



Mini-Circuits

MMIC SURFACE MOUNT

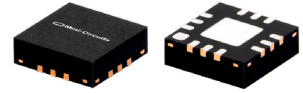
Power Splitter/Combiner

WP4C1+

4 Way-0° 50Ω 800 to 1150 MHz

FEATURES

- Low Insertion Loss, Typ. 0.7 dB
- Excellent Isolation, Typ. 22 dB
- Good Phase Unbalance, Max. 4 deg.
- Good Amplitude Unbalance, Typ. 0.2 dB
- Small Size, 3x3 mm
- High ESD Level
- Aqueous Washable



Generic photo used for illustration purposes only

CASE STYLE: DQ1225

+RoHS CompliantThe +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- Cellular
- WCDMA
- GSM
- Radar

ELECTRICAL SPECIFICATIONS AT +25°C

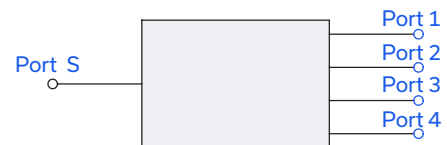
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Frequency Range		800		1150	MHz
Insertion Loss (Above 6.0 dB)	800-1150		0.7	1.6	dB
Isolation	800-1150	15	22		dB
Amplitude Unbalance	800-1150			0.5	dB
Phase Unbalance	800-1150			4	deg.
VSWR (Port S)	800-1150		1.5		:1
VSWR (Ports 1,2,3,4)	800-1150		1.4		:1

ABSOLUTE MAXIMUM RATINGS

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

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

ELECTRICAL SCHEMATIC

REV. E
ECO-026468
WP4C1+
MCL NY
250806

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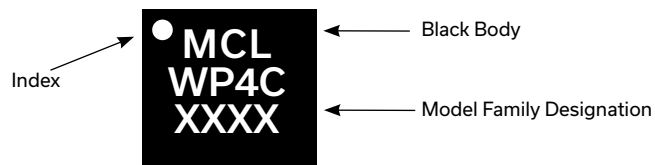
OUTLINE DRAWING

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

[illegible]

1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
3. SIGNAL TRACES ARE NOT ALLOWED INSIDE HATCHED AREAS (APPROX. .030 X .030) AT 4 PLACES AS SHOWN.

- ## PRODUCT MARKING



Marking may contain other features or characters for internal lot control.

Weight: .02 Grams
Dimensions are in inches [mm]. Tolerances in inches: 2 Pl. $\pm .01$; 3 Pl. $\pm .004$ inches

TAPE & REEL INFORMATION: F66



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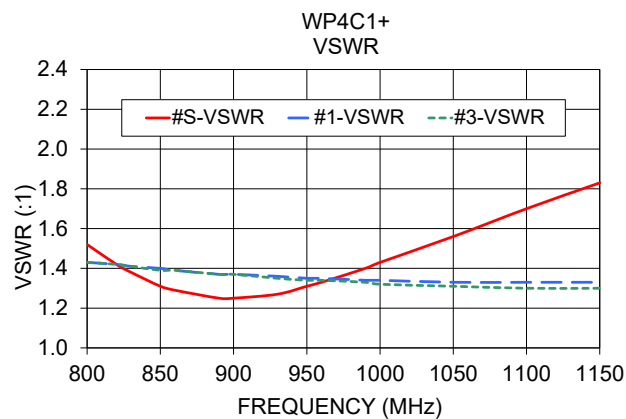
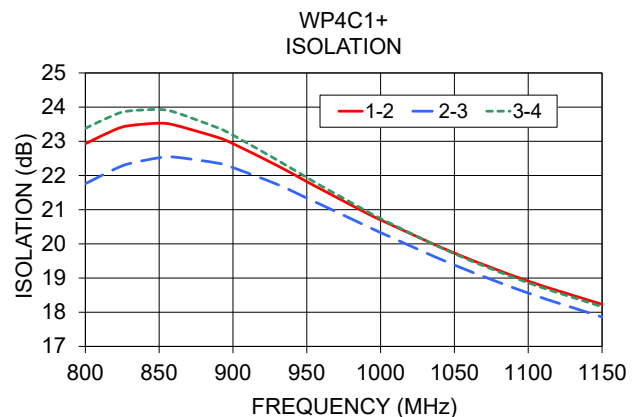
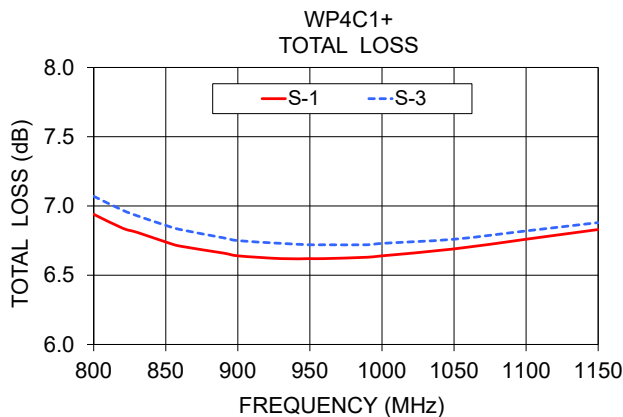
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4 Way-0° 50Ω 800 to 1150 MHz

TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Total Loss ¹ (dB)				Amplitude Unbalance (dB)	Isolation (dB)			Phase Unbalance (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						
800.00	6.94	7.11	7.07	6.91	0.20	22.93	21.76	23.38	0.75	1.52	1.43	1.43	1.43	1.42
820.00	6.84	7.02	6.97	6.82	0.20	23.34	22.19	23.78	0.66	1.42	1.42	1.41	1.42	1.40
830.00	6.81	6.98	6.93	6.78	0.20	23.46	22.35	23.89	0.62	1.38	1.41	1.41	1.41	1.40
850.00	6.74	6.91	6.86	6.71	0.19	23.53	22.52	23.93	0.54	1.31	1.40	1.40	1.39	1.38
860.00	6.71	6.88	6.83	6.68	0.19	23.48	22.54	23.86	0.50	1.29	1.39	1.39	1.39	1.38
890.00	6.66	6.82	6.77	6.62	0.20	23.11	22.36	23.39	0.38	1.25	1.37	1.37	1.37	1.36
900.00	6.64	6.80	6.75	6.61	0.19	22.93	22.23	23.18	0.34	1.25	1.37	1.37	1.37	1.36
930.00	6.62	6.78	6.73	6.59	0.19	22.29	21.74	22.45	0.33	1.27	1.36	1.35	1.35	1.35
950.00	6.62	6.77	6.72	6.58	0.19	21.82	21.34	21.94	0.31	1.31	1.35	1.34	1.34	1.34
960.00	6.62	6.77	6.72	6.58	0.19	21.59	21.14	21.69	0.32	1.33	1.35	1.34	1.34	1.33
990.00	6.63	6.78	6.72	6.59	0.19	20.91	20.53	20.97	0.37	1.40	1.34	1.33	1.33	1.33
1000.00	6.64	6.78	6.73	6.60	0.18	20.70	20.33	20.74	0.40	1.43	1.34	1.33	1.32	1.33
1050.00	6.69	6.83	6.76	6.64	0.18	19.73	19.38	19.71	0.57	1.56	1.33	1.32	1.31	1.32
1100.00	6.76	6.88	6.82	6.71	0.17	18.91	18.56	18.86	0.73	1.70	1.33	1.31	1.30	1.31
1150.00	6.83	6.95	6.88	6.78	0.17	18.23	17.86	18.16	0.90	1.83	1.33	1.31	1.30	1.32

1. Total Loss = Insertion Loss + 6 dB splitter loss.



NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

