Specification for crystal filter: **Q F 140.4-8500/07**

1. **General**
   1.1. Package:

   Pb-free and 2002/95 /EC RoHS compliant

   ![Footprint for package GM 55](image)

1.2. Type name: QF 140.4-8500/07
   
1.3. Number of poles: 6
   
1.4. Operating temperature range: -40°C to +85°C
   
1.5. Storage temperature range: -55°C to +90°C

2. **Electric values**
   2.1. Nominal centre frequency fo: 140.4 MHz
   
   2.2. **Pass band**
       2.2.1. Bandwidth between 3 dB - frequencies: > fo ± 42.5 kHz
       2.2.2. Ripple peak to peak: < 1.0 dB at fo ± 33.0 kHz
       2.2.3. Group delay distortion: < 5.0 μs
       2.2.4. Insertion loss: < 4.5 dB

   (measured on smallest attenuation in pass band)

   2.3. **Stop band**
       2.3.1. fo ± 160 kHz: > 60 dB
       2.3.2. Alternate attenuation: > 60 dB (except spurious)
       2.4. Terminating impedance R/C (input and output): 50 Ω // 0 pF
       2.5. Return loss: > 10 dB at fo ± 10 kHz
       2.6. 3rd order inband Intermodulation products
           test tones: fo ± 5 kHz, input power: -8 dBm per tone: < -40 dB referring to input power level

   2.7. Maximum operating input power level: -5 dBm
   2.7.1. Input power level for reference measurement: -10 dBm
   2.7.2. Maximum input power level without destruction: +15 dBm

3. **Marking:**
   
   manufacturer, date code
   
   QF 140.4-8500/07

4. **Environment conditions:**
   
   Corresponding to Vectron MIL standard

---

Edited by: ____________________________ date: ________________ name: ________________