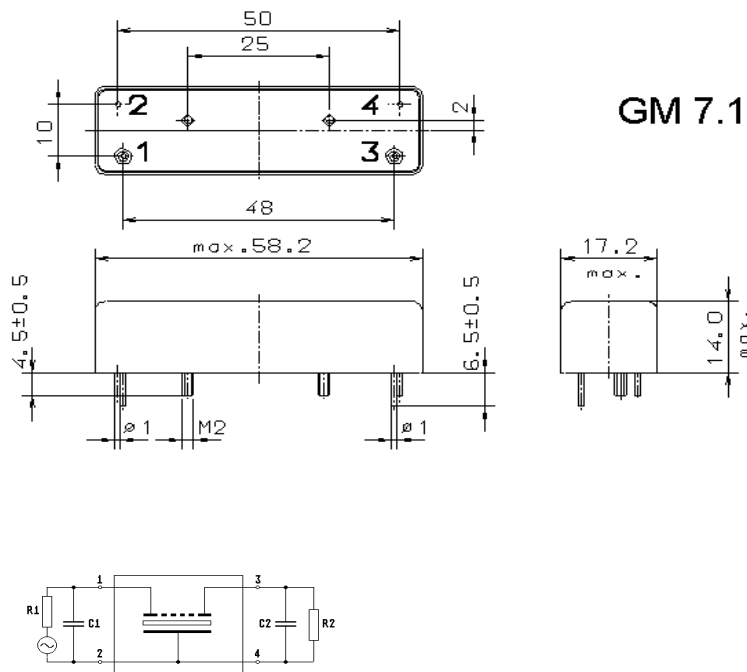


Specification for monolithic crystal filter
MQF 41.44-0800/06V1

1. General

1.1. Case:



GM 7.1

- | | |
|-----------------------------------|-----------------------------|
| 1.2. Type name: | MQF 41.44-0800/06V1 |
| 1.3. Number of poles: | 4, 3 rd overtone |
| 1.4. Operable temperature range: | -30°C to 70°C |
| 1.5. Operating temperature range: | -25°C to 70°C |
| 1.6. Storage temperature range: | -40°C to 85°C |

2. Electric values

- | | |
|---|---|
| 2.1. Nominal centre frequency f_0 : | 41.44 MHz |
| 2.2. Pass band | |
| 2.2.1. Bandwidth between 1 dB - frequencies: | $\geq f_0 \pm 4.0$ kHz |
| 2.2.2. Ripple: | ≤ 1.0 dB at $f_0 \pm 4.0$ kHz |
| 2.2.3. Change of group delay between different samples of the same type: | ≤ 300 μ s (at $f_0 \pm 4$ kHz) |
| 2.2.4. Insertion loss:
(measured on smallest attenuation in pass band) | ≤ 3.0 dB |

2.3. Stop band

- | | |
|---------------------------------------|--------------|
| 2.3.1. $f_0 + 30$ kHz.....+250 MHz | ≥ 60 dB |
| 2.3.2. $f_0 - 30$ kHz.....-2.83 MHz | ≥ 60 dB |
| 2.3.3. $f_0 - 2.83$ MHz.....-2.93 MHz | ≥ 80 dB |
| 2.3.4. $f_0 - 2.93$ MHz.....400 kHz | ≥ 60 dB |
| 2.3.5. Spurious responses: | ≥ 40 dB |

- | | |
|--|-----------------------------|
| 2.4. Terminating impedance (input and output): | $50 \Omega \pm 5\% // 0$ pF |
|--|-----------------------------|

2.5. Intermodulation

2.5.1. Pin 1: input
Pin 3: output

frequency 1: $f_0 \pm 30$ kHz
frequency 2: $f_0 \pm 60$ kHz
input power level at pin 1: -6 dBm
power level at pin 3: > -9 dBm
IM: ≥ 71 dB (in relation to pin 3)

2.5.2. Pin 3: input
Pin 1: output

frequency 1: $f_0 +1$ kHz
frequency 2: $f_0 -1$ kHz
input power level at pin 3: 0 dBm
IM: ≥ 50 dB (in relation to pin 1)

2.6. Maximum input power level: + 20 dBm

3. Environment conditions

3.1. Vibration according to IEC 68-2-6 test FC (filter case shall be fastened to the vibration table)
- frequency range (with total amplitude 0.7 mm): 10 Hz - 55 Hz
- acceleration: 49.05 m/s²
- duration: 0.5 hours

3.2. Shock according to IEC 68-2-27, test Ea
- number of directions: 3
- peak acceleration: 490.5 m/s²
- duration of the nominal pulse: 11 ms
- number of shocks: 3

3.3. Humidity test Db 40 according to IEC 68-2-30 21 cycles

3.4. Aging: 1000 hours at 70°C ± 3°C

3.5. Change of temperature according to IEC 68-2-14
- temperatures: -25°C / 70°C
- exposure time: 30 minutes
- cycles: 10

4. Others

4.1. Design: case soldered

4.2. Weight: ≤ 35 g

5. **Marking on the case:** firm, year week
MQF 41.44-0800/06V1

date: _____ name: _____