

Surface Mount Diplexer

NON-CATALOG

DPL870-960-75+

75Ω 50 to 1550 MHz (50-870, 960-1550 MHz)

Maximum Ratings

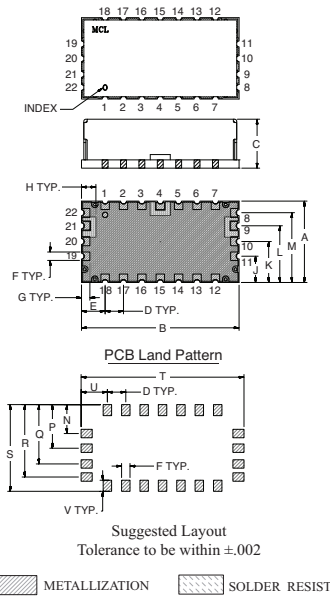
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	250mW at 25°C

Note: Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.

Pin Connections

COMMON PORT	4
LOW PASS PORT	9
BAND PASS PORT	21
GROUND	1-3,5-8,10-20,22

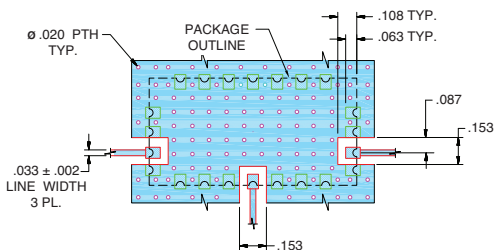
Outline Drawing



Outline Dimensions (inch/mm)

	A	B	C	D	E	F	G	H	J	K	
	.610	1.181	.375	.138	.177	.063	.063	.108	.197	.307	
	15.49	30.00	9.52	3.50	4.50	1.60	1.60	2.74	5.00	7.80	
	L	M	N	P	Q	R	S	T	U	V	wt.
	.425	.523	.217	.327	.445	.543	.650	1.221	.197	.083	grams
	10.80	13.28	5.51	8.31	11.30	13.79	16.51	31.01	5.01	2.11	9.0

Demo Board MCL P/N: TB-475+ Suggested PCB Layout (PL-286)



- NOTES:**
- 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.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

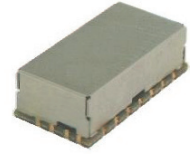
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- Low Insertion Loss 0.7dB typ.
- High Isolation 55dB typ.
- 75 Ω Impedance
- Shielded case
- Aqueous washable

Applications

- CATV
- MoCA
- Set-Top Box
- Wire-Line Broadband Access



CASE STYLE: JK1226

+RoHS Compliant

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

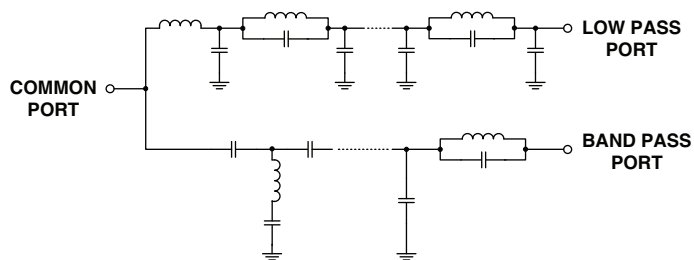
Electrical Specifications (T_{AMB} = 25°C)

Insertion Loss, dB PASSBAND MHz		Isolation, dB STOPBAND MHz		Cross Over Isolation (dB)	Return Loss (dB)				
50-870	960-1550	960-1550	50-870		Low Pass Port 50-870MHz	Band Pass Port 960-1550MHz	Common Port 50-870MHz 960-1550MHz		
Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.5	2.5	1.0	2.5	55	30	55	38	35	12
								20	12
								25	13
								20	12
								25	12

Typical Performance Data (T_{AMB} = 25°C)

FREQUENCY (MHz)	INSERTION LOSS (dB)		CROSS OVER ISOLATION (dB) (between LPF and BPF)	RETURN LOSS (dB)		
	Low Pass Port	Band Pass Port		Common Port	Low Pass Port	Band Pass Port
50	0.09	61.56	60.96	25.91	25.96	0.02
100	0.14	54.28	54.21	20.37	20.32	0.06
200	0.22	50.23	50.08	17.45	17.58	0.14
300	0.23	48.76	49.10	21.36	21.81	0.25
500	0.39	57.19	56.50	16.98	17.10	0.45
600	0.46	61.37	60.49	17.70	18.19	0.41
700	0.46	52.39	51.55	24.03	24.46	0.38
800	0.76	51.35	51.15	19.59	21.04	0.51
870	1.28	43.61	44.26	25.16	22.97	0.77
900	3.09	25.49	28.55	8.66	7.59	1.20
920	8.11	13.40	20.29	10.29	2.99	2.80
960	50.09	1.69	54.00	16.65	0.55	18.55
1000	45.21	1.17	46.37	20.98	0.39	20.67
1200	66.02	0.73	60.50	33.86	0.30	36.35
1300	59.85	0.71	61.75	44.29	0.26	44.25
1400	59.81	0.81	56.04	22.97	0.28	21.84
1550	52.77	1.01	55.52	45.44	0.22	25.72
1600	54.09	1.32	53.55	15.33	0.27	14.77
2000	42.87	26.35	58.46	0.91	0.26	0.59
3000	42.27	38.29	31.35	1.08	1.77	0.92

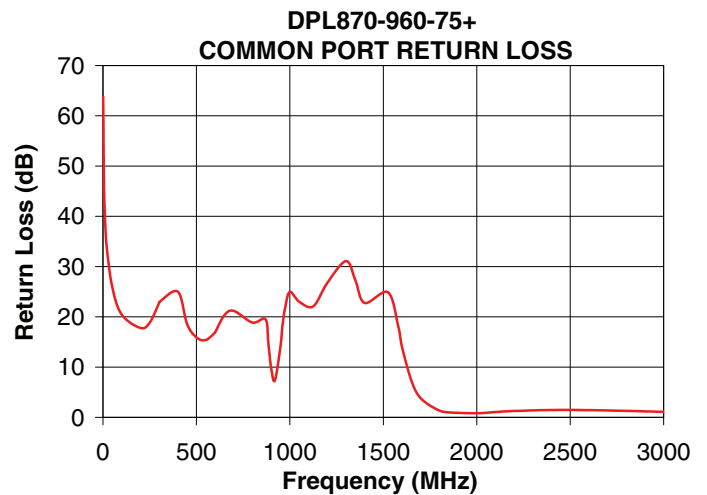
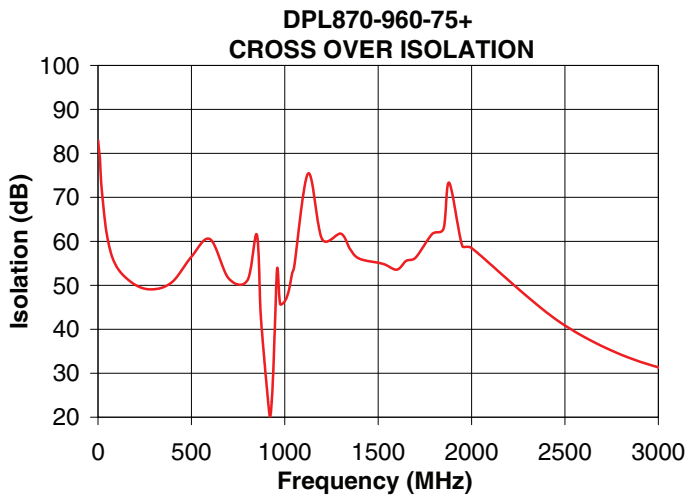
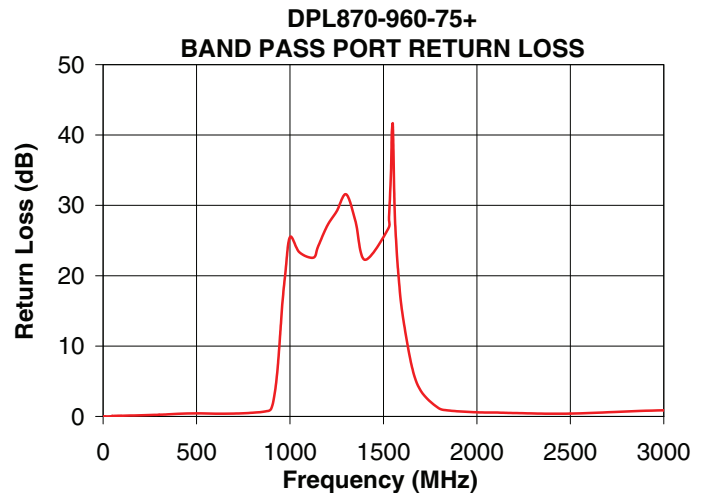
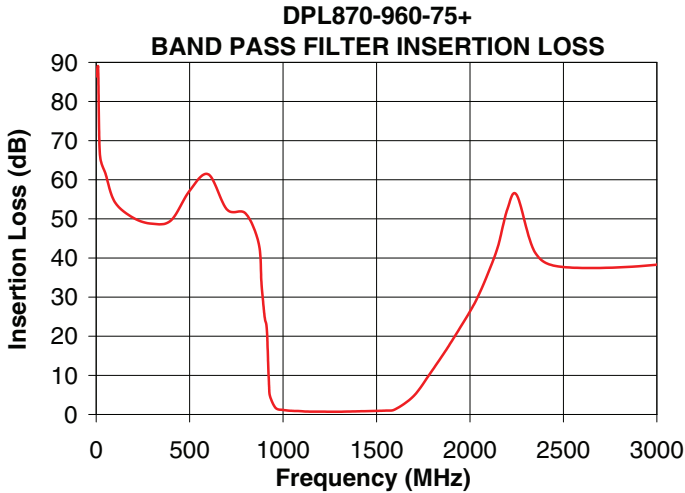
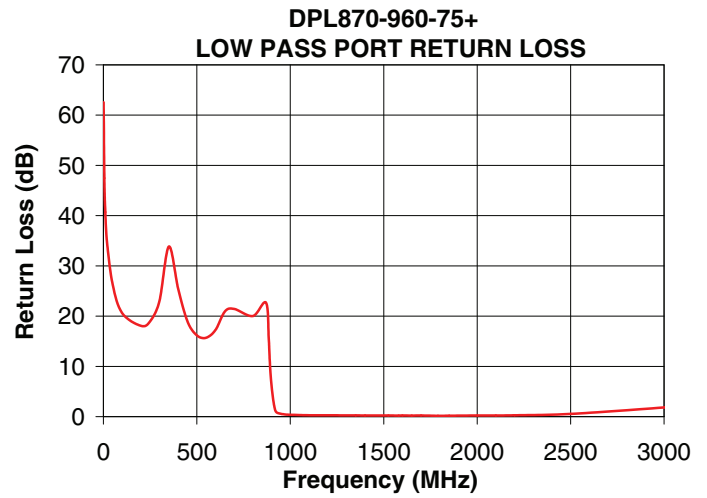
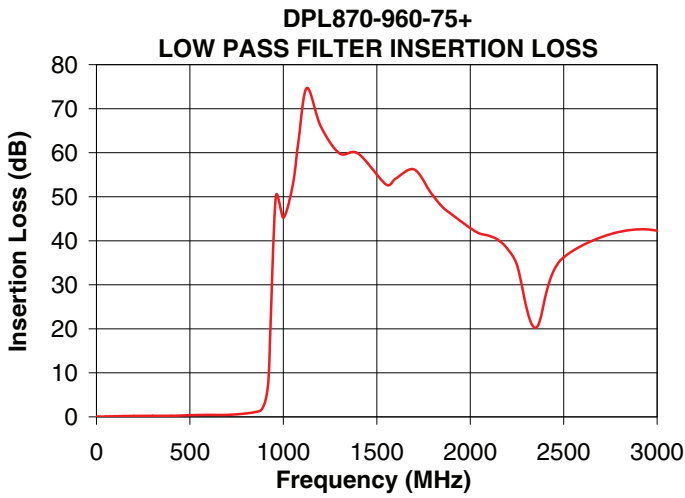
Functional Schematic



Notes

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