

# 4th Order Bessel Lowpass Filters



RLC Electronics' 4th Order Bessel Lowpass Filters' combine excellent group delay characteristics, together with reasonable rejection characteristics. Maximally flat group delay in the frequency domain is accomplished with the Bessel polynomial, also known as the Thomson filter. These filters should be

regarded as compromise designs for pulsed systems where truthful reproduction of the pulse shape is important. One application for these fourth-order Bessel-Thomson lowpass filters is to reduce the impact of higher order distortion and noise in lightwave receivers.

## Specifications

LB<sup>-1</sup>

Model Number	-3 dB Cut-off Frequency (MHz)	f/fc	Attenuation	Attenuation Accuracy (dB)
LB--	10 TO 2100	.2	-0.1	±.2
		.4	-0.4	±.2
		.6	-1.0	±.2
		.8	-1.9	±.2
		1.0	-3.0	±.2
		1.2	-4.5	±.48
		1.33	-5.7	±.59
		1.4	-6.4	±.64
		1.6	-8.5	±.74
		1.8	-10.9	±.89
		2.0	-13.4	±1.00
		2.67	-21.5	N/A

**Power Rating:** 2 watts average

**Impedance:** 50 ohms

**Connector Type:** SMA Female, SMA Male

**Temperature:** -55°C to +85°C

**Environment:** MIL-E-5400, Class 1A

except operating temperature

To designate the filter desired use:

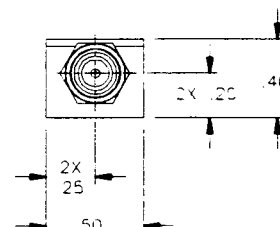
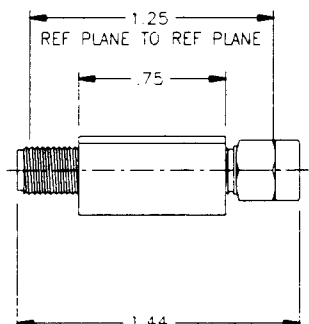
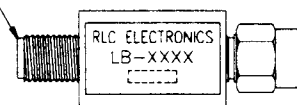
(1) 3dB cut-off frequency in MHz

Example: LB-466 is a 4th Order lowpass filter with a 3dB point of 466 MHz and 1dB point @ .6 X fc (279.6 MHz)

## Outline Drawing

CONNECTOR 'SMA' (f)  
PER MIL-STD-C-39012

CONNECTOR 'SMA' (m)  
PER MIL-STD-C-39012



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