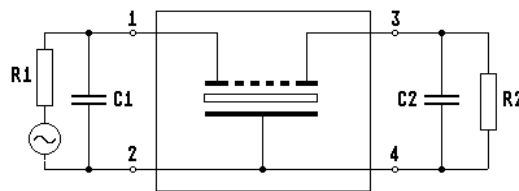
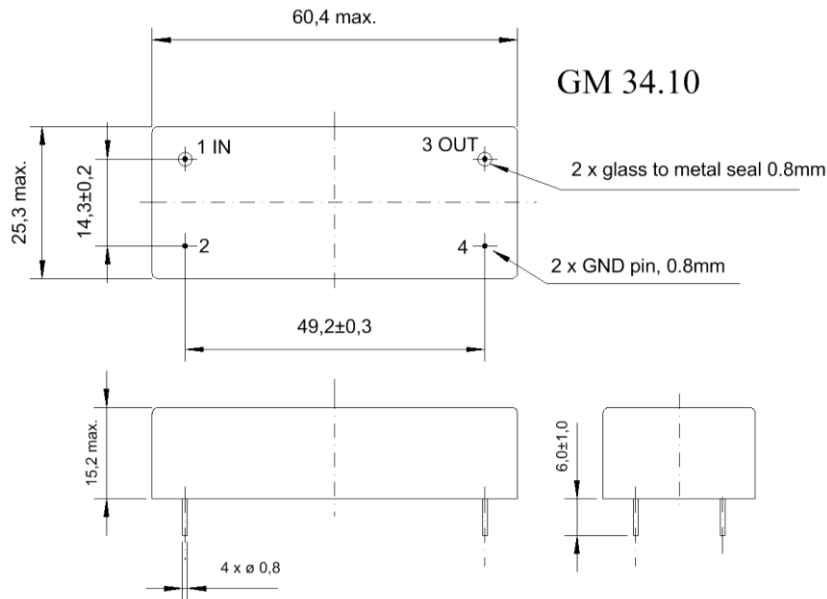


Specification for crystal filter:

**QF 4.3 - 0210 / 06**

1. General

1.1. Package:



- |                                           |                |
|-------------------------------------------|----------------|
| 1.2. Type name:                           | QF 4.3-0210/06 |
| 1.3. Number of poles:                     | 6              |
| 1.4. Operating temperature range ( OTR ): | -55°C to +85°C |
| 1.5. Storage temperature range:           | -55°C to +85°C |

2. Electric values

- |                                              |                      |
|----------------------------------------------|----------------------|
| 2.1. Nominal centre frequency ( fo ):        | 4.3 MHz              |
| 2.2. Pass band                               |                      |
| 2.2.1. Bandwidth between 3 dB - frequencies: | > $f_c \pm 1.15$ kHz |

2.2.2. Centre frequency measured between 3 dB frequencies ( fc )

- |           |                 |
|-----------|-----------------|
| at +25°C: | 4.3 MHz ±50 Hz  |
| in OTR:   | 4.3 MHz ±100 Hz |

- |                            |                        |          |
|----------------------------|------------------------|----------|
| 2.2.3. Ripple in pass band | at $f_c \pm 700$ Hz:   | < 0.5 dB |
|                            | at $f_c \pm 1.05$ kHz: | < 1.0 dB |

- |                                 |                       |               |
|---------------------------------|-----------------------|---------------|
| 2.2.4. Differential group delay | at $f_c \pm 160$ Hz:  | < 150 $\mu$ s |
|                                 | at $f_c \pm 400$ Hz:  | < 350 $\mu$ s |
|                                 | at $f_c \pm 1.1$ kHz: | < 800 $\mu$ s |

- |                              |          |
|------------------------------|----------|
| 2.2.5. Insertion loss at fo: | < 3.0 dB |
|------------------------------|----------|

2.3. Stop band

- 2.3.1.  $f_c \pm 1.4$  kHz: > 6 dB
- 2.3.2.  $f_c \pm 6.35$  kHz..... $\pm 50$  kHz: > 83 dB
- 2.3.3. Alternate attenuation: > 83 dB ( except spurious )
- 2.3.4. Spurious responses: > 70 dB at  $f_o+50$  kHz.....+15 MHz

2.4. Terminating impedance ( input and output ): 1400  $\Omega$  // 5.0 pF

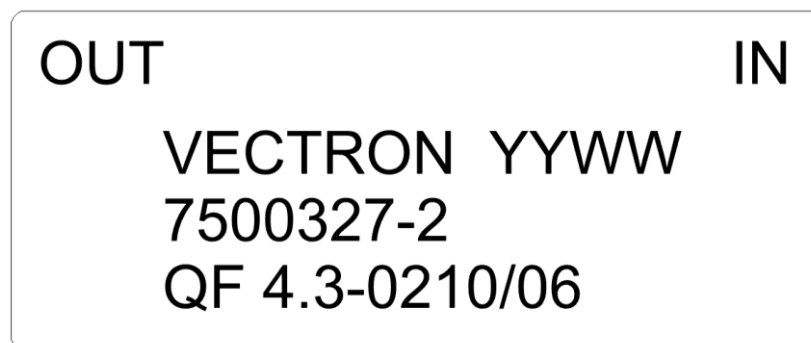
2.5. 3-rd order intercept point ( IP3, Inband and out band ): > +10 dBm  
- test tones for out band IP3 at  $f_o \pm 30$ kHz and  $f_o \pm 60$ kHz  
- test tones for in band IP3 at  $f_o \pm 1.0$  kHz  
- input power level at 0 dBm

2.6. Maximum input power level: +10dBm / +20dBm ( working / non-damaged )

2.6.1. Input power level for reference measurements: 0 dBm

3. Marking:

top view



4. Environment conditions: Corresponding to VECTRON MIL-standard

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