

Power Splitter

WGPS-QCN-3+

2 Way-90° 50 Ω 200 to 400 MHz

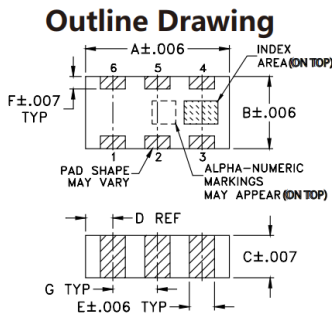
Ver. A
2023.05.26

Maximum Rating

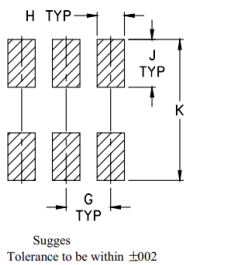
Operating Temperature	-55°C~+100°C
Storage Temperature	-55°C~+100°C
RF Input Power	15W max at 25°C

Pin Connections

SUM Port	1
Port 1 (0°)	4
Port 2 (+90°)	6
Ground	2,5
50 Ohm External	3



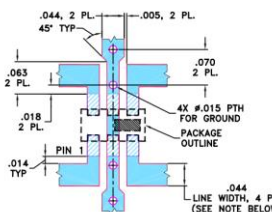
PCB Land Pattern



OUTLINE DIMENSIONS (Inches)

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28
G	H	J	K	wt	
.039	.024	.042	.123	grams	
0.99	0.61	1.07	3.12	.020	

Demo Board MCL P/N:TB-252 Suggested PCB Layout (PL-129)



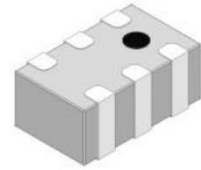
NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

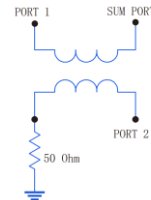
- Low insertion loss
- High isolation;
- Wrap-around terminal for excellent solderability
- Temperature stable LTCC
- ESD non-sensitive

Application

- Balanced amplifiers
- Modulators
- VHF
- Defense communication



RoHS Compliant



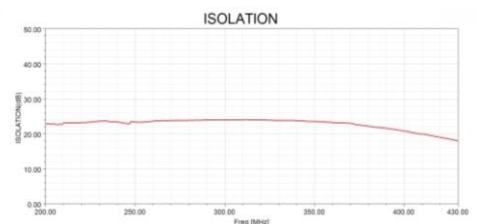
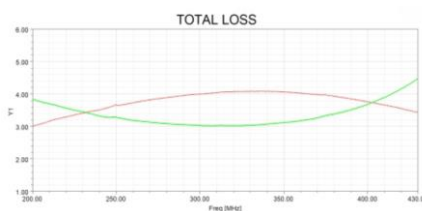
Electrical Specifications⁽¹⁾ at 25°C

Frequency Range (MHz)	Insertion Loss(dB) Above 3.0 dB		Isolation(dB)		Phase Unbalance (Degrees)		Amplitude Unbalance (dB)	
	Typ.	Max.	Typ.	Min.	Typ.	Max.	Typ.	Max.
200-400	0.6	1.0	20	18	3	10	0.1	0.3

(1) Measured on Test Board.

Typical performance Data @ +25°C

Frequency (MHz)	Total Loss		Amp. Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-2				S	1	2
200	3.00	3.84	0.83	22.93	1.186	29.29	27.91	29.44
220	3.29	3.56	0.27	23.19	1.582	30.06	27.79	30.50
240	3.50	3.32	0.18	23.38	2.035	29.68	27.40	33.25
260	3.72	3.18	0.54	23.59	2.461	32.28	31.47	29.29
280	3.88	3.09	0.79	23.86	2.948	31.49	28.98	34.29
300	3.99	3.03	0.96	23.97	3.511	31.10	30.00	35.12
320	4.07	3.02	1.04	23.98	4.152	29.72	31.23	35.47
340	4.07	3.07	1.00	23.75	4.901	27.92	33.09	33.37
360	4.02	3.18	0.84	23.19	5.831	26.06	33.97	30.32
380	3.93	3.38	0.54	22.20	7.006	23.82	31.69	27.35
400	3.76	3.68	0.07	20.79	8.639	21.84	27.69	23.99



Notes

- The specifications are tested at 25°C±5°C, relative humidity 55~75%.
 - Other quality and characteristic not specify in this datasheet.
- Please contact us for detail requirements.



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