Specification for monolithic crystal filter: **MQF 70.0 - 3000/19**

1. General
1.1. Package:

![Diagram of the package]

- **Pin 1**: INPUT
- **Pin 2, 4**: GND
- **Pin 3**: OUTPUT
- **Pin 5, 6**: Coupling capacitance Cc

**Reflow soldering**: three times max.

- Temperature (°C): 260°C max.
- Time (s): max 300s

**Marking**: C1, R1, C2, R2, Cc

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Reflow soldering: three times max.
1.2. Type name: MQF 70.0-3000/19
1.3. Number of poles: 4
1.4. Operating temperature range (OTR): -40°C to +85°C
1.5. Storage temperature range: -45°C to +85°C

2. **Electric values**

2.1. Nominal centre frequency fo: 70.0 MHz
2.1.1. Frequency shift in OTR referred to +25°C: < ±25 ppm

2.2. Pass band

2.2.1. Bandwidth between 3 dB - frequencies: > fo ± 15.0 kHz
2.2.2. Ripple: < 1.0 dB at fo ± 12.0 kHz
2.2.3. Group delay distortion: < 12 µs at fo ± 12.0 kHz
2.2.4. Insertion loss: < 4.0 dB

( measured on smallest attenuation in pass band )

2.2.5. Return Loss > 10 dB at fo ± 5.0 kHz

2.3. Stop band

2.3.1. fo ± 25 kHz > 8 dB
2.3.2. fo ± 80 kHz > 50 dB
2.3.3. Alternate attenuation at fo -910 kHz > 75 dB
2.3.4. Spurious responses > 40 dB

2.4. Terminating impedance R//C (input and output): 600 Ω // 1.0 pF
2.4.1. Coupling capacitance (Cc): 6 pF

2.5. Maximum input power, working / non-damaged 0 / +10 dBm

2.6. Inband Intermodulation (IP3 > 15 dBm)
2.6.1. frequency 1/2: 70.005 MHz / 69.995 MHz
2.6.2. Input power level: -10 dBm
2.6.3. IMD > 50 dB

3. Marking: • M7019 yyww

4. Environment conditions: Corr. to Vectron MIL standard

5. Filters are Pb-free and 2002/95/EC RoHS compliant
6. Packing

maximum 1000 pcs. / reel

Tape dimension (mm)

- Trailer
  - cover tape
  - carrier tape
  - components placed
  - leader part (400mm min.)

- Leader part
  - cover tape
  - carrier tape
  - components placed
  - trailer part (200mm min.)

- Drawing out direction (leading direction)

- Marking

Tape (all dimensions in mm)

- W: 16.0 ± 0.1
- Po: 4.0 ± 0.1
- P1: 8.0 ± 0.1
- P2: 2.0 ± 0.1
- Do: 1.5 +0.1 / -0
- D1: 1.6 +0.1 / -0
- E: 1.75 ± 0.1
- F: 7.5 ± 0.1
- Ko: 1.7 ± 0.1
- Ao: 5.6 ± 0.1
- Bo: 7.6 ± 0.1
- t: 0.3 ± 0.05

Reel (all dimension in mm)

- A: ø 178 ± 2
- C: ø 13 ± 0.5
- N: ø 60 ± 1
- W1: 17.5 ± 1.5
- W2: 21.5 ± 1.5

Edited by: ____________________________ date: ____________________________ name: ____________________________