WCM700-13-4

multi-channel RF filters

PRODUCT DESCRIPTION

WCM's patent-pending technology provides a great improvement in RF filtering technology, by improving impedance characteristics, space efficiency, power handling and temperature stability compared to LC parallel filters. Advancements include:

- Novel technique for making highly compact, narrow band, high impedance filters tunable for frequencies from 1 MHz to 50 MHz
- Supports high power applications
- Coils placed in series to permit independent filtering at multiple frequencies
- Technology enables multiple parallel independent filter channels into a single filter coil.

ENGINEERING DATA

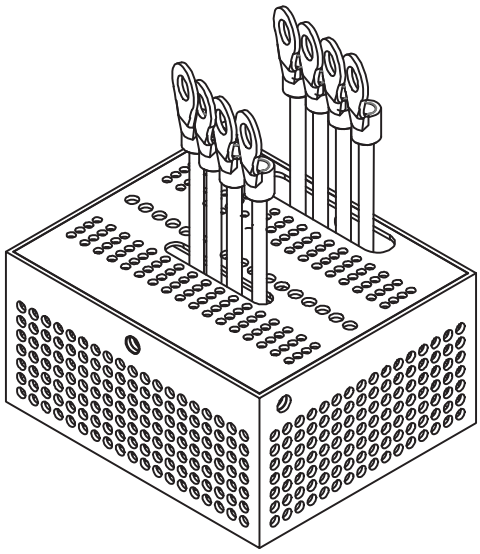
Single-component design

WCM's technology, rather that combating parasitic effects, takes advantage of them. The parasitic compacitance becomes the resonating capacitance for the turns of copper comprising the inductor. The designer is no longer concerned with sourcing the correct capacitor and inductor (specifying individual components). The designer can instead use a single WCM multi-channel filter and be assured the parallel LC circuit will have high impedance, without any subcomponent tuning.

13485:2016 certified ISO

9001:2015 certified ISO

RoHS compliant



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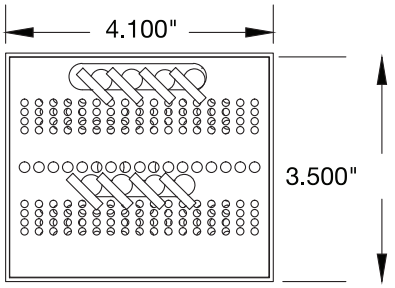
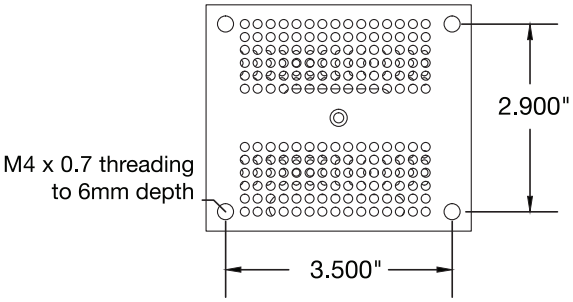
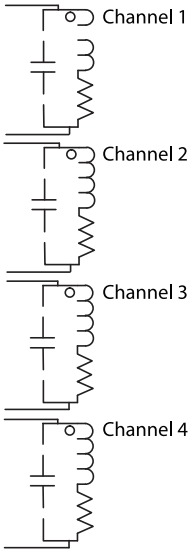
WCM700-13-4
Top View



WCM700-13-4
Bottom View



WCM700-13-4
Schematics



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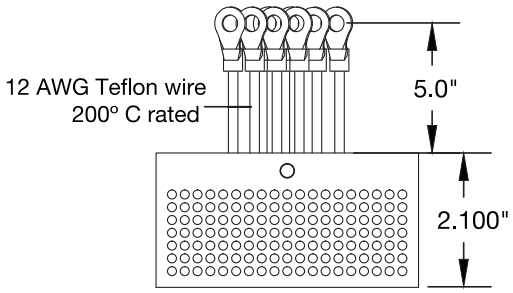
Side View



SPECIFICATIONS (each channel)

Impedance: >10 kΩ @ 13.56 MHz
SRF @ 13.56 MHz ± 0.5 MHz MHz

L: 7µH nom. @25° C, 100 kHz

C: 15 pF nom.

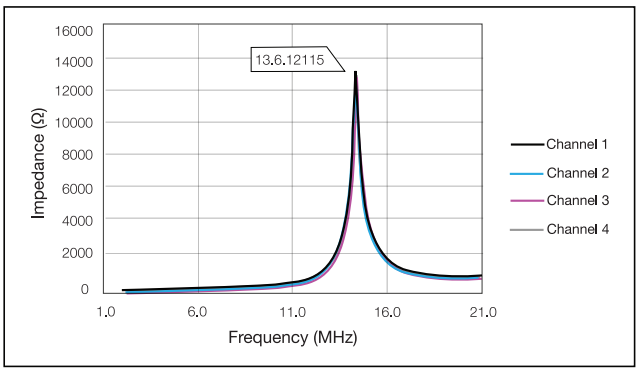
DCR: 14 mΩ nom. @25° C

AC hipot test: 2.5 kV,
<20 mA leakage channel to channel

DC hipot test:
3.5 kV <0.05 mA leakage channel to channel
6kVDC <0.05 mA leakage channel to chassis

All materials Class H
155° C rated unless otherwise noted

WCM700-13-4 Series
Impedance vs. Frequency



WCM700-13-4 Series
Phase vs. Frequency