

### Features

- Low Loss
- Excellent Rejection
- Excellent Power Handling

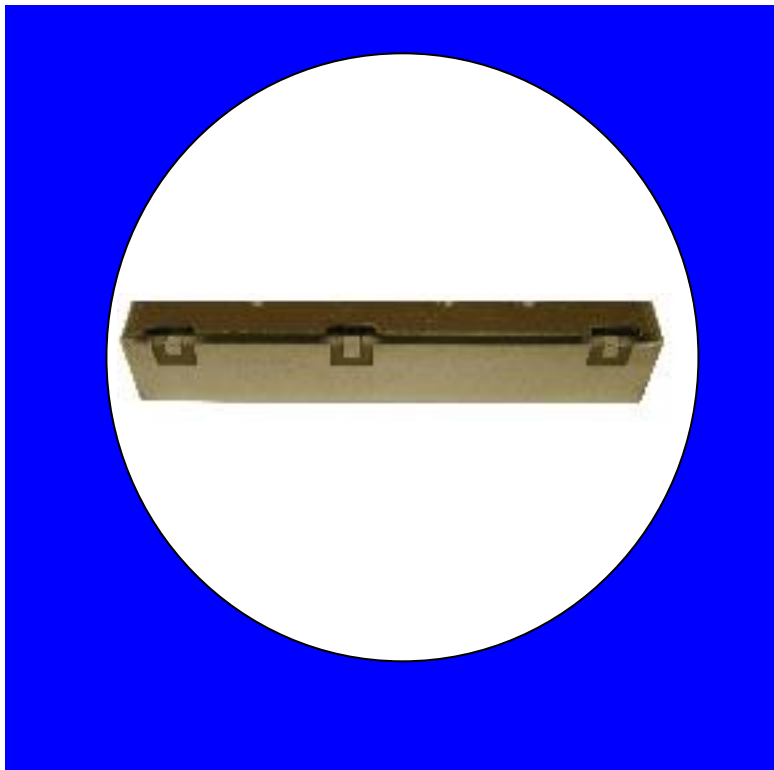
### Description

Surface mount, silver (Ag) coated ceramic duplexer. Developed for use in both subscriber and infrastructure InMarSat Applications.

Weight: 7.8 grams typical

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

Filter complies with RoHS standards.



### Electrical Specifications

| Parameter                     | Frequency (MHz) | Typical @ 25°C | Spec. @ 25°C | Spec. over -40°C to +85°C |
|-------------------------------|-----------------|----------------|--------------|---------------------------|
| <b>TX to Antenna Response</b> |                 |                |              |                           |
| Passband Insertion Loss       | 1626.5 – 1675   | 1.5 dB         | 1.8 dB max   | 2.0 dB max                |
| Passband Return Loss @ TX     | 1626.5 – 1675   | 14 dB          | 10.0 dB min  | 10 dB min                 |
| Passband Return Loss @ ANT    | 1626.5 – 1675   | 14 dB          | 10.0 dB min  | 10 dB min                 |
| Attenuation:                  | 1518 – 1559     | 62 dB          | 60.0 dB min  | 60.0 dB min               |
|                               | 1559 - 1591     | 40 dB          | 35.0 dB min  | 35.0 dB min               |
| <b>Antenna to RX Response</b> |                 |                |              |                           |
| Passband Insertion Loss       | 1518 – 1559     | 1.3 dB         | 1.6 dB max   | 1.8 dB max                |
|                               | 1559 - 1591     | 4.3 dB         | 4.8 dB max   | 5 dB max                  |
| Passband Return Loss @ RX     | 1518 – 1591     | 14 dB          | 10.0 dB min  | 10 dB min                 |
| Passband Return Loss @ ANT    | 1518 – 1591     | 14 dB          | 10.0 dB min  | 10 dB min                 |
| Attenuation:                  | 1626.5 – 1675   | 67 dB          | 65.0 dB min  | 65.0 dB min               |
| <b>TX to RX Response</b>      |                 |                |              |                           |
| Isolation @ RX                | 1518 - 1559     | 62 dB min      | 60.0 dB min  | 60.0 dB min               |
| Isolation @ TX                | 1626.5 - 1675   | 67 dB min      | 65.0 dB min  | 65.0 dB min               |
| Isolation @ Midband           | 1559 - 1626.5   | 37 dB min      | 35.0 dB min  | 35.0 dB min               |
| 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:

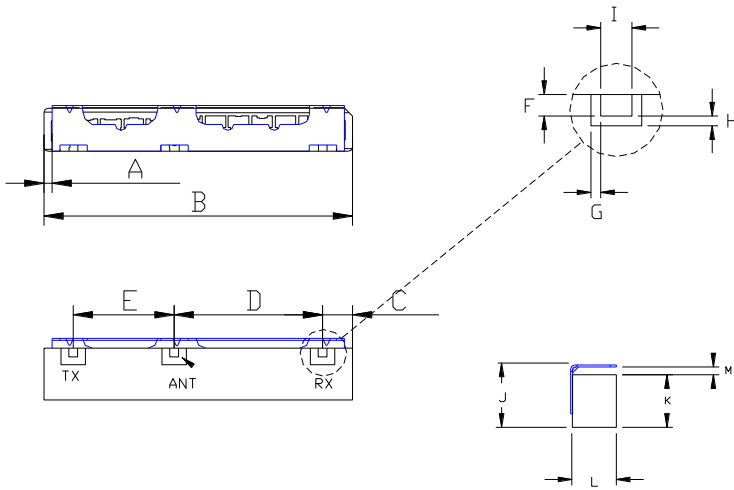
| Specification Allowance |        |
|-------------------------|--------|
| Insertion Loss          | 0.1 dB |
| Return Loss             | 1.0 dB |
| Stopbands               | 1.0 dB |

\*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 931062 28.4;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

Rev A – Origin Date: November 14, 2024 – Revision Date: November 24, 2024

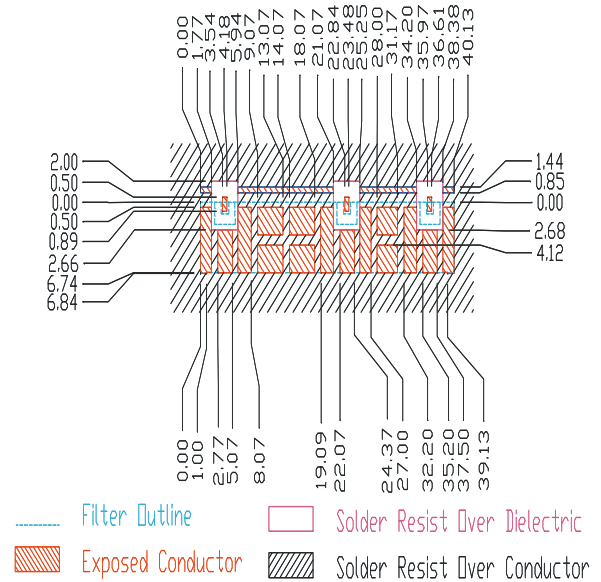


| Dim | Nominal (mm) | Tolerance (mm)<br>+/- or max |
|-----|--------------|------------------------------|
| A   | 1.054        | 0.25                         |
| B   | 40.41        | max                          |
| C   | 3.897        | 0.13                         |
| D   | 19.3         | 0.13                         |
| E   | 13.13        | 0.13                         |
| F   | 1.14         | 0.13                         |
| G   | 1.02         | 0.13                         |
| H   | 1.02         | 0.13                         |
| I   | 1.14         | 0.13                         |
| J   | 8.29         | max                          |
| K   | 6.84         | max                          |
| L   | 6.2          | max                          |
| M   | 1.016        | 0.17                         |

### Electrical response

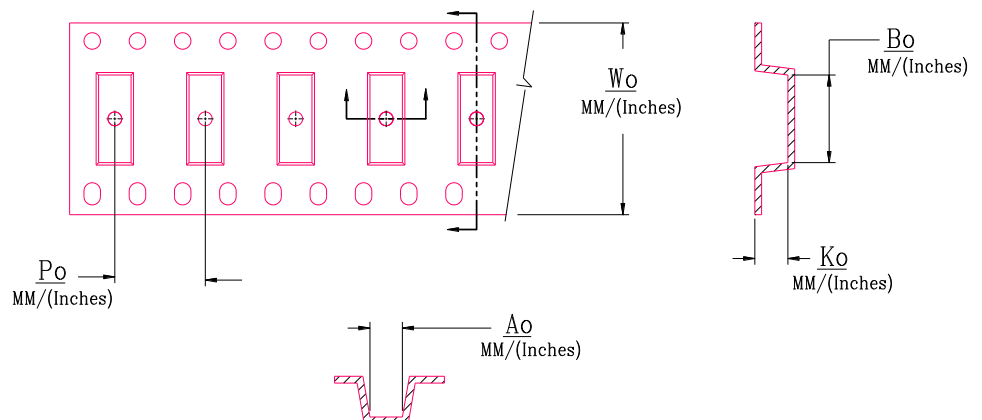
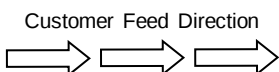


### PCB Layout



### Packaging and Marking

| DIMENSION     | UNITS | SPECIFICATION |
|---------------|-------|---------------|
| REEL DIAMETER | mm    | 330           |
| REEL WEIGHT   | kg    | 2.3           |
| REEL QUANTITY | ea.   | 250           |



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| MODEL NO. | Wo       | Ao         | Bo         | Ko         | Po         |
|-----------|----------|------------|------------|------------|------------|
| CER0017   | 2.205/56 | 0.346/8.80 | 1.606/40.8 | 0.232/5.90 | 0.787/20.0 |