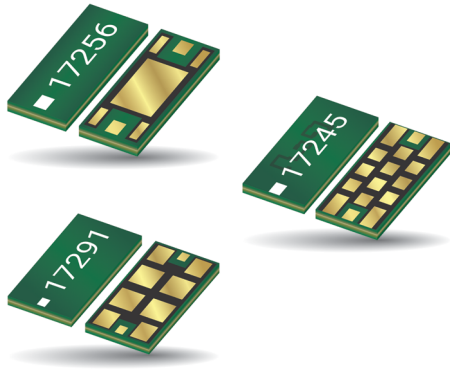


# Multilayer Organic (MLO®) Filters

## MLO® X Band Filters

### General Information



#### GENERAL DESCRIPTION

MLO® X Band Filters are low profile passive devices with best in class performance based on KYOCERA AVX's patented multilayer organic high density interconnect technology. MLO® X Band Filters utilize high dielectric constant and low loss materials to realize high Q passive printed elements, such as inductors and capacitors, in a multilayer stack. This results in a 50Ω MLO® X Band Filters design. MLO® X Band Filters can support both a variety of frequency bands and multiple wireless standards, and are less than 1.0mm in thickness. All filters are expansion matched to most organic PCB materials, thereby resulting in improved reliability over standard Si and ceramic devices.

#### FEATURES

- Wide Frequency Range
- Excellent Isolation
- Low Loss
- Expansion matched to PCB
- 50Ω Impedance
- Surface Mountable
- RoHS Compliant

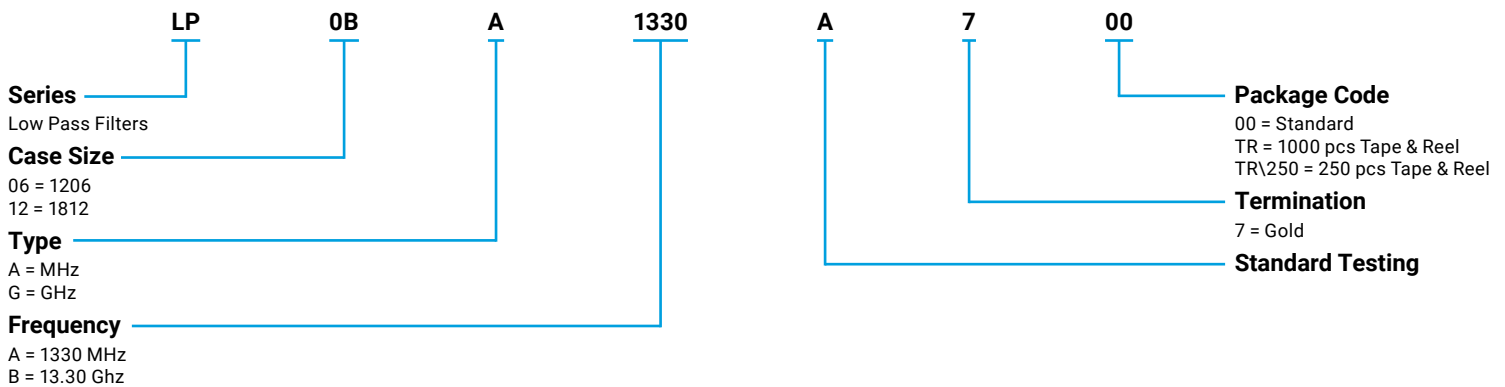
#### APPLICATIONS

- Satellite
- Communications
- Radar
- Maritime Communications

#### LAND GRID ARRAY ADVANTAGES

- Inherent Low Profile
- Excellent Solderability
- Better Heat Dissipation

#### HOW TO ORDER



#### QUALITY INSPECTION

Finished Parts are 100% electrically tested

#### TERMINATION

All finishes are compatible with automatic soldering technologies: Pb free reflow, wave soldering, vapor phase, and manual soldering.

#### OPERATING TEMPERATURE

-55°C to +85°C



**S2P FILES, DRAWING AND OTHER INFORMATION AVAILABLE IN LINK ON INDIVIDUAL DATASHEETS**

# Multilayer Organic (MLO®) Filters

## MLO® X Band Filters

### LOW PASS X BAND FILTERS

Part Number	IL <1.5 dB Passband DC- Fo (GHz)	Passband Typical	Typical 3dB	30 dB Rejection		Footprint	Thickness	
				Min	Max		Typical	Max
LP0AA7640A700	7.640	0.9	8.624	10.427	16.000	A	16	22
LP0AA7720A700	7.719	0.9	8.909	10.448	16.000	A	16	22
LP0AA8200A700	8.204	0.9	9.123	10.752	16.000	A	16	22
LP06A8750A700	8.750	0.9	10.21	12.926	28.500	1206	9	13
LP06A9230A700	9.232	0.9	10.75	13.073	28.500	1206	9	13
LP06A9410A700	9.421	0.9	11.51	13.787	28.500	1206	9	13
LP12G1020A700	10.213	0.9	12.31	13.923	20.653	1812	16	22
LP12G1040A700	10.441	0.9	12.92	14.952	21.100	1812	16	22
LP12G1070A700	10.697	0.9	12.94	14.69	21.651	1812	16	22

↑ [Click on part number to see full specifications](#)

### HIGH PASS X BAND FILTERS

Part number	IL <2 dB Passband (GHz)		Passband Typical	Typical 3dB	30 dB Rejection	Footprint	Thickness	
	Min	Max					Typical	Max
HF12A7750A700	7.746	19.000	1	6.985	6004	1812	26	28
HF12A8000A700	8.007	19.000	1	7.199	6173	1812	26	28
HF12A8360A700	8.357	19.000	1	7.448	6399	1812	26	28
HF06G1270A700	12.695	27.550	1	10.43	8360	1206	26	28
HF06G1280A700	12.747	28.158	1	10.58	8337	1206	26	28
HF06G1340A700	13.440	28.757	1	11.14	8824	1206	26	28

↑ [Click on part number to see full specifications](#)

# Multilayer Organic (MLO®) Filters

## MLO® X Band Low Pass Filters

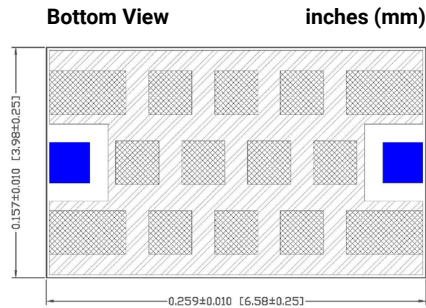
### LP0AA7640A7\*\*

#### ELECTRICAL SPECIFICATIONS

<b>Pass Band</b>	DC - 7.64	1.5 dB	Max
	DC - 7.64	0.9 dB	Typical
	3dB cutoff	8.624 dB	Typical
<b>Rejection</b>	10.427 - 16.000	30 dB	Min
<b>Dimension</b>	Thickness	16 mils	Typical
		22 mils	Max

[Click here to return to main table.](#)

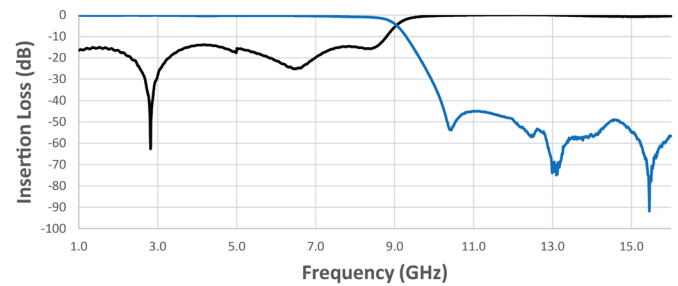
#### DIMENSIONS – CASE SIZE A



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Typical Frequency Response



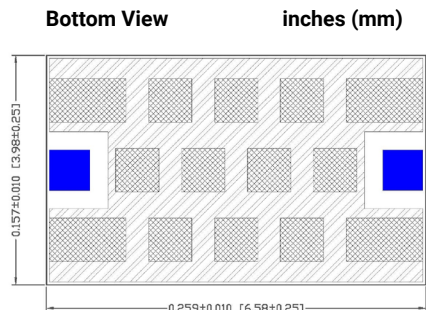
### LP0AA7720A7\*\*

#### ELECTRICAL SPECIFICATIONS

<b>Pass Band</b>	DC - 7.719	1.5 dB	Max
	DC - 7.719	0.9 dB	Typical
	3dB cutoff	8.909 dB	Typical
<b>Rejection</b>	10.448 - 16.000	30 dB	Min
<b>Dimension</b>	Thickness	16 mils	Typical
		22 mils	Max

[Click here to return to main table.](#)

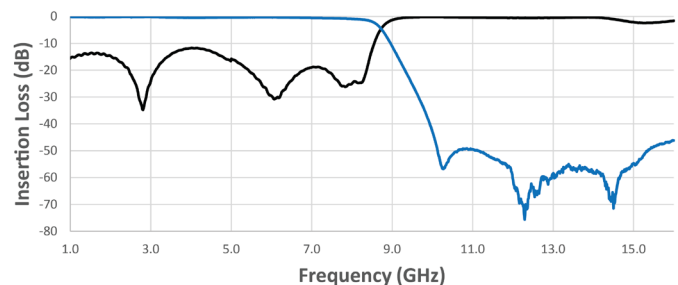
#### DIMENSIONS – CASE SIZE A



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Typical Frequency Response



# Multilayer Organic (MLO®) Filters

## MLO® X Band Low Pass Filters

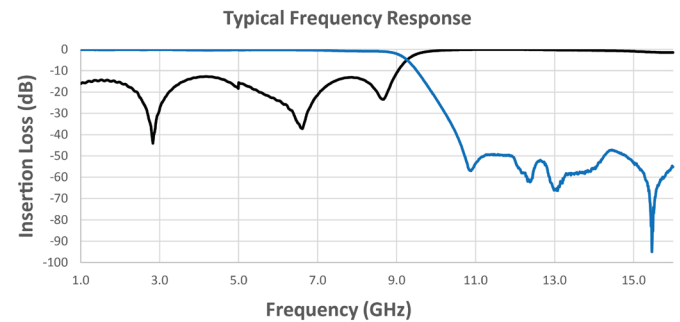
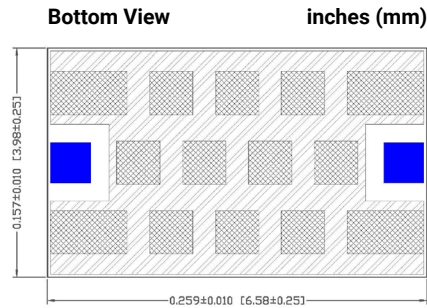
### LP0AA8200A7\*\*

#### ELECTRICAL SPECIFICATIONS

<b>Pass Band</b>	DC - 8.204	1.5 dB	Max
	DC - 8.204	0.9 dB	Typical
	3dB cutoff	9.123 dB	Typical
<b>Rejection</b>	10.752 - 16.000	30 dB	Min
<b>Dimension</b>	Thickness	16 mils	Typical
		22 mils	Max

[Click here to return to main table.](#)

#### DIMENSIONS – CASE SIZE A



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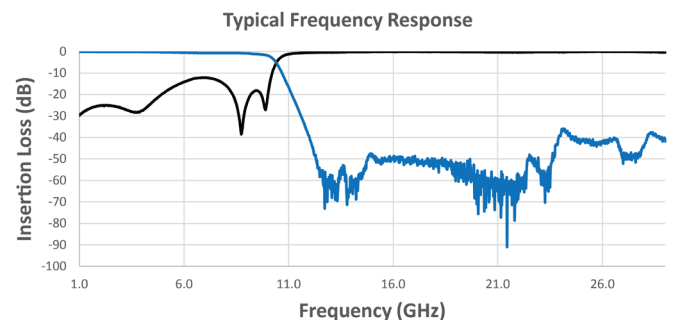
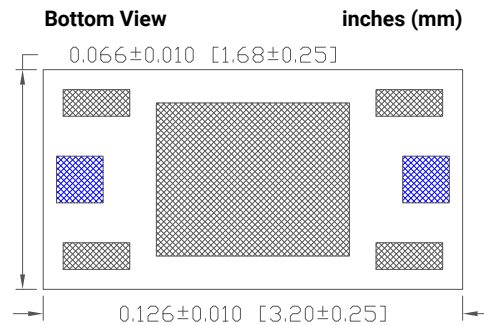
### LP06A8750A7\*\*

#### ELECTRICAL SPECIFICATIONS

<b>Pass Band</b>	DC - 8.75	1.5 dB	Max
	DC - 8.75	0.9 dB	Typical
	3dB cutoff	10.21 dB	Typical
<b>Rejection</b>	12.926 - 28.500	30 dB	Min
<b>Dimension</b>	Thickness	9 mils	Typical
		13 mils	Max

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#### DIMENSIONS – CASE SIZE 1206



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# Multilayer Organic (MLO®) Filters

## MLO® X Band Low Pass Filters

### LP06A9230A7\*\*

#### ELECTRICAL SPECIFICATIONS

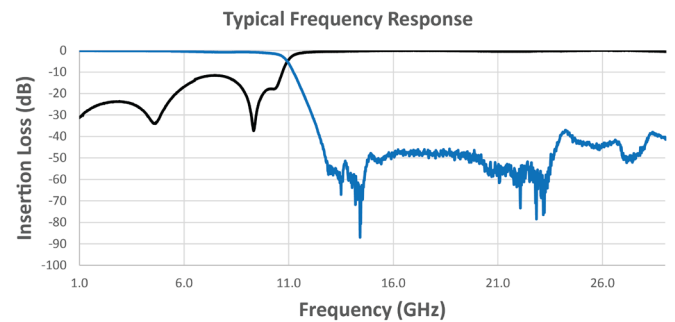
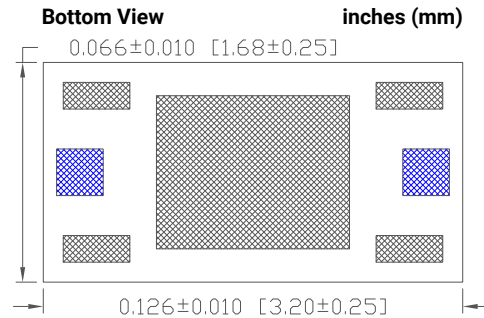
Pass Band	DC - 9.232	1.5 dB	Max
	DC - 9.232	0.9 dB	Typical
	3dB cutoff	10.75 dB	Typical
Rejection	13.073 - 28.500	30 dB	Min
Dimension	Thickness	9 mils	Typical
		13 mils	Max

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### LP06A9410A7\*\*

#### ELECTRICAL SPECIFICATIONS

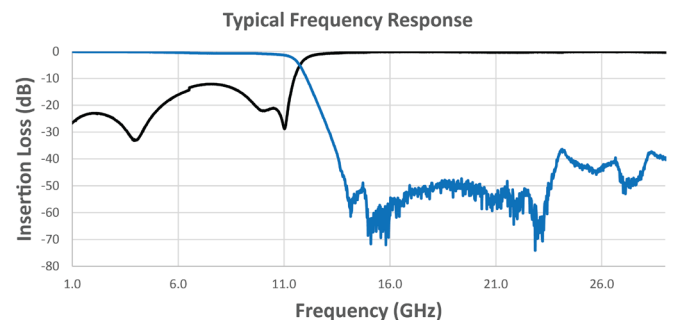
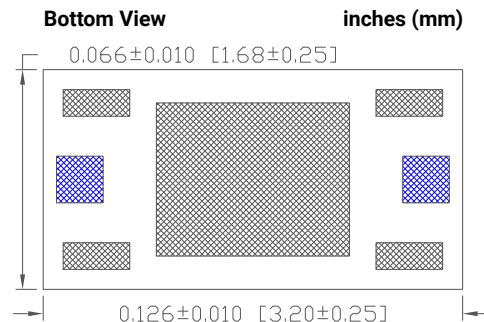
Pass Band	DC - 9.421	1.5 dB	Max
	DC - 9.421	0.9 dB	Typical
	3dB cutoff	11.51 dB	Typical
Rejection	13.787 - 28.500	30 dB	Min
Dimension	Thickness	9 mils	Typical
		13 mils	Max

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#### DIMENSIONS – CASE SIZE 1206



# Multilayer Organic (MLO®) Filters

## MLO® X Band Low Pass Filters

### LP12G1020A7\*\*

#### ELECTRICAL SPECIFICATIONS

<b>Pass Band</b>	DC - 10.213	1.5 dB	Max
	DC - 10.213	0.9 dB	Typical
	3dB cutoff	12.31 dB	Typical
<b>Rejection</b>	13.923 - 20.653	30 dB	Min
<b>Dimension</b>	Thickness	16 mils	Typical
		22 mils	Max

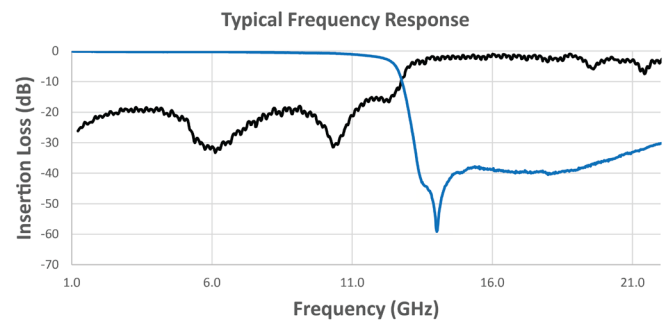
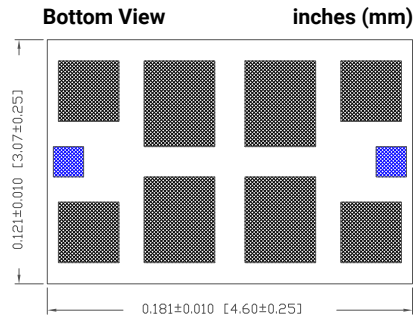
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#### DIMENSIONS – CASE SIZE 1812



### LP12G1040A7\*\*

#### ELECTRICAL SPECIFICATIONS

<b>Pass Band</b>	DC - 10.441	1.5 dB	Max
	DC - 10.441	0.9 dB	Typical
	3dB cutoff	12.92 dB	Typical
<b>Rejection</b>	14.952 - 21.100	30 dB	Min
<b>Dimension</b>	Thickness	16 mils	Typical
		22 mils	Max

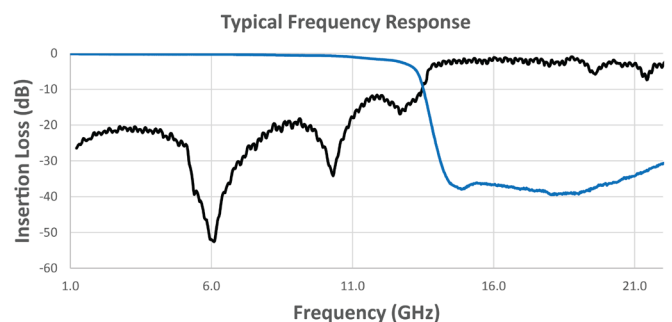
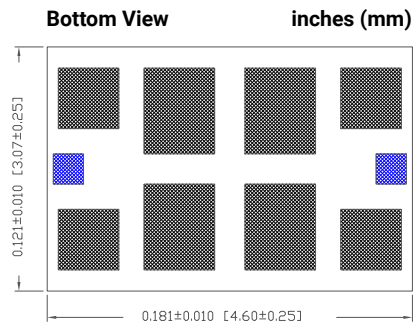
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#### DIMENSIONS – CASE SIZE 1812



# Multilayer Organic (MLO®) Filters

## MLO® X Band Low Pass Filters

### LP12G1070A7\*\*

#### ELECTRICAL SPECIFICATIONS

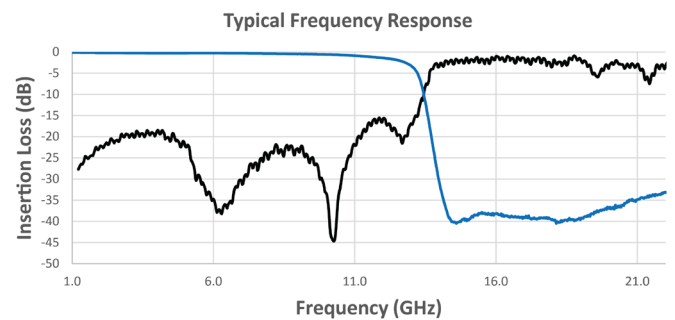
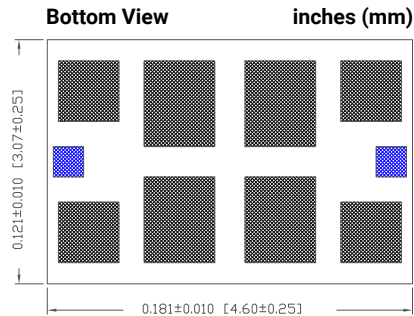
<b>Pass Band</b>	DC - 10.697	1.5 dB	Max
	DC - 10.697	0.9 dB	Typical
	3dB cutoff	12.94 dB	Typical
<b>Rejection</b>	14.690 - 21.651	30 dB	Min
<b>Dimension</b>	Thickness	16 mils	Typical
		22 mils	Max

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#### DIMENSIONS – CASE SIZE 1812



### HF12A7750A7\*\*

#### ELECTRICAL SPECIFICATIONS

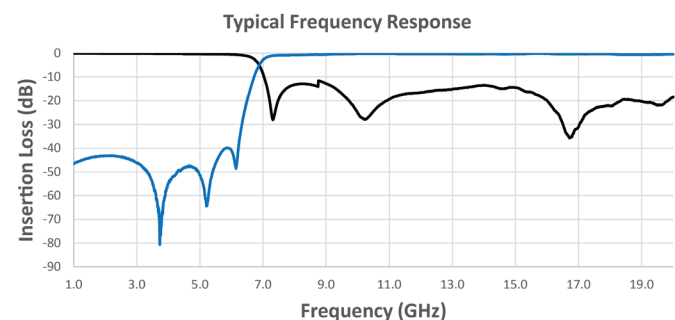
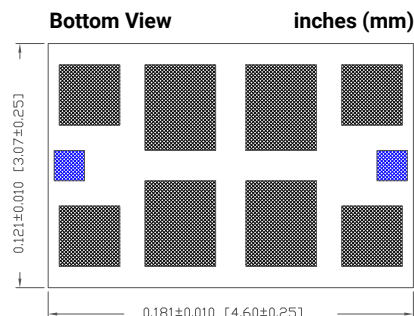
<b>Pass Band</b>	7.746 - 19	2 dB	Max
	7.746 - 19	1 dB	Typical
	3dB cutoff	6.985 dB	Typical
<b>Rejection</b>	DC - 6.004	30 dB	Min
<b>Dimension</b>	Thickness	26 mils	Typical
		28 mils	Max

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#### DIMENSIONS – CASE SIZE 1812



# Multilayer Organic (MLO®) Filters

## MLO® X Band High Pass Filters

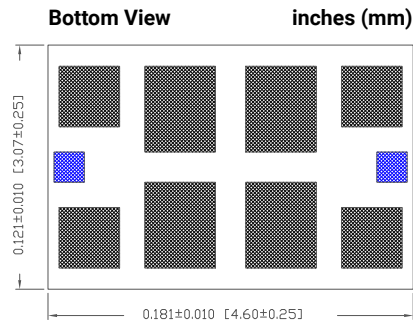
### HF12A8000A7\*\*

#### ELECTRICAL SPECIFICATIONS

Pass Band	8.007 - 19	2 dB	Max
	8.007 - 19	1 dB	Typical
	3dB cutoff	7.199 dB	Typical
Rejection	DC - 6.173	30 dB	Min
Dimension	Thickness	26 mils	Typical
		28 mils	Max

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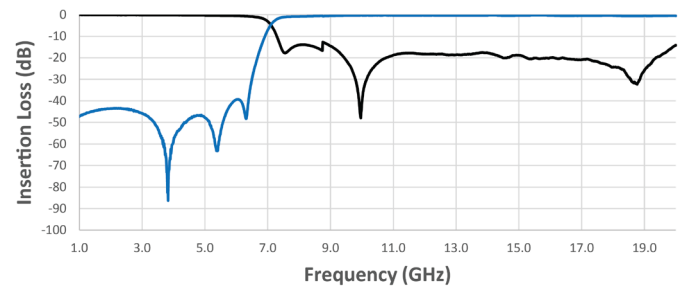
#### DIMENSIONS – CASE SIZE 1812



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Typical Frequency Response



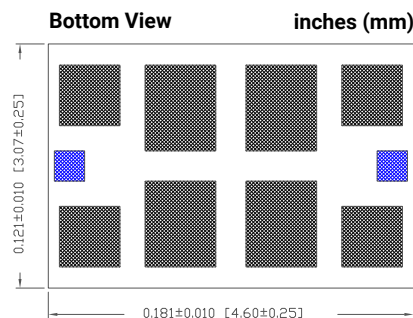
### HF12A8360A7\*\*

#### ELECTRICAL SPECIFICATIONS

Pass Band	8.357 - 19	2 dB	Max
	8.357 - 19	1 dB	Typical
	3dB cutoff	7.448 dB	Typical
Rejection	DC - 6.399	30 dB	Min
Dimension	Thickness	26 mils	Typical
		28 mils	Max

[Click here to return to main table.](#)

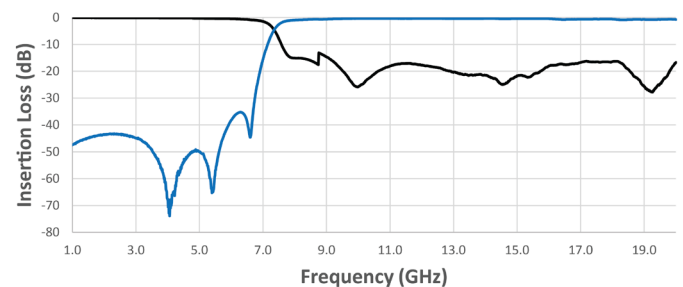
#### DIMENSIONS – CASE SIZE 1812



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Typical Frequency Response



# Multilayer Organic (MLO®) Filters

## MLO® X Band High Pass Filters

### HF06G1270A7\*\*

#### ELECTRICAL SPECIFICATIONS

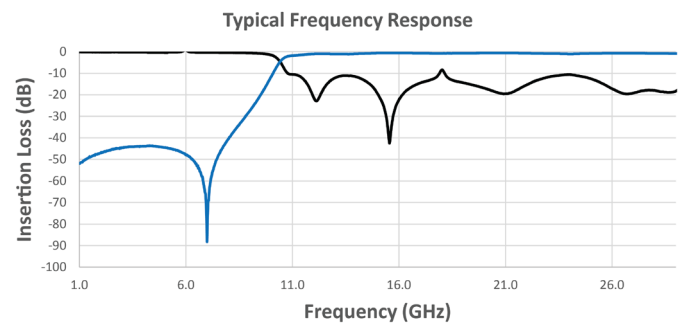
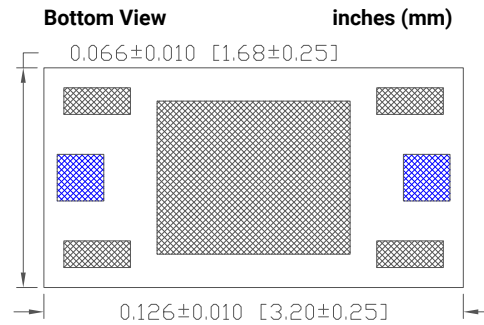
Pass Band	12.695 - 27.55	2 dB	Max
	12.695 - 27.55	1 dB	Typical
	3dB cutoff	10.43 dB	Typical
Rejection	DC - 8.360	30 dB	Min
Dimension	Thickness	26 mils	Typical
		28 mils	Max

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#### DIMENSIONS – CASE SIZE 1206



### HF06G1280A7\*\*

#### ELECTRICAL SPECIFICATIONS

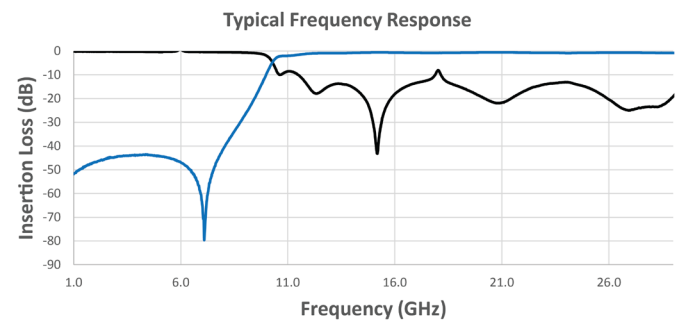
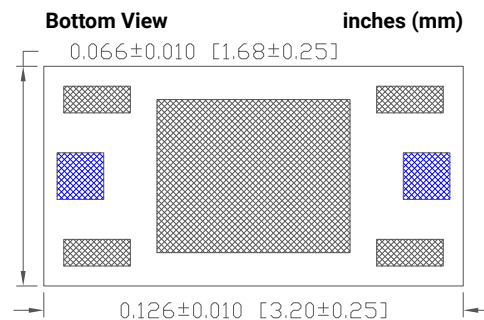
Pass Band	12.747 - 28	2 dB	Max
	12.747 - 28	1 dB	Typical
	3dB cutoff	10.58 dB	Typical
Rejection	DC - 8.337	30 dB	Min
Dimension	Thickness	26 mils	Typical
		28 mils	Max

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#### DIMENSIONS – CASE SIZE 1206



# Multilayer Organic (MLO®) Filters

## MLO® X Band High Pass Filters

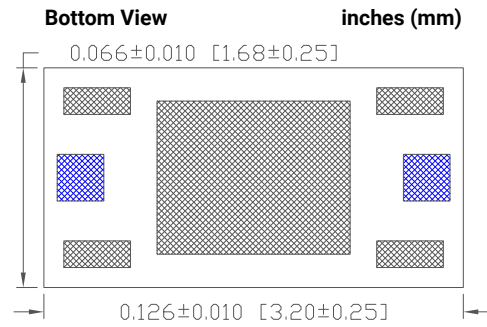
### HF06G1340A7\*\*

#### ELECTRICAL SPECIFICATIONS

<b>Pass Band</b>	13.44 - 28	2 dB	Max
	13.44 - 28	1 dB	Typical
	3dB cutoff	11.14 dB	Typical
<b>Rejection</b>	DC - 8.824	30 dB	Min
<b>Dimension</b>	Thickness	26 mils	Typical
		28 mils	Max

[Click here to return to main table.](#)

#### DIMENSIONS – CASE SIZE 1206



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