

Discontinued

RFM products are now Murata products.

RF1295C

451.35 MHz

SAW Filter

SM5050-8 Case 5 x 5

Ideal Front-End Filter for 451.35 MHz Wireless Receivers

- Low-Loss Coupled-Resonator Quartz Design
- Simple External Impedance Matching
- Complies with Directive 2002/95/EC (RoHS)

The RF1295C is a low-loss, compact, and economical surface acoustic wave (SAW) filter designed to provide front-end selectivity in 451.35 MHz receivers. Receiver designs using this filter include superhet with 10.7 MHz or 500 kHz IF, direct conversion and superregen. Typical applications of these receivers are wireless remote-control and security devices operating in Europe under ETSI I-ETS 300 220.

This coupled-resonator filter (CRF) uses selective null placement to provide suppression, typically greater than 40 dB, of the LO and image spurious responses of superhet receivers with 10.7 MHz IF. Murata's advanced SAW design and fabrication technology is utilized to achieve high performance and very low loss with simple external impedance matching (not included).

| Characteristic | | Sym | Notes | Minimum | Typical | Maximum | Units |
|---|--|------------------|------------|------------------|------------------|---------|---------------------|
| Center Frequency at 25°C | Nominal Frequency | f _{nom} | 1, 3, 4, 5 | | 451.35 | | MHz |
| Insertion Loss | | IL | 3, 6 | | 2.5 | 5.0 | dB |
| 3 dB Bandwidth Passband | | BW ₃ | 2, 3, 6 | 700 | 1000 | | kHz |
| Rejection | at f _c - 21.4 MHz (Image) | | | 35 | 45 | | |
| | at f _c - 10.7 MHz (LO) | | 3 | 15 | 30 | | dB |
| | Ultimate | | | | 80 | | |
| Temperature | Operating Case Temperature | т _с | | -40 | | +85 | °C |
| | Turnover Temperature | Τ _Ο | 2, 6 | 15 | 25 | 40 | °C |
| | Turnover Frequency | f _O | | | f _{nom} | | MHz |
| | Frequency Temperature Coefficent | FTC | | | 0.032 | | ppm/°C ² |
| Frequency Aging | Absolute Value during the 1 st Year | fA | 2 | | <±10 | | ppm/yr |
| External Impedance | Series Inductance | L | 6 | | 27 | | nH |
| | Shunt Capacitance | C ₁ | 6 | | 5.6 | | pF |
| | Shunt Capacitance | C ₂ | 6 | | 8.2 | | pF |
| Lid Symbolization (Y=year, WW=week, D=day of week) | | 482 // YWWS | | | | | 1 |
| Standard Reel Quantity Reel Size 7 Inch Reel Size 13 Inch | | | 9 | 500 Pieces/Reel | | | |
| | | | 9 | 3000 Pieces/Reel | | | |

▲ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling. NOTES:

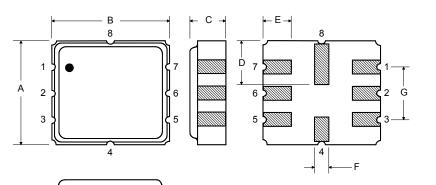
- Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture which is connected to a 50 Ω test system with VSWR \leq 1 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c. Note that insertion loss and bandwidth are dependent on the impedance matching component values and quality.
- 2 The frequency fc is defined as the midpoint between the 3dB frequencies.
- 3. 4. Where noted, specifications apply over the entire specified operating temperature range.
- The turnover temperature, T_O, is the temperature of maximum (or turnover) frequency, f_o... The nominal frequency at any case temperature, T_C, may be calculated from: f=f_o[1 - FTC (T_O - T_C)²].
- Frequency aging is the change in fc with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing significantly in subsequent years. The design, manufacturing process, and specifications of this device are subject to change. 5
- 6
- One or more of the following U.S. Patents apply: 4,54,488, 4,616,197, and others pending. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale. Tape and Reel Standard Per ANSI / EIA 481. 8
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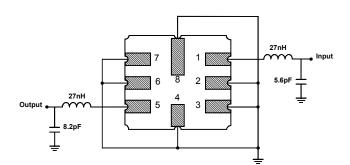
| Rating | | Value | Units |
|-----------------------|------------------------------|------------|-------|
| Input Power Level | | 10 | dBm |
| DC Voltage | | 12 | VDC |
| Storage Temperature | | -40 to +85 | °C |
| Soldering Temperature | (10 seconds / 5 cycles max.) | 260 | °C |

Electrical Connections

| Pin | Connection | | |
|-----|---------------|--|--|
| 1 | Input | | |
| 2 | Input Return | | |
| 3 | Ground | | |
| 4 | Case Ground | | |
| 5 | Output | | |
| 6 | Output Return | | |
| 7 | Ground | | |
| 8 | Case Ground | | |







Case Dimensions

| Dimension | mm | | | Inches | | | |
|-----------|------|------|------|--------|-------|-------|--|
| | Min | Nom | Max | Min | Nom | Max | |
| Α | 4.8 | 5.0 | 5.2 | 0.189 | 0.197 | 0.205 | |
| В | 4.8 | 5.0 | 5.2 | 0.189 | 0.197 | 0.205 | |
| С | 1.3 | 1.5 | 1.7 | 0.050 | 0.060 | 0.067 | |
| D | 1.98 | 2.08 | 2.18 | 0.078 | | 0.086 | |
| E | 1.07 | 1.17 | 1.27 | 0.042 | 0.046 | 0.050 | |
| F | 0.50 | 0.64 | 0.70 | 0.020 | 0.025 | 0.028 | |
| G | 2.39 | 2.54 | 2.69 | 0.094 | 0.100 | 0.106 | |

单击下面可查看定价,库存,交付和生命周期等信息

>>Murata(村田)