Specification for monolithic crystal filter: \textbf{MQF 21.4 – 10000 / 11}

1. General
1.1. Package:

![package GS23 with dimensions and details]

1.2. Type name:
1.3. Number of poles: 2
1.4. Operating temperature range: \(-40°C \text{ to } +85°C\)
1.5. Storage temperature range: \(-45°C \text{ to } +85°C\)

2. Electric values
2.1. Nominal centre frequency \(f_o\): 21.4 MHz
2.2. Pass band
2.2.1. Centre frequency \(f_o\): 21.4 MHz
2.2.2. Bandwidth between 3 dB - frequencies: \(> f_o \pm 50\ kHz\)
2.2.3. Ripple: \(< 1.0\ dB \text{ at } f_o \pm 30.0\ kHz\)
2.2.4. Insertion loss: \(< 5.0\ dB\)
   (measured on smallest attenuation in pass band)
2.2.5. Group delay distortion: \(< 3\ \mu s \text{ at } f_o \pm 30\ kHz\)
2.3. **Stop band**

2.3.1. $f_0 \pm 350$ kHz  
$> 30$ dB (except spurious)

2.3.2. Alternate attenuation  
$> 45$ dB (except spurious)

2.4. Terminating impedance (input and output): $50 \, \Omega / 0 \, \text{pF}$

2.5. Maximum input power level: $0 \, \text{dBm} / +15 \, \text{dBm}$ (working / non-damaged)

3. **Marking:**

![Vectron YYWW MQF 21.4-10000/11](image)

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

5. **Soldering conditions**

```
<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Reflow soldering: three times max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>260°C max.</td>
<td></td>
</tr>
<tr>
<td>217°C</td>
<td></td>
</tr>
<tr>
<td>0°C</td>
<td></td>
</tr>
</tbody>
</table>
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max 300s
30...150s
10...30s
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6. **Taping:**  
Maximum 500 pcs. per reel

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Edited by: ____________________________  name: ____________________________