CDX6640A - PRELIMINARY
Band 7 and 40 ClearPlex Diplexer

Features
- Narrowband diplexing combines neighboring frequency bands
- Exceptional power handling, PIM, Return Loss, and reliability
- Part of the CDX family of high performance diplexers
- Available for either direct PCB mounting or with various connectors including SMA, SMP-Max, and other options.

Applications
- Wireless Infrastructure applications

Description
Ceramic waveguide diplexer based on ClearPlex technology supports neighboring frequency bands. Provides exceptional rejection, insertion loss, reliability, as well as both peak and average power handling. Performance is comparable to Air Cavity in dramatically smaller size.

Electrical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency (MHz)</th>
<th>Typical at 25°C</th>
<th>Spec. at 25°C</th>
<th>Spec. over -40°C to +85°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Impedance</td>
<td>-</td>
<td>50 ohms</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Average Input Power (per side)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>50.0 Watt max</td>
</tr>
<tr>
<td>Peak Input Power (per side)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>500 Watt max</td>
</tr>
<tr>
<td>Average Output Power (combined port)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>80.0 Watt max</td>
</tr>
<tr>
<td>Peak Output Power (combined port)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>800 Watt max</td>
</tr>
<tr>
<td>Passive Intermodulation (2x20W/side)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>TBD</td>
</tr>
<tr>
<td>Lightning Surge Handling at Ant port</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>&gt; 10 kA (TBC)</td>
</tr>
</tbody>
</table>

Low-band to Antenna Response

- Passband Insertion Loss (5 MHz avg): 1710 - 2200 MHz < 0.6 dB max
- Passband Return Loss: 1710 - 2200 MHz 18-20 dB min TBC
- Attenuation: 2300 - 2690 MHz > 40 dB min

High-band to Antenna Response

- Passband Insertion Loss (5 MHz avg): 2300 - 2690 MHz < 0.6 dB max
- Passband Return Loss: 2300 - 2690 MHz 18-20 dB min TBC
- Attenuation: 1710 - 2200 MHz > 40 dB min

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

Specification Allowance
- Insertion Loss: 0.1 dB
- Return Loss: 1.0 dB
- Attenuation: 1.0 dB

Part Dimensions: ESTIMATE 75 x 35 x 14.5 mm • <100 g
Materials: Ag plated ceramic block
PCB Layout (Top-Down View)

Packaging and Marking

Product is shipped in Pre-formed foam trays

The trays have xx slots each with one filter per slot. Boxes are packed with 12 Trays per box for a total of xx filters per box.

Electrical Response

Simulation