EM-7846 | Tunable Notch Filter Network

Description

The Electro-Metrics Model EM-7846 Tuntable Notch Filter Network is a turntable cavity rejection filter operating from 2.2 to 3.1 GHz and used to perform specification compliance testing as stated in MIL-STD-462 and other related standards where attenuation is required at one selected frequency. The cavity exhibits very sharp resonances at the tuned frequency with low insertion loss and low skirt attenuation.

The EM-7846 has optimum performance when resonance in the TE011 mode and can operate over a wide range of power levels. The cavity and associated tuning mechanism is constructed of copper, brass, and aluminum alloys. The network is supported by four (4) legs mounted to the square base plate of the cavity cylinder.

Due to the precise nature of the cavity for operation in the designated frequency range, care should always be taken to ensure that the network mechanisms are not damaged when being used or transported.

Specifications

**Electrical**

**Frequency Range:** 2.2 GHz - 3.1 GHz

**Rejection:** 50 dB minimum @ tuned frequency
80 dB typical

**Insertion Loss:** 5 dB maximum

**Bandwidth:**
-20 dB at \( f_0 \pm 0.01f_0 \)
-40 dB at \( f_0 \pm 0.005f_0 \)

**Impedance:** Designed for 50Ω system

**Connector:** Type N, female

**Mechanical**

**Height:** 59.5cm (23.4")
(with maximum screw extension)

**Height, Cylinder:** 23.1cm (9.1")

**Diameter, Cylinder:** 21.0cm (8.25")

**Width, Stand:** 26.7cm (10.5")

**Weight:** 26.7cm (10.5")

Ref: 100420

Specifications subject to change without notice.

Unless otherwise specified, product is manufactured in Johnstown, NY USA.