### **Brands We Work With**

We are fortunate to work alongside world-class brands for many electronic projects and trusted by them. Will your name be next on this list?



# **ONE-STOP ANTENNA SUPPLIER**

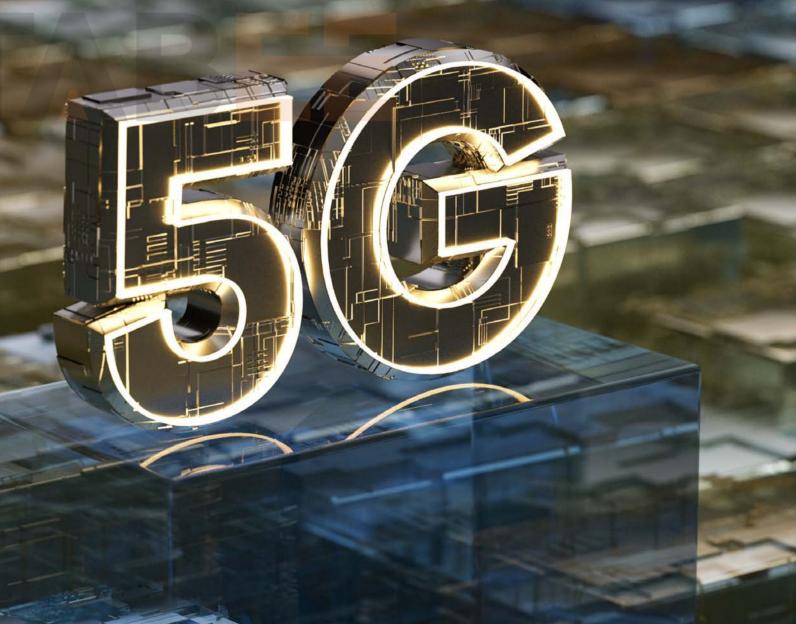


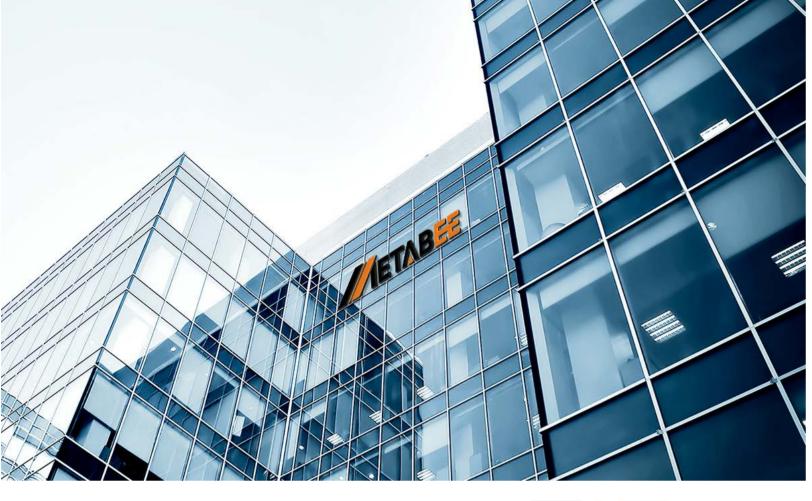


Phone: +86 159 2624 1606 E-mail: sales@metabeeai.com Web: www.metabeeai.com

Address: Room 708, 7th Floor, Building 2, No. 489, Guanghuadong Third Road,

Qingyang District, Chengdu, Sichuan, China





Metabee (Chengdu) Technology Co., Ltd.

180<sup>+</sup> Countries

300<sup>+</sup> Workers

20,000M<sup>2</sup>

Production Workshop

16,0000,00 **Group** Assets

Metabee (Chengdu) Technology Co., Ltd. established in 2022 located in Sichuan Province with convenient transportation. Our associated factory Jiangmen Dosin specialize in producing RF connectors, M series connectors, and cables.

We are committed to being the world's leading Manufacturer of electronic connectors and industrial cables. We have developed more than 20 product series and more than 5,000 varieties. These products have been widely sold to many countries and regions around the world. They are mainly used for outdoor lighting automation machinery, new energy vehicles, charging equipment, electricity generation facilities, and other industries.

We can also support OEM ODM and customized related products. All products have owned American UL, German TUV, and Europe CE ROHS certifications and have several design patents. Our associated factory has production workshop with an area of 20,000 square meters, more than 300 employees, 30 international advanced production lines, and tens of precision testing equipment. Moreover, we have constructed a specialized laboratory for product research and development. Our reliable product quality, good service, and rapid technical have helped us win many customers in China and overseas markets.

Metabee (Chengdu) Technology Co., Ltd. has become the leading technology and scale Enterprise in the connector field. We have a reliable reputation among our customers because of our professional services, quality products, and competitive prices. We welcome customers from home and abroad to cooperate with us for Common success.

# **CATEGORIES**

We stand behind all of our high quality products.

With everything we manufacture we use the best processes and materials available.

## **About Us**

Company Profile	01
Inspection Equipment	03

### **Product Categories**

WIFI Antenna	05
Cellular Antenna	07
LoRa Antenna	09
GPS Antenna	11
Combo Antenna	13
DVB-TV Antenna	15
FPV Antenna	17
RF Series Coaxial Cable	19

02 I IET∧BEE ■ Inspection Equipment

















Automatic Insertion Force Test Machine



High Voltage Insulation Tester



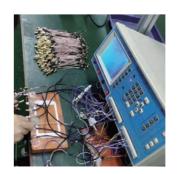
S-parameter Ventor Network Analyzer(VND)



Salt Spray Test Machine



Constant Temperature and Humidity Machine



Precision Connector Tester



Hardness Testing Machine



X Ray Fluorescence Analyzer

# WIFI **Antenna**

WIFI antenna is one kind of wireless antennas.

The frequency of WLAN is **2.4GHz** and **5.8GHz**. WIFI antenna(WLAN antenna) is installed on wireless devices like WLAN AP to reinforce signal strength.

Wireless device will radiate signal in air at specified frequency 2.4GHz or 5.8GHz through WIFI antenna / WLAN antennas and allow other WIAN device like NB or smartphone to get signal at same frequency range.



There are two types of WIFI antennas: internal and external.

External is generally used in products such as wireless routers.

The internal WIFI antenna is usually installed inside the equipment due to its small size and stable performance.

Frequency	<b>2.4GHz</b> (2400-2500MHz) & <b>5.8GHz</b> (5725-5850MHz)			
	·			
Gain	1 - 12dBi			
Impedance	50ohm			
Input Power	50W			
VSWR	≤ 2			
Polarization	Omnidirectional			
Connector	SMA, BNC, TNC, Fakra or Customize			
Cable Type	1.13 / 1.37 / RG174 / RG178 / RG58 or Customize			
Cable length	0.1M,0.5M, 1M, 3M or Customize			
Material	ABS / Fiberglass / Rubber Duck / FPC / PCB etc			
Operating Temp	- 30~+ 70 ℃			
Storage Temp	- 30~+ 75 ℃			



Rubber Duck Antenna with SMA Connector



Rubber Duck Antenna with Cable



Magnetic Sucker Antenna with Cable



WIFI Fiberglass Antenna with N Connector



Patch Antenna with Cable



Panel Mount Finger Antenna with Cable



Mashroom Panel Mount Antenna with Cable



Panel Mount Circular Antenna with Cable



Yagi Antenna with Cable



Outdoor Gunbarrel Antenna with Cable



Ceiling Mounted Antenna with Cable



Magnetic Mounted Antenna with Cable



Internal FPC Antenna with Cable



Internal PCB Antenna with Cable



Internal Spring Antenna



Internal Copper Tubes Antenna

### Cellular **Antenna**

Global System for Mobile(GSM)antenna is a type of antenna commonly used in mobile phones and cell towers.

Global System for Mobile Communications is the most common type of cellular network worldwide.

The antenna in a GSM phone allows the device to communicate with another GSM antenna on a cell tower, which then relays the signal to another tower or to another cell phone.

GSM service can be used on a number of radio frequency depending on the region and technology used.

#### **Application**









**83G** 

CDMA/CDMA2000

GSM/TD-SCDMA

GPRS

WCDMA

Frequency	2G / GSM 850 / 900 / 1800 / 1900MHz 3G 850 / 900 / 1800 / 2100MHz 4G LTE 824-2690MHz / 698-2700MHz / 700-2690MHz
Gain	2 - 35dBi
VSWR	≤ 1.8
Impedance	50ohm
Polarization	Omnidirectional
Connector	SMA, BNC, TNC, N or Customize
Cable Type	1.13 / 1.37 / RG174 / RG178 / RG58 or Customize
Cable Length	0.1M,0.3M, 0.5M, 1M or Customize
Material	ABS / Fiberglass / Rubber Duck / FPC / PCB etc
Operating Temp	- 30~+ 70 ℃
Storage Temp	- 30~+ 75 ℃



Rubber Duck Antenna with SMA Connector



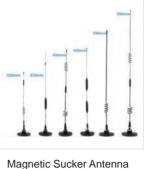
Patch Antenna with Cable



with Cable



Panel Mount Finger Antenna with Cable



with Cable



Fiberglass Antenna with N Connector



Mashroom Panel Mount Antenna with Cable

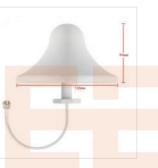


Panel Mount Circular Antenna with Cable

Cellular Antenna



Outdoor Gunbarrel Antenna with Cable



Ceiling Mounted Antenna with Cable



LPDA Directional Antenna with Cable



Sailboat Sucker Antenna with Cable



Internal FPC Antenna with Cable



Internal PCB Antenna with Cable



Internal Spring Antenna



Internal Copper Tubes Antenna



4G High Gain MIMO Antenna with Cable



4G Amplified Antenna Full Band T-type Horn Antenna with Cable



2G/3G/4G Signal Amplifier High Gain Directional Yagi Antenna with Cable



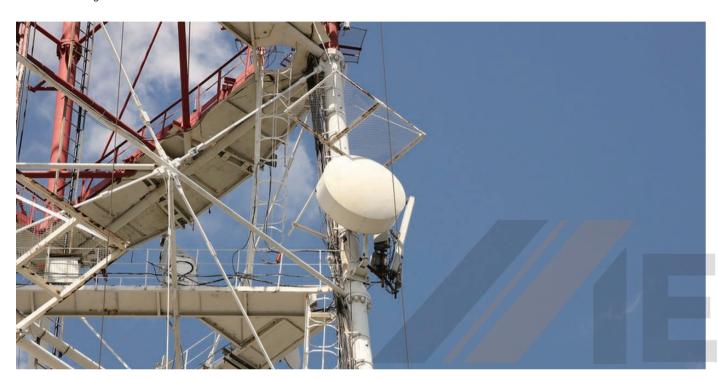
Communication Parabolic High Gain Directional Yagi Antenna

# LoRa **Antenna**

LoRa antennas, also called Low Power Wide Area Network (LPWAN) antennas, use advanced signal processing to achieve long-range communications at wavelengths smaller than 1 GHz.

Its common frequencies are as follows: 315MHz, 433MHz, 868MHz and 915MHz.

If classified by material and shape, it can be divided into rubber duck antenna, fiberglass antenna, PCB antenna, FPC antenna, spring antenna, patch antenna and Magnetic antenna etc.



Frequency	315MHz	433MHz	868MHz	915MHz				
Gain	1 - 8dBi	1 - 35dBi	1 - 35dBi	1 - 35dBi				
VSWR	≤ 1.5	≤ 1.8	≤ 2	≤ 2				
Bandwidth	±5MHz							
Impedance		500	hm					
Polarization	Vertical / Linear							
Max Power	50W							
Direction	Omnidirectional							
Connector	SMA, BNC, TNC, Fakra or Customize							
Cable Type	1.13 / 1.37 / RG174 / RG178 / RG58 or Customize							
Cable Length	0.5M, 1M, 3M or Customize							
Material	Brass / Fiberglass / ABS / Ceramic / FPC / PCB etc							
Operating Temp	- 30~+ 70 ℃							
Storage Temp	- 30~+ 75 ℃							



Rubber Duck Antenna



Rubber Duck Antenna with Cable



Magnetic Sucker Antenna with Cable



Fiberglass Antenna with N Connector



FPC Antenna with Cable



PCB Antenna with Cable



Brass Spring Antenna



Internal Copper Tubes Antenna



Patch Antenna with Cable



Panel Mount Finger Antenna with Cable



Mashroom Panel Mount Antenna with Cable



Panel Mount Circular Antenna with Cable



Rubber Duck Magnetic Sucker Antenna with Cable



GSM GPRS T Shape Horn Patch Antenna



Ceiling Mounted Antenna with Cable



Plate Antenna with Cable

09 | **∥**IETABEE www.metabeeai.com

### **GPS Antenna**

GLONASS(Global Navigation Satellite System) is a Russian Aerospace Defense Force-operated satellite-based navigation system.

The GPS signal is the signal generated by an oscillator on the Global Positioning System (GPS) satellite, and all of the GPS signals are composed of a basic frequency, f0=10.23MHz.

The GPS satellite signals are divided into L1 and L2 at frequencies of 1575.42MHZ and 1228MHZ, respectively, where L1 is an open civilian signal and the signal is circularly polarized.

The signal strength is around-166dBW, which belongs to a relatively weak signal.



Frequency	1575.42MHz
Gain	3 - 28dBi
VSWR	≤1.8
Amplification Gain	≥ 28-dB
Bandwidth	± 5-MHz
Rate Voltage	3 - 5V
Impedance	50ohm
Polarization	Linear
Max Power	50W
Direction	Omnidirectional
Connector	SMA, BNC, TNC, Fakra or Customize
Cable Type	1.13 / 1.37 / RG174 / RG178 / RG58 or Customize
Cable Length	0.5M, 1M, 3M or Customize
Material	ABS / Ceramic / FPC / PCB etc
Operating Temp	- 30~+ 70 ℃
Storage Temp	- 30~+ 75 ℃



GPS Antenna with Fakra Connector and Cable



GPS Antenna with SMA Male Connector and Cable



Square GPS Antenna with SMA Connector and Cable



Adhesive GPS Antenna with SMA Connector and Cable



White Mushroom Type Marine GPS Antenna with BNC Male and Cable



White AIS Navigator Positioning GPS Antenna with Cable



White AIS Navigator Positioning GPS Antenna with M Series Cable



Circular Type Panel Mount GPS Antenna with Cable



Waterproof Mashroom Type Panel Mount GPS Antenna with Cable



Hybrid Vehicle GPS Antenna with Cable



Ceramic GPS Antenna with IPEX Connector and Cable



Internal PCB GPS Antenna with IPEX Connector and Cable



Internal FPC GPS Antenna with IPEX Connector and Cable



Fiberglass GPS Antenna with N Connector



FPV Navigation RTK GPS Antenna External Rubber Duck GPS Antenna with SMA Connector



with N Connector

12 //IETABEE

### Combo **Antenna**

Combo antennas mainly involve GPS/GSM antenna, GPS/VHF antenna, GPS/GLONASS/GSM antenna, GPS/GLON-ASS/VHF antenna, GPS/GSM/WIFI antenna, GPS/DVBT antenna for marine or vehicle locating using.

The combined antenna can combine multiple antenna oscillators of different or the same functions in one antenna cover, and complete multiple antenna module functions through a single antenna, thus saving space and cost, and can better meet the market demand.



Frequency	GPS / GSM / 3G / 4G LTE / WIFI Combined According to Request
Gain	28 dBi
VSWR	≤ 1.8
Amplification Gain	≥ 28-dB
Bandwidth	± 5-MHz
Rate Voltage	3 - 5V
Impedance	50ohm
Polarization	Linear
Max power	50W
Direction	Omnidirectional
Connector	SMA, BNC, TNC, Fakra or Customize
Cable Type	RG174 / RG178 / RG58 or Customize
Cable Length	0.5M, 1M, 3M or Customize
Material	ABS / FPC / PCB etc
Operating Temp	- 30~+ 70 ℃
Storage Temp	- 30~+ 75 ℃



GPS Antenna with Fakra Connector and Cable



GPS Antenna with SMA Male Connector and Cable



Square GPS Antenna with SMA Connector and Cable



Adhesive GPS Antenna with SMA Connector and Cable



White Mushroom Type Marine GPS Antenna with BNC Male and Cable



White AIS Navigator Positioning GPS Antenna with Cable



White AIS Navigator Positioning GPS Antenna with M Series Cable



Circular Type Panel Mount GPS Antenna with Cable



Waterproof Mashroom Type Panel Mount GPS Antenna with Cable



Hybrid Vehicle GPS Antenna with Cable



Ceramic GPS Antenna with IPEX Connector and Cable



Internal PCB GPS Antenna with IPEX Connector and Cable



Internal FPC GPS Antenna with IPEX Connector and Cable



Fiberglass GPS Antenna with N Connector



with SMA Connector



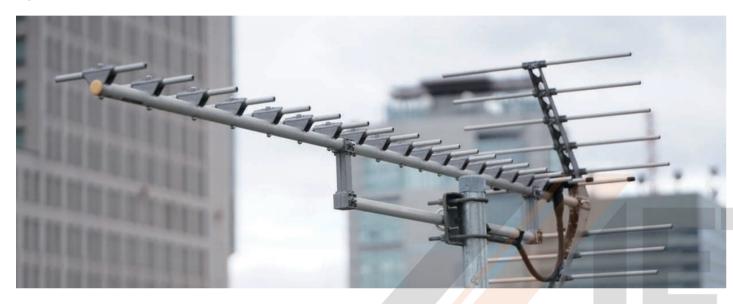
FPV Navigation RTK GPS Antenna External Rubber Duck GPS Antenna with N Connector

13 | **VIETABEE** www.metabeeai.com 14 //IETABEE

# DVB-TV **Antenna**

The television antenna (TV Antenna) is an antenna specifically designed for use with a television receiver (TV) to receive over-the-air broadcast television signals from a television station. Television reception is dependent upon the antenna as well as the transmitter. Terrestrial television is broadcast on frequencies from about 174 to 240 MHz (VHF) band, and 470 to 860 MHz (UHF) band in different countries.

DVB-T is a very popular method of transmitting signals from aerial antenna to aerial antenna. Common DVB-T2 TV antennas are used to receive digital signals. Directional DVB-T2 TV antennas are more suitable for places with weak signals.



Frequency Range	174-240MHz (VHF) / 470-860MHz (UHF)
Gain	2 -36dBi
V.S.W.R	≤ 2.0
Impedance	750hm
Directional	Omni
Polarization	Vertical
Power Suply	5V
Connector	IEC / F / SMA / USB or Customize
Cable	RG174 / RG58 or Customize
Cable Length	1.5M/3M/5M or Customized
Reception Range	30 - 80M
Operating Temperture	-40°C ~+85°C



DTMB Car Digital TV Magnetic Antenna



Car UHF Digital TV Antenna with Cable



HDTV Magnetic Sucker Antenna with Cable



HDTV Panel Mount DVB-TV Antenna



Rabbit Ear Indoor Signal
Digital TV Antenna



Magnetic Sucker
Telescopic Antenna



DVB-TV Telescopic Antenna



Outdoor Yagi TV Antenna



Sheep Type VHF UHF TV Antenna



High Gain Indoor DTMB Antenna



DMB-TH Sucker Antenna with Cable



Waterproof TV Plate Anetenna with Cable



Outdoor Gunbarrel Antenna with Cable



Plate Antenna with Cable



LPDA Directional Antenna with Cable



HDTV Dish Antenna

### FPV **Antenna**

An antenna is a piece of wire, or pieces of wire that convert electrical power into electromagnetic waves. The receiving antenna converts the electromagnetic waves back into electrical power.

In FPV, antennas (or antennae) enable wireless communication between the video transmitter (VTX) and receiver (VRX). Antennas in your FPV system are critical elements that determine the range and signal quality



- 5.8 GHz. The most common FPV frequency, used by most multirotor and drone pilots is 5.8 GHz.
- 2.4 GHz. 2.4 GHz is another frequency used by FPV fliers

Frequency	5.8GHz (5100-5950MHz) & 2.4GHz(2400-2642MHz)
Gain	2 - 14dBi
VSWR	≤ 1.8
Rate Voltage	3 - 36V
Impedance	50ohm
Polarization	Omnidirectional
Connector	SMA, BNC, TNC, N or Customize
Cable Type	1.13 / 1.37 / RG174 / RG178 / RG58 or Customize
Cable Length	0.2M,0.5M, 1M, 3M or Customize
Material	TPE/PC/CU
Operating Temp	- 30~+ 70 ℃
Storage Temp	- 30~+ 75 ℃



Mashroom Type FPV Antenna with SMA Male Cable



Pagoda FPV Antenna with SMA Male Cable



Mashroom Type FPV Antenna with SMA Male Cable



White Color Mashroom Type FPV Antenna with SMA Male Cable



Mashroom Type Screw Mount Antenna with RG174 Cable



Dome Type Screw Mount Antenna with RG178 Cable



Finger Type Panel Mount Antenna with RG174 Cable



Finger Type Antenna with Fakra Male RG174 Cable



Sheep Type VHF UHF TV Antenna



Cloverleaf Type FPV Antenna with IPEX RG178 Cable



Mini Mashroom Type FPV Antenna with SMA Male Connector



Barbell Type White Antenna with IPEX Cable



Dome Type Antenna Assembly SMA Male RG174 Cable in side



Triumph antenna FPV Antenna SMA Male Connector



Red Color Pagoda Shape Antenna with SMA Right Angle Male Assembly RG141 Cable



Glasses Type Antenna Assemble White RG141 SMA Male Cable

17 | **VIETABEE** www.metabeeai.com

■ RF Series Coaxial Cable ■ RF Series Coaxial Cable

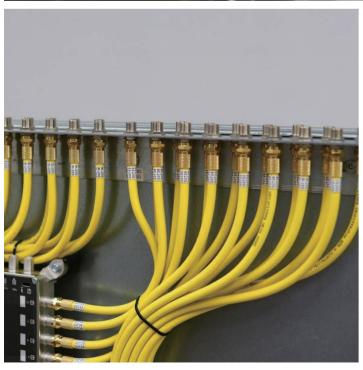
### **RG** Series **Coaxial Cable**

RF offers a robust portfolio of coaxial cables assemblies for use in radio frequency applications. These assemblies are available for all industry standard coax cable types engineered with in-series (similar) or between-series (dissimilar) interfaces, or in some cases an unterminated or blunt cut end on one side of the assembly.

Coaxial cable assemblies are an ideal solution for transmitting RF signals from one connection to the next within a system. They are most often used to connect a Printed Circuit Board (PCBs) to other PCBs but can also be used for I/O connections and to connect external antennas to wireless modules. Assemblies can vary in length from 2 inches (50 mm) to 1200 inches (100 feet) with various configurations (female (jack) to female, male (plug) to male, female to male, male to female), orientation (straight, right-angle) and mounting (bulkhead) options. These attributes, along with unique design features, allow standard assemblies to meet the specific design requirements of various applications across markets.

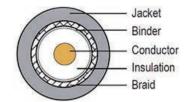
Our line of high-performance precision test cables (ATC-PS) feature additional phase stable and low loss capabilities which makes them ideal for test and measurement laboratory usage. Custom cable assemblies are available and offer a more tailored solution than standard products.







#### **Structure Diagram of RF Harness**



Jacket



Binder

#### **RG Series Coaxial Cable**

Insulation

Conductor

Oakla Time	Inner Conductor	OD mm	Insulation	00	Jacket	00	Impedance	Temperature
Cable Type	Material		OD mm Material		Material	OD mm	(ohm)	(°C)
RG178	Silver plated copper or Silver plated copper clad steel	7×0.102	PTFE	0.86	FEP	1.83	50	-55 to +200
RG179	Silver Plated Copper Clad Steel	7×0.102	PTFE	1.6	FEP	2.54	75	-55 to +200
RG316	Silver plated copper	7×0.17	PTFE	1.52	FEP	2.5	50	-55 to +200
RG174	Bare copper	7×0.16	PE	1.52	PVC	2.6	50	-40 to +80
RG58	Tinned copper	19×0.18	PE	2.95	PVC	4.95	50	-20 to +80
RG59	Bare copper	0.81	FPE	3.66	PVC or PE	6.1	75	-20 to +80
RG141	Silver Plated Copper Clad Steel	0.94	PTFE	2.95	Glass fiber weaving	4.83	50	-55 to +250
RG142	Silver Plated Copper Clad Steel	0.94	PTFE	2.95	FEP	4.95	50	-55 to +200
RG316D	Silver Plated Copper Clad Steel	7×0.17	PTFE	1.52	FEP	2.9	50	-55 to +200
RG223	Silver plated copper	0.9	PE	2.95	PVC	5.3	50	-40 to +80
RG6	Bare copper	0.75	PE	4.8	PVC	7.2	75	-40 to +80
RG8	Bare copper	2.74	PE	7.3	PVC	10	50	-40 to +80
RG11	Bare copper	1.37	PE	9	PVC	12.2	75	-40 to +80
RG213	Bare copper	7×0.75	PE	7.24	PVC	10.3	50	-40 to +80
RG214	Bare copper	7×0.75	PE	7.24	PVC	10.8	50	-40 to +80

#### **LMR Series Coaxial Cable**

Cable Type	Inner Conductor		Insulation		Jacket		Impedance	Temperature
Cable Type	Material	OD mm	Material	OD mm	Material	OD mm	(ohm)	(℃)
3D-FB	Bare copper/Copper clad aluminum	1/1.07	FPE	3	PVC	5	50	-25 to +70
5D-FB	Bare copper/Copper clad aluminum	1/1.8	FPE	5	PVC	7.5	50	-25 to +70
7D-FB	Bare copper/Copper clad aluminum	1/2.5	FPE	7.24	PVC	9.8	50	-25 to +70
8D-FB	Bare copper/Copper clad aluminum	1/2.8	FPE	7.8	PVC	10.4	50	-25 to +70
LMR-100	Bare copper/Copper clad aluminum	0.46	FPE	1.52	PVC	2.79	50	-25 to +70
LMR-195	Bare copper/Copper clad aluminum	0.94	FPE	2.79	PVC	4.95	50	-25 to +70
LMR-200	Bare copper/Copper clad aluminum	1.12	FPE	2.95	PVC	4.95	50	-25 to +70
LMR-240	Bare copper/Copper clad aluminum	1.42	FPE	3.81	PVC	6.1	50	-25 to +70
LMR-300	Bare copper/Copper clad aluminum	1.78	FPE	7.83	PVC	7.62	50	-25 to +70
LMR-400	Bare copper/Copper clad aluminum	2.74	FPE	7.24	PVC	10.29	50	-25 to +70
LMR-500	Bare copper/Copper clad aluminum	3.61	FPE	9.4	PVC	12.7	50	-25 to +70
LMR-600	Bare copper/Copper clad aluminum	4.47	FPE	11.56	PVC	14.99	50	-25 to +70

19 | **∥**IETABE www.metabeeai.com