

# Ultra-Small Ceramic Power Splitter/Combiner

**SCN-2-65+  
SCN-2-65**

2 Way-0° 50Ω

5500 to 6500 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 100 Ω resistor.

## Pin Connections

SUM PORT 2

PORT 1 6

PORT 2 4

GROUND 1,3,5

PORT 1-2 resistor external 100 OHMS

## 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, 17 dB typ.
- excellent power handling, 4W as splitter
- small size, 0.12"X0.06"X0.035"
- ESD non-sensitive
- temperature stable LTCC technology
- wrap around terminations for excellent solderability
- low cost
- patent pending

## Applications

- WLAN
- ISM



CASE STYLE: FV1206-1

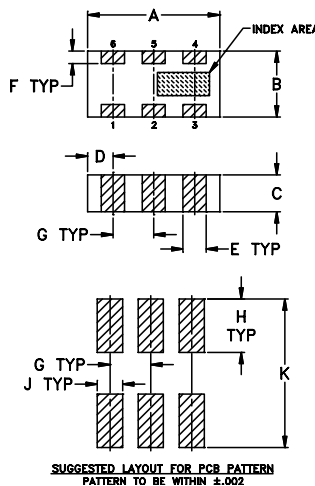
PRICE: \$ 2.50 ea. QTY (10-49)

\$ 0.99 ea. QTY (100)

**+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)**

See our web site for RoHS Compliance methodologies  
and qualifications.

## Outline Drawing



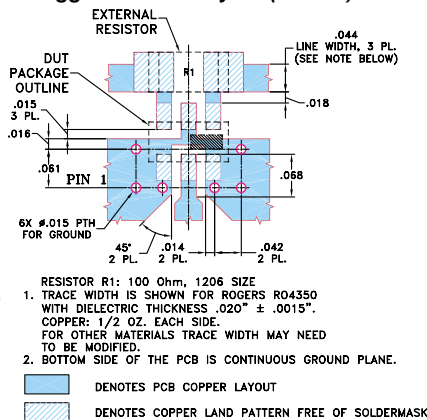
## Outline Dimensions (inch)

A	B	C	D	E	F
.126	.063	.037	.024	.022	.012
3.20	1.60	0.94	0.61	0.56	0.30

G	H	J	K	wt
.039	.042	.024	.123	grams
0.99	1.07	0.61	3.12	.020

## Demo Board MCL P/N: TB-252 Suggested PCB Layout (PL-129)

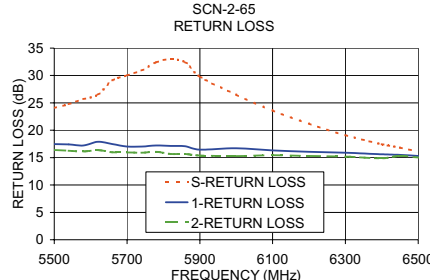
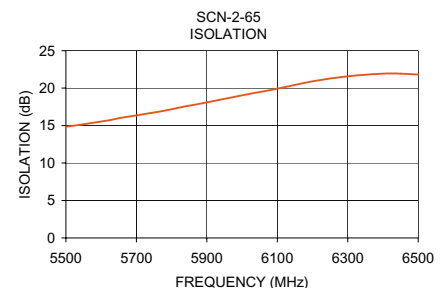
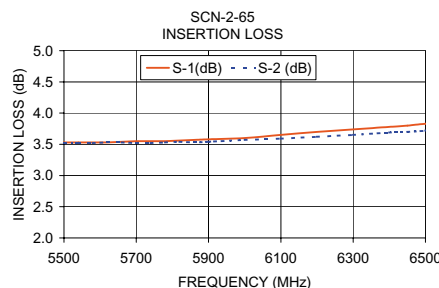


## Splitter Electrical Specifications

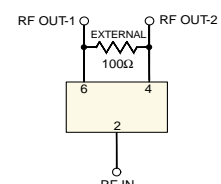
MODEL NO.	FREQUENCY (MHz)	INSERTION LOSS (dB) ABOVE 3.0 dB		ISOLATION (dB)	PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		RETURN LOSS (dB)		
		Typ.	Max.	Typ.	Min.	Typ.	Max.	Typ.	Max.	INPUT Typ.	OUTPUT Typ.
SCN-2-65(+)	5500-6500 5700-5900	0.8	1.1	17	11	3	5	0.1	0.4	18	16
		0.5	1.0	17	11	2	4	0.1	0.3	22	16

## Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-2				S	1	2
5500.00	3.53	3.52	0.00	14.85	1.24	24.06	17.48	16.39
5540.00	3.53	3.52	0.01	15.10	1.15	24.77	17.41	16.27
5580.00	3.53	3.52	0.01	15.40	1.13	25.71	17.22	16.12
5700.00	3.55	3.52	0.03	16.35	0.93	30.00	17.02	15.95
5740.00	3.55	3.52	0.03	16.68	0.93	30.92	17.03	15.90
5780.00	3.55	3.53	0.03	16.98	0.94	32.42	17.21	16.07
5860.00	3.57	3.53	0.03	17.74	0.83	32.43	17.07	15.68
5900.00	3.58	3.54	0.04	18.11	0.83	29.79	16.46	15.38
6000.00	3.60	3.57	0.04	19.05	0.81	26.48	16.70	15.27
6100.00	3.65	3.59	0.07	19.93	0.70	23.61	16.33	15.44
6200.00	3.70	3.62	0.07	20.91	0.69	21.21	16.06	15.30
6300.00	3.74	3.65	0.08	21.59	0.72	19.11	15.88	15.18
6400.00	3.78	3.69	0.09	21.94	0.67	17.43	15.62	14.88
6450.00	3.80	3.70	0.10	21.93	0.65	16.81	15.51	15.32
6500.00	3.83	3.72	0.11	21.81	0.68	16.15	15.29	15.03



## electrical schematic



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