specifications at 25°C

Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Frequency Range		750		1325	MHz
Insertion Loss, above 3.0 dB	750-1325 850-1000		1.0 0.4	1.5 0.8	dB
Isolation	750-1325 850-1000	10 12	12 16		dB
Phase Unbalance	750-1325 850-1000		1.0 0.5	3.0 3.0	Degree
Amplitude Unbalance	750-1325 850-1000		0.3 0.2	0.7 0.5	dB
Return Loss (Input)	750-1325 850-1000		12 20		dB
Return Loss (Output)	750-1325 850-1000		15 20		dB

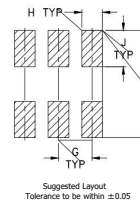
TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-2				1	2	
750.00	5.34	5.51	0.17	12.76	0.91	10.53	20.85	19.89
800.00	5.26	5.44	0.17	13.51	1.02	11.47	21.53	21.25
850.00	5.19	5.38	0.19	14.37	1.07	12.65	21.58	22.33
900.00	5.12	5.32	0.20	15.41	1.20	14.17	21.18	22.67
950.00	5.06	5.27	0.22	16.67	1.30	16.24	20.59	22.75
1000.00	5.02	5.25	0.23	18.24	1.39	19.19	19.97	22.41
1050.00	4.99	5.24	0.25	20.24	1.45	23.51	19.48	22.03
1100.00	4.99	5.26	0.27	22.80	1.54	26.97	19.24	22.00
1150.00	5.03	5.32	0.29	25.48	1.61	21.70	19.28	22.07
1200.00	5.11	5.42	0.32	25.93	1.64	16.90	19.74	22.80
1250.00	5.24	5.59	0.35	23.16	1.73	13.45	20.72	24.18
1300.00	5.44	5.83	0.39	20.05	1.79	10.86	22.51	27.00
1325.00	5.57	5.98	0.41	18.71	1.81	9.77	23.94	29.65

Outline Drawing

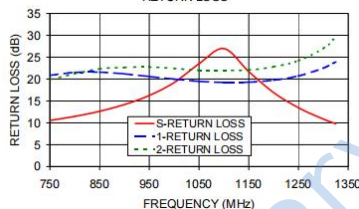
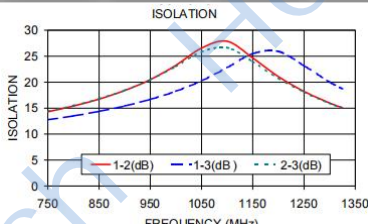
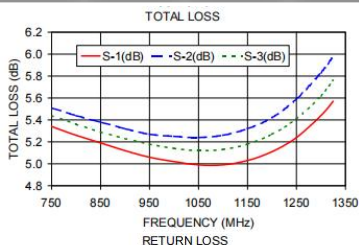


PCB Land Pattern



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



Suggested PCB Layout

