

# Ultra-Small Ceramic Power Splitter/Combiner

2 Way-0° 50Ω

2825 to 3700 MHz

SCN-2-35+  
SCN-2-35



CASE STYLE: FV1206-1  
PRICE: \$ 2.50 ea. QTY (10-49)  
\$ 0.99 ea. QTY (100)

## Maximum Ratings

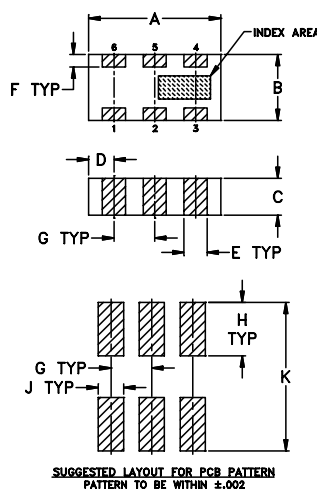
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	4W* max.

\*derate linearly to 1.3W at 100°C ambient, power input as combiner is limited by rating of external 100Ω resistor.

## Pin Connections

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

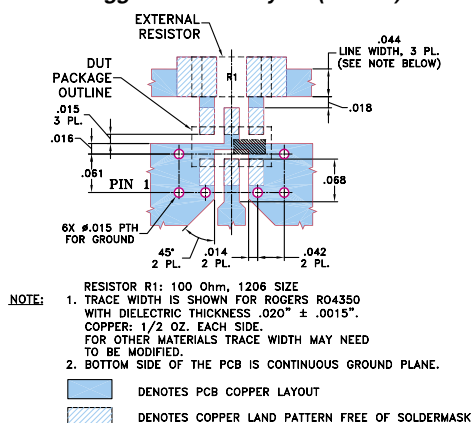
## Outline Drawing



## 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)



## Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.4 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.8 deg. typ.
- high isolation, 28 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

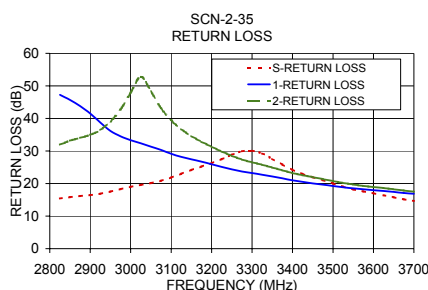
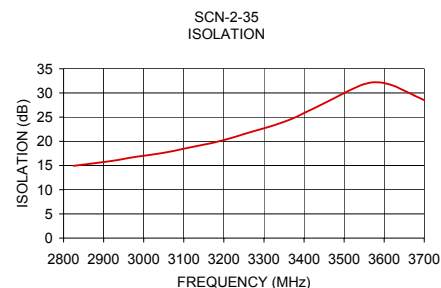
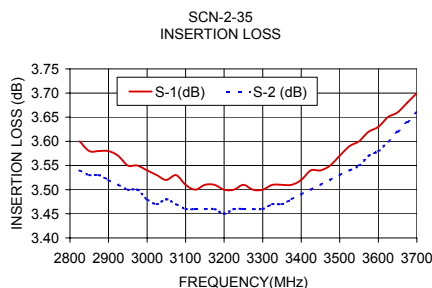
- amateur radio
- defense
- wireless communication

## Splitter Electrical Specifications

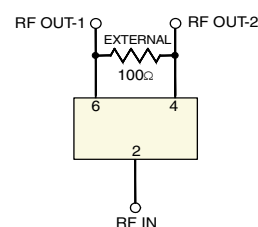
MODEL NO.	FREQUENCY (MHz)	INSERTION LOSS (dB)		ISOLATION (dB)	PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		RETURN LOSS (dB)		
		ABOVE 3.0 dB							INPUT	OUTPUT	
		Typ.	Max.		Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.
SCN-2-35(+)	2825-3700	0.4	1.3	22	13	1.0	4.0	0.1	0.3	18	20
	3200-3500	0.4	1.0	28	18	0.8	4.0	0.1	0.3	20	23

## 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
2825.00	3.60	3.54	0.06	14.94	0.28	15.39	47.26	31.96
2900.00	3.58	3.52	0.05	15.70	0.22	16.46	41.52	34.99
3000.00	3.54	3.48	0.05	17.02	0.21	18.99	33.34	47.87
3100.00	3.51	3.46	0.05	18.47	0.17	21.86	29.16	39.50
3200.00	3.50	3.45	0.05	20.26	0.14	26.24	25.93	31.34
3300.00	3.50	3.46	0.04	22.71	0.14	30.10	23.20	26.54
3450.00	3.54	3.51	0.04	27.85	0.12	21.96	20.06	21.98
3500.00	3.57	3.53	0.04	29.97	0.13	20.04	19.24	20.75
3550.00	3.60	3.55	0.04	31.81	0.11	18.22	18.51	19.70
3575.00	3.62	3.57	0.05	32.20	0.09	17.56	18.24	19.31
3600.00	3.63	3.58	0.05	32.06	0.06	17.00	17.98	18.95
3625.00	3.65	3.60	0.05	31.43	0.04	16.42	17.72	18.61
3650.00	3.66	3.62	0.05	30.50	0.01	15.80	17.43	18.26
3675.00	3.68	3.64	0.04	29.47	0.02	15.18	17.13	17.88
3700.00	3.70	3.66	0.04	28.52	0.03	14.65	16.85	17.50



## electrical schematic



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