

Power Splitter/Combiner

GP2Y+

2 Way-0° 50Ω 1600 to 3300 MHz



Generic photo used for illustration purposes only

CASE STYLE: DQ1225

+RoHS Compliant

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



Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 2000

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	0.75W max.

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

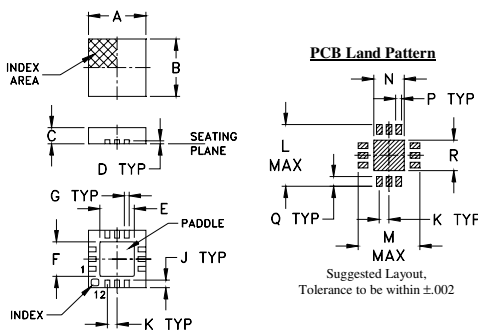
Pad Connections

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

Product Marking



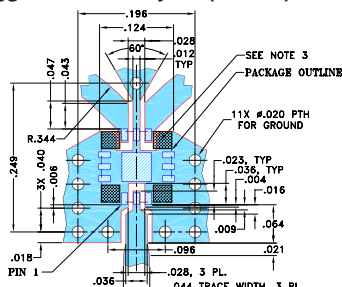
Outline Drawing



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-453-GP2Y+ Suggested PCB Layout (PL-282)



- 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

- wide bandwidth, 1600 to 3300 MHz
- excellent isolation, 24 dB typ.
- excellent amplitude unbalance, 0.02 dB typ.
- good phase unbalance, 0.3 deg. typ.
- small size, 0.118"x0.118"x0.035"
- high ESD level
- aqueous washable

Applications

- WCDMA
- radar
- instrumentation
- WiMax
- DCS
- navigation
- Korea PCS

Electrical Specifications

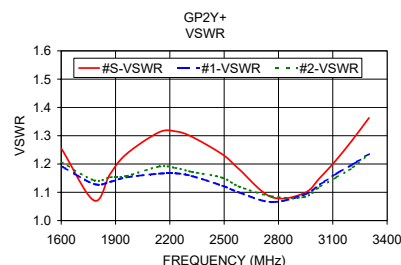
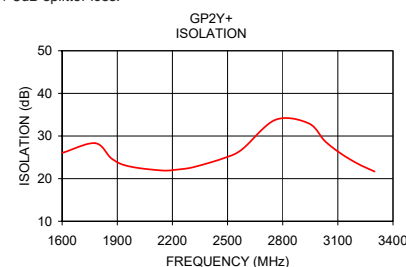
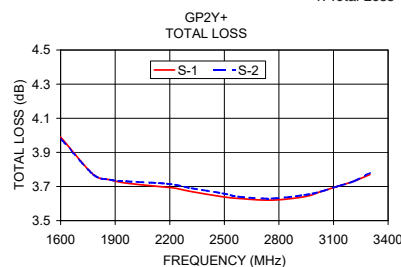
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS* (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1) Typ.	
	Typ.	Min.	Typ.	Max.	Max.	Max.	Port S	Ports 1,2
1600-3300	24	17	0.8	1.5	4.0	0.2	1.2	1.2

* De-embedded from demo board loss.

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1600.00	3.99	3.98	0.01	26.03	0.38	1.26	1.19	1.21
1780.00	3.77	3.77	0.00	28.31	0.44	1.07	1.13	1.14
1870.00	3.74	3.74	0.00	24.68	0.47	1.16	1.14	1.15
1960.00	3.72	3.73	0.01	22.92	0.47	1.24	1.15	1.16
2140.00	3.70	3.72	0.02	21.93	0.54	1.31	1.17	1.19
2230.00	3.69	3.71	0.02	22.14	0.58	1.32	1.17	1.19
2320.00	3.67	3.69	0.02	22.75	0.57	1.30	1.16	1.17
2490.00	3.64	3.66	0.02	24.97	0.59	1.23	1.12	1.15
2580.00	3.63	3.64	0.01	26.91	0.55	1.18	1.10	1.12
2760.00	3.62	3.63	0.01	33.79	0.51	1.08	1.07	1.09
2940.00	3.64	3.65	0.00	33.00	0.45	1.10	1.09	1.08
3030.00	3.67	3.67	0.00	28.80	0.45	1.15	1.13	1.12
3120.00	3.70	3.70	0.00	25.78	0.45	1.21	1.17	1.15
3210.00	3.73	3.73	0.00	23.47	0.46	1.29	1.20	1.19
3300.00	3.77	3.78	0.01	21.67	0.49	1.36	1.24	1.24

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



electrical schematic



ESD Rating

Human Body Model (HBM): Class 1A (250 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

Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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/MCLStore/terms.jsp