

# Special Purpose Omnidirectional Antennas

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## Omnidirectional antennas for PCS/DCS and Wireless LAN

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

See *Squint™* series for more Omnidirectional antenna solutions, Pages 3-5.

### DATA TRANSMISSION OMNIS

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

### F Y I

### Antenna Selection Criteria

Before you can make an informed antenna selection, you must know the following: What frequency range should the antenna cover? What gain is needed? If you don't know the exact gain you should be able to describe the system using the antennas. For example, how large is the area? What obstructions are in the area; buildings, trees, shelves, walls etc.? You should know how the antenna will be mounted or at least how you would like to mount it. With this information you can eliminate a number of alternatives.

Currently the most popular spread spectrum systems are operating in the 900 MHz range or in the 2.4 GHz range. These are your basic choices for spread. Other data applications take place anywhere from 25 MHz to 5.9 GHz. Some antennas outside of the 900 MHz and 2.4 GHz ranges are found elsewhere in this catalog. If you don't see what you need or have any questions, please call the factory.



S2403BH



S5703BP



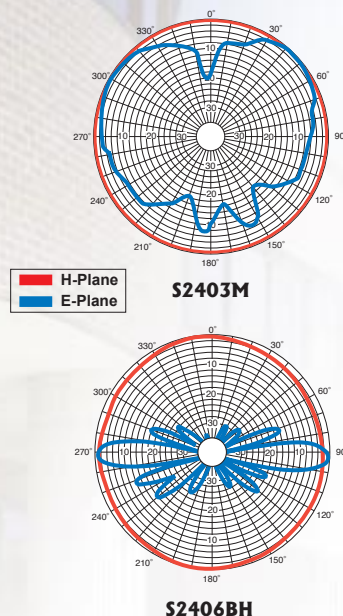
S2403M



S1805BP/S1803BP

## 2.4 GHz Monopole Omni

The Cushcraft 2.4 GHz monopole antenna has a large backplane and is designed for applications with a very focused omnidirectional pattern where an in-building system is required. For example, the monopole could be used to focus signal directly into an area where it is very difficult to get any coverage.



S2406BP

### DATA OMNI SELECTOR GUIDE

Model	Freq. MHz	Gain dBd	Bandwidth 1.5:1 MHz	-3dB bwwidth E-Plane	Height In (cm)	Weight lb (kg)	W/sur Area ft² (m²)	W/survival mph (kph)	Power (Watts)	Enclosure Material	Mount Style	Mast Dia in (cm)
S5703BP5SMF	5725-5875	3	150	38°	7 (17.8)	0.3 (0.14)	.06 (.006)	125 (200)	20	Polycarbonate	Tube end	2 (5.1)
S5703BH7SMF	5725-5875	3	150	38°	7 (17.8)	0.2 (0.1)	.06 (.006)	125(200)	20	Polycarbonate	Ceiling	N/A
S5153BP5SMF	5150-5350	3	200	38°	7 (17.8)	0.2 (0.1)	.06 (.006)	125(200)	20	Polycarbonate	Tube end	2 (5.1)
S5153BH7SMF	5150-5350	3	200	38°	7 (17.8)	0.2 (0.1)	.06 (.006)	125(200)	20	Polycarbonate	Ceiling	N/A
S5703M12NF	5725-5875	1	150	60°	1.5 (3.8)	0.4 (0.18)	.02 (.002)	125 (200)	20	Polycarbonate	Ceiling	N/A
S2406BP7NF	2400-2500	6	100	13°	25 (63.5)	0.5 (.23)	0.11 (.01)	125 (200)	20	Polycarbonate	Tube end	2 (5.1)
S2406BH12NF	2400-2500	6	100	13°	25 (63.5)	0.5 (.23)	0.11 (.01)	80 (128)	20	Polycarbonate	Tube end	N/A
S2403M12NF	2400-2500	1	100	60°	2 (5.1)	0.5 (0.23)	.02 (.002)	125 (200)	50	Polycarbonate	Ceiling	N/A
S2403BH12NF	2400-2500	3	100	38°	11-1/2 (29.2)	0.31 (0.14)	0.08 (0.007)	125 (200)	50	Polycarbonate	Ceiling	N/A
S2403BP12NF	2400-2500	3	100	38°	11-1/2 (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 (78.7x2.5)	2 (.9)	0.14 (.013)	125 (200)	50	Polycarbonate	U-bolt & Bracket	N/A
S1803BNF	1850-1990	3	140	38°	13 (33.0x2.5)	1.3 (.59)	0.06 (.006)	125 (200)	50	Polycarbonate	Direct	N/A
S1800BNF	1850-1990	0	140	70°	8 (20.3)	1.2 (.55)	.04 (.003)	125 (200)	50	Polycarbonate	Direct	N/A
S1715BNF	1710-1880	5	170	16°	33 (83)	2.2 (.95)	.15 (.014)	125 (200)	50	Polycarbonate	Direct	N/A
S1713BNF	1710-1880	3	170	38°	14 (35.5)	1.4 (.64)	.07 (.006)	125 (200)	50	Polycarbonate	Direct	N/A
S1710BNF	1710-1880	0	170	70°	9 (22.9)	1.3 (.59)	.04 (.003)	125 (200)	50	Polycarbonate	Direct	N/A

Common Specifications: VSWR - 1.5: nominal; Connector Type - N-female; Pigtail - 12" (30.5 cm); Element material - printed circuit - radome dia. 1".