

## FA4720 SERIES FIBER OPTIC 5 Pole Bessel Absorptive LowPass Filters



### FEATURES

- 5 Pole Bessel polynomial filter characteristic
- Non-reflective (Absorptive) thick/thin film technology
- Bit rates from 1.3 to 20 Gb/s
- Bit Error Rate (BER) optimization
- High eye diagram opening
- 40 MHz to 15 GHz
- **Custom mechanical and electrical designs available to match system requirements (Call factory for details)**

### APPLICATIONS

Aeroflex Comstron's Bessel filters are designed for OEM use in high-speed digital networks, fiber optic, and telecon systems. The FA4720 Series uses an Aeroflex proprietary thick/thin film Absorptive filter design that is a 5th order Bessel polynomial in both attenuation and group delay characteristics. The Absorptive plus Bessel combination result in optimum BER and Eye Diagram performance.

*Aeroflex Comstron's state-of-the-art designs and ISO 9001 manufacturing facilities enable us to provide high quality product in large quantities.*

## Specifications

Model Number	Fc 3dB GHz	Fc Tolerance ±GHz	Bit Rate Gb/s
FA4720-1	1.00	0.05	1.3
FA4720-2	1.30	0.065	1.7
FA4720-3	1.87	0.093	2.5
FA4720-4	3.40	0.17	4.5
FA4720-5	4.30	0.22	5.7
FA4720-6	7.46	0.37	10
FA4720-7	10.60	0.53	14
FA4720-8	15.00	0.75	20

IMPEDANCE 50 OHMS

RETURN LOSS (IN/OUT) > 13 dB to 4xFc for -1 thru -5, to 2xFc for -6 thru -8

INSERTION LOSS @ Fc/10 < 0.10 dB

SHAPE FACTOR vs. LOSS

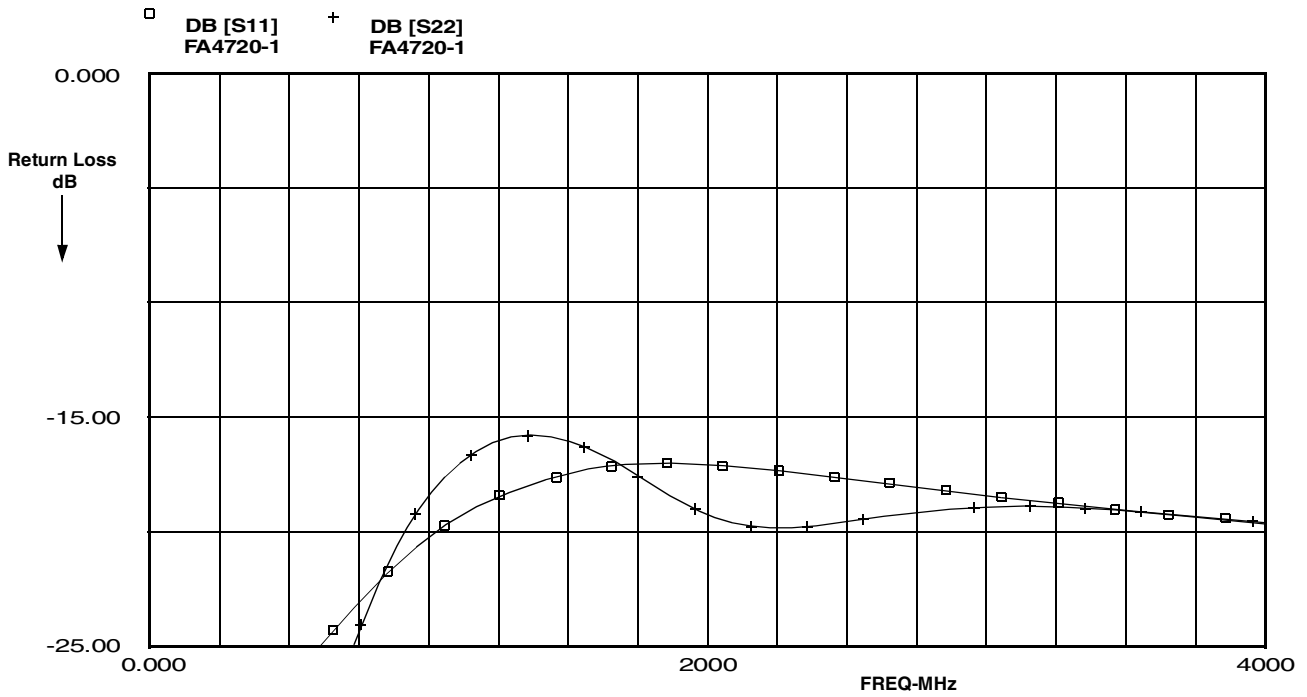
Shape Factor (Ratio of F/Fc)	Insertion Loss dB (Typical)
1.50	7.5
2.00	14
3.00	28
4.00	39

MAXIMUM INPUT POWER 23 dBm

OPERATING TEMPERATURE RANGE 0°C to +85°C



**Insertion Loss and Group Delay**

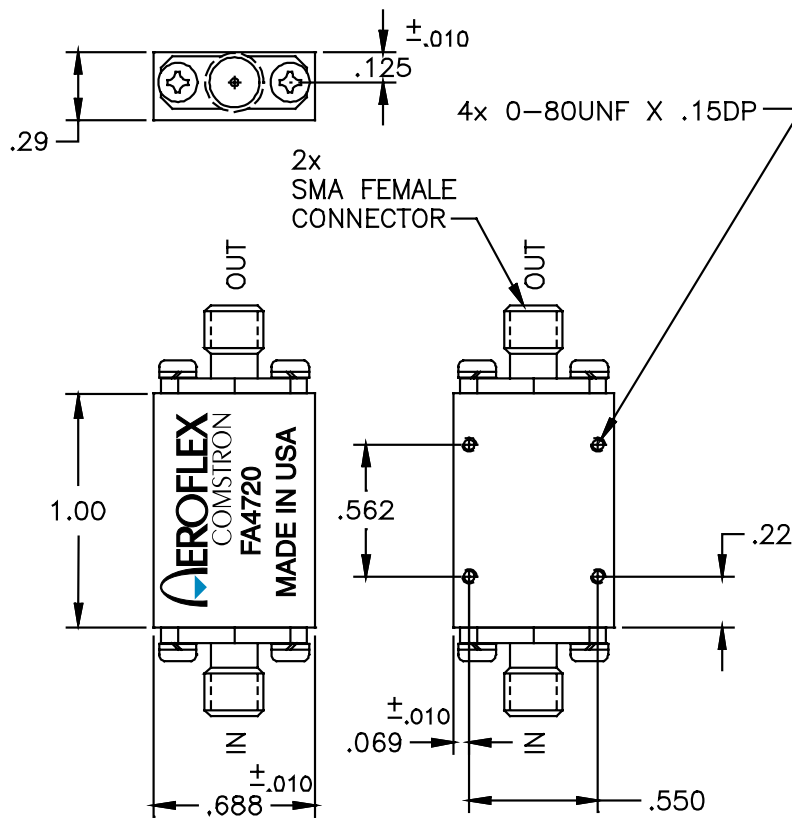


**Return Loss**

## Ordering Information

Model Number	Fc	Package
FA4720-1	1.00 GHz	See Package Outline
FA4720-2	1.30 GHz	
FA4720-3	1.87 GHz	
FA4720-4	3.40 GHz	
FA4720-5	4.30 GHz	
FA4720-6	7.46 GHz	
FA4720-7	10.60 GHz	
FA4720-8	15.00 GHz	

## PACKAGE OUTLINE



Custom Packaging Available - Contact Factory

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