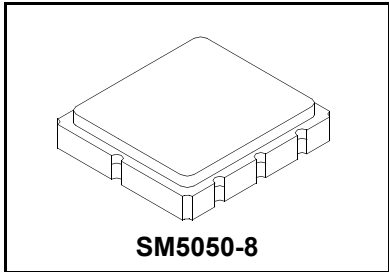


SF2237C

**515.0 MHz
SAW Filter**



- High Performance SAW Filter
- 5 x 5 mm Surface-mount Package
- Complies with Directive 2011/65/EU (RoHS) 

Absolute Maximum Ratings

| Rating | Value | Units |
|--|-----------------|-------|
| Maximum Incident Power in Passband | +10 | dBm |
| Maximum DC Voltage Between any Two Active Terminals | 3 | VDC |
| Operable Temperature Range | -45 to +125 | °C |
| Specification Temperature Range | -40 to +85 | °C |
| Storage Temperature Range in Tape and Reel | -40 to +85 | °C |
| Suitable for Lead-free Soldering - Maximum Soldering Profile | 260 °C for 30 s | |

Electrical Characteristics

| Characteristic | Sym | Notes | Min | Typ | Max | Units |
|--------------------------------------|--------|-------|-----|-------|-----|-------------------|
| Nominal Center Frequency | f_c | | | 515.0 | | MHz |
| Insertion Loss @ 510 - 520 MHz | | | | 2.7 | 3.0 | dB |
| 1 dB Bandwidth | BW_1 | | 18 | 34 | | MHz |
| Amplitude Ripple, $f_c \pm 11.5$ MHz | | | | 0.6 | 1.5 | dB _{P-P} |
| Rejection referenced to IL at Peak: | | | | | | |
| 400 to 430 MHz | | | 35 | 50 | | dB |
| 430 to 470 MHz | | | 32 | 40 | | |
| 550 to 600 MHz | | | 20 | 30 | | |
| 600 to 740 MHz | | | 35 | 40 | | |
| Frequency Temperature Drift | | | | -93 | | ppm/°C |

| | | | | | | |
|--|----------------------------|------------------|--|--|--|--|
| Case Style | 5 x 5 mm Nominal Footprint | | | | | |
| Lid Symbolization, Y=year, WW=week, S=shift, Dot=pin 1 indicator | 971, <u>YWWS</u> | | | | | |
| Standard Reel Quantity | Reel Size 7 Inch | 500 Pieces/Reel | | | | |
| | Reel Size 13 Inch | 3000 Pieces/Reel | | | | |

Electrical Connections

| Connection | Terminals |
|-------------|------------|
| Input | 1 |
| Output | 5 |
| Case Ground | All others |



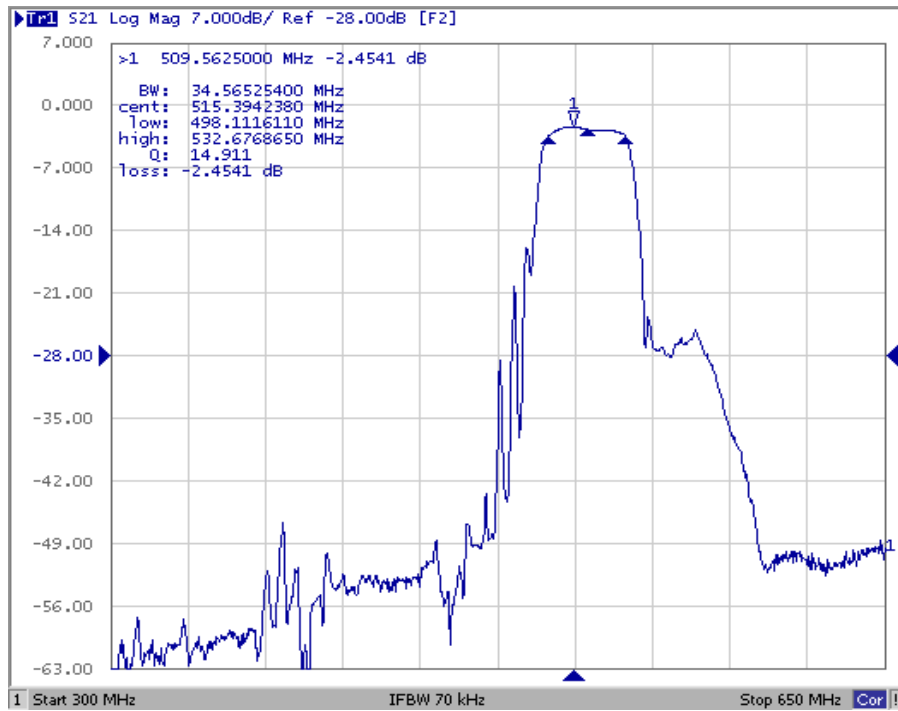
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

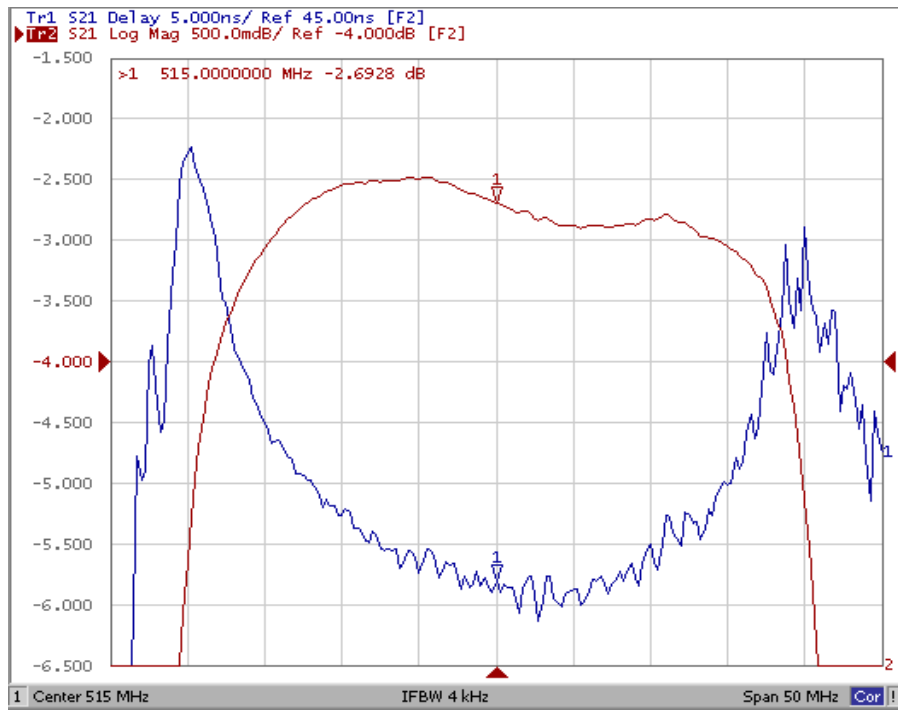
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_c .
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.
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. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

Filter Amplitude and Group Delay Response Plots

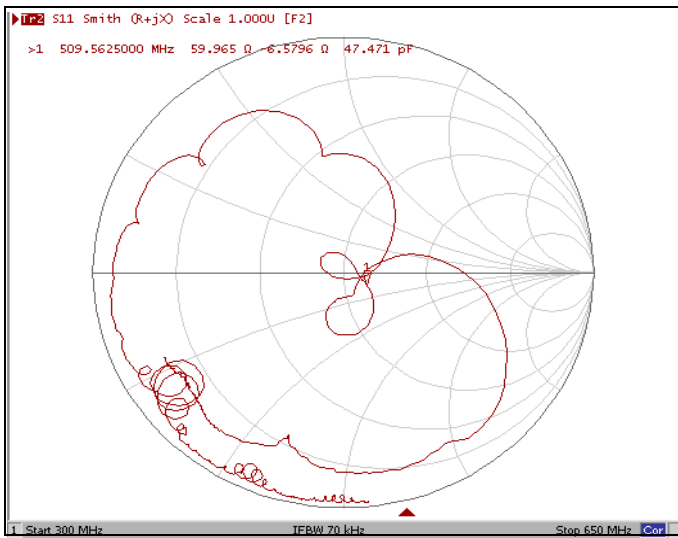
S21 Response: (span 350 MHz)



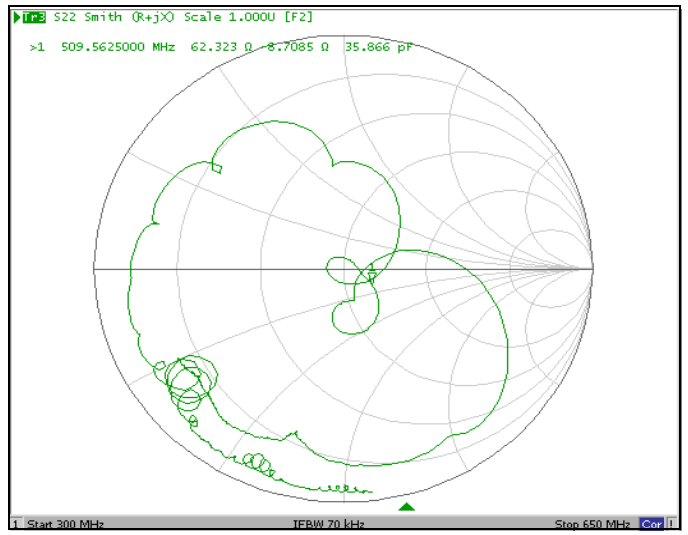
Group Delay Response: (span 50 MHz)



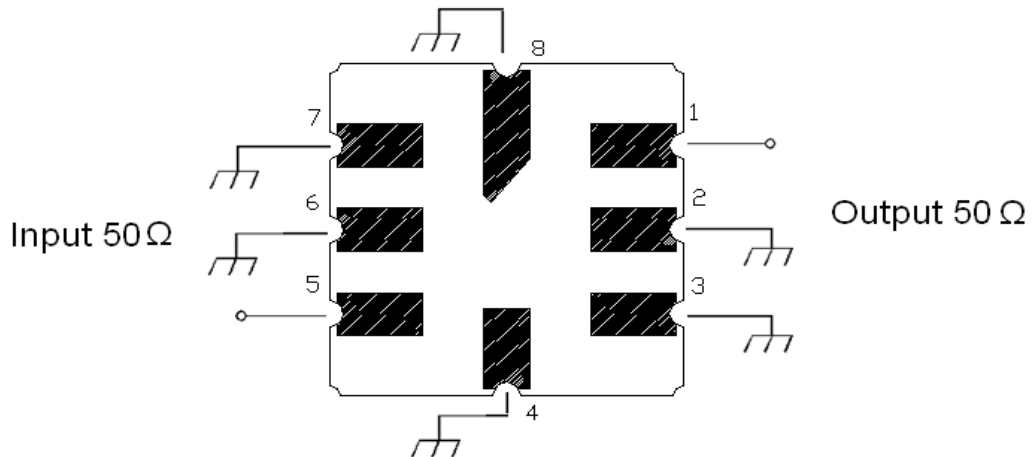
S11 Smith Chart: (span 350 MHz)



S22 Smith Chart: (span 350 MHz)



Test Circuit

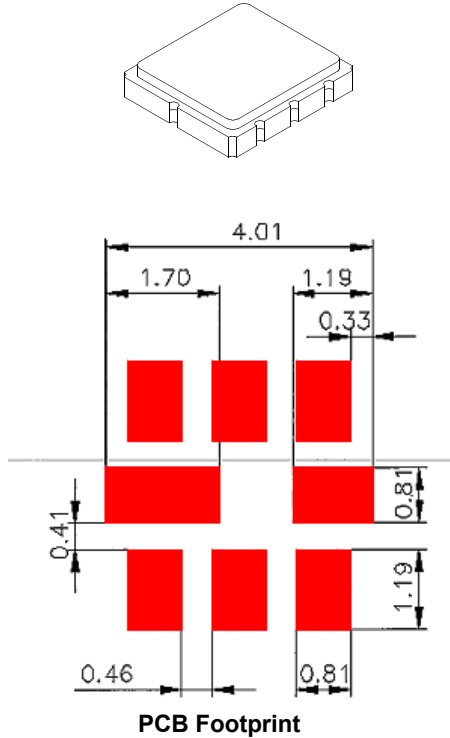


SM5050-8 Case

8-Terminal Ceramic Surface-Mount Case 5.0 X 5.0 mm Nominal Footprint

Case Dimensions

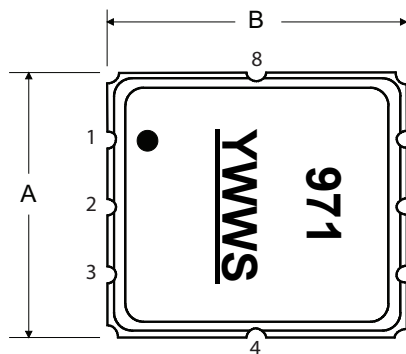
| Dimension | mm | | | Inches | | |
|-----------|------|------|------|--------|-------|-------|
| | Min | Nom | Max | Min | Nom | Max |
| A | 4.80 | 5.00 | 5.20 | 0.189 | 0.197 | 0.205 |
| B | 4.80 | 5.00 | 5.20 | 0.189 | 0.197 | 0.205 |
| C | 1.30 | 1.50 | 1.70 | 0.050 | 0.060 | 0.067 |
| D | 1.98 | 2.08 | 2.18 | 0.078 | 0.082 | 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 |
| H | | 1.35 | | | 0.053 | |



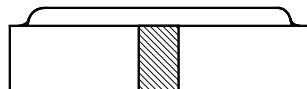
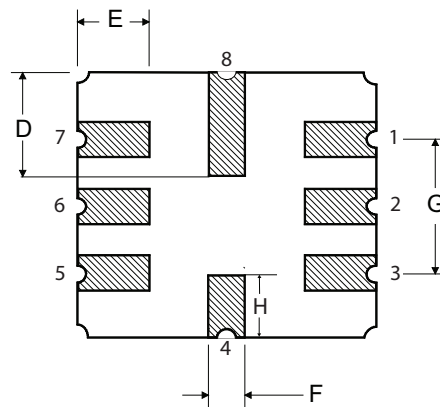
Case Materials

| Materials | |
|--------------------|--|
| Solder Pad Plating | 0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel |
| Lid Plating | 2.0 to 3.0 μm Nickel |
| Body | Al_2O_3 Ceramic |
| Pb Free | |

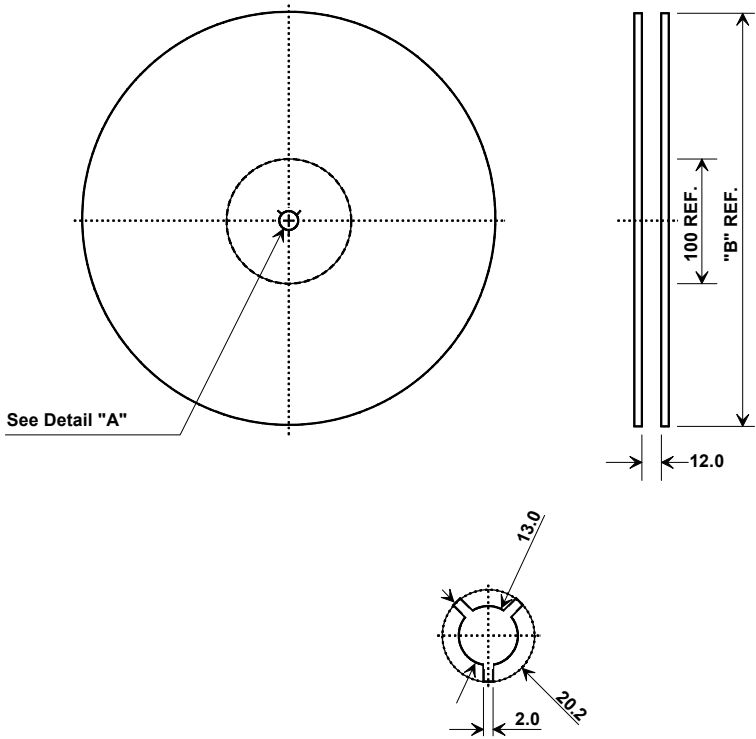
TOP VIEW



BOTTOM VIEW



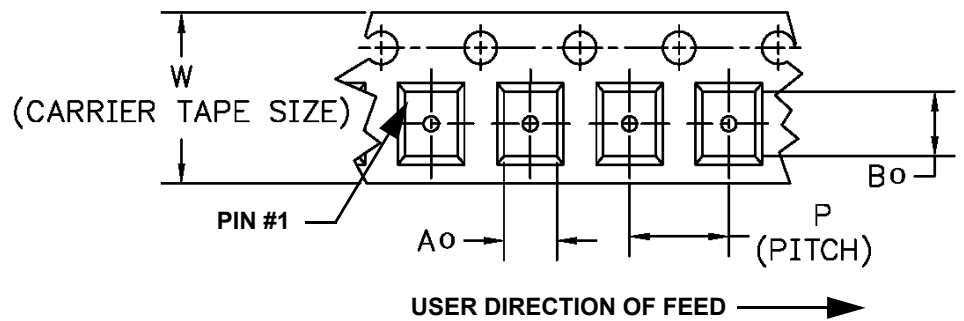
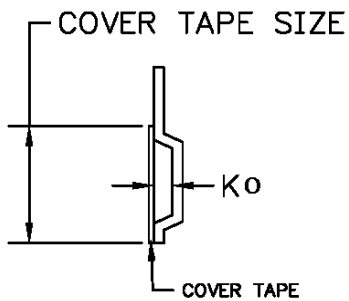
Tape and Reel Specifications



| "B" Nominal Size | | Quantity Per Reel |
|------------------|-------------|-------------------|
| Inches | millimeters | |
| 7 | 178 | 500 |
| 13 | 330 | 3000 |

COMPONENT ORIENTATION and DIMENSIONS

| Carrier Tape Dimensions | |
|-------------------------|---------|
| Ao | 5.3 mm |
| Bo | 5.3 mm |
| Ko | 2.0 mm |
| Pitch | 8.0 mm |
| W | 12.0 mm |





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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