

RoHS Compliant

Features

- Small size
- Low insertion loss
- High selectivity
- Hermetic seal

Applications

- CDMA

How to Order

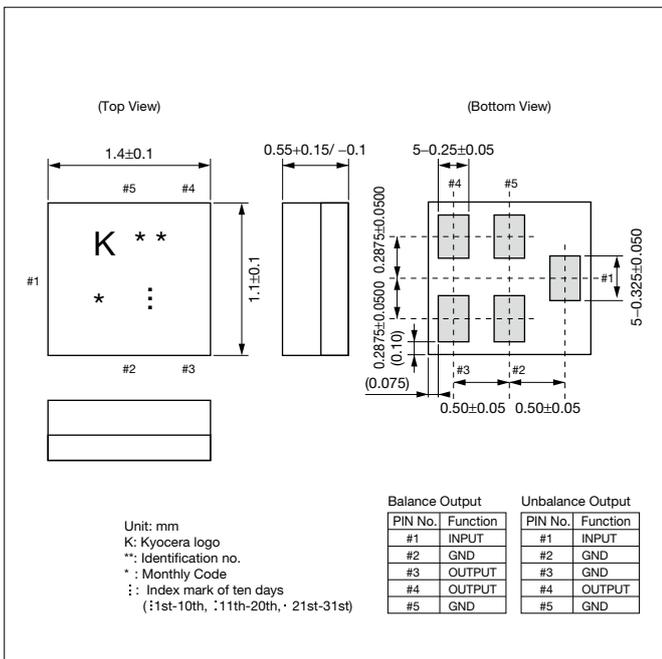
SF 14 - 0881 M 5 UB B1
① ② ③ ④ ⑤ ⑥ ⑦

- ① Type of Product (SAW Filter)
- ② Package Size
- ③ Nominal Center Frequency
- ④ Spec.
- ⑤ Number of Terminals
- ⑥ Input/ Output
- ⑦ Custom Specification

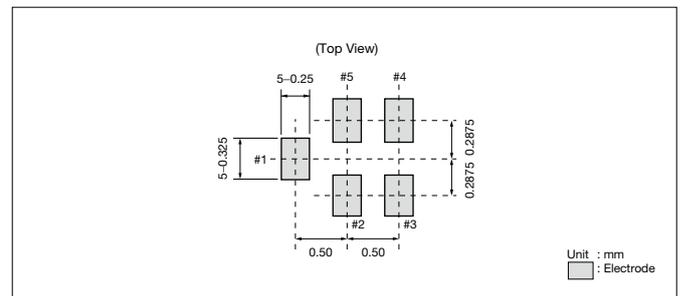
Specifications

| Part No. | Output | Application | Pass Band Frequency | Insertion Loss (dB) | Pass Band Variation (dB) | VSWR | Absolute Rejection (dB) | | | | | | Operating Temperature | Storage Temperature |
|-----------------|-----------|---------------------|---------------------|---------------------|--------------------------|----------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|---------------------|
| | | | | | | | 10MHz | 824MHz | 915MHz | 960MHz | 3000MHz | — | | |
| SF14-0881M5UBB1 | Balanced | CELL Rx | 869MHz - 894MHz | 2.2 max. | 1.5 max. | 2.5 max. | 10MHz 40 min. | 824MHz 45 min. | 915MHz 23 min. | 960MHz 40 min. | — | — | -30 to +85°C | -40 to +85°C |
| SF14-0881M5UUA1 | Unbalance | CELL Rx | 869MHz - 894MHz | 2.5 max. | 1.5 max. | 2.5 max. | 10MHz 20 min. | 824MHz 46 min. | 915MHz 20 min. | 960MHz 20 min. | — | — | | |
| SF14-0836M5UUA2 | Unbalance | CELL Tx | 824MHz - 849MHz | 2.5 max. | 1.5 max. | 2.1 max. | 10MHz 30 min. | 869MHz 40 min. | 894MHz 35 min. | 1050MHz 32 min. | 1210MHz 30 min. | 1580MHz 27 min. | | |
| SF14-1960M5UBC1 | Balanced | PCS Rx | 1930MHz - 1990MHz | 3.3 max. | 2.5 max. | 2.5 max. | 10MHz 40 min. | 1850MHz 24 min. | 2040MHz 30 min. | 2200MHz 40 min. | 3400MHz 40 min. | 6000MHz — | | |
| SF14-1960M5UUA1 | Unbalance | PCS Rx | 1930MHz - 1990MHz | 3.0 max. | 2.0 max. | 2.5 max. | 10MHz 20 min. | 1850MHz 20 min. | 2040MHz 20 min. | 2200MHz 20 min. | 3400MHz 20 min. | 6000MHz — | | |
| SF14-0833M5UUA1 | Unbalance | BC10+ Cell (BC0) Tx | 817MHz - 849MHz | 2.0 max. | 1.5 max. | 2.5 max. | 862MHz 13 min. | 1570MHz 30 min. | — | — | — | — | | |
| SF14-0878M5UBA1 | Balanced | BC10+ Cell (BC0) Rx | 862MHz - 894MHz | 2.5 max. | 1.5 max. | 2.0 max. | 10MHz 40 min. | 817MHz 46 min. | 1724MHz 40 min. | 1850MHz 46 min. | 1920MHz 40 min. | 6000MHz — | | |

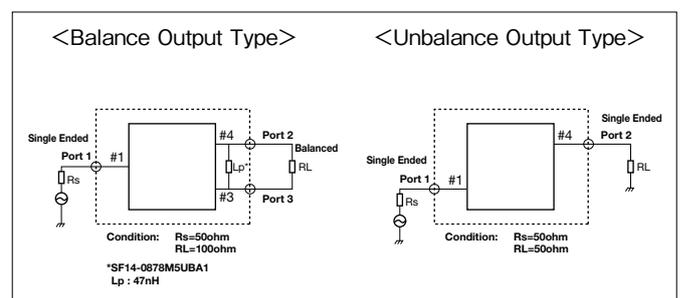
Dimensions



Recommended Land Pattern

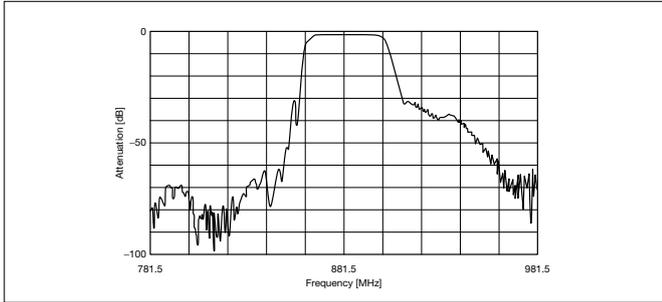


Test Circuit

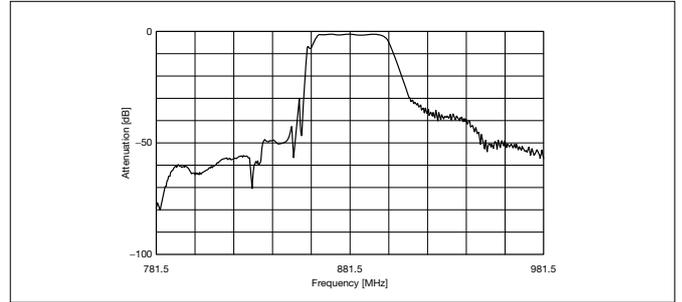


Characteristics

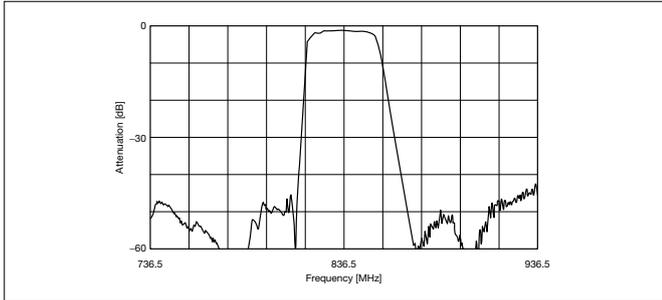
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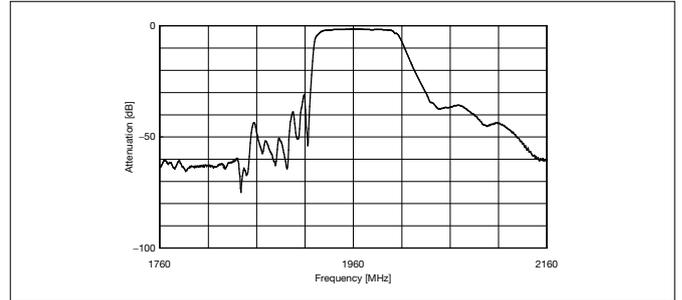
<CELL Rx> Part No.: SF14-0881M5UUA1



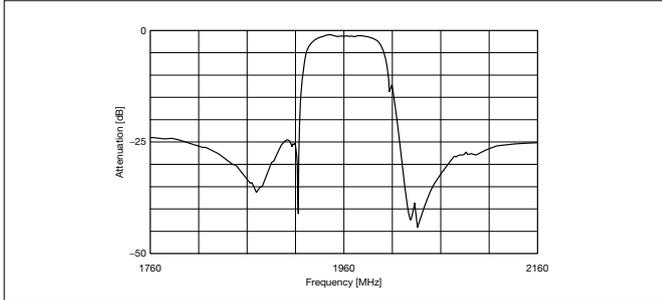
<CELL Tx> Part No.: SF14-0836M5UUA2



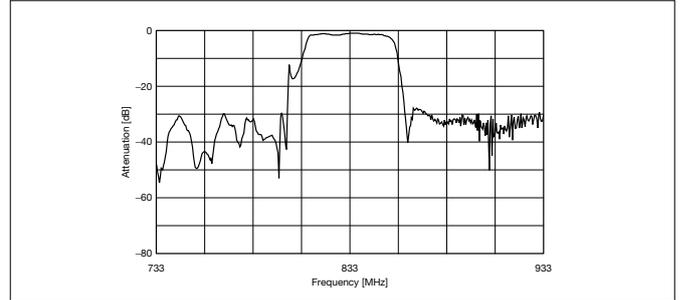
<PCS Rx> Part No.: SF14-1960M5UBC1



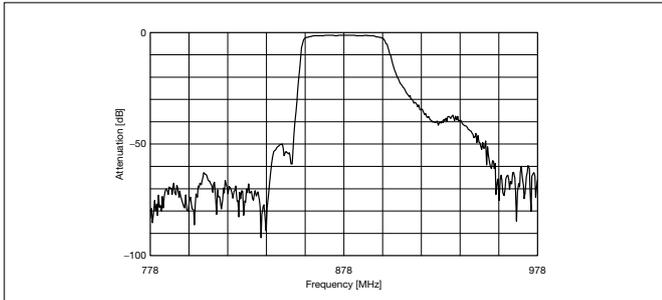
<PCS Rx> Part No.: SF14-1960M5UUA1



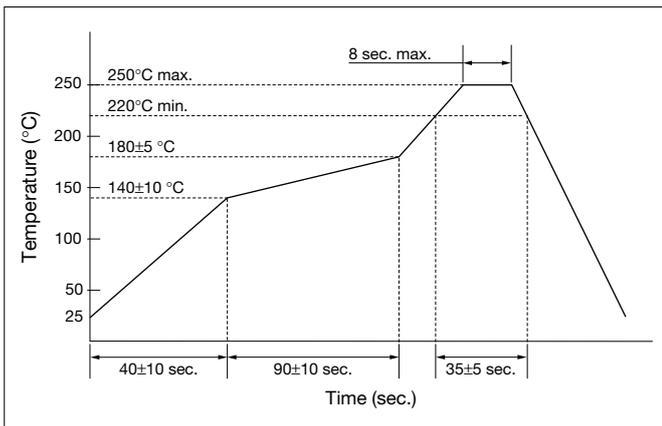
<BC10+Cell (BC0) Tx> Part No.: SF14-0833M5UUA1



<BC10+Cell (BC0) Rx> Part No.: SF14-0878M5UBA1



Recommended Reflow Profile



1. Operating Environment

- 1) Use products within the rated operating temperature, otherwise it may not satisfy electrical characteristics specifications. It might work initially, but there is a high possibility that it will cause degradation, breakdown and lower reliability.
- 2) This product is designed and manufactured with intention to be used in electronic devices for standard applications, but not in the following environment which may affect performance of the product. Be sure not to use products in the following conditions which may cause electrical characteristics and reliability degradation.
 - Under corrosive gas (Cl₂, H₂S, NH₃, SO_x, NO_x, etc.)
 - Under volatile and inflammability gas
 - Dusty environment
 - Direct exposure to water, or high humidity environment
 - Direct sunlight
 - High static electricity, or high electric intensity.

Please consult with us if you intend to use products in the above environment.

- 3) This product can not be used in liquid such as water, oil, chemical and organic solvent.
- 4) Operate under rated voltage, otherwise it may not satisfy electrical characteristics specifications. It might work initially, but there is high possibility that it will cause degradation, breakdown and lower the reliability.
- 5) Avoid contact with other components on the board, since outer resin is not intended for the insulation with other components.
- 6) There might be a strong electrical charge when rapid thermal change is applied to this product. This charge may damage the product and the peripheral circuit. Therefore, insert load discharge path between input/output and ground.
- 7) Do not apply larger load greater than the one loaded in the environmental test. It might work initially, but there is a high possibility that it will cause degradation, breakdown and lower the reliability.
- 8) Do not use transfer mold for this product. It may break hermetic seal and cause abnormal operation. Please consult us when molding by resin.

2. Storage instructions

- 1) Do not store products in the following environment which may deteriorate solderability.
 - Under corrosive gas (Cl₂, H₂S, NH₃, SO_x, NO_x, etc.)
 - Under volatile and inflammability gas
 - Dusty environment
 - Direct exposure to water, or high humidity environment
 - Direct sunlight
 - High static electricity, or high electric intensity

Please consult with us if you intend to use products in the above environment.

- 2) Store products under normal temperature and humidity in the sealed or unopened package.
Storage of products for over 12 months after shipment may deteriorate solderability, and it is advised to perform solderability test before use. Also, be cautioned that color of electrode might change after a long term storage.
- 3) Open the sealed pack just before use.
Practice assembly within 168 hours after opening the pack, and in the condition of 5-30deg.C and below 60%RH.
- 4) Stacking the box too high may cause fall over. It is advised to stack the box at the maximum of 5 boxes.

3. Handling instructions

- 1) Do not apply larger vibration or shock greater than specified, since it may cause degradation, breakdown and lower reliability.
- 2) Do not apply larger shock or load greater than specified, while carrying the board with products mounted.
- 3) Take appropriate measure to avoid static electricity and high voltage when handling products, since it may cause degradation or damage to the products.
- 4) Do not handle this product with bare hands.

4. Assembly instructions

- 1) Place products in the place to avoid stress from bending and camber of the board.
There may be a large stress or shock when the product is placed near the connection parts with other outer parts.
- 2) Please do not apply larger stress greater than the one loaded in the environmental test when mounting on the board.
- 3) Make sure to solder all electrodes to the board, otherwise it may cause lower electrode strength.

Tape & Reel Specifications

SAW Duplexers/ SAW Filters

(Unit: mm)

| | | SAW Duplexers | | SAW Filters | | | | |
|------------------|----------|---------------|----------|-------------|-----------|----------|--------------|----------|
| | | SD18 | SD20 | SF14 | SF15 | SF16 | SF18 | SF20 |
| T A P E | A | 2.0±0.05 | 2.0±0.05 | 2.0±0.05 | 2.0±0.05 | 2.0±0.05 | 2.0±0.05 | 2.0±0.05 |
| | B | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 |
| | C | φ1.5±0.1/ -0 | 1.5±0.1 | φ1.5±0.1 | 1.5±0.1 | 1.5±0.1 | φ1.5±0.1/ -0 | 1.5±0.1 |
| | D | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 |
| | E | 3.5±0.05 | 3.5±0.05 | 3.5±0.05 | 3.5±0.05 | 3.5±0.05 | 3.5±0.05 | 3.5±0.05 |
| | F | 1.75±0.1 | 1.75±0.1 | 1.75±0.1 | 1.75±0.1 | 1.75±0.1 | 1.75±0.1 | 1.75±0.1 |
| | G | 8.0±0.1 | 8.0±0.2 | 8.0±0.2 | 8.0±0.2 | 8.0±0.2 | 8.0±0.1 | 8.0±0.2 |
| | H | φ0.8±0.05 | 1.1±0.1 | φ0.5±0.05 | 0.5±0.1 | 1.1±0.1 | φ0.8±0.05 | 1.1±0.1 |
| | J | 2.05±0.1 | 2.25±0.1 | 1.7±0.1 | 1.80±0.1 | 1.90±0.1 | 2.05±0.1 | 2.25±0.1 |
| | L | 1.7±0.1 | 1.8±0.1 | 1.4±0.1 | 1.4±0.1 | 1.85±0.1 | 1.7±0.1 | 1.8±0.1 |
| | N | 0.85+0/ -0.5 | 0.7±0.1 | 0.8±0.1 | 0.7±0.1 | 0.95±0.2 | 0.85+0/ -0.5 | 0.7±0.1 |
| O | 0.2±0.05 | 0.2±0.05 | 0.2±0.05 | 0.2±0.05 | 0.25±0.05 | 0.2±0.05 | 0.2±0.05 | |
| R E E L | P | φ178±2 | φ178±2 | φ178±2 | φ178±2 | φ178±2 | φ178±2 | φ178±2 |
| | Q | φ60±2 | φ60±2 | φ60±2 | φ60±2 | φ60±2 | φ60±2 | φ60±2 |
| | R | φ13±0.2 | φ13±0.2 | φ13±0.2 | φ13±0.2 | φ13±0.2 | φ13±0.2 | φ13±0.2 |
| | S | φ21±0.8 | φ21±0.8 | φ21±0.8 | φ21±0.8 | φ21±0.8 | φ21±0.8 | φ21±0.8 |
| | U | 2±0.5 | 2±0.5 | 2±0.5 | 2±0.5 | 2±0.5 | 2±0.5 | 2±0.5 |
| | W | 9.5±1 | 9.5±1 | 9.5±1 | 9.5±1 | 9.5±1 | 9.5±1 | 9.5±1 |
| Qty. | | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |

