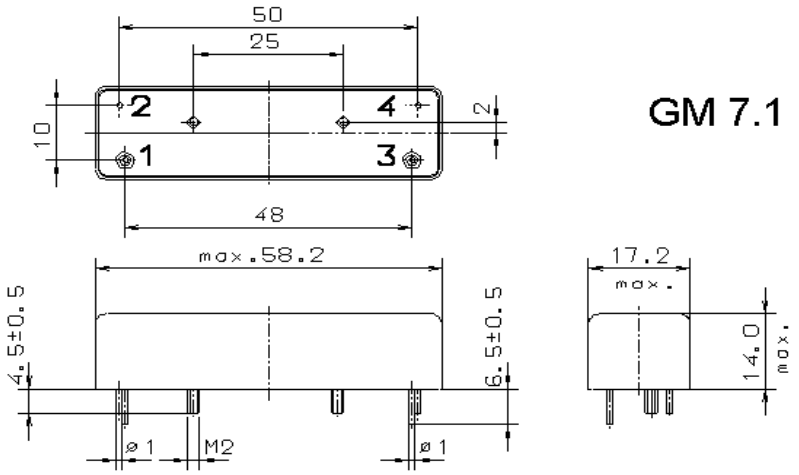
13 August 2002

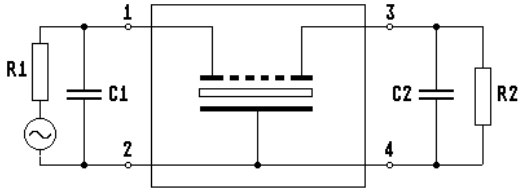
Specification for monolithic crystal filter

M Q F 4 1 . 4 4 - 0 8 0 0 / 0 6 V 1

1. General

1.1. Package:





1.2.	Type name:	MQF 41.44-0800/06V1
1.3.	Number of poles:	4
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 fo:	41.44 MHz
2.2.	**Pass band**	
2.2.1.	Bandwidth between 1 dB - frequencies:	≥ fo ± 4.0 kHz
2.2.2.	Ripple:	≤ 1.0 dB at fo ± 4.0 kHz
2.2.3.	Change of group delay between different samples of the same type:	≤ 300 µs (at f_o±4 kHz)
2.2.4.	Insertion loss: (measured on smallest attenuation in pass band)	≤ 3.0 dB
2.3.	**Stop band**	
2.3.1.	fo +30 kHz.....+250 MHz	≥ 60 dB
2.3.2.	fo - 30 kHz.....-2.83 MHz	≥ 60 dB
2.3.3.	fo -2.83 MHz.....-2.93 MHz	≥ 80 dB
2.3.4.	fo -2.93 MHz.....400 kHz	≥ 60 dB
2.3.5.	Spurious responses:	≥ 40 dB
2.4.	Terminating impedance (input and output):	50 Ω ± 5% // 0 pF

2.5. Intermodulation

2.5.1. Pin 1: input
Pin 3: output

frequency 1:	$f_o \pm 30$ kHz
frequency 2:	$f_o \pm 60$ 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_o +1 kHz
frequency 2:	f_o -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. <u>Environment conditions</u>

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. <u>Others</u>

4.1.	Design:	package soldered
4.2.	Weight:	≤ 35 g

5. Marking: manufacturer, date code
MQF 41.44-0800/06V1

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date: _____ name: _____