





# CFD69383P / CFD69383P1

Ultra-Low Profile MIMO 698-960 MHz / 1350-1550 MHz / 1690-4000 MHz

These 2-port MIMO indoor wideband omnidirectional low-profile ceiling mount antennas are designed to provide pattern coverage optimized for indoor coverage requirements at 698-960 MHz and 1690-4000 MHz for the LTE, AWS-3, WCS, and CBRS/WiMAX frequency bands. The CFD69383P/CFD69383P1 are applicable for environments where aesthetics and wide-angle coverage are necessary for successful wireless deployment. Their small size and low profile enable maximum mounting flexibility while maintaining desired in-building aesthetics.

## **FEATURES AND BENEFITS**

- Ultra-low profile
- 2-port MIMO for multipath mitigation
- Optimized performance using Laird proprietary tools
- Supports AWS-3 frequency band
- Mounts directly and easily to ceiling tile (CFD69383P1 is for hard ceiling mount installations)

| ELECTRICAL SPECIFICATION     |                       |             |             |               |                        |               |               |               |               |               |               |
|------------------------------|-----------------------|-------------|-------------|---------------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating Frequency (MHz)    | 698-<br>806           | 824-<br>894 | 880-<br>890 | 1350-<br>1550 | 1690-<br>1880          | 1850-<br>1990 | 1910-<br>2180 | 2300-<br>2500 | 2500-<br>2700 | 3300-<br>3800 | 3800-<br>4000 |
| VSWR - Avg                   | <1.4:1                | <1.4:1      | <1.4:1      | <1.7:1        | <1.7:1                 | <1.6:1        | <1.4:1        | <1.3:1        | <1.7:1        | <1.7:1        | <1.5:1        |
| VSWR - Max                   | <1.5:1                | <1.5:1      | <1.5:1      | <2.0:1        | <1.8:1                 | <1.8:1        | <1.8:1        | <1.8:1        | <1.8:1        | <2.0:1        | <2.0:1        |
| Gain - Typ (dBi)             | 3.2                   | 3.4         | 3.8         | 3.0           | 4.2                    | 3.9           | 4.6           | 4.6           | 5.2           | 4.3           | 4.9           |
| Gain - Max (dBi)             | 3.8                   | 3.7         | 4.2         | 5.0           | 4.7                    | 4.3           | 6.0           | 5.0           | 5.7           | 5.1           | 5.4           |
| PIM - 2x20W - Avg (dBc)      | < -158 (LTE low band) |             |             |               | < -160 (LTE high band) |               |               |               |               | ,             |               |
| PIM - 2x20W - Max (dBc)      | < -150 (LTE low band) |             |             |               | < -150 (LTE high band) |               |               |               |               |               |               |
| Isolation - Avg (dB)         | >20                   | >22         | >23         | >16           | >16                    | >18           | >19           | >31           | >36           | >28           | >30           |
| Isolation - Max (dB)         | >18                   | >18         | >18         | >13           | >15                    | >15           | >15           | >25           | >28           | >25           | >25           |
| Nominal Impedance (Ohms)     | 50                    |             |             |               |                        |               |               |               |               |               |               |
| Max Power - Ambient 25°C (W) | 50                    |             |             |               |                        |               |               |               |               |               |               |
| Polarization                 | Linear Horizontal     |             |             |               |                        |               |               |               |               |               |               |
| Azimuth 3 dB Beamwidth       | 360°, Omnidirectional |             |             |               |                        |               |               |               |               |               |               |

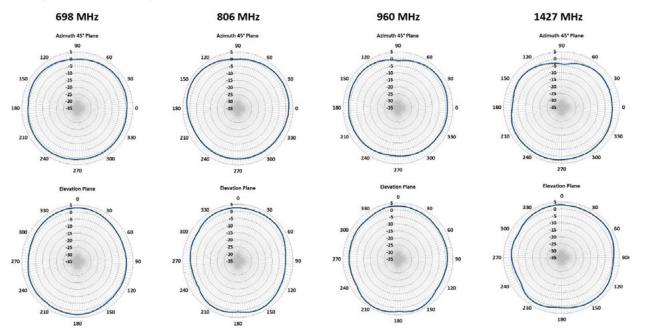
| MECHANICAL SPECIFICATION                  |                        |
|---|------------------------|
| Dimensions - height x diameter - mm (in.) | 7.6 x 250 (0.3 x 9.84) |
| Weight - g (lbs.)                         | 420 (0.93)             |
| Antenna Color                             | White                  |
| Radome Material                           | PC, UL94-V0            |

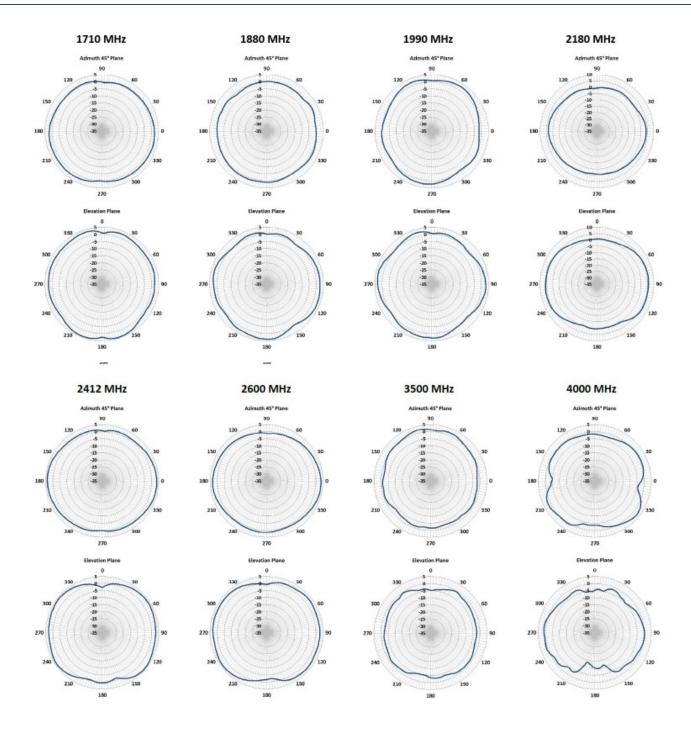
| ENVIRONMENTAL SPECIFICATIONS              |                              |
|---|------------------------------|
| Operating Environment (Indoor or Outdoor) | Indoor                       |
| Operating Temperature - C° (F°)           | -30 to +70C° (-22 to +158F°) |
| Storage Temperature - C° (F°)             | -40 to +85C° (-40 to +185F°) |
| Material Substance Compliance             | RoHS                         |

## **CONFIGURATION**

| PART NUMBER        | CABLE LENGTH   | CONNECTOR     | MOUNTING     | PACKAGING |
|--------------------|----------------|---------------|--------------|-----------|
| CFD69383P-30NF     | 30 cm (12 in.) | Type N-female | Ceiling tile | Unit      |
| CFD69383P-30D43F   | 30 cm (12 in.) | 4.3-10 female | Ceiling tile | Unit      |
| CFD69383P-30D43F   | 30 cm (12 in.) | Type N-female | Ceiling tile | Bulk      |
| CFD69383P-B30D43F  | 30 cm (12 in.) | 4.3-10 female | Ceiling tile | Bulk      |
| CFD69383P1-30NF    | 30 cm (12 in.) | Type N-female | Hard ceiling | Unit      |
| CFD69383P1-30D43F  | 30 cm (12 in.) | 4.3-10 female | Hard ceiling | Unit      |
| CFD69383P1-B30NF   | 30 cm (12 in.) | Type N-female | Hard ceiling | Bulk      |
| CFD69383P1-B30D43F | 30 cm (12 in.) | 4.3-10 female | Hard ceiling | Bulk      |

## **RADIATION PATTERNS**





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