



Part Dimensions: 6.5 × 5.1 × 1.8 mm • 0.1 g



# XLF0380A

## <3.8 GHz "Clean-up" Lowpass Filter

### **Features**

- High-power handling in small size
- Low Insertion Loss and Ripple.
- Provides excellent 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> harmonic rejection

### **Applications**

Wireless Infrastructure applications

### Description

Low-pass filter with high power handling engineered to provide a complete system solution for harmonic suppression need in a single surface-mount component.

## **Electrical Specifications**

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power per port	-	-	-	6.0 Watt max
Peak Input Power per port	-	-	-	60 Watt max
Input-Output Response Passband Insertion Loss	3300 - 3800			0.65 dB max
Passband Return Loss	3300 - 3800			16 dB min
Attenuation:	6600 - 6899			30 dB min
(2 <sup>nd</sup> & 3 <sup>rd</sup> harmonics)	6900 – 11400			40 dB min
(4 <sup>th</sup> & 5 <sup>th</sup> harmonics)	13200 - 19000			15 dB min

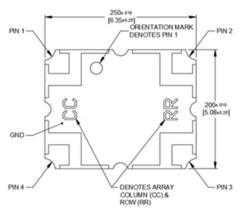
Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances. Specification Allowance Insertion Loss 0.1 dB Return Loss 1.0 dB Attenuation 1.0 dB

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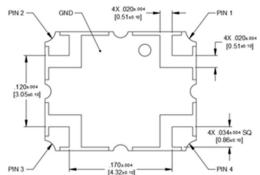
## **Mechanical Drawing**

#### Top-side



Dimensions are in Inches [Milimeters]

#### 4X .020±.004 [0.51±0.10] .048 . 004 PIN 2 GND [1.21:0.10]



Bottom-side

**TOLERANCES ARE NON-CUMULATIVE** 

## **Electrical Response**

#### 0 -10 -20 Measured -30 -40 -50 -60 -70 -80 RS 500 3250 6000 8750 11500 Frequency Marker Freq[MHz] 3300 3550 3800 6900 11400 -34.1 -0.337 -34.6 -0.38 -0.202 -46.8 -0.0726 -57.8 ■ S11[dB](1) -23.4 ■ S21[dB](1) -0.324

## Pin Assignments And PCB Layout

Pin 1	Pin 2	Pin 3	Pin 4
Input	Output	Ground	Ground
Output	Input	Ground	Ground

To ensure proper electrical and thermal

performance there must be a ground plane with 100% solder connection underneath the part orientated as shown with text facing up [4.32] 2x 500 Transmission Lines 2x .034 [0.86]

Dimensions are in Inches [Millimeters]

Multiple plated thru holes to ground

## **Ordering Information**

Model	Packaging
XLF0380A	Tape & Reel

Dimension	Units	Spec.
Reel Diameter	mm	330
Reel Weight	kg	
Reel Quantity	ea.	2000

