Thin Film Technology Corp.

Product Family: Bessel Absorptive Filter - 7 th Order, LGA

Part Number Series: FL7-LGA Series

Construction:

- High Purity Alumina Substrate
- Nickel alloy thin-film resistive element
- Epoxy-resin overcoat
- RoHS compliant and lead free (Gold terminations)
- Suitable for reflow processing

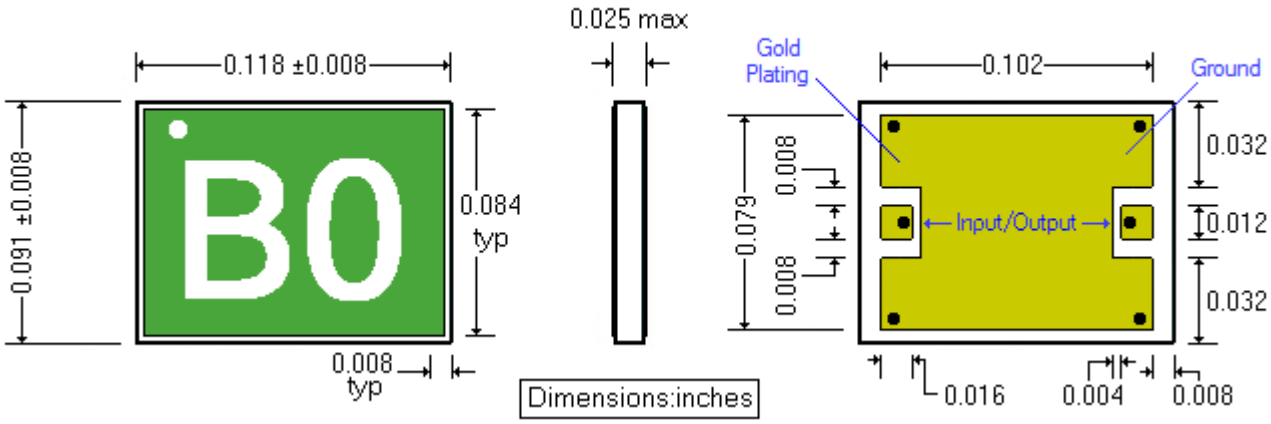
Features:

- Cutoff frequencies between 8.0GHz and 15.0GHz*
- Low pass
- Absorptive
- Land Grid Array (LGA) for high bandwidth
- Competitive pricing

Description:

Thin Film Technology FL7, Land Grid Array (LGA) series of low pass filters are designed for cost effective use in applications where low phase dispersion and good return loss are important characteristics. The Filter performs an absorptive, low pass function that attenuates high frequencies. The high bandwidth LGA surface mount construction creates a high performance filter that is easy for you to use and can be mounted using traditional reflow processing. The standard series covers from 8.0 GHz to 15.0 GHz*. This filter can be used in applications from loss emulation to adjusting optical receiver sensitivities and others.

Product Dimensions:



Part Numbering: Ex. FL7B5BZ110S-T#-C

Product Designator	Orders	Type	Impedance	Function	Footprint	Cutoff Freq.*	Custom Code	T&R Qty (see note)	RoHS Indicator
FL	7 (7th Order)	B (Absorptive)	5 (50 ohm)	B (Bessel)	Z (6 pad LGA)	080 = 8.0 GHz, 090 = 9.0 GHz, 100 = 10.0 GHz, 110 = 11.0 GHz, 120 = 12.0 GHz, 130 = 13.0 GHz, 140 = 14.0 GHz, 150 = 15.0 GHz,	S (Standard) TBD (Custom)	-T1=100 -T5=500	-C = RoHS (not offered as non-RoHS)

Note: T&R package quantity (-T#) will be added to the part number by us depending on the quantity ordered.

* The cutoff frequency, part numbering and product marking which list the cutoff frequency are based on Ground-Signal-Ground probe measurements. When mounted on the recommended land pattern, the cutoff frequency will shift down. Consult our Sales Engineering group for assistance in selecting the proper filter for your application.

Electrical Specifications:

Parameter	Specification
English Size	1209
Metric Size	3023
Type	Absorptive Low Pass
Function	Bessel
Order	7th
Reference Impedance	50 ohms
Fc Cutoff Freq (-3dB)	8.0 to 15.0GHz* in 1.0 GHz steps
Fc Cutoff Tolerance	Fc (-3dB) ±5% (ie 11.0 ±0.55 GHz)
Return Loss (S11) (S22)	<15dB Loss through Fc <15dB Loss through Fc
Rejection	-10dB through two times Fc
Group Delay Ripple (max)	10ps Max through Fc
Rated Current	100mA
Isolation Resistance	>100Mohm @ 50Vdc
Operating Temperature	-40°C ~ +85°C
Packaging	100 or 500 pcs/reel

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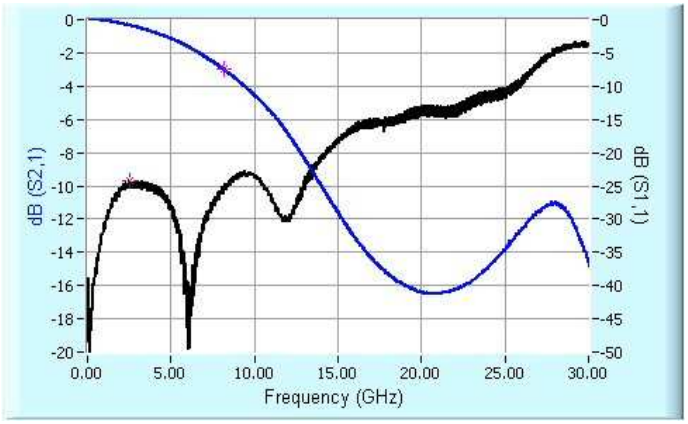
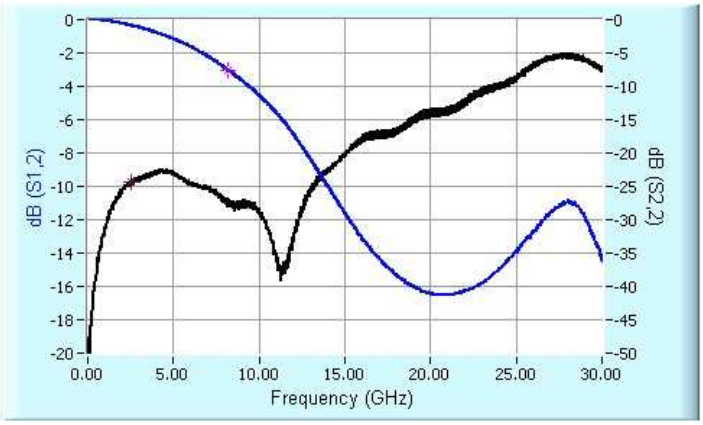
Please consult the factory for any desired variations to the above specifications

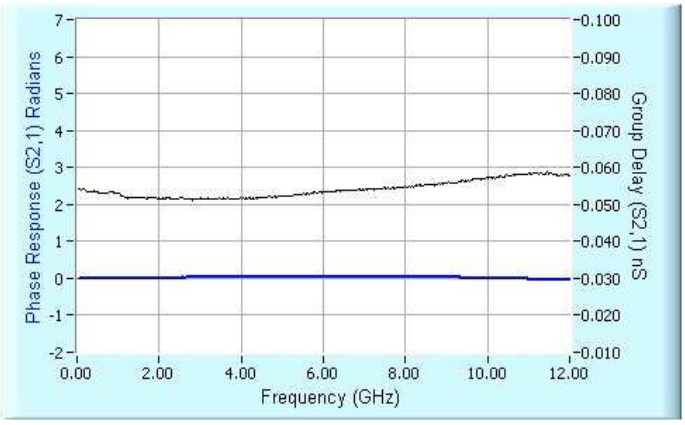
Frequency Performance Plots of 8 GHz Filter (typical):



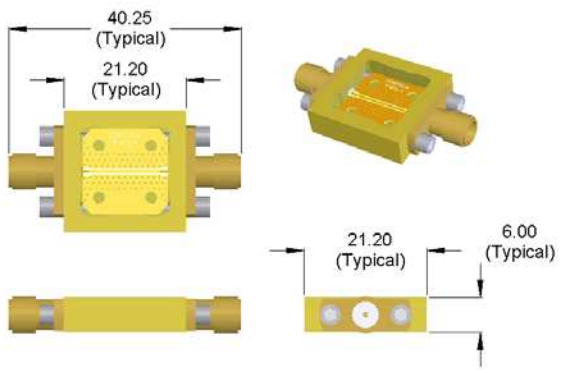
S2,1 (Blue) / S1,1 (Black)



S1,2 (Blue) / S2,2 (Black)



Phase Response (Blue) / Group Delay (Black)



These products are available mounted into a Coaxial Measurement Module (CMM) for bench evaluation purposes. Please call the factory.

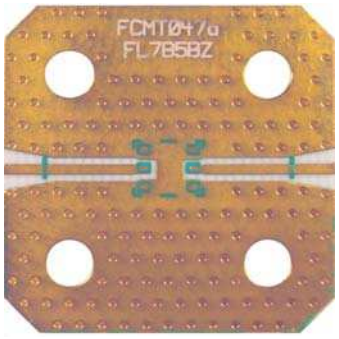
Marking and Recommended Land Pattern:

Marking:

Marking Explanation:

- Pin A1 Identifier
- Two digit code representing the cutoff frequency as listed below. *
  - 80 = 8.0GHz
  - 90 = 9.0GHz
  - A0 = 10.0GHz
  - B0 = 11.0GHz
  - C0 = 12.0GHz
  - D0 = 13.0GHz
  - E0 = 14.0GHz
  - F0 = 15.0GHz

Recommended Land Pattern:



Please call the factory for DXF output of Land Pattern

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