Specification for monolithic crystal filter: **MQF 40.048-4800/07**

1. General

1.1. Package:

1.2. Type name: MQF 40.048-4800/07

1.3. Number of poles: 8

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 $f_0$: 40.048 MHz

2.2. Pass band

2.2.1. Bandwidth between 3 dB - frequencies: $> f_0 \pm 24.0$ kHz

2.2.2. Ripple in pass band $f_0 \pm 24.0$ kHz: $< 1.5$ dB (peak to peak)

2.2.3. Insertion loss: $< 3.0$ dB

( measured on smallest attenuation in pass band )

2.2.4. Return loss (In / Out) within $f_0 \pm 24.0$ kHz: $> 11$ dB
2.3. Stop band

2.3.1. $\text{fo} \pm 48 \text{ kHz}$: $> 50 \text{ dB}$

2.3.2. $\text{fo} \pm 70 \text{ kHz}$: $> 80 \text{ dB}$

2.3.3. Alternate attenuation: $> 90 \text{ dB ( except spurious )}$

2.4. Maximum input power level: $0 / +20 \text{ ( working / non-damaged )}$

2.5. Terminating impedance $R//C$ (input and output): $50 \Omega / 0 \text{ pF}$

2.6. 3rd order in band intermodulation with test tones at $\text{fo} \pm 1.0 \text{ kHz}$ and test tone power level of $0 \text{ dBm}$ at pin 3 (output). The 3rd order distortion at $\text{fo} \pm 3.0 \text{ kHz}$ to be $> 50 \text{ dB}$ down from both $0 \text{ dBm}$ tones related to pin 1.

2.7. 3rd order out band intermodulation with test tones at $\text{fo} \pm 30 \text{ kHz}$ and $\text{fo} \pm 60 \text{ kHz}$ and test tone power level of $-6 \text{ dBm}$ at pin 1 (input). The 3rd order distortion at $\text{fo}$ to be $> 71 \text{ dB}$ down from both $-6 \text{ dBm}$ tones related to pin 3.

3. Marking:

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VECTRON YYWW
MQF 40.048-4800/07
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top view

4. Environment conditions: Corresponding to Vectron standard CF001