

Surface Mount

Power Splitter/Combiner

WP4R1+

4 Way-0° 50Ω 2000 to 3000 MHz

Maximum Ratings

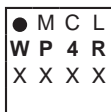
Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Power Input (as a splitter)	1.5W max.
Internal Dissipation	0.375W max.

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

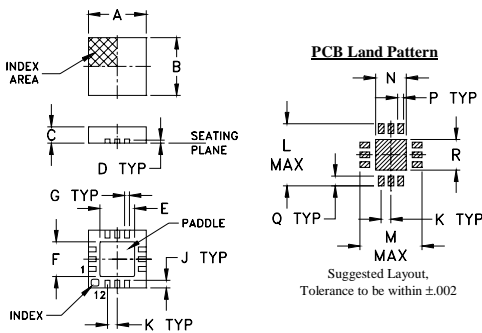
Pad Connections

SUM PORT	2
PORT 1	12
PORT 2	10
PORT 3	6
PORT 4	4
GROUND	1,3,5,7,8,9,11, paddle

Product Marking



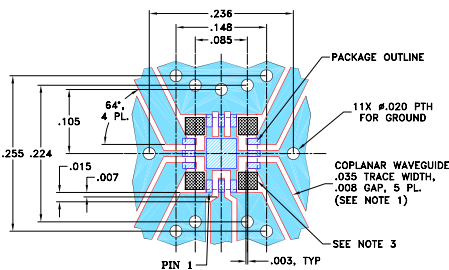
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.118	.118	.035	.008	.057	.057	.009	---	.016
3.00	3.00	0.89	0.20	1.45	1.45	0.23	---	0.41
K	L	M	N	P	Q	R		wt
.020	.127	.127	.049	.010	.020	.049		grams
0.51	3.23	3.23	1.24	0.25	0.51	1.24		0.02

Demo Board MCL P/N: TB-395+ Suggested PCB Layout (PL-259)



NOTES:

- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
 - SIGNAL TRACES ARE NOT ALLOWED INSIDE HATCHED AREAS (APPROX. .030" X .030") AT 4 PLACES AS SHOWN.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- excellent isolation, 24 dB typ.
- good phase unbalance 2 deg. typ.
- good amplitude unbalance, 0.15 dB typ.
- small size, .118" x .118" x .035"
- high ESD level
- aqueous washable

Applications

- WLAN
- WIMAX
- ISM
- radar

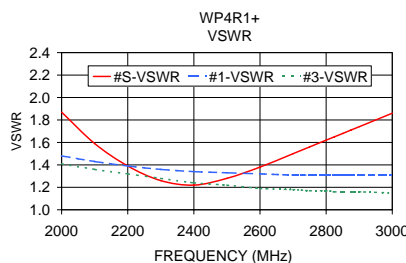
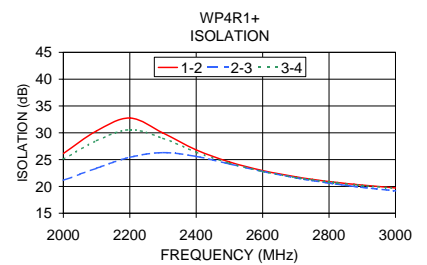
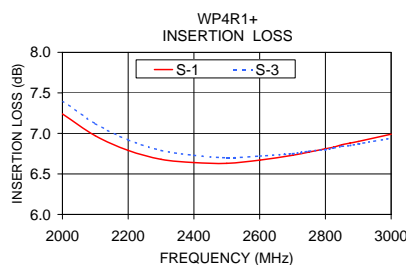
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS* (dB) ABOVE 6.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1) Typ.	
	Typ.	Min.	Typ.	Max.			Port S	Ports 1,2,3,4
2000-3000	24	16	0.7	2.1	7	0.5	1.6	1.35

* Includes fixture loss, 0.2 dB typ.

Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
2000.00	7.24	7.42	7.40	7.23	0.19	26.14	21.14	25.08	1.94	1.87	1.48	1.40	1.41	1.42
2100.00	6.97	7.14	7.12	6.97	0.17	30.35	23.40	28.53	1.49	1.59	1.43	1.35	1.36	1.38
2200.00	6.79	6.94	6.92	6.79	0.15	32.75	25.44	30.58	1.06	1.39	1.39	1.31	1.32	1.34
2300.00	6.68	6.81	6.79	6.69	0.13	29.97	26.31	28.98	0.68	1.26	1.36	1.26	1.28	1.31
2400.00	6.64	6.74	6.73	6.64	0.11	26.81	25.59	26.40	0.79	1.22	1.34	1.23	1.24	1.29
2500.00	6.63	6.72	6.70	6.64	0.09	24.56	24.19	24.33	1.19	1.28	1.33	1.20	1.22	1.28
2600.00	6.67	6.74	6.72	6.68	0.07	22.95	22.80	22.80	1.57	1.38	1.32	1.18	1.19	1.27
2700.00	6.73	6.78	6.75	6.73	0.05	21.79	21.60	21.67	1.94	1.50	1.31	1.17	1.18	1.27
2750.00	6.77	6.81	6.78	6.77	0.04	21.32	21.09	21.23	2.12	1.56	1.31	1.16	1.17	1.27
2800.00	6.81	6.83	6.80	6.81	0.03	20.91	20.63	20.82	2.30	1.62	1.31	1.15	1.17	1.27
2825.00	6.83	6.85	6.82	6.83	0.03	20.73	20.42	20.65	2.39	1.65	1.31	1.15	1.16	1.27
2850.00	6.86	6.87	6.84	6.85	0.03	20.55	20.21	20.48	2.46	1.68	1.31	1.15	1.16	1.27
2875.00	6.88	6.89	6.85	6.87	0.04	20.40	20.02	20.32	2.56	1.71	1.31	1.15	1.16	1.27
2900.00	6.90	6.91	6.87	6.89	0.04	20.24	19.84	20.17	2.64	1.74	1.31	1.14	1.16	1.27
3000.00	6.99	6.99	6.94	6.98	0.05	19.72	19.18	19.66	2.96	1.86	1.31	1.14	1.15	1.27



electrical schematic



ESD Rating

Human Body Model (HBM): Class 1A (250V to < 500V) in accordance with ANSI/ESD STM 5.1 - 2001
Machine Model (MM): Class M2 (100V to < 250V) in accordance with ANSI/ESD STM 5.2 - 1999



For detailed performance specs & shipping online see web site

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IF/RF MICROWAVE COMPONENTS

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