

**RFI**  
TECHNOLOGY SOLUTIONS

# LTE Antenna Product Range



## About RFI

RFI is a global technology solutions company, specialising in wireless coverage. RFI has one of the largest, most innovative and experienced wireless solutions teams with dedicated engineers, product managers, deployment engineers, logistics, distribution and R&D staff.

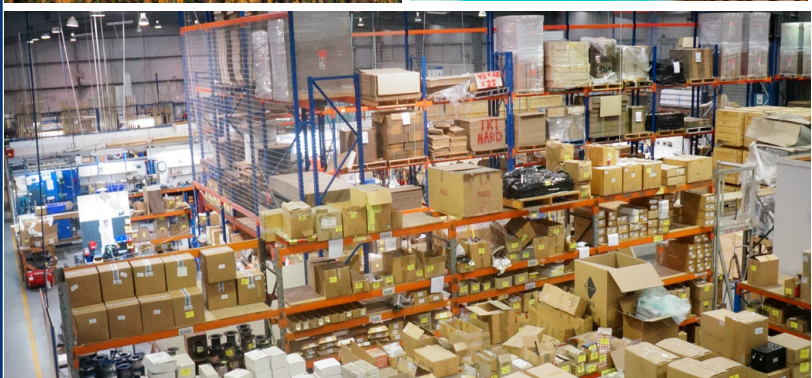
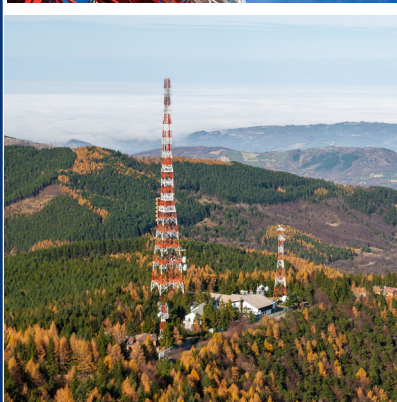
Our network of international sales offices means that all customers get the attention and advice they require, providing local support on a global scale. This includes our 16,000 ft<sup>2</sup> American office and distribution center with local product stock and engineering services for the Americas region.

RFI develops, manufactures and distributes world-class, high performance, wireless products including; antenna systems, rebroadcast & monitoring equipment, power systems and cabling and connectors. RFI is recognised as a market leader in wireless products and offers the best products backed with outstanding technical support.

RFI is continually strengthening its technology solutions portfolio, including the recent acquisition of Maxon Australia, allowing us to offer industry leading M2M solutions.

## Award Winning Manufacturing

RFI is proud to be an award winning manufacturer with wireless coverage products that perform on a global stage. RFI Technology solutions are manufactured in Australia and exported to 80 + countries. RFI operates manufacturing sites in Victoria and South Australia, both with a proud history in quality, safety and environmental performance. Our two sites include Australia's largest antenna manufacturing facility, producing world class Antenna and Multicoupling Systems for both Domestic and International Markets and the only Australian manufacturing site producing frequency translating repeater systems.





## CD7000 Series Antennas

### Meander - A decorated history

RFI designed and released its first Cellular Meander™ collinear in 2004 to suit the growing 2G GSM cellular markets.

### The CD7000 Series. The Meander Evolution Continues

As cellular technologies have evolved, RFI has been at the forefront of designing and manufacturing antenna for 3G and now most recent 4G LTE networks. RFI's success lies in the use of their patented Meander™ radiating elements. These Meander™ circuits are coupled together to deliver extraordinary consistency in gain, coverage pattern and bandwidth. The result is a unique antenna able to operate across all mobile phone networks globally, housed in the one unit. The latest in this evolution is the 7000 Series which include a range of mobile, fixed telemetry and base antennas.



### Electrical

Series

Model Number

Frequency MHz

Gain dBi

Input Power W

CD7100 Series			CDR7000 Series	CDQ7100 Series		
CD7194	CD7195	CD7197	CDR7195	CDQ7195	CDQ7197	CDQ7199
698-960 / 1710-2170 / 2300-2700						
5.0/4.5/5.5	6.5/4.5/5.5	7.5/4.5/5.5	6.5/4.5/5.5	6.5/4.5/5.5	7.5/4.5/5.5	8.5/4.5/5.5
10						

### Mechanical

Radiator

Construction

Length (in/mm)

Cable (ft/m)

Connector

Patented collinear flexible PCB						
Fibreglass radome with ½" (13mm) mounting stud						
25.8/655	35.0/890	44.9/1140	36.6/930	38.2/970	47.6/1210	82/2080
16/5 low loss RG58						
FME female connector						



## Fixed Telemetry and Base Antennas

The CD7200 and COL7100 Series antenna utilise the same patented Meander™ radiating elements found in the CD7100 Series mobile antennas

- The **CD7200** Series fixed telemetry antennas are mounted via a 1/2"/13mm threaded stud and are ideal for installation on electrical enclosures, ATM's, vending machines or fixed mobile signage, especially when high gain is required.
- The **COL7100** Series base antennas are mounted via a 8"/200mm stainless steel mounting tube. These antennas are ideal for extending the range of cellular devices such consumer/industrial cellular modems.



### Electrical

Series  
Model Number  
Frequency MHz  
Gain dBi  
Input Power W

CD7200 Series		COL7100 Series	
CD7294	CD7295	COL7195	COL7199
698-960/1710-2170/2300-2700			
5.0/4.5/5.5	6.5/4.5/5.5	6.5/4.5/5.5	8.5/4.5/5.5
10			

### Mechanical

Radiator  
Construction  
Length (in/mm)  
Cable (ft/m)  
Connector

Patented collinear flexible PCB			
Fibreglass radome with 1/2" (13mm) mounting stud		8" (200mm) stainless steel mounting tube S/S, 2 x S/S hose clamps (supplied)	
22/560	30.7/780	38/965	68/1730
8.2/2.5 RG58 cable	16/5 RG58 low loss cable	33/10 RG58 low loss cable	
FME female connector		FME female connector & FME male to SMA male adaptor	



## LTE Transit Antenna

The TLA4100/4200 transit antenna is designed specifically for rail, light rail and bus applications and other similarly demanding transit or stationary applications. With a VSWR less than 2.5:1 covering 698-2700 MHz, the TLA4100/4200 operate in all cellular bands globally plus the 2.4 & 5.8 GHz ISM bands. In addition the TLA4200 incorporates an active GPS antenna for asset tracking and AVL applications. Designed utilising a high impact, UV stabilised low Flame, Smoke and Toxicity (FST) radome, the TLA4100/4200 is IP68 rated to fully protect against the ingress of dust and water.

### Features

- NF-F-16-101/102 (materials standard)
- EN50155 (vibration standard)
- EN50124-1 (electrical isolation standard)
- Functions with or without a ground plane\*

\*Nominated gain achieved using a 1m<sup>2</sup> ground plane



### Electrical

Model Number  
Frequency MHz  
Gain dBi  
Input Power W

TLA4100	TLA4200
698-960 / 1710-2170 / 2300-2700 / 5700-5800	
5.9 / 6.9 / 3.0 / 7.0	
100	
GPS Antenna	
1575.42	
28	
RHC	

Frequency MHz  
System Gain dBi  
Polarisation

### Mechanical

Construction  
Dimension in(mm)  
Termination  
Mounting

NF-F-16-102 compliant injected moulded radome / cast aluminium ally base	
8"(205) x 4"(100) x 3.5"(90)	
LTE antenna port: Fixed N type female GPS port: fixed TNC female	
4 x M6 screw (not included)	



## LTE Low Profile Series

The LMHP Series of low profile antennas provide LTE multiband MIMO (Multiple Input / Multiple Output) in a single, low profile housing. The antennas utilise RFI's patented design to achieve maximum gain and pattern stability across all bands.

The antennas are available in 4 versions to suit the application needs:

1. Cellular LTE (2 feeds)
2. Cellular LTE (2 feeds) and GPS/GLONASS (1 feed)
3. Cellular LTE (2 feeds) and WiFi (2 feeds)
4. Cellular LTE (2 feeds), WiFi (2 feeds) & GPS/GLONASS (1 feed)

## Features

- No tune, multiband coverage: dual 4G LTE (SISO or MIMO) & optional GPS
- Metal 25mm stud mount/nut provides single cable exit for easier installation
- Attractive low profile housing for added overhead clearance
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions
- UV resistant black housing complements most installations whether fixed or mobile
- Option MIMO WiFi and/or GPS antennas



## Electrical

Model Number	LMHP-1.5M-XX	LMHP-G-1.5M-XX	LMHP-W-1.5-XX	LMHP-GW-1.5-XX
LTE Elements	2 x LTE	2 x LTE 1 x GPS	2 x LTE 2x WiFi	2 x LTE 2 x WiFi 1 x GPS
Frequency MHz	698-960 / 1710-2700			
Gain dBi	3 / 6			
Input Power W	25			
Polarisation	Vertical			
Isolation	10 / 22			

## Options

	WiFi	GPS
Frequency MHz	2400-2500 / 5000-5800	1575.42
Gain dBi	3 / 5	26
Polarisation	Vertical	RCP

## Mechanical

Dimension in(mm)	4.3" (110) diameter x 2.5" (65) high
Radome	Black UV stable polycarbonate
Base	Cast aluminium
Mounting Stud in(mm)	0.62" (15.9) x 2" (50)



## CSM700 Series

The CSM700 is a compact low-profile omnidirectional LTE antenna that provides excellent coverage for mobile and fixed data applications from 698 MHz to 2.7 GHz/ The antenna features an attractive, compact housing which can be used in both indoor and outdoor applications. The CSM700 is fitted with a 13mm stud mount incorporating an integrated rubber O-ring seal, and is IP65 rated.

### Features

- Polycarbonate radome is ideal for outdoor use
- Attractive, low profile design for maximum overhead clearance
- Stud mounting offers ease of installation in the field
- Ingress protection to IP65
- Available in 3 standard versions:
  - With 1.25 RG58 cable and SMA male connector
  - With 5m RG58 cable and no connector
  - With integrated N type female connector
- Other cable/connector configurations available upon request



### Electrical

Model Number	CSM700-1.25M-SMA	CSM700-5M-NC	CSM700-N
Frequency MHz	698-960 / 1710-2170 / 2300-2700		
Gain dBi	2.0 / 3.5 / 5.0		
Input Power W	10		

### Mechanical

Dimensions in (mm)	3.75(95) x 3.15(80) x 2(50)		
Radome	UV stable black polycarbonate radome		
Base	Chrome plated brass		
Mounting	0.67" (17mm) long threaded stud & nut		
Cable / Connector feet (m)	4 (1.25) RG58 / SMA male	16 (5) RG58 / no connector	Integrate N female



## LTE LPDA Directional Antenna

This wide-band log periodic antenna offers high gain directional coverage and is suited to all global cellular and various other wireless network applications. The unique ruggedised die-cast aluminium construction ensures optimum performance and reliability in all weather and operating environments. The LPDA antenna is to be mounted vertically with tilting capability incorporated within the clamping arrangement. Mast mounting hardware is supplied to suite pole diameters of up to 2.4"/60mm



### Electrical

Series  
Model Number  
Frequency MHz  
Gain dBi  
Input Power W

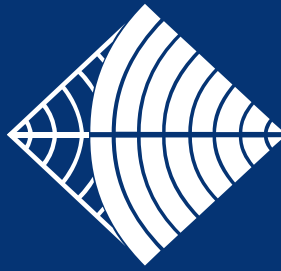
LPDA Series	
LPDA7030-11-0.5NF	LPDA7030-11-10SMA
694-1000 / 1500-3000	
6.8/9	
10	

### Mechanical

Radiator  
Construction  
Length (in/mm)  
Cable (ft/m)  
Connector  
Mounting

Log-periodic Dipole Array	
Cast aluminium	
43/1100	
1.6/0.5 RG58 low loss cable	33/10 RG58 low loss cable
N type female connector	SMA male connector
Stainless steel U-bolt brackets (up to 2.4"/60mm pole) Or optional MIMO bracket (See Images below)	





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