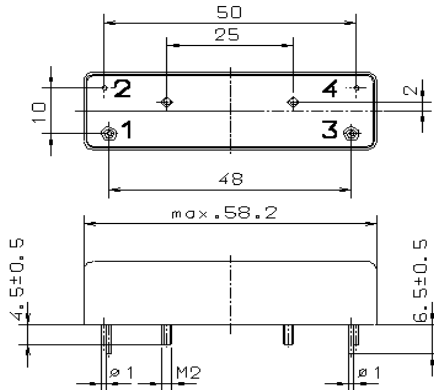


Specification for monolithic crystal filter

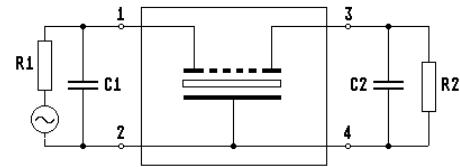
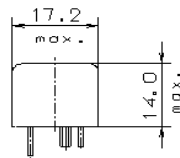
**MQF 40.025-0800/02V1**

**1. General**

1.1. Package:



**GM 7.1**



- |                                   |                      |
|-----------------------------------|----------------------|
| 1.2. Type name:                   | MQF 40.025-0800/02V1 |
| 1.3. Number of poles:             | 4                    |
| 1.4. Operable temperature range:  | -40°C to +85°C       |
| 1.5. Operating temperature range: | -25°C to +70°C       |
| 1.6. Storage temperature range:   | -55°C to +90°C       |

**2. Electric values**

- |                                   |            |
|-----------------------------------|------------|
| 2.1. Nominal centre frequency fo: | 40.025 MHz |
|-----------------------------------|------------|

**2.2. Pass band**

- |   |   |
|---|---|
| 2.2.1. Bandwidth between 1 dB - frequencies:                      | $\geq f_0 \pm 4.0$ kHz                            |
| 2.2.2. Ripple:  | $\leq 1.0$ dB at $f_0 \pm 4.0$ kHz                |
| 2.2.3. Steadiness ( at $f_0 \pm 4.0$ kHz..... $f_0 \pm 30$ kHz ): | steady curve ( at input power level $< -10$ dBm ) |
| 2.2.4. Group delay distortion:                                    | $\leq 300$ $\mu$ s ( at $f_0 \pm 4$ kHz )         |
| 2.2.5. Insertion loss ( -25°C.....+40°C ):                        | $\leq 3.0$ dB                                     |
| Insertion loss ( +40°C.....+70°C ):                               | $\leq 3.5$ dB                                     |
| ( measured on smallest attenuation in pass band )                 |   |

**2.3. Stop band**

- |                                      |  |
|--------------------------------------|--|
| 2.3.1. $f_0 \pm 30$ kHz              | $\geq 60$ dB                                   |
| 2.3.2. $f_0 -40$ .....-60 kHz        | $\geq 80$ dB                                   |
| 2.3.3. $f_0 -60$ kHz.....-39.625 MHz | $\geq 60$ dB                                   |
| 2.3.4. $f_0 +30$ kHz.....+250 MHz    | $\geq 60$ dB ( except spurious )               |
| 2.3.5. Spurious responses:           | $\geq 40$ dB ( at $f_0 \pm 30$ kHz.....2 MHz ) |

- 2.4. Terminating impedance ( input and output ):  $50 \Omega \pm 5\% // 0 \text{ pF}$
- 2.5. Intermodulation
- 2.5.1. Pin 1: input, Pin 3: output  
frequency 1, 2:  $f_0 \pm 30 \text{ kHz}, f_0 \pm 60 \text{ kHz}$   
input power level at pin 1:  $-6 \text{ dBm}$   
power level at pin 3:  $> -9 \text{ dBm}$   
IM:  $\geq 71 \text{ dB}$  ( in relation to pin 3 )
- 2.5.2. Pin 3: input  
Pin 1: output  
  
frequency 1:  $f_0 +1 \text{ kHz}$   
frequency 2:  $f_0 -1 \text{ kHz}$   
input power level at pin 3:  $0 \text{ dBm}$   
IM:  $\geq 50 \text{ dB}$  ( in relation to pin 1 )
- 2.6. Maximum input power level without damage:  $+ 20 \text{ dBm}$
3. Marking: manufacturer, date code  
MQF 40.025-0800/02V1

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Edited by: \_\_\_\_\_ date: \_\_\_\_\_ name: \_\_\_\_\_