

4th Order Tubular Bessel Lowpass Filters



RLC Electronics now offers 4th order tubular Bessel Lowpass Filters with 3dB cutoffs from 1 GHz to 22 GHz. Computer design and tubular construction allow us to maintain excellent group delay characteristics with reasonable rejection while extending our 3dB cutoff approaching 30 Giga bits.

These filters should be regarded as compromise designs for pulsed systems where truthful reproduction of the pulse shape is important. Primarily used on lightwave receivers to reduce the impact of higher order distortion and noise. These high frequency filters are essential for today's high bit rate applications.

Specifications LBT-1

		1-4 GHz	4-10 GHz	10-22 GHz
F/Fc	Attenuation	Delta	Delta	Delta
0.20	-0.1 dB	+/-0.20 dB	+/-0.35 dB	+/-0.40 dB
0.40	-0.4 dB	+/-0.20 dB	+/-0.35 dB	+/-0.40 dB
0.60	-1.0 dB	+/-0.20 dB	+/-0.35 dB	+/-0.40 dB
0.80	-1.9 dB	+/-0.20 dB	+/-0.35 dB	+/-0.40 dB
1.00	-3.0 dB	+/-0.20 dB	+/-0.35 dB	+/-0.40 dB
1.20	-4.5 dB	+/-0.48 dB	+/-0.85 dB	+/-1.00 dB
1.33	-5.7 dB	+/-0.59 dB	+/-1.00 dB	+/-1.20 dB
1.40	-6.4 dB	+/-0.64 dB	+/-1.10 dB	+/-1.50 dB
1.60	-8.5 dB	+/-0.74 dB	+/-1.30 dB	+/-2.00 dB
1.80	-10.9 dB	+/-0.89 dB	+/-1.60 dB	+/-2.40 dB
2.00	-13.4 dB	+/-1.00 dB	+/-1.80 dB	+/-3.00 dB
Recommended Connector		SMA M/F	SMA M/F	K (2.92) M/F
Maximum Overall Length (L)		1.8"	1.54"	1.25"

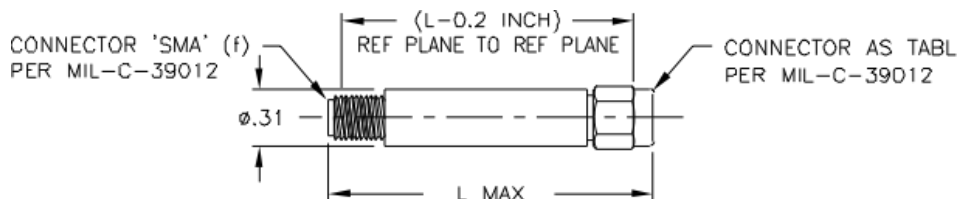
Power Rating: 2 watts average
Impedance: 50 ohms
Connector Type: See Above

Temperature: -55C to +85C
Environmental: MIL-E-5400, Class 1A
 Except operating temperature

To designate the filter desired use:
 (1) 3dB cut-off frequency in MHz

Example: LBT-14000 is a 4th order lowpass with a 3dB point of 14000 MHz and 1 dB point @ .6 Fc 8400 MHz with a Delta of +/-0.4 dB. The maximum overall length for this filter is 1.25 inches.

OUTLINE DRAWING



Specifications subject to change without notification.

Tolerances unless otherwise specified are .xx +/- .02. xxx +/- .005

Specials requiring closer tolerances, different frequency ranges, special connectors, different materials, finishes, etc. can be furnished upon request.



RLC ELECTRONICS, INC.

83 Radio Circle, Mount Kisco, New York 10549 Telephone 914-241-1334 Fax 914-241-1753
 e-mail: sales@rlcelectronics.com www.rlcelectronics.com