

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.

Design & Manufacturing Experience

While RFI started life started manufacturing antennas for the PMR/LMR market, today RFI is a producer of antennas for the world's leading communication companies.

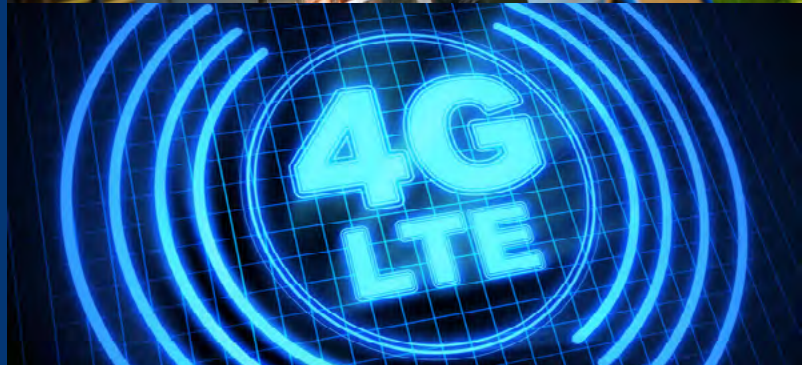
RFI is proud to be an award winning manufacturer, utilising leading-edge technology for advanced manufacturing including industry-leading RF design and drafting modeling packages. Our world-class testing environment has an extensive suite of test equipment and custom automated testing.

Long-Term Evolution (LTE)

LTE is a standard for high-speed wireless communication for mobile phones and data terminals which is based on the GSM/EDGE and UMTS/HSPA technologies. It increases the capacity and speed using a different radio interface together with core network improvements. Different LTE frequencies and bands used in different countries mean that only multi-band hardware and antennas which are able to use LTE in all countries where it is supported.

Product Range

RFI's range LTE antennas are compatible with an enormous variety of hardware from various manufacturers and networks. Our antennas have been developed to help users maintain a dependable data connection and fast transfer speeds wherever they are in the world and whatever the application.



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	CD7100 Series			CDR7100 Series		CDQ7100 Series		
	CD7194	CD7195	CD7197	CDR7194	CDR7195	CDQ7195	CDQ7197	CDQ7199
Model Number								
Frequency MHz	698-970 / 1710-2170 / 2300-2700							
Gain dBi	5.0/4.5/5.5	6.5/4.5/5.5	7.5/4.5/5.5	5.0/4.5/5.5	6.5/4.5/5.5	6.5/4.5/5.5	7.5/4.5/5.5	8.5/4.5/5.5
Input Power W	10							

Mechanical

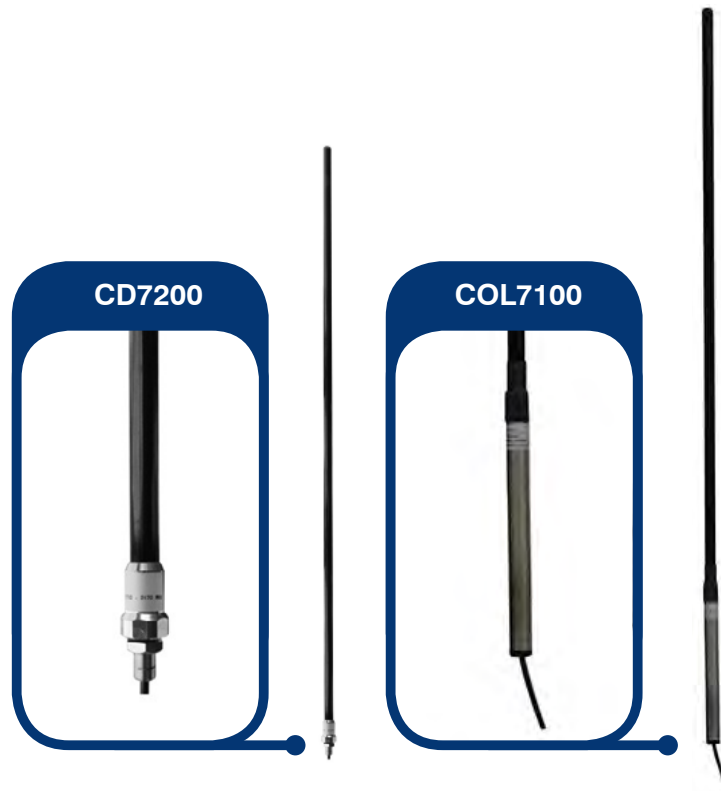
Radiator	Patented collinear flexible PCB							
Construction	Fibreglass radome with 13mm(½") mounting stud							
Length mm(in)	655(25.8)	890(35.0)	1140(44.9)	695(27.36)	930(36.6)	970(38.2)	1210(47.6)	2080(82)
Cable m(ft)	5(16) low loss RG58							
Connector	FME female connector							



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 13mm(½”) 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 200mm(8”) 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	
Model Number	CD7294	CD7295	COL7195	COL7199
Frequency MHz	698-960/1710-2170/2300-2700			
Gain dBi	5.0/4.5/5.5	6.5/4.5/5.5	6.5/4.5/5.5	8.5/4.5/5.5
Input Power W	10			

Mechanical

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

	Patented collinear flexible PCB			
Construction	Fibreglass radome with 13mm(½”) mounting stud		200mm(8”) stainless steel mounting tube S/S, 2 x S/S hose clamps (supplied)	
Length mm(in)	560(22)	780(30.7)	965(38)	1730(68)
Cable m(ft)	2.5(8.2) RG58 cable	5(16) RG58 low loss cable	10(33) RG58 low loss cable	
Connector	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 1m² ground plane



Electrical

Model Number
Frequency MHz
Gain dBi
Input Power W

	TLA4100	TLA4200
Frequency MHz	698-960 / 1710-2170 / 2300-2700 / 5700-5800	
Gain dBi	5.9 / 6.9 / 3.0 / 7.0	
Input Power W	100	

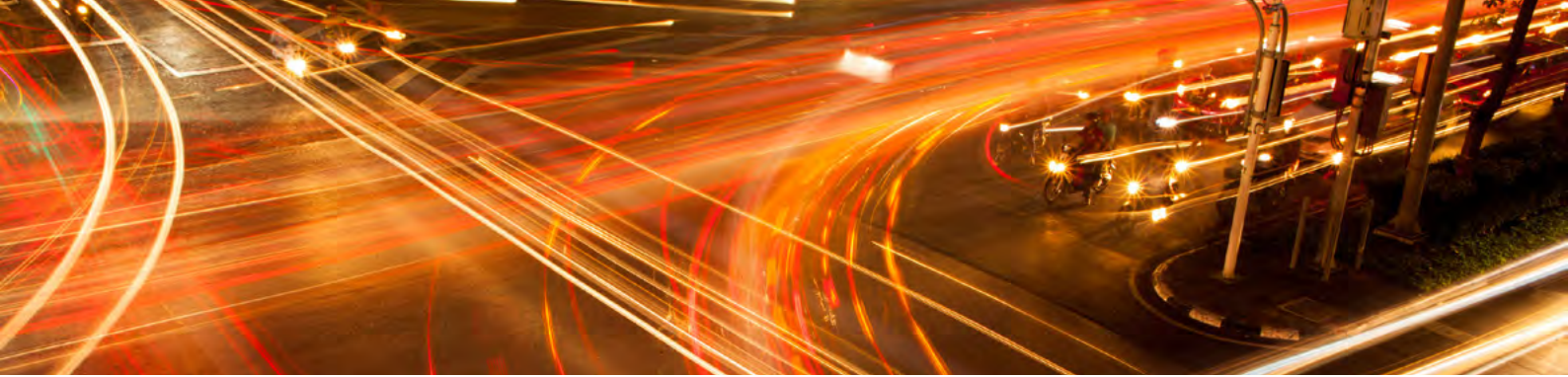
Frequency MHz
System Gain dBi
Polarisation

GPS Antenna	
Frequency MHz	1575.42
System Gain dBi	28
Polarisation	RHC

Mechanical

Construction
Dimension mm(in)
Termination
Mounting

Construction	NF-F-16-102 compliant injected moulded radome / cast aluminium ally base
Dimension mm(in)	205(8") x 100(4") x 90(3.5")
Termination	LTE antenna port: Fixed N type female GPS port: fixed TNC female
Mounting	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
	LTE			
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 mm(in)	110(4.3") diameter x 65(2.5") high
Radome	Black UV stable polycarbonate
Base	Cast aluminium
Mounting Stud mm(in)	15.9(0.62") x 50(2")



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 mm(in)	95(3.75) x 80(3.15) x 50(2)		
Radome	UV stable black polycarbonate radome		
Base	Chrome plated brass		
Mounting	17mm(0.67") long threaded stud & nut		
Cable / Connector m(ft)	1.25(4) RG58 / SMA male	5(16) 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 60mm(2.4”).



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 mm(in)
Cable m(ft)
Connector
Mounting

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





Any Band.



Any Application.



Anywhere.

