

Power Splitter/Combiner

2 Way-0°/180°

50Ω

50 to 200 MHz

AMT-2+



CASE STYLE: CD636

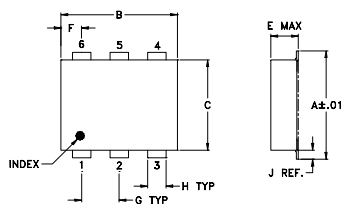
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.
Permanent damage may occur if any of these limits are exceeded.	

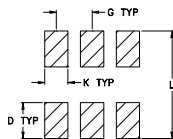
Pin Connections

SUM PORT	3
PORT 1	6
PORT 2	4
PORT J	1
GROUND	2,5

Outline Drawing



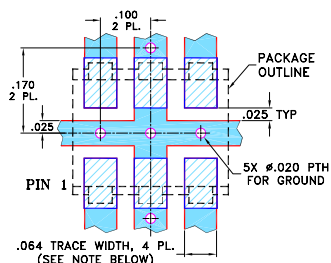
PCB Land Pattern

Suggested Layout.
Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.162	.055	.100
6.91	7.87	5.59	2.54	4.11	1.40	2.54
H	J	K	L		wt	
.030	.026	.065	.300		grams	
0.76	0.66	1.65	7.62		0.25	

Demo Board MCL P/N: TB-211 Suggested PCB Layout (PL-097)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; 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 S-1 and S-2, 0.25 dB typ; J-1 and J-2, 0.8 dB typ.
- very good input VSWR, 1.10 typ. and good output VSWR, 1.12 typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- high isolation S-J ports and 1-2 ports, 35 dB typ.
- protected under US Patent 6,133,525

Applications

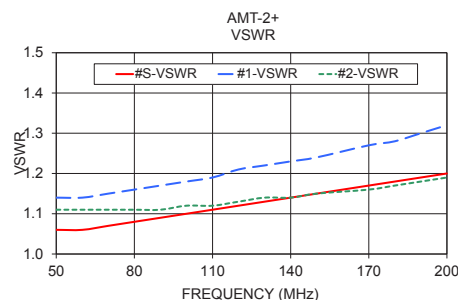
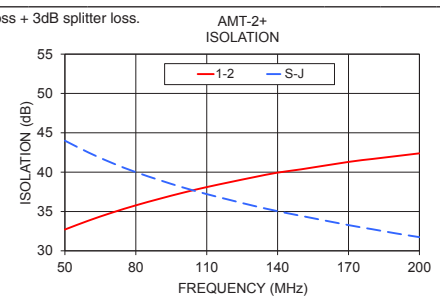
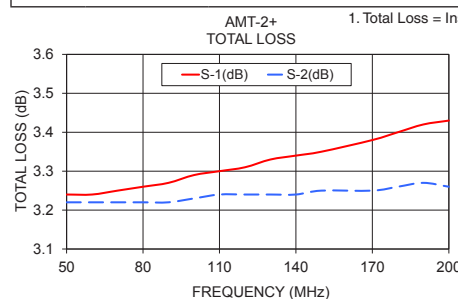
- satellite
- IF receiver

Electrical Specifications

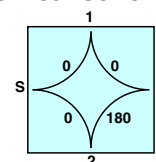
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ.	Min.	Typ.	Max.	Max.	Max.
50-200	35	20	0.8	1.2	2	0.3

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)		Amplitude Unbal. (dB)	Insertion Loss (dB)		Amplitude Unbal. (dB)	Isolation (dB)		Phase Unbal. (deg.)	VSWR		
	S-1	S-2	(S-1)-(S-2)	J-1	J-2	(J-1)-(J-2)	1-2	S-J	(S-1)-(S-2) (J-1)-(J-2)	S	1	2
50.00	3.24	3.22	0.02	3.76	3.77	0.00	32.71	44.00	0.05	179.87	1.06	1.14
60.00	3.24	3.22	0.02	3.76	3.77	0.00	33.84	42.49	0.06	179.87	1.06	1.14
70.00	3.25	3.22	0.03	3.77	3.77	0.01	34.86	41.16	0.02	179.81	1.07	1.15
80.00	3.26	3.22	0.04	3.77	3.77	0.01	35.78	40.00	0.05	179.80	1.08	1.16
90.00	3.27	3.22	0.05	3.77	3.78	0.02	36.61	38.99	0.04	179.79	1.09	1.17
100.00	3.29	3.23	0.05	3.78	3.79	0.01	37.39	38.05	0.02	179.79	1.10	1.18
110.00	3.30	3.24	0.06	3.78	3.81	0.02	38.10	37.21	0.05	179.79	1.11	1.19
120.00	3.31	3.24	0.07	3.80	3.82	0.02	38.74	36.45	0.02	179.75	1.12	1.21
130.00	3.33	3.24	0.09	3.80	3.82	0.02	39.36	35.71	0.00	179.73	1.13	1.22
140.00	3.34	3.24	0.10	3.81	3.84	0.03	39.94	35.04	0.02	179.69	1.14	1.23
150.00	3.35	3.25	0.11	3.81	3.85	0.03	40.36	34.44	0.02	179.68	1.15	1.24
170.00	3.38	3.25	0.13	3.82	3.87	0.05	41.30	33.27	0.09	179.72	1.17	1.27
180.00	3.40	3.26	0.14	3.83	3.88	0.05	41.67	32.75	0.06	179.68	1.18	1.28
190.00	3.42	3.27	0.16	3.84	3.90	0.06	42.03	32.22	0.10	179.68	1.19	1.30
200.00	3.43	3.26	0.17	3.85	3.91	0.06	42.39	31.74	0.15	179.68	1.20	1.32



electrical schematic



- S-J ports, isolation 40 typical
- Inphase ports, S-1 and S-2 insertion loss 0.2 dB typical
- Amplitude unbalance defined by input S or J ports to output 1 and 2

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.
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