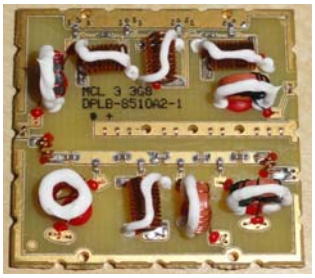
Engineering Development Model

Diplexer

DPLB-EDU2491

Surface Mount



CASE STYLE : NU1620

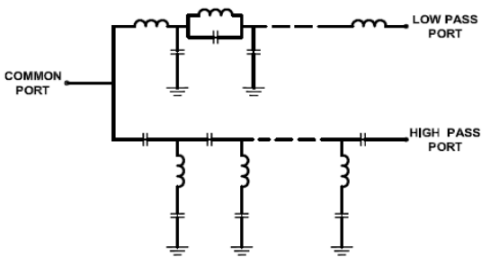
Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

Please click "Back", and then click "Contact Us" for Applications support.

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C							
Parameter		**Port**	**Frequency (MHz)**	**Min.**	**Typ.**	**Max.**	**Units**
Passband	**Insertion Loss**	**Lowpass**	**5-85**	-	1.5	-	dB
		Highpass	**102-1220**	-	1.5	-	dB
	Return Loss	**Lowpass**	**5-85**	-	23	-	dB
		Highpass	**102-1220**	-	21	-	dB
		Common	**5-85**	-	23	-	dB
			102-1220	-	21	-	dB
Stop band isolation		**Lowpass**	**102-1220**	-	45	-	dB
		Highpass	**5-85**	-	56	-	dB
		Cross over	**85-102**	-	43	-	dB

Functional Schematic



MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W

PIN CONNECTIONS	
Highpass port	7
Lowpass port	9
Common port	18
Ground	1-6,8,10-17,19,20

Case style size	1.181"X1.181"X0.280"

Surface Mount Diplexer DPLB-EDU2491

Typical Performance Data

FREQUENCY	INSERTION LOSS		Cross over isolation	RETURN LOSS		
(MHz)	(dB)		(dB)	(dB)		
	Lowpass port	Highpass port	(between LPF and HPF)	Common port	Lowpass port	Highpass port
1.0	0.01	80.48	77.07	49.21	48.92	0.00
5.0	0.04	67.01	67.59	41.43	41.28	0.00
40.0	0.16	59.81	60.88	32.96	30.68	0.04
85.0	1.27	57.68	58.70	25.46	23.08	0.62
89.0	3.25	50.26	48.34	13.39	9.44	0.91
90.0	5.36	43.40	45.40	9.76	5.57	1.02
91.0	9.46	33.88	44.40	6.67	2.90	1.18
92.0	15.71	25.72	45.23	4.97	1.62	1.40
93.0	23.91	19.16	47.72	4.28	1.11	1.76
94.0	34.78	13.66	50.66	4.30	0.87	2.43
95.0	42.09	9.11	50.49	5.13	0.75	3.74
96.0	41.10	5.74	48.26	7.16	0.66	6.24
97.0	42.80	3.68	47.15	10.65	0.61	10.36
98.0	45.20	2.60	46.94	15.40	0.56	16.34
102.0	47.44	1.42	47.23	33.29	0.47	25.21
250.0	52.09	0.26	53.16	29.17	0.14	29.51
500.0	46.55	0.28	48.72	34.08	0.01	29.83
750.0	48.44	0.32	47.68	30.59	0.05	33.29
950.0	50.53	0.37	45.27	38.87	0.21	34.95
1220.0	48.11	0.45	46.85	28.82	0.41	23.47

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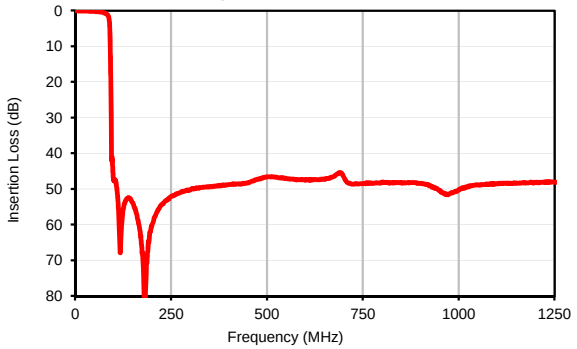
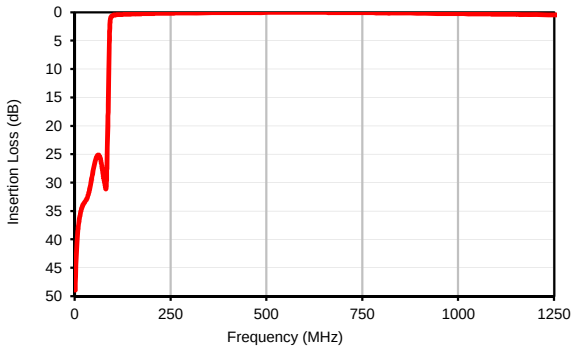
Typical Performance Curves

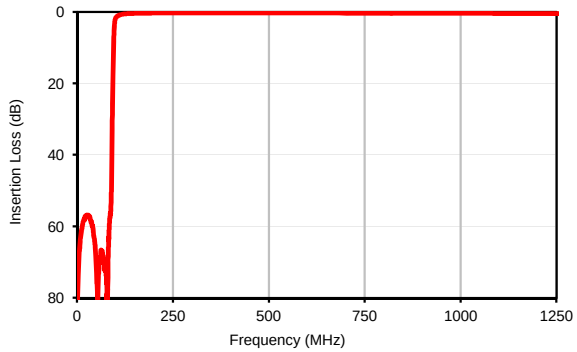
Lowpass Insertion Loss



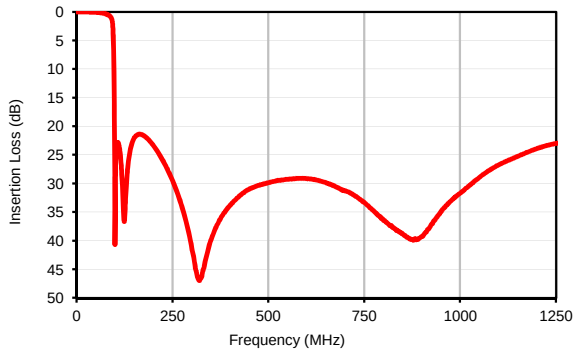
Lowpass Return Loss



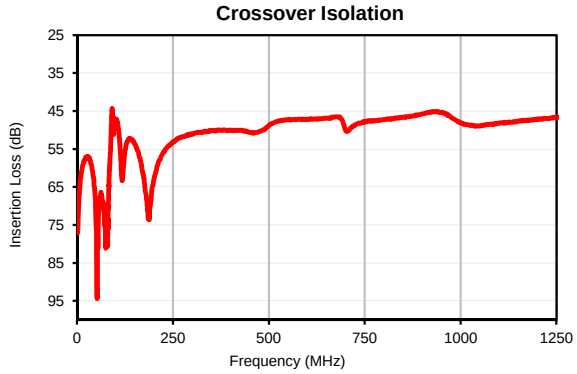
Highpass Insertion Loss



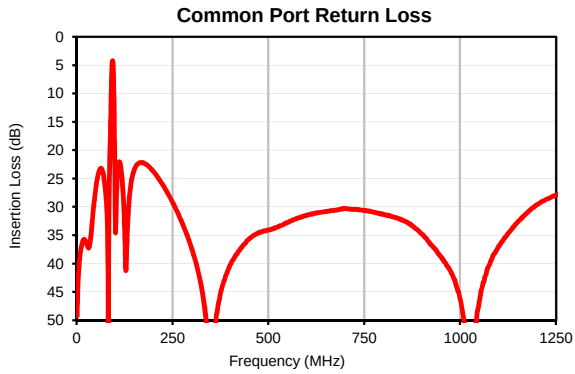
Highpass Return Loss



Crossover Isolation



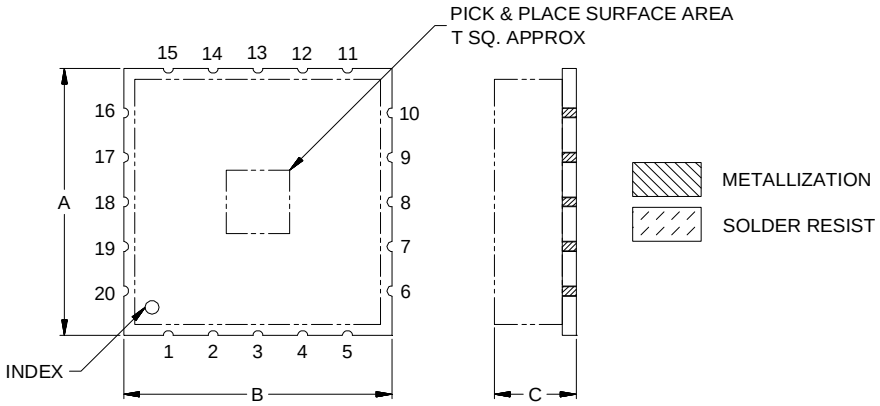
Common Port Return Loss

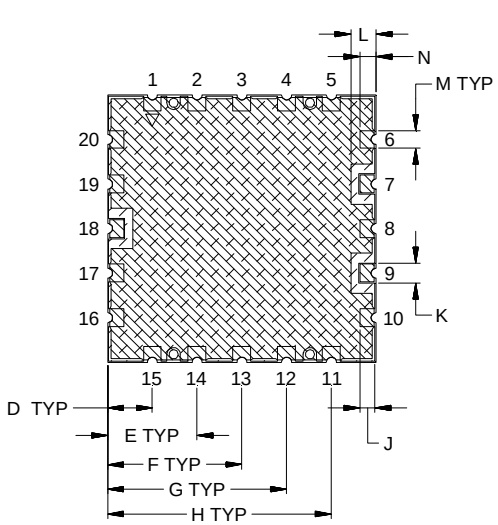


Case Style NU

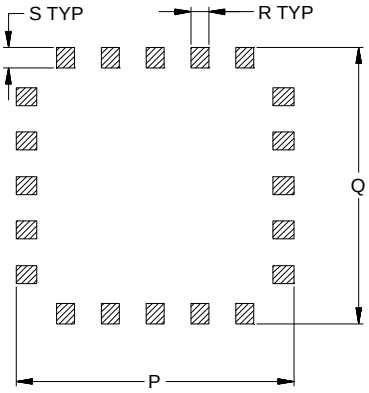
Outline Dimensions

NU1620





PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

CASE#	A	B	C		D	E	F	G	H	J	K	L	M
			Max	Min									
NU1620	1.181 (30.00)	1.181 (30.00)	.280 (7.11)	.205 (5.21)	.197 (5.00)	.394 (10.00)	.591 (15.00)	.787 (20.00)	.984 (25.00)	.066 (1.68)	.089 (2.26)	.111 (2.82)	.079 (2.01)

CASE#	N	P	Q	R	S	T	WT.GRAMS
NU1620	.071 (1.80)	1.221 (31.01)	1.221 (31.01)	.079 (2.01)	.091 (2.31)	.280 (7.11)	3.6

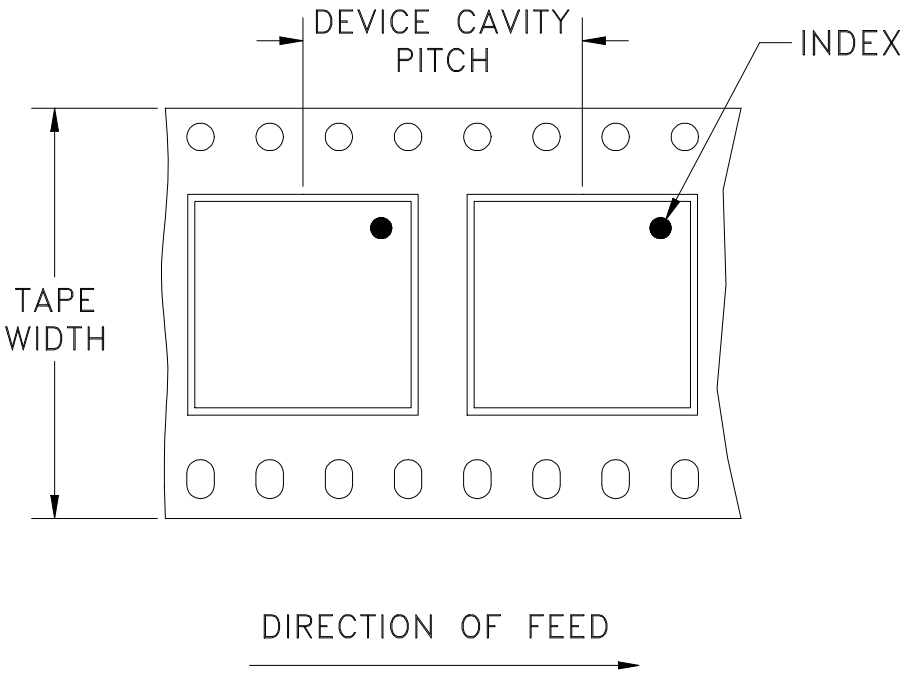
Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

Notes:

1. Base: Printed wiring laminate.
2. Termination finish:
   For RoHS Case Styles: 3-5 µ inch Gold over 120-240 µ inch Nickel plate.
   For RoHS-5 Case Styles: Tin-Lead plate.

Tape & Reel Packaging TR-F80

DEVICE ORIENTATION IN T&R



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
44	40	13	100

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

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