- Designed for GSM PCS Receiver IF Applications
- Simple External Impedance Matching
- Hermetic Metal DIP
- Unbalanced Input and Output


| Characteristic | Sym | Min | Typ | Max | Units | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Center Frequency | fc | 211.000 |  |  | MHz | 1 |
| Passband Insertion Loss at fc | IL |  | 6 | 9.0 | dB |  |
| 1.5 dB Passband | $\mathrm{BW}_{1.5}$ | $\pm 50$ |  |  | kHz | 1,2 |
| 2 dB Passband | $\mathrm{BW}_{2}$ | $\pm 80$ |  |  |  |  |
| 3 dB Passband | $\mathrm{BW}_{3}$ | $\pm 100$ | $\pm 135$ |  |  |  |
| Group Delay Variation over fc $\pm 50 \mathrm{kHz}$ Absolute Group Delay | GDV |  | 80 | 500 | nSp-p |  |
|  | GD |  |  | 5000 | ns |  |
| Rejection $\begin{array}{r}\text { fc-400 to fc-200 and fc }+200 \text { to fc }+400 \mathrm{kHzz} \\ \mathrm{fc}-600 \text { to fc-400 and fc }+400 \text { to fc }+600 \mathrm{kHz} \\ \mathrm{fc}-800 \text { to fc-600 and fc }+600 \text { to fc }+800 \mathrm{kHz} \\ 191 \mathrm{MHz} \text { to fc }-800 \mathrm{kHz} \text { and fc }+800 \mathrm{kHz} \text { to } 231 \mathrm{MHz}\end{array}$ |  | 5 |  |  | dB | 1,2,3 |
|  |  | 25 |  |  |  |  |
|  |  | 30 | 35 |  |  |  |
|  |  | 35 | 45 |  |  |  |
| Operating Temperature Range | $\mathrm{T}_{\mathrm{A}}$ | -10 |  | +70 | ${ }^{\circ} \mathrm{C}$ | 1 |


| Impedance Matching to $50 \Omega$ unbalanced | External L-C |
| :--- | :---: |
| Case Style | DIP14L-8 $22.1 \times 12.6 \mathrm{~mm}$ Nominal Footprint |
| Lid Symbolization ( YY = year, WW = week) | RFM SF1062 YYWW |

Absolute Maximum Ratings

| Rating | Value | Units |
| :--- | :---: | :---: |
| Maximum Incident Power in Passband | +10 | dBm |
| Max. DC voltage between any 2 terminals | 30 | VDC |
| Storage Temperature Range | -40 to +85 | ${ }^{\circ} \mathrm{C}$ |
| Max Soldering Profile | $265^{\circ} \mathrm{C}$ for 10 s |  |

Electrical Connections (See note 3)

| Connection | Terminals |
| ---: | :--- |
| Port 1 Hot | 1 |
| Port 1 Gnd Return | 2 |
| Port 2 Hot | 8 |
| Port 2 Gnd Return | 9 |
| No Connection | 7,14 |
| Case Ground | All others |

Notes:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to $50 \Omega$ and measured with $50 \Omega$ network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details. All "NC" or "no connection" terminals should be grounded.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
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10. Electrostatic Sensitive Device. Observe precautions for handling.

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$2.5 \mathrm{MHz} / \mathrm{DIV}$


## Metal 8-Pin DIP in 14-Pin (Long) Configuration $22.1 \times 12.6$ mm Nominal Footprint



| Dimension | mm |  |  | Inches |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Min | Nom | Max | Min | Nom | Max |
| A |  | 22.10 | 22.50 |  | 0.870 | 0.886 |
| B |  | 12.55 | 13.00 |  | 0.494 | 0.512 |
| C |  | 3.56 | 3.81 |  | 0.140 | 0.150 |
| D | 0.41 | 0.48 | 0.51 | 0.016 | 0.019 | 0.020 |
| E |  | 0.89 |  |  | 0.035 |  |
| F |  | 7.62 |  |  | 0.300 |  |
| G |  | 15.24 |  |  | 0.600 |  |
| K | 3.30 | 3.81 | 6.73 | 0.130 | 0.150 | 0.265 |
| L | 1.37 | 1.45 | 1.52 | 0.054 | 0.057 | 0.060 |
| P |  | 2.54 |  |  | 0.100 |  |
| R |  | 1.60 |  |  | 0.063 |  |



