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**WLAN Injector, BK-21 series**

UHF, Cellular, UMTS In-Building/W-LAN 802.11(b/g)  
80 - 2170 / 2400 - 2500 MHz, N, 7/16, or 4.3-10  
Rev. B

- Combines W-LAN and Cellular on same Distributed Antenna System
- Models for Outdoor Environments
- 50 dB Input Isolation
- 150 W Average Power
- Minimal RF Insertion Loss
- Rugged, High Reliability Design
- Low Passive IM., PIM
- RoHS compliant

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**Microlab BK-21 series Wireless Local Area Network (WLAN) Injector** is a filter diplexer for indoor and outdoor use. It links W-LAN designed to 802.11(b/g) with a coaxial distributed inbuilding cellular network or DAS. This gives W-LAN the benefit of the same controlled coverage as the DAS, eliminating many W-LAN uncertainties.

To minimize the effects of the Injector to the DAS the inputs are well isolated and have minimal insertion loss.

The W-LAN Injector has been designed using passive, proprietary techniques to ensure minimal loss and high reliability. Corner holes are provided for simple mounting to a surface or cable tray. For outdoor environments use the model with the suffix ‘P’.

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<table>
<thead>
<tr>
<th>Model Numbers</th>
<th>Indoor Connectors</th>
<th>Weight, nom.</th>
<th>Outdoor Connectors</th>
<th>Weight, nom.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK-21D BK-21DP</td>
<td>7-16 mm 2.1 (0.95)</td>
<td></td>
<td>BK-21N BK-21NP</td>
<td>2.0 (0.90)</td>
</tr>
<tr>
<td>BK-21E BK-21EP</td>
<td>4.3-10 2.0 (0.90)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pass Band**

<table>
<thead>
<tr>
<th>Input</th>
<th>Pass Band to J3</th>
<th>Isolated</th>
<th>Power Rating Avg., peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1</td>
<td>2400-2500</td>
<td>0.6 ± 0.1</td>
<td>8W max, 150W max, 3kW</td>
</tr>
<tr>
<td>J2</td>
<td>80-2170</td>
<td>2A max</td>
<td>0.3 ± 0.1</td>
</tr>
</tbody>
</table>

*DC path: DC to 20 MHz

**Pass Band Power Rating**

- Input J1-J2 Isolation: >50 dB
- Input Return Loss: >18 dB
- Impedance: 50Ω nominal
- Intermod. (PIM): -161 dBc
  - 2 x +43dBm tones
- Environment: *0 to +50°C
- Housing Finish:  
  - Indoor/IP64: Standard model  
  - Outdoor/IP67: Painted  
  - Add P to Model No.  
- Connectors: Triplate
*Broader range available with relaxed VSWR

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**Dimensions in inches [mm]**

- **[12.7]±0.03 [32.67±1.52]**
- **[1.07]±0.03 [27.20±76]**
- **[2.00]±0.03 [50.70±76]**
- **Ø2.05 [Ø5.21]**
- **MOUNTING HOLES 4 PLACES**
- **[0.85]±0.03 [21.46±76]**
- **[0.20]±0.03 [5.08±76]**
- **[6.88]±0.03 [170.6±152]**
- **[3.07]±0.03 [77.90±76]**
- **[4.41]±0.03 [112.06±76]**
- **[4.81]±0.03 [122.22±1.52]**

**INPUT J1**

- 80 – 2170 MHz
- **OUTPUT J3**

**DIPLExER FILTER**

- 80-2170 / 2400-2500 MHz

**Note:** Specifications are subject to change without prior notification.

22JUN2016