



Integrated LC Infrared Filter with 1 kΩ cold bias resistor



Description:

The QMC-CLCE-160AMF-1K is an integrated infrared absorber and multi-stage LC filter with 1 kΩ bias resistor. The multipole LC filter has a cutoff frequency of 160 MHz with a steep roll-off provided by the reflective LC filter and continuous attenuation provided by the infrared absorber out to >100 GHz. The filter incorporates infrared absorber regions of dielectric which minimizes high frequency transmission. The filter is designed for low temperature operation with good thermalization to the OFHC copper housing and the integrated 1 kΩ bias resistor. The filter is designed for low frequency/DC biasing applications. The resistivity of NiCr has a small temperature coefficient and is ideal for use in cryogenic environments.

Specifications:

- LC filter cutoff @ 160 MHz, with steep roll-off
- Based on integrated LTCC filter with magnetically loaded dielectric absorber Eccosorb CR 124
- NiCr 1 kΩ cold bias resistor
- Capable of operation at 10 mK
- Connector 1: SMA Male
- Connector 2: SMA Female
- Housing Gold Plated OFHC Copper

Functional Circuit Schematic

