



Mini-Circuits

MMIC SURFACE MOUNT

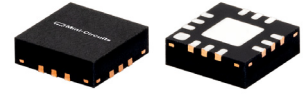
Power Splitter/Combiner

GP2Y+

2 Way-0° 50Ω 1600 to 3300 MHz

FEATURES

- Wide Bandwidth, 1600 to 3300 MHz
- Excellent Isolation, 24 dB Typ.
- Excellent Amplitude Unbalance, Typ. 0.02 dB
- Good Phase Unbalance, Typ. 0.5 deg.
- Small Size, 0.118" x 0.118" x 0.035"
- High ESD Level
- Aqueous Washable



Generic photo used for illustration purposes only

CASE STYLE: DQ1225

+RoHS Compliant

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

APPLICATIONS

- WCDMA
- DCS
- Radar
- Navigation
- Instrumentation

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Frequency Range		1600		3300	MHz
Insertion Loss* (Above 3.0 dB)	1600-3300		0.8	1.5	dB
Isolation	1600-3300	17	24		dB
Amplitude Unbalance	1600-3300		0.02	0.2	dB
Phase Unbalance	1600-3300		0.3	4.0	deg.
VSWR (Port S)	1600-3300		1.2		:1
VSWR (Ports 1,2)	1600-3300		1.2		

* De-embedded from demo board loss.

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	0.75 W max.

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

ELECTRICAL SCHEMATIC



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REV. F
ECO-026464
GP2Y+
MCL NY
250806

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

.196
 .124
 .028
 .012 TYP
 60°
 .047
 .043
 SEE NOTE 3
 PACKAGE OUTLINE
 11X Ø.020 PTH FOR GROUND
 R.344
 .249
 3X .040
 .006
 .023, TYP
 .036, TYP
 .004
 .016
 .009
 .064
 .021
 .096
 .036
 .028, 3 PL.
 .044 TRACE WIDTH, 3 PL.
 (SEE NOTE BELOW)
 PIN 1

 DENOTES PCB COPPER LAYOUT WITH SMOBC
 (SOLDER MASK OVER BARE COPPER)
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Diagram illustrating the components of a black body label:

- Index:** Points to the white circle in the top left corner.
- Black Body:** Points to the black rectangular area.
- Model Family Designation:** Points to the text "MCL GP2Y XXXX" on the black body.

TAPE & REEL INFORMATION: F66



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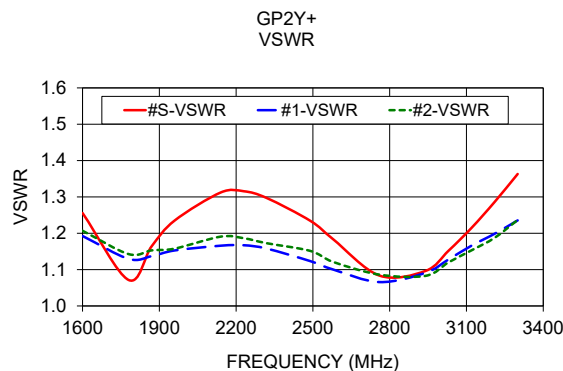
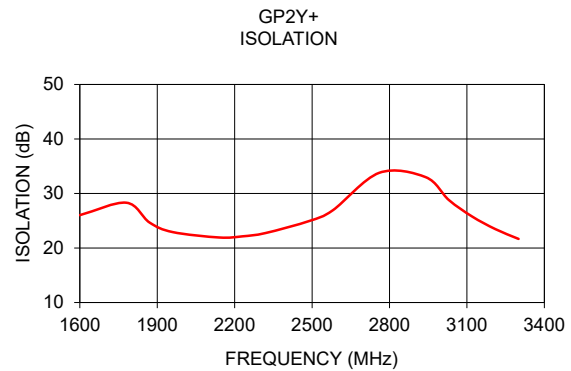
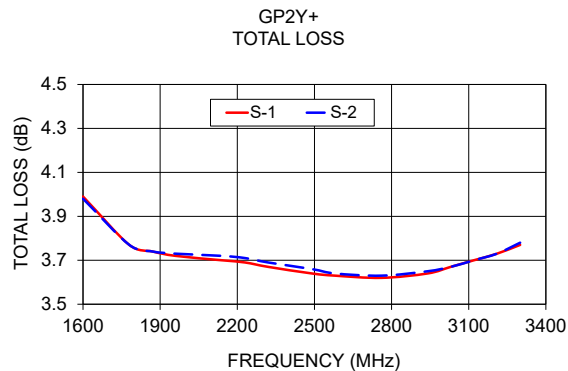
GP2Y+

2 Way-0° 50Ω 1600 to 3300 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
	S-1	S-2						
1600	3.99	3.98	0.01	26.03	0.38	1.26	1.19	1.21
1780	3.77	3.77	0.00	28.31	0.44	1.07	1.13	1.14
1870	3.74	3.74	0.00	24.68	0.47	1.16	1.14	1.15
1960	3.72	3.73	0.01	22.92	0.47	1.24	1.15	1.16
2140	3.70	3.72	0.02	21.93	0.54	1.31	1.17	1.19
2230	3.69	3.71	0.02	22.14	0.58	1.32	1.17	1.19
2320	3.67	3.69	0.02	22.75	0.57	1.30	1.16	1.17
2490	3.64	3.66	0.02	24.97	0.59	1.23	1.12	1.15
2580	3.63	3.64	0.01	26.91	0.55	1.18	1.10	1.12
2760	3.62	3.63	0.01	33.79	0.51	1.08	1.07	1.09
2940	3.64	3.65	0.00	33.00	0.45	1.10	1.09	1.08
3030	3.67	3.67	0.00	28.80	0.45	1.15	1.13	1.12
3120	3.70	3.70	0.00	25.78	0.45	1.21	1.17	1.15
3210	3.73	3.73	0.00	23.47	0.46	1.29	1.20	1.19
3300	3.77	3.78	0.01	21.67	0.49	1.36	1.24	1.24

1. Total Loss=Insertion Loss + 3 dB splitter loss.



ESD RATING

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

Machine Model (MM): Class M2 (100V to < 250 V) in accordance with ANSI/ESD STM 5.2 - 1999

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

