Specification for crystal filter:  

**Q F 21.4 - 0020/06**

1. **General**
1.1. Package:

![Package Diagram]

1.2. Type name:  
QF 21.4-0020/06

1.3. Number of poles:  
6

1.4. Operating temperature range:  
-20°C to +70°C

1.5. Storage temperature range:  
-45°C to +85°C

2. **Electric values**

2.1. Nominal centre frequency fo:  
21.4 MHz

2.2. **Pass band**

2.2.1. Centre frequency fc:  
21.4 MHz ± 250 Hz

2.2.2. Bandwidth between 6 dB - frequencies:  

\[ \geq \text{fc} \pm 100 \text{ Hz} \]

\[ \leq \text{fc} \pm 250 \text{ Hz} \]

2.2.3. Ripple:  
Gaussian

2.2.4. Group delay distortion:  
\[ \leq 300 \mu\text{s at fc} \pm 100 \text{ Hz} \]

2.2.5. Insertion loss:  
\[ \leq 24 \text{ dB} \]

( measured on smallest attenuation in pass band )

2.3. **Stop band**

2.3.1. fc ± 0.5 kHz  
\[ \geq 40 \text{ dB} \]

2.3.2. Alternate attenuation:  
\[ \geq 60 \text{ dB} \]

2.3.3. Spurious responses:  
\[ \geq 60 \text{ dB} \]

2.4. Terminating impedance (input and output):  
50 Ω // 0 pF

3. **Marking:**

manufacturer, date code  
QF 21.4-0020/06

4. **Environment conditions:**  
Corresponding to Vectron standard CF001

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Edited by:  
date: ___________________________ name: ___________________________