

### Features

- Low Loss
- Low Ripple

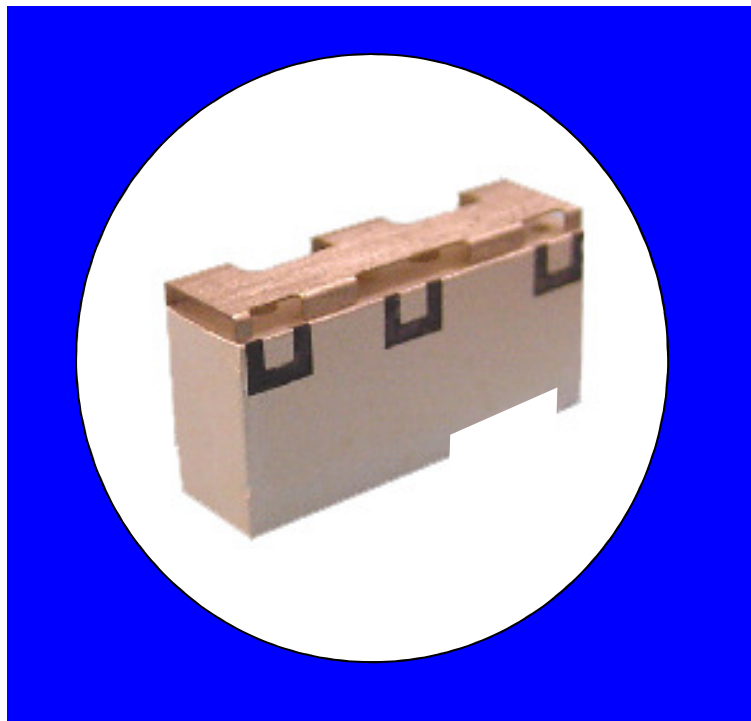
### Description

Surface mount, silver (Ag) coated ceramic duplexer.

Weight: 3.4 grams typical

Material: Filter is composed of a ceramic block coated with Ag and a shield made of nickel silver plated steel.

Filter complies with RoHS standards.



### Electrical Specifications

| Parameter                       | Frequency MHz | Typical @ 25°C | Specification @ 25°C | Spec over -40°C to +85°C |
|---------------------------------|---------------|----------------|----------------------|--------------------------|
| <b>Low Band Response (S21)</b>  |               |                |                      |                          |
| Passband Iloss                  | 1710 - 1755   | -1.60          | -1.80                | -2.00                    |
| Passband Ripple                 | 1710 - 1755   | 0.30           | 0.60                 | 0.60                     |
| Passband Return Loss @ Port 2   | 1710 - 1755   | -14.00         | -12.00               | -12.00                   |
| Passband Return Loss @ Ant      | 1710 - 1755   | -14.00         | -12.00               | -12.00                   |
| Attenuation                     | 2110 - 2155   | -57.00         | -55.00               | -54.00                   |
|                                 | 600 - 1000    | -50.00         | -25.00               | -25.00                   |
|                                 | 1930 - 1990   | -50.00         | -40.00               | -40.00                   |
|                                 | 2400 - 3200   | -33.00         | -30.00               | -30.00                   |
| <b>High Band Response (S13)</b> |               |                |                      |                          |
| Passband Iloss                  | 2110 - 2155   | -0.90          | -1.80                | -2.00                    |
| Passband Ripple                 | 2110 - 2155   | 0.25           | 0.60                 | 0.60                     |
| Passband Return Loss @ Port 3   | 2110 - 2155   | -14.00         | -12.00               | -12.00                   |
| Passband Return Loss @ Ant      | 2110 - 2155   | -14.00         | -12.00               | -12.00                   |
| Attenuation                     | 1710 - 1755   | -61.00         | -55.00               | -55.00                   |
|                                 | 600 - 1000    | -50.00         | -25.00               | -25.00                   |
|                                 | 1850-1910     | -50.00         | -40.00               | -40.00                   |
|                                 | 2400-2499     | -27.00         | -25.00               | -25.00                   |
|                                 | 2500 - 3300   | -33.00         | -30.00               | -30.00                   |
| <b>Isolation (S23)</b>          |               |                |                      |                          |
| Rejection @ Low Band            | 1710 - 1755   | -63.00         | -55.00               | -55.00                   |
| Rejection @ High Band           | 2110 - 2155   | -57.00         | -55.00               | -55.00                   |
| Power into any port             |               | 3 Watt max     |                      |                          |

Note: Supplier shall test each filter to the critical electrical specifications of the above table. Any subsequent audits may deviate from in value due to measurement repeatability among different test systems. Such deviations shall not exceed the following limits:

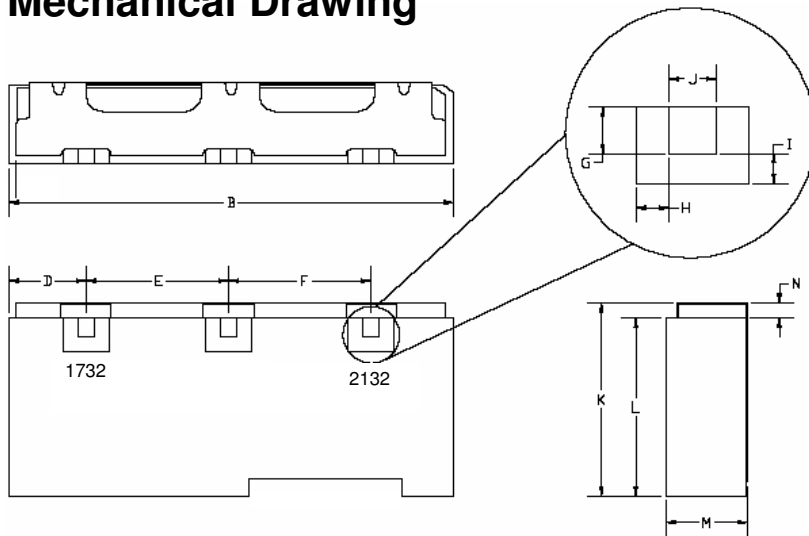
#### Specification Allowance

|                |        |
|----------------|--------|
| Insertion Loss | 0.1 dB |
| Return Loss    | 1.0 dB |
| Stopbands      | 1.0 dB |

\*This product is covered by one or more of the following U.S. and foreign patents including: US 4,692,726;US 4,742,562; US 4,800,348;US 4,829,274;US 5,146,193;EP 0573597;DE 0573597;FR 0573597;JP 508149/92;KR 142171;US 5,162,760;US 5,218,329;US 5,250,916;US 5,327,109;US 5,488,335;CA 2114029;FR 9306297;GB 2273393;JP 3205337;KR 115113;CN 93106228.4;US 5,512,866;EP 0706719;DE 0706719;FR 0706719;GB 0706719;CN 95190359.4;US 5,602,518;US 5,721,520;US 5,745,018;EP 0910875;DE 0910875;DK 0910875;FR 0910875;GB 0910875;IE 0910875;JP 505182/98;KR 10-323013;US 5,994,978;US 6,462,629;CN 00810420.4;US 6,559,735;US 6,650,202;US 6,834,429. Other US and foreign patents pending.

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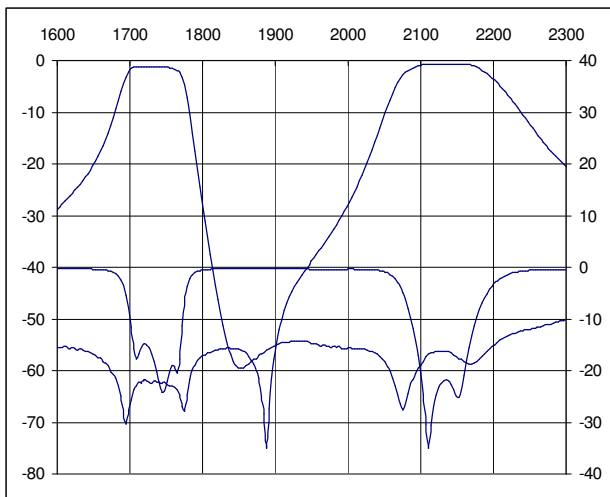
### Mechanical Drawing



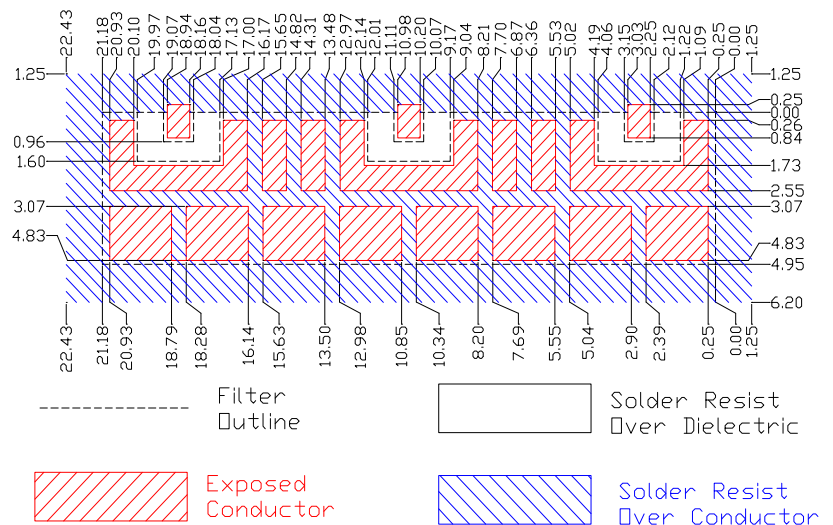
| Dim | Nominal (mm) | Tolerance (mm)<br>+/- or max |
|-----|--------------|------------------------------|
| B   | 21.54        | max                          |
| D   | 2.72         | 0.2                          |
| E   | 7.95         | 0.2                          |
| F   | 7.95         | 0.2                          |
| G   | 0.97         | 0.13                         |
| H   | 0.91         | 0.13                         |
| I   | 0.64         | 0.13                         |
| J   | 1.02         | 0.13                         |
| K   | 6.20         | max                          |
| L   | 5.10         | max                          |
| M   | 4.00         | max                          |
| *N  | 0.80         | 0.2                          |

\* Indicates Reference Only

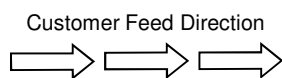
### Electrical response



### PCB Layout



### Packaging and Marking



CTS  
69C  
YWW

| DIMENSION     | UNITS | SPECIFICATION |
|---------------|-------|---------------|
| REEL DIAMETER | mm    | 330           |
| REEL WEIGHT   | kg    | 3.0           |
| REEL QUANTITY | ea.   | 500           |

