Directional Coupler
3-Port Directional Coupler
380-2700MHz
SP3827-23xx-DIN Series

RFI 3-Port Directional Couplers are used in a variety of RF combining, sampling and power splitting applications, typically used in DAS (Distributed Antenna Systems) for sampling RF for fibre fed systems and distributing power throughout feeder cable networks. Using directional couplers suitable for covering UHF to high end cellular frequencies saves on the cost of upgrades when public safety radio coverage may have to be accommodated on a DAS designed for cellular coverage. The RFI multiband directional couplers are available in a range of coupling values which gives the network designers and planners the ability to optimise and balance RF levels throughout a DAS network.

Features:
- Multi-Band 380-2700MHz covering UHF and Cellular bands.
- Low PIM ≤ -150dBc (3rd Order 2x43dBm carriers).
- Primarily used for optimising feeder cable signal distribution.
- Suitable for use with simplex and duplex channels, analogue or digital radio communications.
- Optional N Female termination connector SP3827-23xx-11 range available.
- Wide range of coupling values.
- Environmental IP 67 Rating.
- Includes S/S Mounting bracket.

Specifications

<table>
<thead>
<tr>
<th>Model Number Derivative - SP3827-23xx-DIN</th>
<th>SP3827-23xx-DIN</th>
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<tbody>
<tr>
<td>Type 380-2700MHz</td>
<td></td>
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<tr>
<td>Decoupled level (Port 3)</td>
<td>5dB 6dB 8dB 10dB 12dB 15dB 20dB</td>
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<tr>
<td>Insertion loss - Typical (Port 1-2)</td>
<td>≤ 2.2dB ≤ 1.9dB ≤ 1.4dB ≤ 0.7dB ≤ 0.5dB ≤ 0.4dB ≤ 0.3dB</td>
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<tr>
<td>Power Rating</td>
<td>200W</td>
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<tr>
<td>Impedance</td>
<td>50 Ohms</td>
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<tr>
<td>Input Return Loss / VSWR - Typical</td>
<td>19dB / 1.25:1</td>
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<tr>
<td>Directivity - Typical</td>
<td>20dB</td>
</tr>
<tr>
<td>PIM (3rd Order 2x43dBm)</td>
<td>≤ - 150dBc</td>
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<tr>
<td>Connector Type (all termination ports)</td>
<td>DIN Female (N Female option available)</td>
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<tr>
<td>IP Rating</td>
<td>IP67</td>
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<tr>
<td>Finish</td>
<td>Painted Black</td>
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<tr>
<td>Mounting</td>
<td>Stainless steel mounting bracket included</td>
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<tr>
<td>Dimensions (excl connectors &amp; mounting bracket)</td>
<td>H 25mm x W 50mm x L 190mm / H 0.98&quot;x W 1.97&quot;x L 7.48&quot;</td>
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<tr>
<td>Weight</td>
<td>0.40kgs / 0.88lbs</td>
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<tr>
<td>Temperature</td>
<td>-30° to +60° C / -22° to +140° F</td>
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### Ordering Information

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<tr>
<th>Ordering Information</th>
<th>Description</th>
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<tbody>
<tr>
<td>SP3827-2305-DIN</td>
<td>Directional Coupler 380-2700MHz, 3-Port 5dB Coupling Loss DIN (F) Connectors</td>
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<tr>
<td>SP3827-2306-DIN</td>
<td>Directional Coupler 380-2700MHz, 3-Port 6dB Coupling Loss DIN (F) Connectors</td>
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<tr>
<td>SP3827-2308-DIN</td>
<td>Directional Coupler 380-2700MHz, 3-Port 8dB Coupling Loss DIN (F) Connectors</td>
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<tr>
<td>SP3827-2310-DIN</td>
<td>Directional Coupler 380-2700MHz, 3-Port 10dB Coupling Loss DIN (F) Connectors</td>
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<tr>
<td>SP3827-2312-DIN</td>
<td>Directional Coupler 380-2700MHz, 3-Port 12dB Coupling Loss DIN (F) Connectors</td>
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<tr>
<td>SP3827-2315-DIN</td>
<td>Directional Coupler 380-2700MHz, 3-Port 15dB Coupling Loss DIN (F) Connectors</td>
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<tr>
<td>SP3827-2320-DIN</td>
<td>Directional Coupler 380-2700MHz, 3-Port 20dB Coupling Loss DIN (F) Connectors</td>
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