

# **Special Purpose Omnidirectional Antennas**



#### 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.

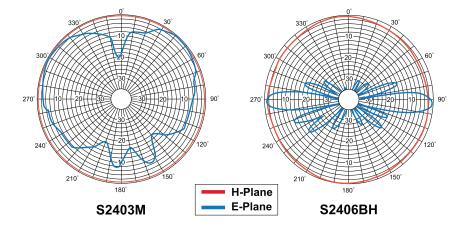
Currently, the most popular spread spectrum systems operate in the 900 MHz or the 2.4 GHz ranges, so these are basic spread options. Other data applications occur anywhere from 25 MHz to 5.9 GHz. Some antennas outside of the 900 Mhz and 2.4 GHz ranges are also offered. Contact Laird to find your solution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



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

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## **Laird Connectivity:**

<u>S2403BH12NF</u> <u>S2403BH12RTN</u> <u>S2403BH12SMM</u> <u>S2403BH36RSM</u> <u>S2403BH36RTN</u> <u>S2403BH36RTN</u> <u>S2403BH36RTN</u>