



## OMNIDIRECTIONAL ANTENNAS FOR PCS/DCS AND WIRELESS LAN

Laird is world renowned for special purpose omnidirectional antenna design. Antennas are available for the 1.7 GHz DCS band through 5.8 GHz ISM band frequencies and can be suspension ceiling mounted, I-beam mounted or mast mounted.

## 2.4 GHz MONOPOLE OMNI

The Laird 2.4 GHz monopole antenna features a large backplane and is designed for applications with a very focused omnidirectional pattern where an in-building system is required. The monopole can be used to focus signal directly into an area where it is difficult to obtain any coverage.

## ANTENNA SELECTION CRITERIA

Prior to making an informed antenna selection, the following must be determined: what frequency range should the antenna cover? What gain is needed? If the exact gain is unknown, be able to describe the system that will use the antennas. For example, how large is the area? What obstructions are in the area (i.e. buildings, trees, shelves, walls, etc.)? Consider how the antenna will be mounted or at least what mount is preferable. With this information, a number of alternatives can be eliminated.

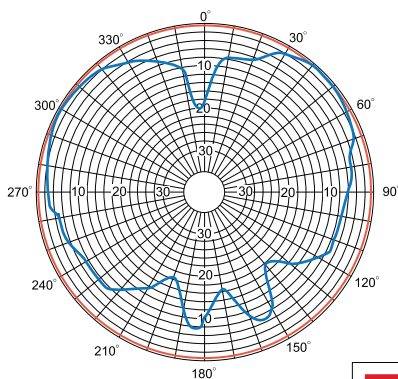
Currently, the most popular spread spectrum systems operate in the 900 MHz or the 2.4 GHz ranges, so these are basic spread options. Other data applications occur anywhere from 25 MHz to 5.9 GHz. Some antennas outside of the 900 MHz and 2.4 GHz ranges are also offered. Contact Laird to find your solution today!

## FEATURES

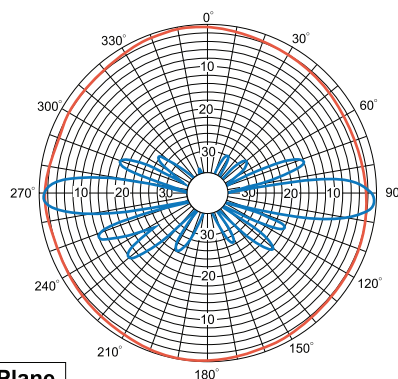
- Polycarbonate enclosures
- Available with ceiling mounts
- Plated copper laminated radiator
- Weatherproof designs with UltraLink pigtails
- Broadband performance
- DC grounded
- Omnidirectional performance

## MARKETS

- WiMAX



**S2403M**



**S2406BH**

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| MODEL       | FREQUENCY<br>MHz | GAIN<br>dBi | BANDWIDTH<br>1.5:1<br>MHz | -3 dB<br>BEAMWIDTH<br>E-PLANE | HEIGHT<br>In<br>(cm) | WEIGHT<br>lb<br>(kg) | W/SUR<br>AREA<br>ft <sup>2</sup><br>(m <sup>2</sup> ) | W/SURVIVAL<br>mph<br>(kph) | POWER<br>(watts) | ENCLOSURE<br>MATERIAL     | MOUNT<br>STYLE       | MAST<br>DIAMETER<br>in<br>(cm) |
|-------------|------------------|-------------|---------------------------|-------------------------------|----------------------|----------------------|-------------------------------------------------------|----------------------------|------------------|---------------------------|----------------------|--------------------------------|
| S5703BP5SMF | 5725-5875        | 3           | 150                       | 38°                           | 7<br>(17.8)          | 0.3<br>(0.14)        | 0.06<br>(0.006)                                       | 125<br>(200)               | 20               | Polycarbonate<br>Tube End |                      | 2<br>(5.1)                     |
| S5703BH7SMF | 5725-5875        | 3           | 150                       | 38°                           | 7<br>(17.8)          | 0.2<br>(0.1)         | 0.06<br>(0.006)                                       | 125<br>(200)               | 20               | Polycarbonate             | Ceiling              | N/A                            |
| S5153BP5SMF | 5150-5350        | 3           | 200                       | 38°                           | 7<br>(17.8)          | 0.2<br>(0.1)         | 0.06<br>(0.006)                                       | 125<br>(200)               | 20               | Polycarbonate<br>Tube End |                      | 2<br>(5.1)                     |
| S5153BH7SMF | 5150-5350        | 3           | 200                       | 38°                           | 7<br>(17.8)          | 0.2<br>(0.1)         | 0.06<br>(0.006)                                       | 125<br>(200)               | 20               | Polycarbonate             | Ceiling              | N/A                            |
| S5703M12NF  | 5725-5875        | 1           | 150                       | 60°                           | 1.5<br>(3.8)         | 0.4<br>(0.18)        | 0.02<br>(0.002)                                       | 125<br>(200)               | 20               | Polycarbonate             | Ceiling              | N/A                            |
| S2406BP7NF  | 2400-2500        | 6           | 100                       | 13°                           | 25<br>(63.5)         | 0.5<br>(0.23)        | 0.11<br>(0.01)                                        | 125<br>(200)               | 20               | Polycarbonate<br>Tube End |                      | 2<br>(5.1)                     |
| S2406BH12NF | 2400-2500        | 6           | 100                       | 13°                           | 25<br>(63.5)         | 0.5<br>(0.23)        | 0.11<br>(0.01)                                        | 80<br>(128)                | 20               | Polycarbonate<br>Tube End |                      | N/A                            |
| S2403M12NF  | 2400-2500        | 1           | 100                       | 60°                           | 2<br>(5.1)           | 0.5<br>(0.23)        | 0.02<br>(0.002)                                       | 125<br>(200)               | 50               | Polycarbonate             | Ceiling              | N/A                            |
| S2403BH12NF | 2400-2500        | 3           | 100                       | 38°                           | 11.5<br>(29.2)       | 0.31<br>(0.14)       | 0.08<br>(0.007)                                       | 125<br>(200)               | 50               | Polycarbonate             | Ceiling              | N/A                            |
| S2403BP12NF | 2400-2500        | 3           | 100                       | 38°                           | 11.5<br>(29.2)       | 0.41<br>(0.18)       | 0.08<br>(0.007)                                       | 125<br>(200)               | 50               | Polycarbonate<br>Tube End |                      | 2<br>(5.1)                     |
| S2400BH12NF | 2400-2500        | 0           | 100                       | 75°                           | 9<br>(22.9)          | 0.29<br>(0.13)       | 0.122<br>(0.011)                                      | 125<br>(200)               | 50               | Polycarbonate             | Ceiling              | N/A                            |
| S1805BNF    | 1850-1990        | 5           | 140                       | 16°                           | 31<br>(78.7 x 2.5)   | 2<br>(0.9)           | 0.14<br>(0.013)                                       | 125<br>(200)               | 50               | Polycarbonate             | U-<br>bolt & Bracket | N/A                            |
| S1803BNF    | 1850-1990        | 3           | 140                       | 38°                           | 13<br>(33.0 x 2.5)   | 1.3<br>(0.59)        | 0.06<br>(0.006)                                       | 125<br>(200)               | 50               | Polycarbonate             | Direct               | N/A                            |
| S1800BNF    | 1850-1990        | 0           | 140                       | 70°                           | 8<br>(20.3)          | 1.2<br>(0.55)        | 0.04<br>(0.003)                                       | 125<br>(200)               | 50               | Polycarbonate             | Direct               | N/A                            |
| S1715BNF    | 1710-1880        | 5           | 170                       | 16°                           | 33<br>(83)           | 2.2<br>(0.95)        | 0.15<br>(0.014)                                       | 125<br>(200)               | 50               | Polycarbonate             | Direct               | N/A                            |
| S1713BNF    | 1710-1880        | 3           | 170                       | 38°                           | 14<br>(35.5)         | 1.4<br>(0.64)        | 0.07<br>(0.006)                                       | 125<br>(200)               | 50               | Polycarbonate             | Direct               | N/A                            |
| S1710BNF    | 1710-1880        | 0           | 170                       | 70°                           | 9<br>(22.9)          | 1.3<br>(0.59)        | 0.04<br>(0.003)                                       | 125<br>(200)               | 50               | Polycarbonate             | Direct               | N/A                            |

Common specifications: VSWR - 1.5: nominal; Connector Type - N (female); Pigtail - 12 inch (30.5 cm); Element material - printed circuit; dome diameter 1"

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