

Ultra-Small Ceramic Power Splitter/Combiner

SCN-2-35+ SCN-2-35

2 Way-0° 50Ω

2825 to 3700 MHz



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

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

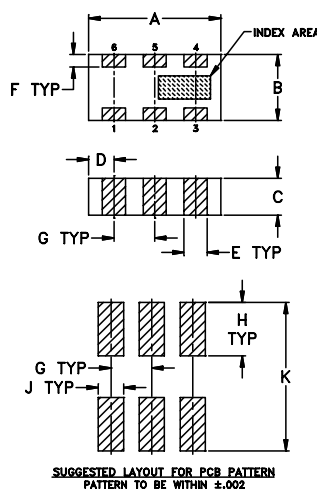
Applications

- amateur radio
- defense
- wireless communication

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

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

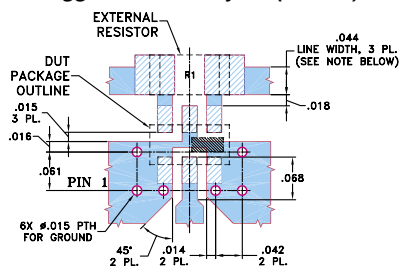
Outline Drawing



Outline Dimensions (inch/mm)

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)



- NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS .020" ± .0015".
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

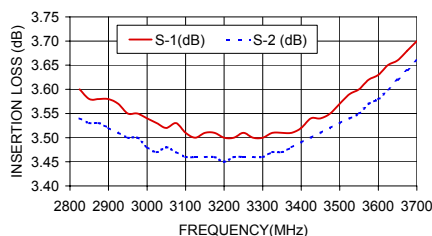
Splitter Electrical Specifications

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

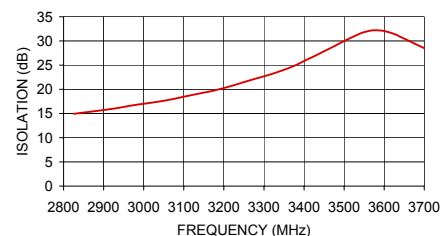
Typical Performance Data

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

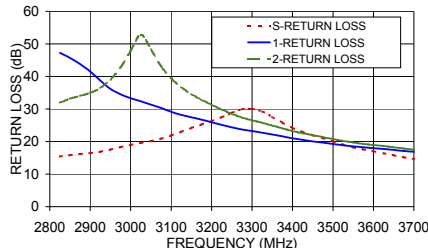
SCN-2-35
INSERTION LOSS



SCN-2-35
ISOLATION



SCN-2-35
RETURN LOSS



electrical schematic

