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|--|---------------|-----------|------------------|
| Specification | QF3100 | Issue: 01 | Date: 2003-03-10 |
| Filter type : Front End (Antenna) Crystal Filter | | | |

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| Parameter | min. | typ. | max. | Unit | Condition |
|---|------------------|---------|------|---------|-------------------------|
| Frequency range | 135 | | 180 | MHz | |
| Standard frequencies | | | | kHz | |
| Pass bandwidth | ±4 | | | kHz | @ 3 dB |
| Pass band ripple | | | 1 | dB | @ fo ± 2 kHz |
| Insertion / transducer attenuation | | | 8 | dB | |
| Shape factor SF | | | | | ... dB / ... dB |
| Selectivity | | | | | |
| | | | ±15 | kHz | @ 20 dB |
| | | | ±35 | kHz | @ 45 dB |
| | | | | kHz | @ ... dB |
| Spurious response attenuation | 25 | | | dB | |
| Ultimate attenuation | 60 | | | dB | |
| Termination | | | | | |
| Input | | 50 // 0 | | Ω // pF | |
| Output | | 50 // 0 | | Ω // pF | |
| Group delay | | | | μs | |
| Input Power | | | | | |
| nominal | | 0,1 | | mW | |
| Maximum (for 10 sec) | | | 1 | mW | |
| Operating temperature range | 0 | | +60 | °C | |
| Operable temperature range | -20 | | +70 | °C | |
| Storage temperature range | -40 | | +85 | °C | |
| Enclosure (see drawing) | 61 x 26,2 x 26,2 | | | mm | |
| Terminals | BNC, N or SMA | | | female | Option I |
| Weight | | | | gram | |
| Packing | bulk | | | | |
| ESD Sensitivity | 1500 | | | V | HBM as in IEC 61000-4-2 |

Notes:

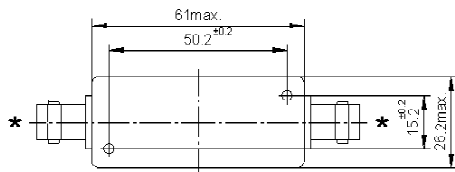
1. Terminology and test conditions are according to IEC standard IEC60368-1, unless otherwise stated

Ordering Code:

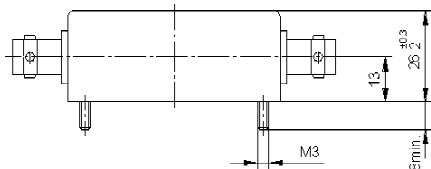
| Model (Specification) | Option I | Frequency [MHz] |
|-----------------------|----------|-----------------|
| QF3100 | BNC | 144,250 |

Enclosure drawing

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* = BNC; SMA; N



Pin connections

| Terminal | Symbol | Function |
|----------|--------|--------------|
| 1 * | IN | Input |
| 2 * | OUT | Output |
| screw | GND | Ground, Case |

* marking on request only

Environmental conditions

| Test | IEC 60068 Part ... | IEC 61178-1 clause ... | Test conditions |
|---|--------------------|------------------------|---|
| Visual inspection, dimensions | | 4.5 4.6 | Enclosure styles as in IEC 60368-3, if applicable |
| Sealing tests | 2-17 | 4.8.2 | Gross leak: Test Qc, Fine leak: Test Qk |
| Solderability Resistance to soldering heat | 2-20 | 4.8.3 | Test Ta (235 ± 5)°C Method 1 Test Tb Method 1A, 5s |
| Shock | 2-27 | 4.8.8 | Test Ea, 3 x per axes 100g, 6 ms half-sine pulse |
| Bump | 2-29 | 4.8.6 | Test Eb, 4000 bumps per Axes, 40g, 6 ms |
| Free fall | 2-32 | 4.8.9 | Test Ed procedure 1, 2 drops from 1m height |
| Vibration, sinusoidal | 2-6 | 4.8.7 | Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g |
| Rapid change of temperature | 2-14 | 4.8.5 | Test Na, 10 cycles at extremes of operating temperature range |
| Dry heat | 2-2 | 4.8.11 | Test Ba, 16 h at upper temperature indicated by climatic category |
| Damp heat, cyclic | 2-30 | 4.8.12 | Test Db variant 1 severity b), 55°C/95% r.H., 6 cycles |
| Cold | 2-1 | 4.8.13 | Test Aa, 2 h at lower temperature indicated by climatic category |
| Climatic sequence | 1-7 | 4.8.14 | Sequence of 4.8.11, 4.8.12 (1 st cycle), 4.8.13, 4.8.12 (5 cycles) |
| Damp heat, steady state | 2-3 | 4.8.15 | Test Ca, 56 days |
| Endurance tests | | | |
| - ageing | | 4.9.1 | 30 days @ 85°C |
| - extended aging | | 4.9.2 | 1000h, 2000h, 8000h @85°C |