Engineering Development Model

Dual Low Pass Filter

DLPF-EDU1159

Surface Mount

Important Note

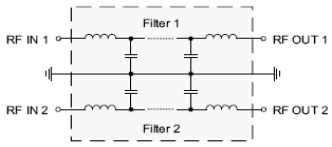
This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

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

CASE STYLE: HU1186

Electrical Specifications 50Ω @ +25°C				
Parameter	**Min**	**Typ**	**Max**	**Units**
Passband (Loss < 1 dB)	**DC**	**-**	**12**	**MHz**
Stopband (Loss > 20 dB)	**20**	**-**	**50**	**MHz**
Stopband (Loss > 40 dB)	**50**	**-**	**1500**	**MHz**
Passband VSWR		**1.1**	**1.4**	**:1**
Group Delay variation b/w 2 filters @ 12 MHz		**1**		**nS**

Functional Schematic



MAXIMUM RATINGS	
Operating Temperature	-40°C to +60°C
Storage Temperature	-55°C to +85°C
RF Power Input	0.5 W

PIN CONNECTIONS	
RF IN 1	2 (filter1)
RF OUT 1	13 (filter1)
RF IN 2	6 (filter2)
RF OUT 2	9 (filter2)
GROUND	1,3,4,5,7,8,10,11,12,14

Dual Low Pass Filter DLPF-EDU1159

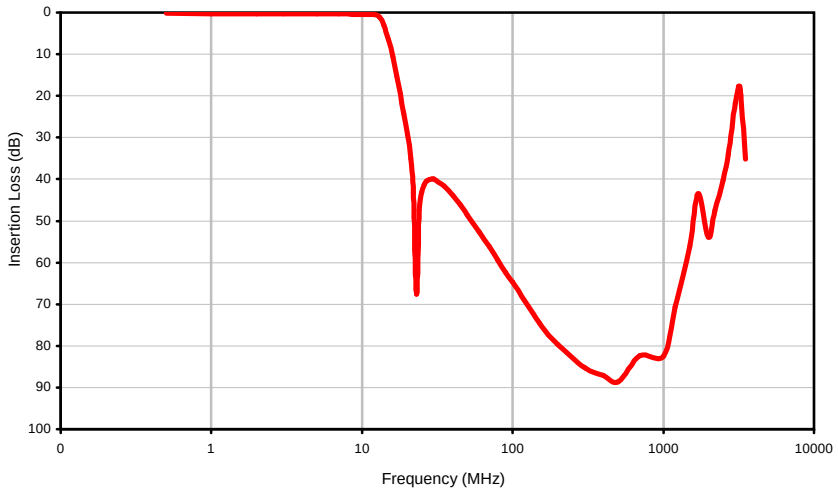
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
0.5	0.23	31.52
1.0	0.24	30.41
2.0	0.25	28.77
3.0	0.26	28.33
5.0	0.28	33.86
7.0	0.32	28.22
9.0	0.40	20.98
10.0	0.42	21.19
11.0	0.44	27.89
12.0	0.53	20.19
13.0	1.12	9.49
14.0	3.00	4.24
15.0	6.43	1.94
16.0	10.68	1.07
17.0	15.14	0.73
18.0	19.66	0.58
19.0	24.30	0.50
20.0	29.29	0.45
21.0	35.10	0.41
22.0	43.16	0.38
23.0	67.53	0.35
24.0	47.46	0.33
25.0	43.17	0.31
26.0	41.33	0.29
27.0	40.43	0.27
28.0	40.03	0.26
29.0	39.92	0.25
30.0	39.99	0.24
35.0	41.58	0.19
40.0	43.88	0.16
45.0	46.19	0.13
50.0	48.47	0.12
60.0	52.61	0.09
70.0	56.25	0.07
80.0	59.48	0.06
90.0	62.30	0.06
100.0	64.72	0.05
150.0	74.52	0.04
200.0	79.70	0.04
300.0	85.28	0.05
400.0	87.08	0.06
500.0	88.58	0.08
700.0	82.34	0.12
1000.0	82.45	0.27
1200.0	70.64	0.24
1500.0	56.12	0.42
1700.0	43.52	5.52
2000.0	53.91	0.47
2200.0	47.69	0.45
2500.0	40.21	0.51
2700.0	34.11	0.57
3000.0	21.79	1.42
3200.0	17.98	5.35
3500.0	35.11	1.70

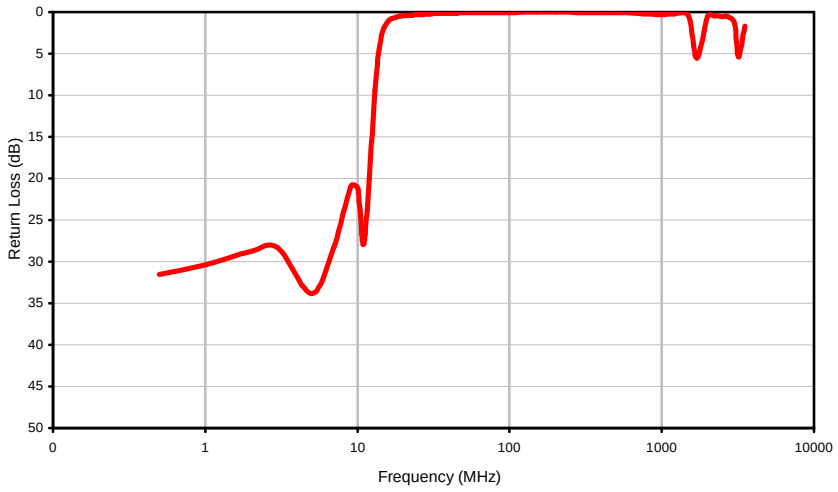
FREQUENCY (MHz)	GROUP DELAY (nsec)
0.5	34.42
1.0	35.28
2.0	36.47
2.4	36.79
3.0	37.17
5.0	39.14
6.5	41.41
7.0	42.32
7.2	42.77
9.0	47.46
9.6	50.31
10.0	52.30
11.0	60.67
12.0	74.17
12.1	74.98
13.0	88.14
13.4	90.66
13.5	90.66
13.9	88.35
14.0	88.15
15.0	71.33
16.0	52.15
17.0	38.33
18.0	29.34
19.0	23.16
20.0	18.37

Typical Performance Curves

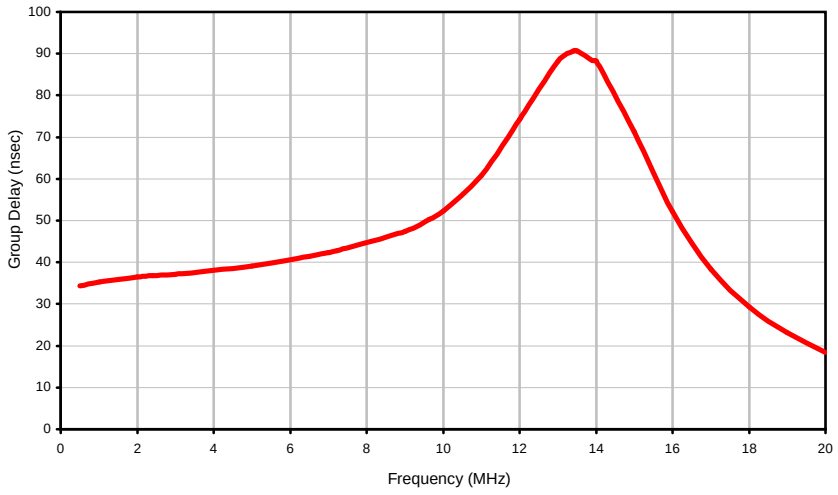
Insertion Loss



Return Loss



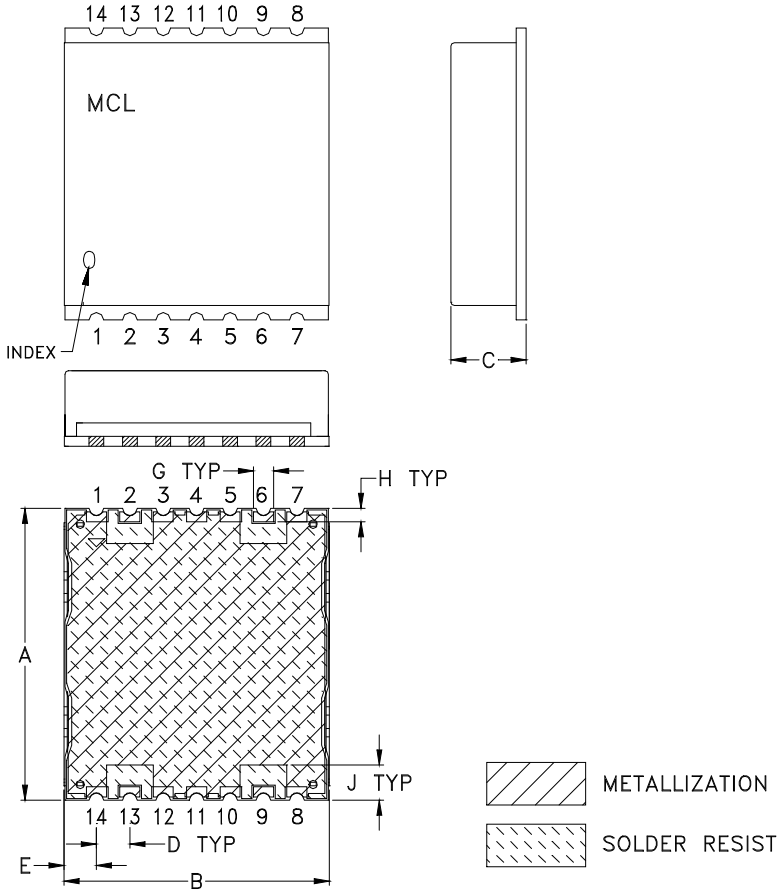
Group Delay



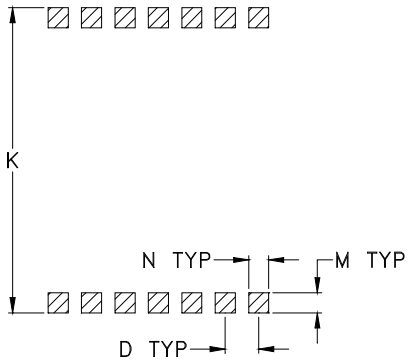
Case Style HU

Outline Dimensions

HU1186



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N	P	WT, GRAM
HU1186	.870 (22.10)	.800 (20.32)	.25 (6.35)	.100 (2.54)	.097 (2.46)	- -	.060 (1.52)	.040 (1.02)	.105 (2.67)	.910 (23.11)	- -	.060 (1.52)	.060 (1.52)	- -	2.85

Dimensions are in inches (mm). Tolerances: 2PL. +/- .03; 3PL. +/- .015

Notes:

1. Case material: Nickel-Silver alloy.
2. Base: Printed wiring laminate.
3. Termination finish:
   For RoHS Case Styles: 2-5 µ inch (.05-.13 microns) Gold over 120-240 µ inch (3.05-6.10 microns) Nickel plate.
   For RoHS-5 Case Styles: Tin-Lead plate.

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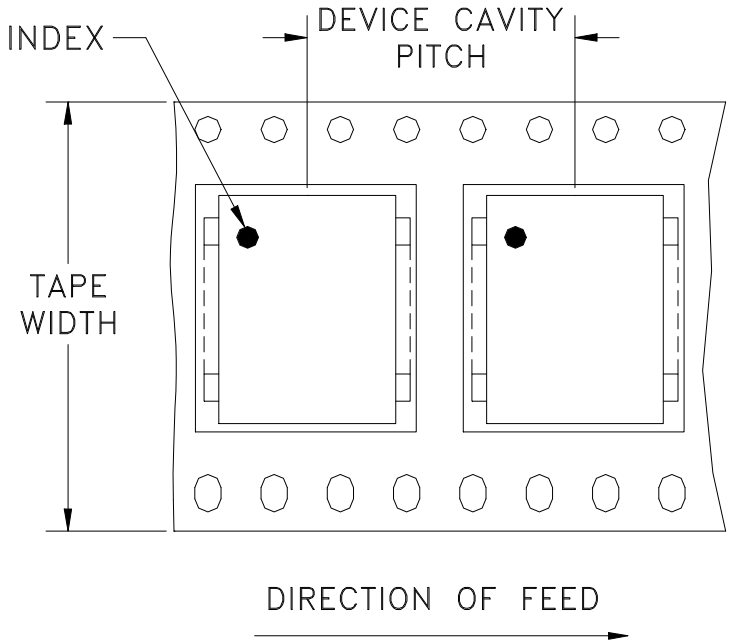
Tape & Reel Packaging TR-F21

DEVICE ORIENTATION IN T&R



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
32	32	13	200

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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