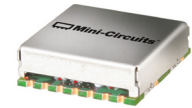


8 Way-0° 75Ω 5 to 1250 MHz



CASE STYLE: HU1371

**+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 13" Devices/Reel 200

### Maximum Ratings

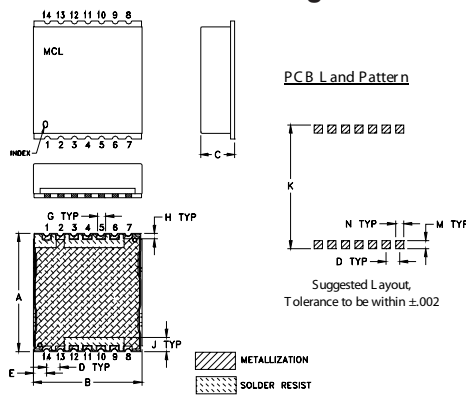
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.875W max.

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

### Pin Connections

SUM PORT	1
PORT 1	3
PORT 2	4
PORT 3	5
PORT 4	6
PORT 5	9
PORT 6	10
PORT 7	11
PORT 8	12
GROUND	2,7,8,13,14

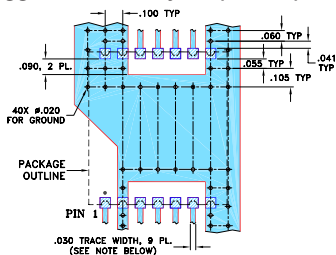
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.870	.800	.250	.100	.097	-	.060	.040
22.10	20.32	6.35	2.54	2.46	-	1.52	1.02
J	K	L	M	N	P	wt	
.105	.910	-	.060	.060	-	grams	
2.67	23.11	-	1.52	1.52	-	2.85	

### Demo Board MCL P/N: TB-487+ Suggested PCB Layout (PL-295)



NOTE: 1. TRACE WIDTH IS SHOWN FOR OAK-602 WITH DIELECTRIC THICKNESS .022" ± .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.

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

### Notes

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### Features

- wideband, 5 to 1250 MHz
- good isolation, 25 dB typ.
- aqueous washable
- shielded metal case

### Applications

- DOCSIS® 3.1 Systems
- VHF/UHF
- CATV
- instrumentation
- cellular

### Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		5		1250	MHz
<b>Insertion Loss</b> (above theoretical 9.0 dB)	5 - 50	—	0.9	1.5	dB
	50 - 500	—	1.6	2.5	
	500 - 1000	—	2.6	3.5	
<b>Isolation</b>	5 - 50	25	30	—	dB
	50 - 1000	15	20	—	
	1000 - 1250	13	18	—	
<b>Phase Unbalance</b>	5 - 50	—	0.7	8.0	Degree
	50 - 500	—	5.0	9.0	
	500 - 1000	—	7.0	10.0	
<b>Amplitude Unbalance</b>	5 - 50	—	0.1	0.3	dB
	50 - 500	—	0.4	0.8	
	500 - 1000	—	0.8	2.0	
<b>VSWR (Port S)</b>	5 - 50	—	1.4	—	:1
	50 - 500	—	1.3	—	
	500 - 1000	—	1.5	—	
<b>VSWR (Port 1-8)</b>	5 - 50	—	1.3	—	:1
	50 - 500	—	1.2	—	
	500 - 1000	—	1.4	—	
	1000 - 1250	—	1.6	—	

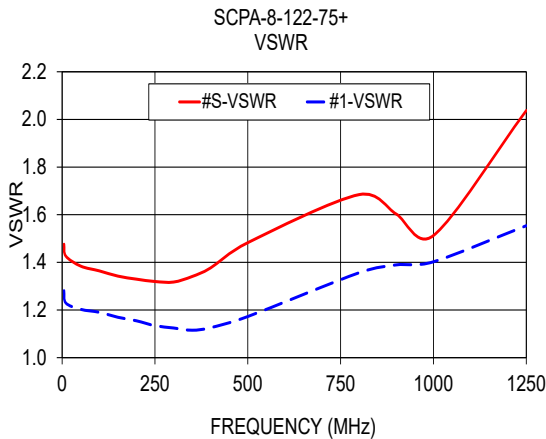
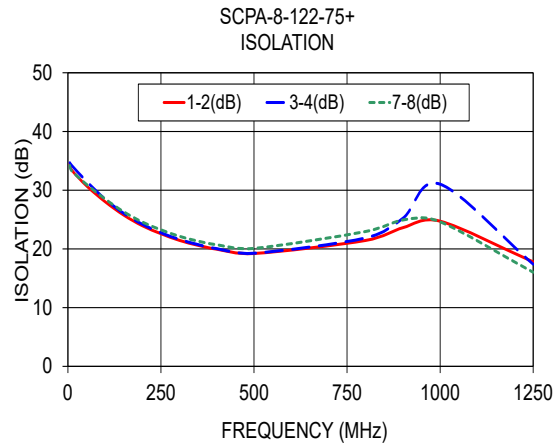
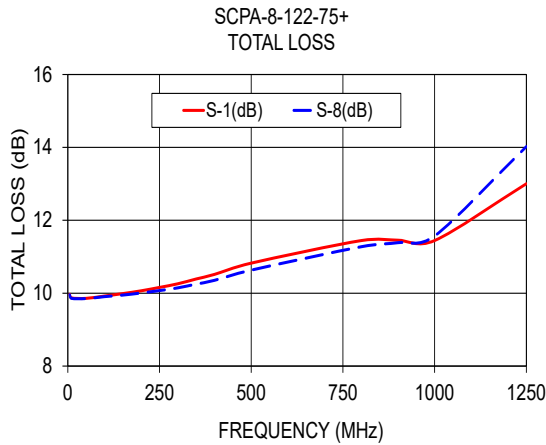
### Electrical Schematic



### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)						Ampl. Unbl. (dB)	Isolation (dB)				Phase Unbl. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-7	3-4	5-7				
5.00	9.97	9.98	9.97	9.97	9.95	9.96	0.03	34.54	34.68	34.25	34.22	0.17	1.48	1.28	1.27
10.00	9.87	9.87	9.87	9.87	9.85	9.86	0.02	33.46	34.23	33.30	33.30	0.08	1.43	1.23	1.22
50.00	9.86	9.86	9.86	9.86	9.85	9.84	0.02	30.74	31.51	30.78	30.99	0.46	1.38	1.20	1.20
100.00	9.92	9.92	9.91	9.90	9.89	9.91	0.03	28.03	28.48	28.06	28.50	0.97	1.36	1.19	1.18
150.00	9.99	9.97	9.97	9.96	9.94	9.95	0.05	25.76	26.06	25.78	26.32	1.46	1.34	1.17	1.16
200.00	10.07	10.04	10.03	10.01	9.99	10.01	0.07	23.95	24.20	23.97	24.58	1.93	1.33	1.15	1.15
250.00	10.16	10.11	10.10	10.08	10.06	10.07	0.10	22.59	22.75	22.62	23.25	2.47	1.32	1.13	1.12
300.00	10.26	10.19	10.18	10.16	10.13	10.15	0.13	21.45	21.61	21.50	22.14	2.87	1.32	1.12	1.11
350.00	10.39	10.31	10.28	10.27	10.22	10.25	0.17	20.61	20.73	20.66	21.32	3.40	1.34	1.12	1.10
400.00	10.52	10.41	10.40	10.38	10.33	10.35	0.18	19.95	20.05	20.05	20.71	3.79	1.38	1.13	1.11
500.00	10.82	10.70	10.66	10.67	10.59	10.63	0.24	19.22	19.26	19.38	20.09	4.63	1.48	1.17	1.15
800.00	11.44	11.35	11.27	11.21	11.23	11.27	0.28	21.45	21.87	22.70	22.97	6.15	1.68	1.36	1.35
900.00	11.45	11.43	11.27	11.15	11.31	11.39	0.31	23.62	25.22	26.94	24.93	6.32	1.60	1.39	1.39
1000.00	11.44	11.49	11.14	11.11	11.42	11.57	0.46	24.72	31.02	31.51	24.61	5.23	1.51	1.40	1.40
1250.00	13.00	13.21	12.40	12.49	13.78	14.02	1.62	17.80	17.40	15.20	16.02	8.54	2.04	1.55	1.47

1. Total Loss = Insertion Loss + 9dB splitter theoretical loss.



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