

Surface Mount Power Splitter/Combiner

2 Way-0°/180° 50Ω 50 to 200 MHz

AMT-2+
AMT-2



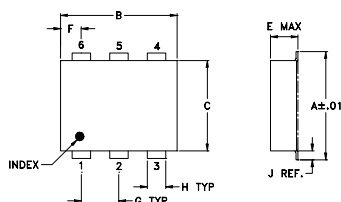
Maximum Ratings

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.

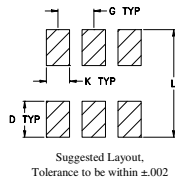
Pin Connections

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

Outline Drawing



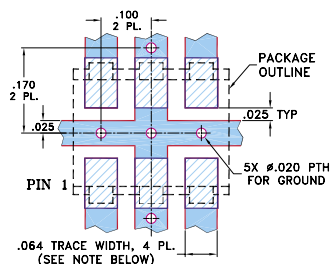
PCB Land Pattern



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.

Applications

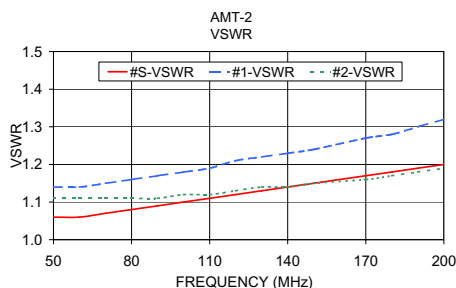
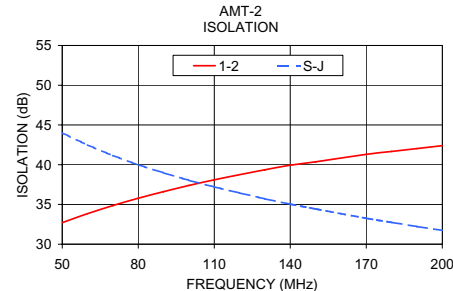
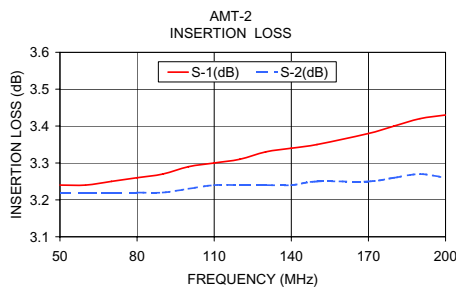
- satellite
- IF receiver

Splitter Electrical Specifications

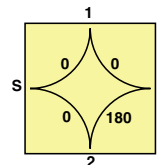
FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 3.0 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min	Typ. Max.	Max.	Max.
50-200	35 20	0.8 1.2	2	0.3

Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)		Amplitude Unbal. (dB)	Insertion Loss (dB)		Amplitude Unbal. (dB)	Isolation (dB)		Amplitude Unbal. (dB)	VSWR S	VSWR 1	VSWR 2
	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)		
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
160.00	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

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