

Engineering Development Model

Low Pass Filter

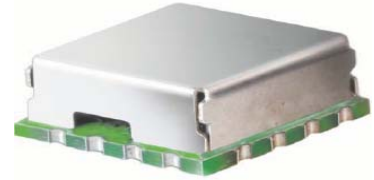
RLPF-EDU0904

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.

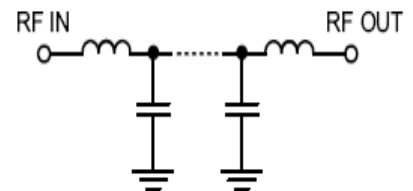
CASE STYLE : CK605

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 2.5 dB)	DC		1800	MHz
Insertion loss 3dB		1880		MHz
Stopband (Loss > 20 dB)	@2150			MHz
(Loss > 25 dB)	2250		4000	MHz
Passband VSWR		1.4	2.1	(:1)
Stopband VSWR		20		(:1)

Functional Schematic

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W



PIN CONNECTIONS

Input	2
Output	10
Not Connected	14
Case Ground	1,3,4,5,6,7,8,9,11,12,13,15,16



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS



REV. X1

RLPF-EDU0904

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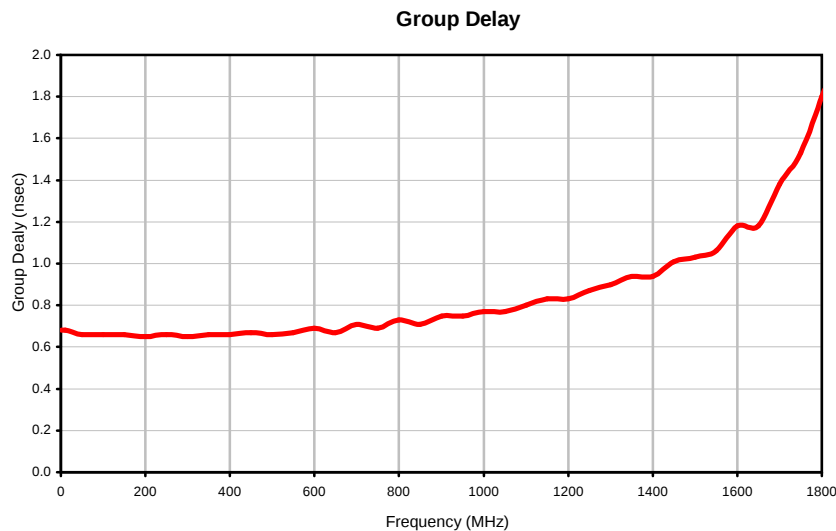
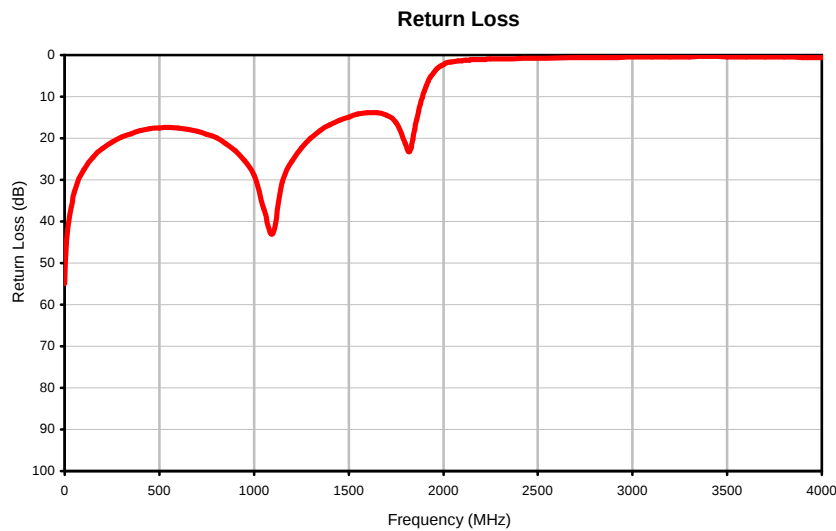
Low Pass Filter

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Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
1.0	0.01	54.99	1.0	0.68
10.0	0.03	44.36	10.0	0.68
50.0	0.06	32.87	50.0	0.66
100.0	0.10	27.61	100.0	0.66
300.0	0.21	19.70	200.0	0.65
500.0	0.26	17.51	300.0	0.65
750.0	0.34	19.01	400.0	0.66
1000.0	0.34	28.98	500.0	0.66
1250.0	0.45	22.33	600.0	0.69
1500.0	0.84	14.86	700.0	0.71
1800.0	1.34	21.22	800.0	0.73
1850.0	2.06	17.90	900.0	0.75
1880.0	2.79	11.71	1000.0	0.77
1900.0	3.64	8.68	1050.0	0.77
1940.0	6.60	4.72	1100.0	0.80
1980.0	9.76	2.72	1200.0	0.83
2000.0	12.03	2.25	1250.0	0.87
2040.0	17.55	1.69	1300.0	0.90
2100.0	24.89	1.33	1400.0	0.94
2150.0	30.44	1.15	1500.0	1.03
2250.0	38.43	0.98	1550.0	1.06
3100.0	41.86	0.41	1600.0	1.18
3600.0	38.62	0.46	1700.0	1.38
4000.0	35.40	0.57	1800.0	1.80

Typical Performance Curves



Outline Dimensions

CK605

PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

CASE #	A	B	C	D	E	F	G	H	J	K
CK605	.500 (12.70)	.500 (12.70)	.180 (4.57)	.100 (2.54)	.080 (2.03)	.115 (2.92)	.060 (1.52)	.040 (1.02)	.540 (13.72)	.060 (1.52)

CASE #	L	M	N	P	Q	R	S	T	WT. GRAM
CK605	.100 (2.54)	.135 (3.43)	.135 (3.43)	.115 (2.92)	.140 (3.56)	.070 (1.78)	.150 (3.81)	.070 (1.78)	1.2 +0.5 -0.0

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

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:
For RoHS Case Styles: 3-5 μ inch (.08-.13 microns) Gold over 120-240 μ inch (3.05-6.10 microns) Nickel plate.
All models, (+) suffix.



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RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F37



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel	
24	16	7	Small quantity standards (see note)	10
				20
				50
				100
		13	Standard	200
				500

Note: Please consult individual model data sheet to determine device per reel availability.

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.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf



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Mini-Circuits ISO 9001 & ISO 14001 Certified



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-65° to 150° C Ambient Environment	Individual Model Data Sheet
Autoclave	15 psig, 100% RH, 121°C, 96 hours	JESD22-A102-C, Condition C
Temperature Cycling	-65° to 150°C, 100 cycles	JESD22-A104
Temperature Humidity	85°C/ 85% RH, 168 hours	JESD22-113
Solder Reflow Heat	Sn-Pb Eutetic Process: 240°C peak Pb-Free Process: 260°C peak	J-STD-020, Table 4-1, 4-2 and 5-2; Figure 5-1
Moisture Sensitivity: Level 1	Bake at 125°C for 24 hours Soak at 85°C/85% RH for 168 hours, Reflow 3 cycles at 240°C peak (Non-RoHS) or 260°C (RoHS)	J-STD-020
Solderability	10X magnification, 95% coverage	JESD22-B102, Method 1: Dip and Look Test
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D