

Diplexer

DC to 5750 MHz (DC-2700, 4900-5750 MHz)

Operating Temperature	-55°C to 100°C
Storage Temperature*	-55°C to 100°C
RF Power Input**	2W at 25°C

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

Low Pass Port	6
High Pass Port	4
Common Port	2
Ground	1,3,5

Figure 1: Dimensions and Tolerances of the Pad. The diagram shows a rectangular pad with a grid of 5 columns and 2 rows. The grid is divided into 10 cells. Cells 1, 2, and 3 are in the bottom row, and cells 4, 5, and 6 are in the top row. Cells 1, 2, and 3 are labeled 'INDEX(S) AREA' and contain diagonal hatching. Cells 4, 5, and 6 are labeled 'PAD SHAPE MAY VARY' and contain diagonal hatching. The overall width is labeled 'A' and the overall height is labeled 'B'. The top edge has a tolerance of 'G ± .002'. The left edge has a tolerance of 'D TYP REF'. The bottom edge has a tolerance of 'E TYP'. The right edge has a tolerance of 'F ± .001'. The grid lines are labeled 'TYP'. A detail view at the bottom shows a single cell with a tolerance of 'C ± .004'.

Suggested Layout,
Tolerance to be within ± 0.02

A	B	C	D	E	F
.079	.049	.020	.014	.012	.012
2.01	1.24	0.51	0.36	0.30	0.30
G	H	J	K	wt	
.026	.014	.039	.110	grams	
0.66	0.36	1.00	2.80	.005	

6X #.008 PTH FOR GROUND

COPLANAR WAVEGUIDE:
 .022 TRACE WIDTH &
 .014 GAP, 3 P.L.
 (SEE NOTE BELOW)

.010 3 P.L.
 .018 2 P.L.

1

14X #.013 PTH FOR GROUND

 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

- small size 0805(2.0 x 1.25 mm)
- low insertion loss, 0.7 dB typ.
- high rejection
- temperature stable
- LTCC construction

- communication systems
- ISM
- WiFi



CASE STYLE: GE0805C-10

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



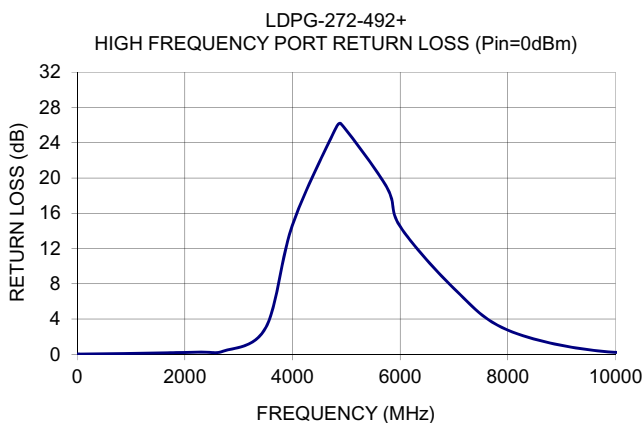
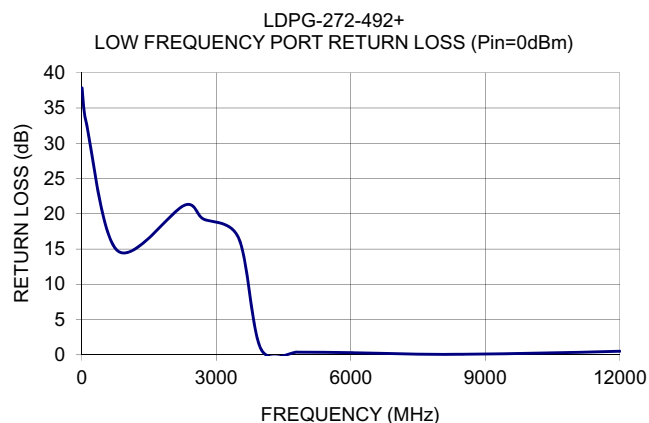
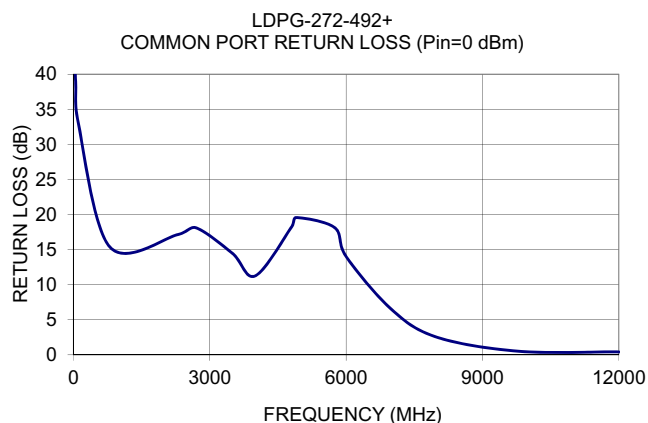
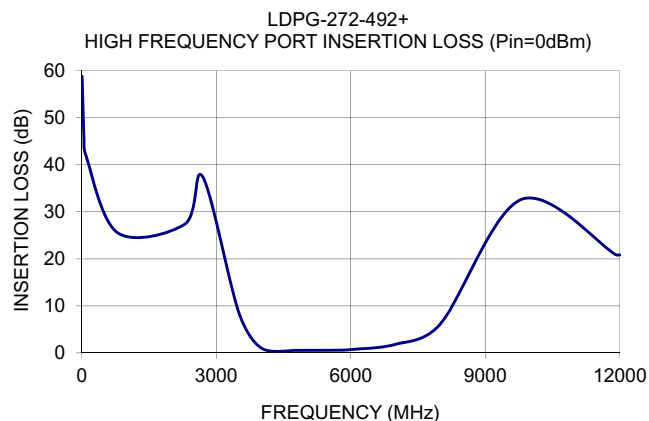
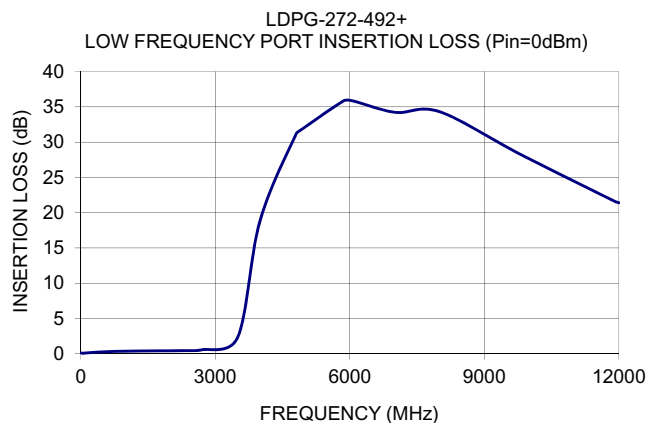
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 4000

Parameter		Port	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	Low Pass	DC - 2700	—	0.5	0.9	dB
		Band Pass	4900 - 5750	—	0.7	0.9	
	Return Loss	Low Pass	2300 - 2700	10	16	—	dB
		Band Pass	4900 - 5750	10	14	—	
		Common	2300 - 2700	—	16	—	
			4900 - 5750	—	14	—	
Stop Band Isolation		Band Pass	DC - 2700	18	23	—	dB
			9800- 11900	—	17	—	
		Low Pass	4800 - 8000	20	30	—	dB

¹ In Application where DC voltage is present at either input or output port, coupling capacitors are required.

² Measured on Mini-Circuits Characterization Test Board TB-798+

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)		
	Low Pass Port	High Pass Port	Common Port	Low Pass Port	High Pass Port
10	0.10	58.83	47.75	37.84	0.04
50	0.05	45.92	38.49	34.75	0.03
100	0.10	41.84	33.28	32.98	0.03
800	0.34	25.56	15.37	14.76	0.08
2300	0.43	27.39	17.15	21.24	0.25
2700	0.56	37.44	18.10	19.31	0.33
3500	2.30	8.69	14.46	16.57	3.00
4000	18.88	1.05	11.25	0.80	14.70
4800	31.11	0.54	18.24	0.39	25.61
4900	31.67	0.54	19.56	0.38	26.15
5750	35.40	0.59	18.12	0.33	18.97
6000	35.94	0.72	14.00	0.31	14.49
7000	34.23	1.84	6.46	0.17	7.46
8000	34.32	6.18	2.51	0.07	2.74
9800	28.29	32.63	0.51	0.19	0.31
11900	21.63	20.94	0.43	0.49	0.51
12000	21.41	20.85	0.41	0.51	0.57



Notes

- 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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