

Power Splitter/Combiner

HT-JS4PS-1



5 Way-0° 50Ω 1 to 400 MHz

Features

- high isolation, 35 dB typ.
- good input matching, VSWR 1.2 typ.
- good output matching VSWR, 1.1 typ.
- aqueous washable
- shielded case

Applications

- VHF/UHF
- receivers/transmitters
- instrumentation

Transformer Electrical Specifications

Freq. range (MHz)	Isolation(dB)		Insertion Loss (dB) Above 6.0 dB.		Phase Unbalance (Degrees) Max.	Amplitude Unbalance (dB) Max.
	Typ	min	Typ	max		
80-520	35	20	0.8	1.5	5	0.5

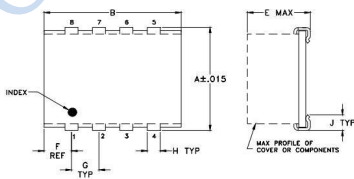
electrical schematic



Typical Performance Data (TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Freq. (MHz)	Total Loss (dB)				Amp. Unbal. (dB)	Isolation(dB)			Phase Unbal. (deg.)	VSWR S			
	S-1	S-2	S-3	S-4		1-2	2-3	3-4		S			
80	6.66	6.66	6.62	6.69	0.07	40.78	42.03	40.10	0.14	1.15	1.15	1.14	1.14
102	6.72	6.71	6.68	6.67	0.04	39.58	39.87	38.93	0.30	1.14	1.13	1.13	1.13
135	6.63	6.63	6.62	6.71	0.09	37.99	37.74	37.56	0.30	1.12	1.12	1.12	1.12
168	6.65	6.65	6.63	6.69	0.06	36.83	36.11	36.58	0.34	1.12	1.11	1.11	1.11
201	6.64	6.65	6.63	6.67	0.04	36.10	34.92	35.88	0.36	1.11	1.11	1.10	1.10
234	6.56	6.55	6.65	6.71	0.16	35.80	34.07	35.54	0.34	1.11	1.10	1.10	1.09
267	6.68	6.68	6.66	6.66	0.02	35.71	33.31	35.56	0.55	1.12	1.10	1.09	1.09
300	6.52	6.52	6.54	6.68	0.17	36.23	32.88	36.07	0.61	1.13	1.10	1.09	1.09
333	6.65	6.65	6.69	6.73	0.08	37.17	32.59	37.05	0.59	1.14	1.09	1.09	1.09
366	6.59	6.60	6.66	6.66	0.07	38.51	32.35	38.66	0.54	1.16	1.10	1.09	1.09
399	6.52	6.53	6.61	6.66	0.14	39.93	32.37	40.99	0.65	1.19	1.10	1.08	1.08
432	6.76	6.77	6.87	6.74	0.13	39.29	32.67	41.86	0.55	1.23	1.11	1.08	1.08
465	6.54	6.56	6.69	6.66	0.15	36.15	33.10	38.20	0.67	1.28	1.12	1.09	1.09
487	6.70	6.72	6.88	6.69	0.20	33.71	33.61	35.32	0.66	1.31	1.13	1.10	1.10
520	6.83	6.84	7.05	6.72	0.30	30.30	34.67	31.43	0.77	1.38	1.15	1.15	1.14

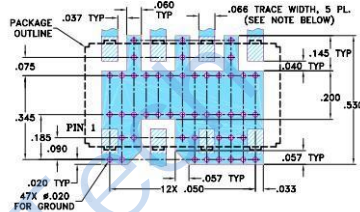
Outline Drawing



Outline Dimensions: Unit (mm)

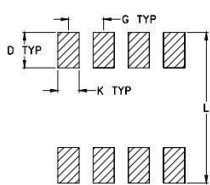
A	11.43	B	20.32
C	-	D	2.54
E	6.35	F	2.54
G	5.08	H	1.19
J	1.65	K	1.65
L	12.19	wt	1.70g

Demo Board MCL P/N: TB-215 Suggested PCB Layout (PL-101)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; 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

PCB Land Pattern



Suggested Layout,
Tolerance to be within ±0.02

Pin Connections

SUM PORT	2
PORT 1	8
PORT 2	7
PORT 3	6
PORT 4	5
GROUND	1,2,3

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.75 W max.
Internal Dissipation	0.5W max.

Permanent damage may occur if any of these limits are exceeded.

