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|--|-------------------------|---|------------------------------|
| Surface Mount MCF (Monolithic Crystal Filter) 21.4 MHz 5x7x1.4 mm | Model "21MQ7.5A" |  | MERCURY Since 1973 |
|--|-------------------------|---|------------------------------|

- Thin and light weight; excellent shock and vibration resistance
- Suitable for automatic pick and place; Solder reflow capable
- Specifically designed for mobile, wireless communications, pagers, cellular and cordless phones.



RoHS Compliant Product
by Mercury

SPECIFICATIONS

| | |
|-------------------------------|-------------------------------------|
| Model | 21MQ7.5A |
| Package ③ | "Q" package, 5x7x1.4 mm Ceramic SMD |
| Number of Poles ⑤ | 2 Poles |
| Center Frequency ①: | 21.4 MHz |
| Pass Bandwidth ④ | ± 3.75 kHz min. at 3 dB |
| Stop Bandwidth | ±18 kHz max. at 20 dB |
| Guaranteed Attenuation | -910 KHz min. at 70 dB |
| Ripple | 1.0 dB max. |
| Insertion Loss | 2.0 dB max. |
| Spurious | 15 dB min. |
| Terminating Impedance | 850 Ω // 6.0 pF |
| Operating Temperature | -20°C to +70°C |
| Storage Temperature | -40°C to +85°C |

HOW TO ORDER:

| | | | | |
|--|---|---|-----|---|
| Part Number: Please specify 21MQ7.5A | | | | |
| 21 | M | Q | 7.5 | A |
| ① | ② | ③ | ④ | ⑤ |
| ①: Center Frequency Code "21" for 21.4 MHz ②: MCF Series ③: Package code "Q" for 5x7x1.4 mm ④: 3dB Bandwidth "7.5" for ± 3.75 kHz min. at 3 dB ⑤: "A" for 2 poles | | | | |

MERCURY www.mercury-crystal.com

Taiwan: TEL (886)-2-2406-2779, FAX (886)-2-2496-0769, e-mail: sales-tw@mercury-crystal.com

U.S.A.: TEL (1)-909-466-0427, FAX (1)-909-466-0762, e-mail: sales-us@mercury-crystal.com

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| MERCURY | Page 1 of 3 | Date: July 1, 2006 | Rev. 0 |
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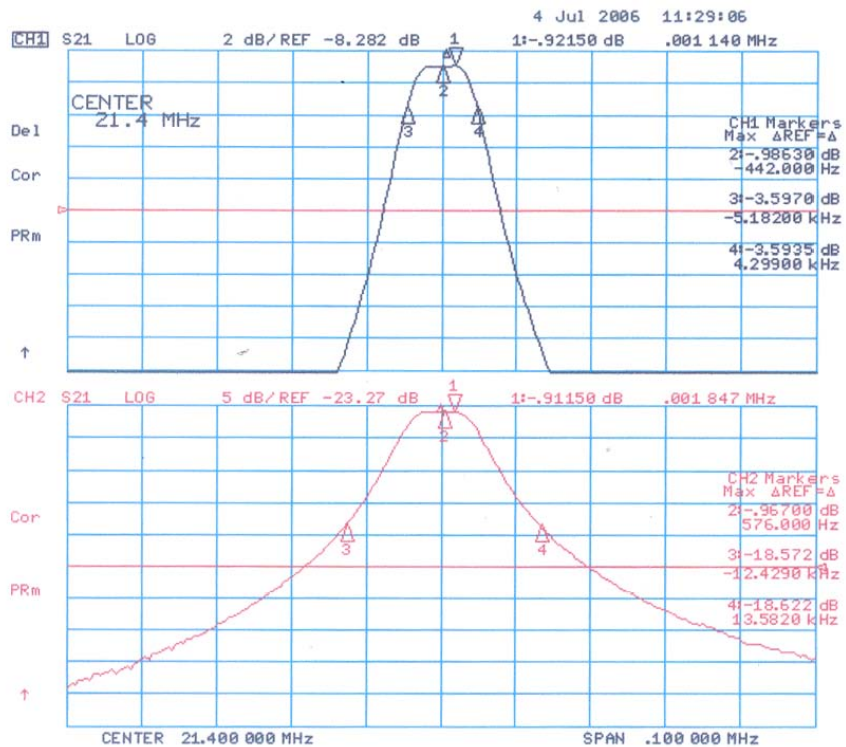


MERCURY
 Since 1973

ENVIRONMENTAL AND MECHANICAL SPECIFICATIONS

| | |
|---------------------------|--|
| Green Requirement | RoHS compliant and Pb (lead free) |
| Gross Leak | 60 sec min at +125°C in D.I. water or fluorocarbon fluid |
| Fine Leak | < 2 x10 ⁻⁸ atm cc /sec by helium leak check |
| Shock | Half sine wave acceleration of 100G peak amplitude for 11 m. sec. duration, 3 cycles each plane. |
| Vibration | ±5 ppm max. Frequency:10 to 55 Hz, amplitude: 1.5 mm or 10 Gs rms. Duration: 6 hours. |
| Drop Test | Free drop onto hard wood board at 75 cm, 3 radon drops. |
| Solderability | MIL-STD-883, Method 2003 |
| Humidity | After 48 hours at 85°C, 85% relative humidity non-condensing |
| Thermal Shock | Temperature cycling: Exposed at -40°C for 30 minutes then to +85°C for 30 minutes for duration of 5 days |
| Marking Permanency | MIL-STD-202, Method 215. Laser engraved. |

Typical Frequency Response



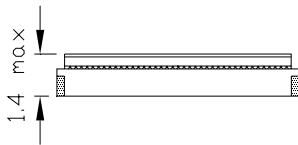
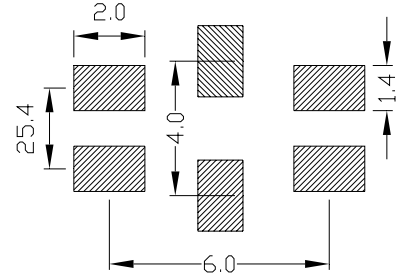
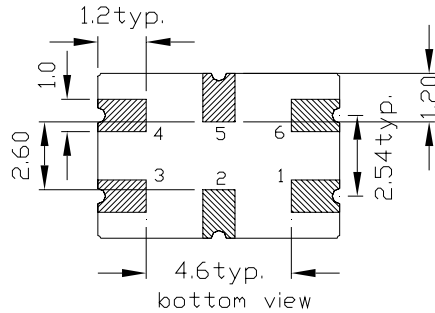
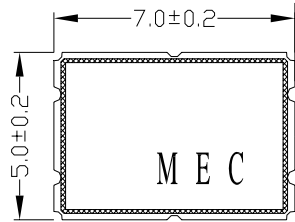
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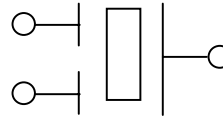
PACKAGE DIMENSIONS AND SUGGESTED PAD LAYOUT

Unit: mm



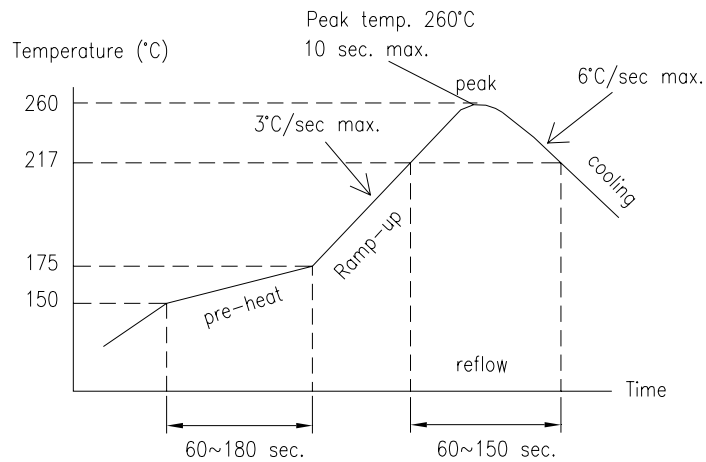
Pad # 3 MCF Input

Pad # 6 MCF Output



Ground
 Pad #1,2,4,5
 and metal lid

RECOMMENDED REFLOW SOLDERING PROFILE:



TAPE AND REEL SPEC.: 16 mm tape compliant to EIA-481-A; 1000 pcs per reel.

