CMB041B - PRELIMINARY
2496-2690 MHz Bandpass Filter

Features
- Close-in rejection for Category B Emission compliance
- Low loss with high rejection and low ripple
- Superior power handling and reliability
- Part of the CMB family of Metro-cell TDD Bandpass Filters
- Choice for either PCB mounting with pins, or with various connectors (SMA, SMP-Max, etc.) and mounting brackets

Applications
- Wireless Infrastructure applications
- High-performance carrier-grade TDD basestations up to 20W at the antenna port
- Wide-band DAS, Repeaters, or small-cells including support for WiFi co-location

Description
Ceramic waveguide bandpass filter based on ClearPlex technology supports TDD frequency bands. Provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other ceramic technologies. Performance is comparable to compact 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</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>32 Watt max</td>
</tr>
<tr>
<td>Peak Input Power</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>320 Watt max</td>
</tr>
</tbody>
</table>

Input-Output Response

Passband Insertion Loss (5 MHz avg): 2496 - 2690, 1.1 dB max
Passband Ripple (over 5MHz): 2496 - 2690, 0.8 dB max
Group Delay Variation (min-max): 2496 - 2690, 100 ns max
Passband Return Loss: 2496 - 2690, 16 dB min
Attenuation:
- 1 - 2400, 65 dB min
- 2400-2450, 30 dB min
- 2450 - 2476, 18 dB min
- 2476 - 2486, 15 dB min
- 2700 - 2704, 15 dB min
- 2704 - 2750, 18 dB min
- 2750 - 2800, 40 dB min
- 2800 - 3400, 63 dB min

NOTE: Use with RLF0270A lowpass filter to assure high-frequency suppression over 3.4-12.75GHz

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
**Mechanical Drawing**
Size: 45 mm (L) x 40 mm (W) x 16 mm (H)
Weight: 90 gm

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**Packaging and Marking**

**Electrical Response**

![Electrical Response Graph](image)

- **m1:** 2486 MHz, -18.91 dB
- **m2:** 2496 MHz, 0.8229 dB
- **m3:** 2690 MHz, -0.8229 dB
- **m4:** 2700 MHz, -18.91 dB

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