


*U.S. PATENT 10,680,339*

# CFD69716

## Low Profile Ceiling Mount MIMO 5G DAS Antenna 698-7125 MHz

The CFD 5G two-port MIMO DAS antennas series is the latest addition to Laird Connectivity's extensive DAS antenna portfolio. They extend the current frequency offering up to 7125 MHz to service more of the available 5G frequency bands. Mounting options include hard and ceiling tile mounting and with or without screw holes for additional security.

These antennas are applicable for environments where aesthetics and wide-angle coverage are necessary for successful wireless deployment. Their surprisingly small size and ultra-low-profile enables maximum mounting flexibility while maintaining desired in-building aesthetics. CFD 5G series antennas support 698-960, 1350-1550, 1690-4200, and 5150-7125 MHz in an ultra-low-profile format that is discrete and unobtrusive.

## FEATURES AND BENEFITS

- Full coverage – Wide frequency coverage
- Performance – VSWR ratings of <1.7:1 up to 4200 MHz
- Low PIM – Rated to 4200 MHZ with an impressive - 162 dBc
- MIMO – Two-port MIMO for multipath mitigation
- Versatile – Mounting options for ceiling tile or hard ceilings
- Quality – Designed and built to exacting specifications
- Peace of mind – Backed by our five-year warranty

## APPLICATIONS

- Arenas/airports/campuses
- Office buildings
- Hospitals
- Large residential buildings
- Hotels and casinos
- Public safety

## ELECTRICAL SPECIFICATION

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model Name | CFD69716P / CFD69716P1 | | | | | | | | | | | |
| Number of Ports | 2 | | | | | | | | | | | |
| Operating Frequency (MHz) | 698-824 | 824-894 | 880-960 | 1350-1550 | 1690-1880 | 1850-1990 | 1910-2180 | 2300-2700 | 3300-3800 | 3800-4200 | 5150-5925 | 5925-7125 |
| Peak Gain – Average (dBi) | 2.8 | 2.4 | 2.3 | 4.0 | 3.1 | 3.0 | 4.5 | 4.6 | 5.1 | 4.9 | 4.7 | 4.6 |
| Peak Gain (dBi) | 3.3 | 2.8 | 2.7 | 4.3 | 3.4 | 3.8 | 5.7 | 5.4 | 5.5 | 5.3 | 5.6 | 5.4 |
| VSWR – Avg | 1.5 | | | 1.2 | 1.5 | | | 1.6 | 1.4 | | 1.7 | |
| VSWR – Max | 1.7:1 | | | | | | | | | | 2.3:1 | |
| PIM - 2x20W (dBc) (Max) | -150 | | | - | -150 | | | | | | - | |
| PIM – 2x20W (dBc) (Average) | -160 | | | - | -162 | | | | | | - | |
| Isolation, Max (dB) | 15 | | | 14 | 15 | | | 25 | | | | |
| Isolation, Avg (dB) | 21 | | | 16 | 20 | | | 34 | | | 38 | |
| Ports | 2 | | | | | | | | | | | |
| Nominal Impedance (Ω) | 50 | | | | | | | | | | | |
| Polarization | Linear – Horizontal | | | | | | | | | | | |
| Azimuth Beam Width (°) | 360, Omnidirectional | | | | | | | | | | | |
| Max Power - Ambient 25°C (W) | 50 (698-4200 MHz) / 10 (5150-7125 MHz) | | | | | | | | | | | |

## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Dimensions – H x D – mm (in.) | 7.6 x 250 (0.30 x 9.84) |
| Weight – g (oz.) | 420 (14.82) |
| Antenna Color | White |
| Radome Material | PC, UL94-V0 |

## ENVIRONMENTAL SPECIFICATIONS

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

## CONFIGURATION

| PART NUMBER | CABLE LENGTH | CONNECTOR | MOUNTING | PACKAGING |
|---|---|---|---|---|
| CFD69716P-30D43F | 30 cm (12") | 4.3-10 FEMALE | CEILING TILE | UNIT |
| CFD69716P-30NF | 30 cm (12") | N TYPE - FEMALE | CEILING TILE | UNIT |
| CFD69716P-B30D43F | 30 cm (12") | 4.3-10 FEMALE | CEILING TILE | BULK |
| CFD69716P-B30NF | 30 cm (12") | N TYPE - FEMALE | CEILING TILE | BULK |
| CFD69716P1-30D43F | 30 cm (12") | 4.3-10 FEMALE | HARD CEILING | UNIT |
| CFD69716P1-30NF | 30 cm (12") | N TYPE - FEMALE | HARD CEILING | UNIT |
| CFD69716P1-B30D43F | 30 cm (12") | 4.3-10 FEMALE | HARD CEILING | BULK |
| CFD69716P1-B30NF | 30 cm (12") | N TYPE - FEMALE | HARD CEILING | BULK |

## MECHANICAL DRAWING

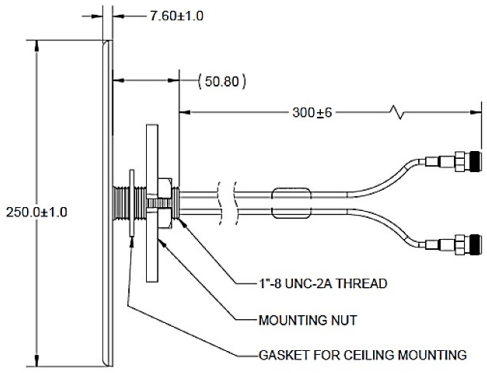



*FIGURE 1: CFD69716P*

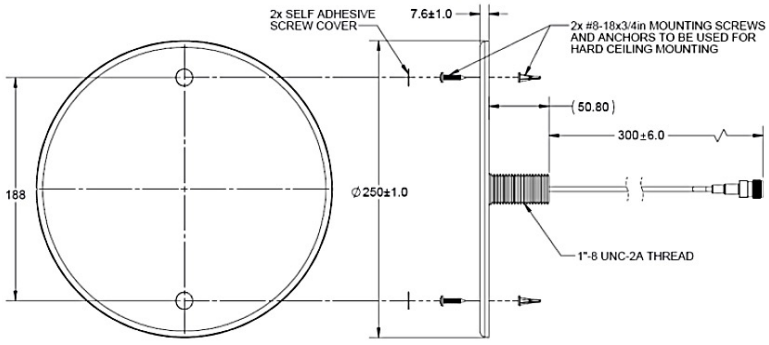
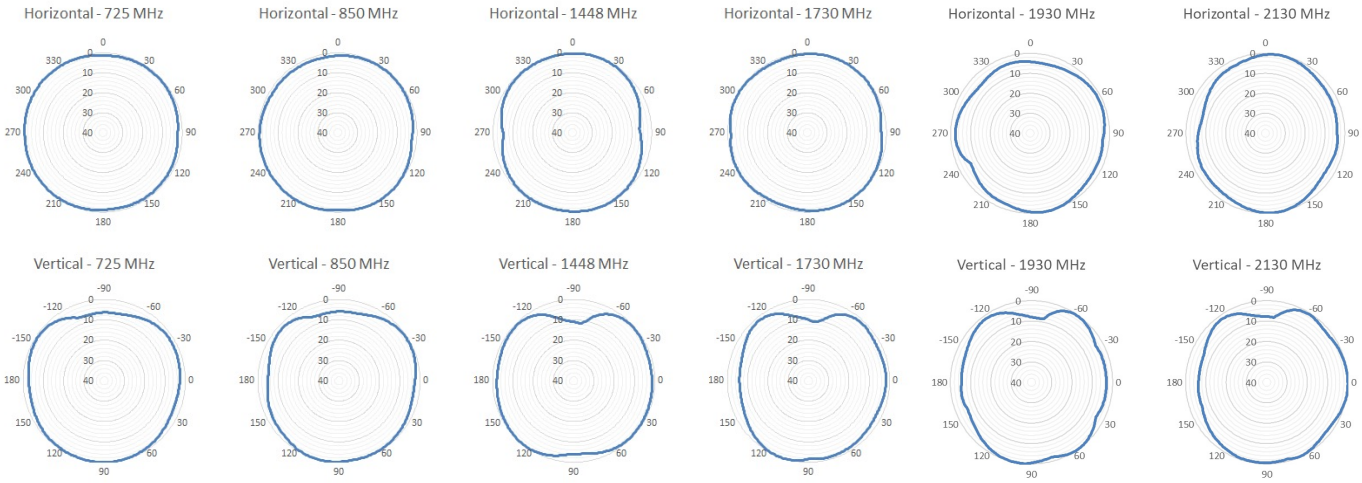
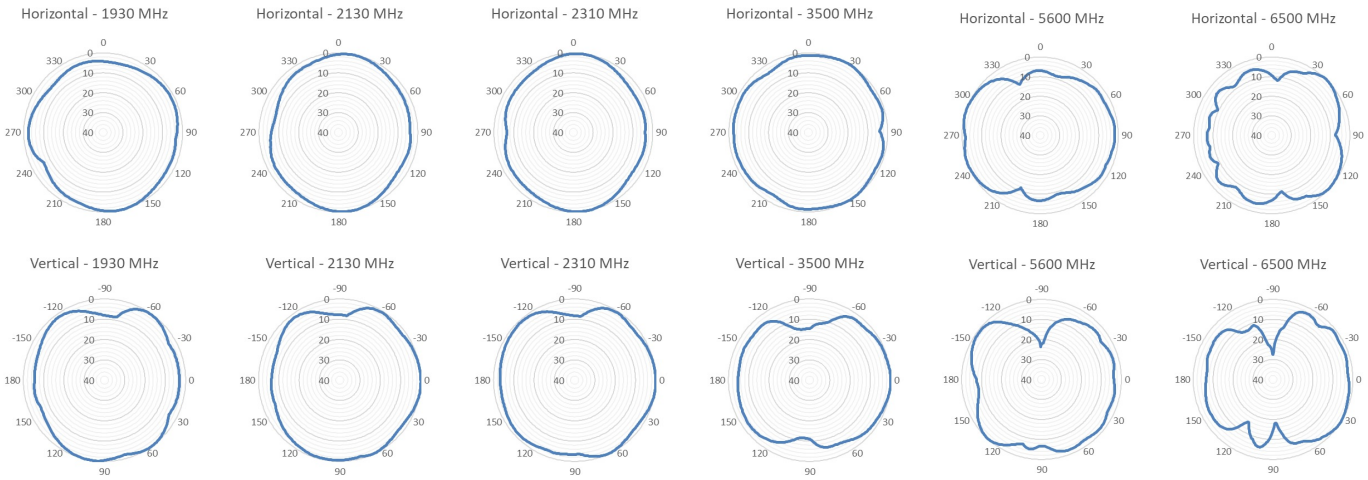



*FIGURE 2: CFD69716P1*

## RADIATION PATTERNS

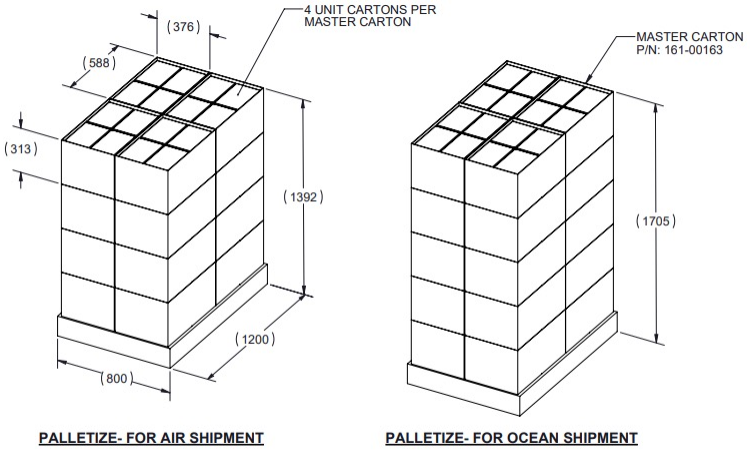


## RADIATION PATTERNS

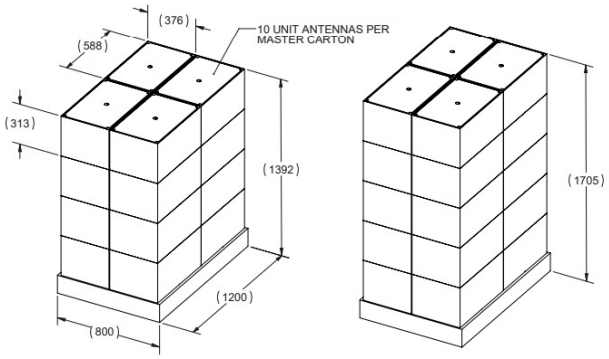



**Note:** 1. Horizontal plane cut is based on Theta=45° Plane from the measurement coordinate system
2. The radiation pattern presented is normalized combining diversity coverage for two ports gain.

## PACKAGING – INDIVIDUAL CARTON

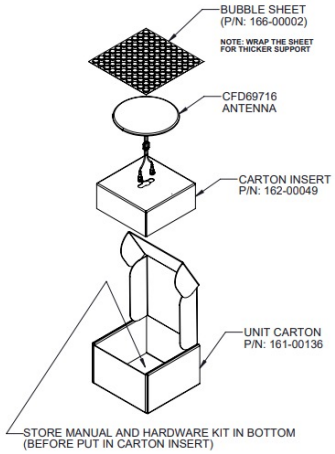


## PACKAGING – BULK PACK

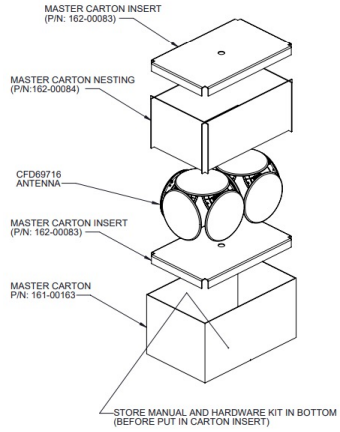



PALLETIZE- FOR AIR SHIPMENT

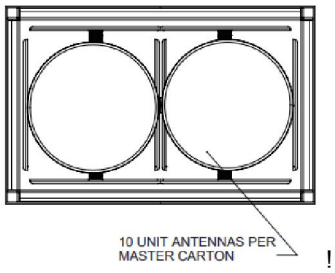
PALLETIZE- FOR OCEAN SHIPMENT




FOR REFERENCE: UNIT CARTON LAYOUT




FOR REFERENCE: MASTER CARTON LAYOUT FOR BULK PACKAGING




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**11/21 Original**



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