



2.4G



Wireless Expert

RF Module and One-stop IoT Solution Provider

www.iot-rf.com

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COMPANY PROFILE

4500m²

Factory

30+

Patents

10 Years +

RF Experience

800+

Projects

About Us

DreamLNK, founded in 2013, is a professional high-tech enterprise specializing in ISM band micro-power wireless communication technology. As a member of the CLAA (China LoRa Application Alliance), and third-party design office of Texas Instruments (TI), Nordic, Semtech, Silicon Labs, BEKEN, we have been honored with the title of 'National High-Tech Enterprise' in year 2020. Moreover, we are also the general agent of HOPERF, and a strategic partner of PANCHIP.

From the first day of its establishment, DreamLNK is committed to providing our clients with high-performance Wireless Modules and customized RF related products. After years of development, DreamLNK has developed a series of mature radio frequency products, including 2.4G RF modules, UART modules, LoRa modules, FSK modules, ASK TX/RX modules, Bluetooth modules, ChirpLoT Modules, etc. Meanwhile, we have invested an antenna factory in Dongguan few years ago, thus we also provide high quality Antennas.

Nowadays, our complete product line is increasingly used in AMR (Auto Metering Reading), Smart Home, Smart Agriculture, Wireless Remote Control, Building Automation, Wireless Sensor Networking, Children Education, Environmental Monitoring, Energy Control and Management, etc.

Relying on our professional R&D team, abundant RF experiences, high-precision testing & measuring equipment, and strict quality control system, we are always providing our clients first-class reliable product with consistency quality, professional after-sales service, and comprehensive technical support.

ADVANTAGES



OEM/ODM Service Provided

Customized Wireless Modules Available
Personalized IoT Solutions Supported
Tailor-made Internal/External Antennas



Production Capacity

First-class Production Equipment
High-precision Measuring & Testing Equipment
Professional Team with Rich Experience



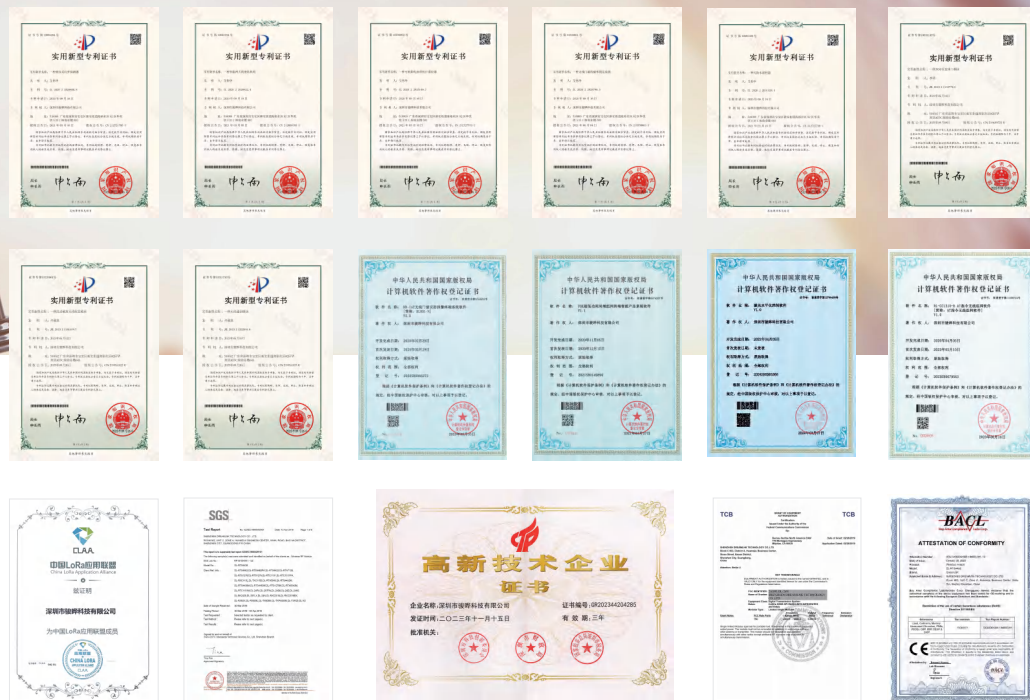
Strict Quality Control

100% Original Packing Certified Components
Strict Incoming Quality Control Standard
100% Quality Inspection Before Shipment

Our subcontracting factory has high-precision automated SMT mounting line, wave soldering assembly line, advanced anechoic chamber, various high-frequency testing instruments and digital signal sources, which can test all kinds of radio frequency parameters. From material purchasing, manufacturing, ESD protection, to quality inspection, logistics and warehousing, we have a standard management system to provide standardized guidance for our employees, which can ensure us to provide you first-class reliable product, with consistency quality.

HONORS

Most of the products are FCC, CE, RoHS, REACH certified, and DreamLNK also has more than 30 software copyrights & 30 RF patents!



COOPERATION

As a third-party design office of well-known brands (TI, Semtech, Silicon Labs, Nordic), DreamLNK has maintained deep cooperation with them for a long time. Adhering to the strategy of sustainable development, DreamLNK has developed more than 300 high-performance wireless modules, and the products have a high popularity and reputation in the Sub-1Ghz & 2.4Ghz wireless communication industry. We look forward to working with you hand in hand to build an intelligent world where everything can be connected!



**TEXAS
INSTRUMENTS**

CC2500	CC2591	CC1150
CC2530	CC2592	CC113L
CC2540	CC2640	CC1101
CC2541	CC2650	CC1120
CC2590	CC2340	CC1125
		CC1310

HOPERF

CMT2300	CMT2310
CMT2380	CMT2119
CMT2110	CMT2219
CMT2210	CMT2150



SI4432	SI4010
SI4438	SI4455
SI4463	

LLCC68	SX1276
SX1262	SX1278
SX1268	SX1280



PAN3031	PAN3501
PAN3028	PAN221X
PAN3020	PAN211X
PAN3029	PAN102X



NRF51802	NRF52840
NRF51822	NRF52810
NRF52832	



BK2452	BK3435
BK2461	BK3632
BK3432	BK3633



New Release

A7149 FSK Transceiver Module

Best for Battery Powered Applications

Ultra-Low Power Consumption



DL-A7149-S (433/868/915MHz)

Technical Parameters

- | | |
|---------------------------|-------------------------------------|
| • Model: DL-A7149-S | • Working Frequency: 433/868/915MHz |
| • Chip: A7149 | • Temperature: -40~85 °C |
| • Voltage Range: 1.8~3.6V | • RX Sensitivity: -119dBm |
| • RX Current: 2.2mA | • Max.TX Power: 20dBm |
| • TX Current: 80mA@20dBm | • Product Size: 15x15.5mm |
| • Sleep Current: 0.4uA | • Reference Range: 1.2km |



Strong
Anti-jamming



Two-way
Communication



Low Power
Consumption



High
Sensitivity



Compact Size



Long Range
Transmission

Best Rated



DL-LLCC68-S (433/868/915MHz)

FSK/LoRa Module with SEMTECH LLCC68



Strong Anti-jamming



Ultra-Long Range



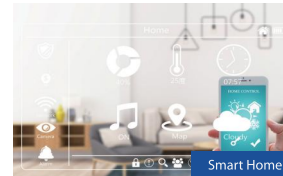
Safe&Reliable



High Sensitivity

Technical Parameters

- | | | |
|-----------------------------|------------------------------------|--------------------------------|
| ● Working Voltage: 1.8~3.7V | ● Sleep Current: <1uA | ● Max. TX Power: 22dBm |
| ● Temperature: -40~85 C | ● Transmission Rate: 1.76~62.5Kb/s | ● Max. RX Sensitivity: -129dBm |
| ● Receiving Current: 4.5mA | ● Dimension: 17.1x16.1mm | ● Reference Range: 2.5km |



Best Seller

CC1310 Transparent UART Module

Wake-on-Radio & Clear Channel Assessment

AT Command/ Transparent Transmission



DL-CC1310-B (433/868/915MHz)

Technical Parameters

- | | |
|--|--|
| • Chip: CC1310 | • Working Frequency: 433/868/915MHz |
| • Clock Speed: 48MHz (MCU) | • Kernel: Arm Cortex-M3 |
| • Voltage Range: 1.8~3.8V | • Max.TX Power: 15dBm |
| • RX Current: 5.5mA | • RX Sensitivity: -124dBm@0.625kbps |
| • TX Current: 17mA@10dBm
27mA@14dBm | • Transmission Rate: 0.6~500Kbps
(Max. 4Mbps) |
| • Working Temperature: - 40~85 °C | • Dimension: 18x16.5mm |
| • Sleep Current: <1uA (eWOR) | • Reference Range: 800m |



Strong
Anti-jamming



SOC Integrated
RF Module



Narrow Band



High
Sensitivity

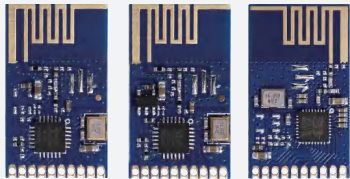


Low Power
Receiving



Long Range
Transmission

Recommended



DL-BK24K6-TX/ 52TX/ RX

2.4G Switching Control Wireless Modules



One to one
One to many
Many to many



ISM Free Band



Safe & Reliable



W/O Programming

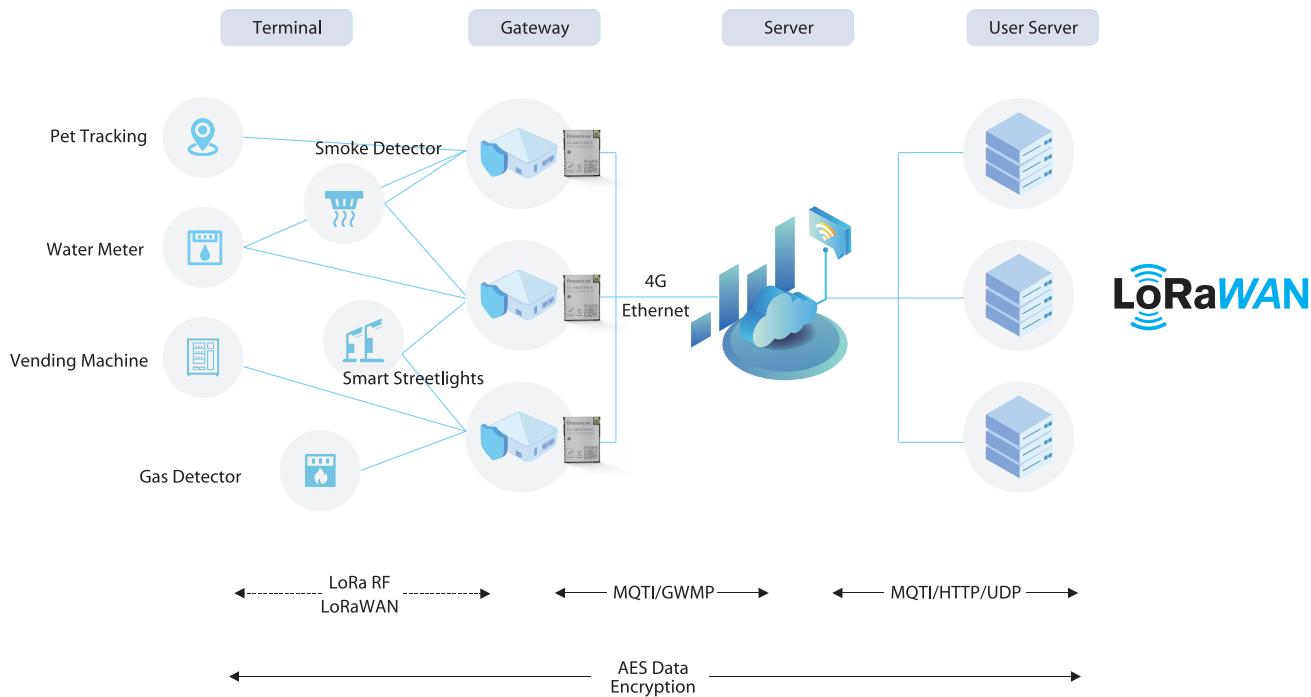
Technical Parameters

● Interface: I/O	● Max. RX Sensitivity: -96dBm	● Sleep Current: TX@10~12uA, 52TX@5~10uA
● Working Voltage: 2.8~3.6V	● Receiving Current: 23mA	● Dimension: 23.3x13.9mm
● Transmission Power: TX@12dBm, 52TX@5dBm	● Transmitting Current: TX@90mA, 52TX@20mA	● Reference Range: 100m








DL-A6601PA-B and DL-A6601-B are LoRaWAN Modules developed based on the ASR6601 chip with TCXO and PA, supporting ultra long-distance communication of about 7km, with high receiving sensitivity.



LoRa Modules

Model No.	DL-A6601-B	DL-A6601PA-B	DL-LLCC68-S
Picture			
Interface	UART	UART	SPI
Chip	ASR6601	ASR6601	LLCC68
Voltage Range	1.7~3.9V	3.4~5.4V	1.8~3.7V
Typical Voltage	3.3V	3.3V	3.3V
Working Temperature	-40~85°C	-40~85°C	-40~85°C
Receiving Current	6.5mA	6.6mA	4.5mA
Transmitting Current	115mA@22dBm	700mA@29dBm	107mA@17dBm @868/915MHz
Working Frequency	433/470/868/915MHz	433/470MHz	433/470/868/915MHz
Sleep Current	<2uA	<5uA	<1uA
Max. TX Power	22dBm	30dBm	22dBm
Max. RX Sensitivity	-148dBm	-148dBm	-129dBm
Dimension	17.5x20.4mm	20.5x26mm	17.1x16.1mm
Reference Range	4km	7km	2.5km

Model No.	DL-M-SX1278S2	DL-RTS1278M	DL-SX1278PA
Picture			
Interface	SPI	UART	SPI
Chip	SX1278	SX1278	SX1278+PA
Voltage Range	1.8~3.6V	2.1~3.6V	3.3~5.5V
Typical Voltage	3.3V	3.3V	5V
Working Temperature	-40~85°C	-40~85°C	-40~85°C
Receiving Current	10.8mA	13mA	17mA
Transmitting Current	120mA@20dBm	120mA@20dBm	600mA@29.5dBm
Working Frequency	433/470MHz	433/470MHz	433/470MHz
Sleep Current	<1uA@3.3V	<2.5uA@3.3V	<10uA
Max. TX Power	20dBm	20dBm	30dBm
Max. RX Sensitivity	-133dBm@1.2Kbps(Max. -149dBm)	-133dBm@1.2Kbps(Max. -149dBm)	-133dBm@1.2Kbps (Max. -149dBm)
Dimension	17.1x16.1mm	32.1x18.3mm	37x25mm
Reference Range	3km	3km	6km

Model No.	DL-RFM95	DL-RFM96	DL-RFM69HC
Picture			
Interface	SPI	SPI	SPI
Chip	SX1276	SX1276	SX1231
Voltage Range	1.8~3.7V	1.8~3.7V	1.8~3.6V
Typical Voltage	3.3V	3.3V	3.3V
Working Temperature	-20~70°C	-20~70°C	-40~85°C
Receiving Current	10.8mA	10.8mA	16mA
Transmitting Current	120mA@20dBm	120mA@20dBm	95mA@17dBm
Working Frequency	868/915MHz	433/470MHz	315/433/868/915MHz
Sleep Current	<1uA	<1uA	<1uA
Max. TX Power	-1~19.5dBm	-1~19.5dBm	-18~16.5dBm
Max. RX Sensitivity	-133dBm@1.2Kbps (MAX. -149dBm)	-133dBm@1.2Kbps (MAX. -149dBm)	-123dBm
Transmission Rate	1.2~300Kbps @FSK	1.2~300Kbps @FSK	1.2~300Kbps @FSK
	0.018~37.5Kbps @LoRa	0.018~37.5Kbps @LoRa	
Dimension	16x16mm	16x16mm	16x16mm
Reference Range	3km	3km	1.5km



FSK Modules

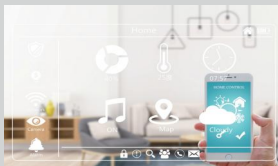


DL-RTM300

- | | |
|---|-------------------------|
| • Chip: CMT2300 | • Sleep Current: <1.5uA |
| • Working Voltage: 1.8~3.6V | • Max. TX Power: 20dBm |
| • Temperature: -20~70 °C | • Max. RX: -120dBm |
| • Frequency: 433/868/915MHz | • Dimension: 16x16mm |
| • Receiving Current:
7~10mA @433MHz; 7.5~10.5mA @868MHz;
7.5~10.5mA @915MHz | |
| • Transmitting Current:
75~95mA @433MHz; 80~90mA @868MHz;
85~95mA @915MHz | |

- ◆ Supports (G)FSK, 2-FSK, OOK, and other modulations
- ◆ Adopts industrial grade components
- ◆ Strong anti-interference ability
- ◆ Wide range working frequency bands
- ◆ Longer transmission distance
- ◆ High receiving sensitivity

Applications



Smart Home

Smart Lock
Sweeper Robot
Smart Curtain
Window/Door Sensor
VR Equipment
...



Industrial Control

Crane Remote Control
Electric Windlass Control
Industrial Elevator
Frequency Conversion
Speed Governing
...



Data Acquisition

Remote Meter Reading
Water/Electricity/Gas Meter
Greenhouse Wireless Data
Portable Data Collector
Energy Control
...






Security System

Firefighting System
Digital Patrol System
Smoke Detector
Wireless Monitor
PIR Detector
...

Model No.	DL-RTS4438	DL-RTS4432	DL-RTS4463	DL-RTS4463PA
Picture				
Chip	SI4438	SI4432	SI4463	SI4463+PA
Working Voltage	1.8~3.6V	1.8~3.6V	1.8~3.6V	1.8~3.6V
Receiving Current	< 14mA	< 20mA	< 13mA	< 15mA
Transmitting Current	75mA@20dbm	85mA@20dbm	85mA@20dbm	-
Working Temperature	-40~85°C	-40~85°C	-40~85°C	-40~85°C
Working Frequency	433MHz	433MHz	433MHz	433MHz
Sleep Current	<1uA	<1uA	<1uA	<1uA
Max. TX Power	20dBm	20dBm	20dBm	27dBm
Max. RX Sensitivity	-121dBm	-121dBm	-124dBm	-124dBm
Dimension	15x12.5mm	16x16mm	16.15x12.5mm	21.9x16.5mm
Reference Range	1.5km	1.2km	1.6km	3km

Model No.	DL-RTC1101	DL-RTC1101-PA	DL-RXC113L	DL-TXC1150
Picture				
Chip	CC1101	CC1101+PA	CC113L	CC1150
Working Voltage	1.8~3.6V	2.4~3.6V	1.8~3.6V	1.8~3.6V
Receiving Current	< 16mA	20mA	< 16mA	-
Transmitting Current	30mA@10dBm	130mA@20dBm	-	30mA@10dbm
Working Temperature	-20~75°C	-40~85°C	-20~75°C	-20~75°C
Frequency	433MHz	433MHz	433MHz	433MHz
Sleep Current	<1uA	<1uA	<1uA	<1uA
Max. TX Power	10dBm	20dBm	-	10dBm
Max. RX Sensitivity	-114dBm	-118dBm	-114dBm	-
Dimension	19x17 / 17x11.7mm	28x21mm	19x17mm	19x15mm
Reference Range	500m	1.2km	500m	500m

Model No.	DL-RTM300	DL-RXC2219A	DL-TXC2119A	DL-RTA7139
Picture				
Chip	CMT2300A	CMT2219A	CMT2119A	AMICCOM A7139
Working Voltage	1.8~3.6V	1.8~3.6V	1.8~3.6V	1.9~3.6V
Receiving Current	7~10mA @433MHz 7.5~10.5mA @868MHz 7.5~10.5mA @915MHz	40mA@13dBm	-	<4mA
Transmitting Current	75~95mA @433MHz 80~90mA @868MHz 85~95mA @915MHz	-	40mA@13dBm	31mA@12.5dBm 82mA@20dBm
Working Temperature	-40~85°C	-40~85°C	-40~85°C	-40~85°C
Frequency	433/868/915MHz	868MHz	868MHz	433MHz
Sleep Current	<1.5uA	<1uA	<1uA	<0.3uA
Max. TX Power	20dBm	13dBm	13dBm	20dBm
Max. RX Sensitivity	-120dBm	-	-	-119dBm@2Kbps
Dimension	16x16mm	15x12.5mm	15x12mm	16x12.5mm
Reference Range	1.6km	600m	600m	1.2km



ChirpLAN™ IoT Solutions

Gateway + Terminal + Server



PAN3028/3031



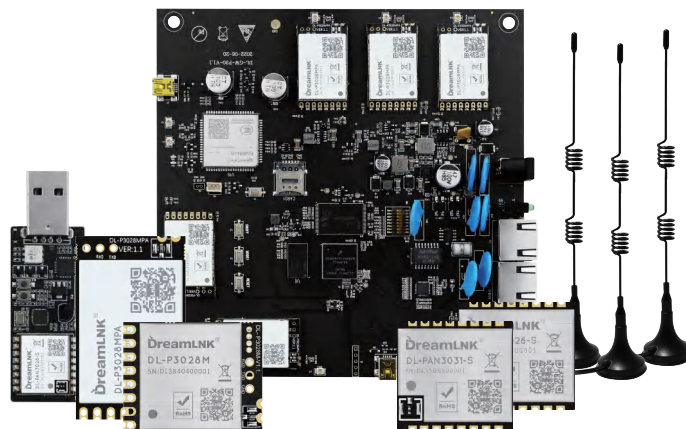
Nodes >500








High Security



>5km



ChirpIoT Modules

Model No.	DL-PAN3031-S	DL-PAN3028-S	DL-PAN3029-S	DL-P3028M	DL-P3028MPA
Picture					
Chip	PAN3031	PAN3028	PAN3029	PAN3028	PAN3028+PA
Interface	SPI	SPI	SPI	UART	UART
Voltage Range	1.8~3.6V	1.8~3.6V	2~3.6V	3.3V	3.5~5.5V
Frequency	433/868/915MHz	433/868/915MHz	433/868/915MHz	433MHz	433MHz
TX Power	22dBm	22dBm	20dBm	22dBm	32dBm
RX Sensitivity	-128dBm	-138dBm	-141dBm	-138dBm	-138dBm
Receiving Current	<20mA	<20mA	4mA@DCDC	24mA	24mA
Transmitting Current	<145mA	<145mA	95mA@20dBm	165mA	-
Sleep Current	<0.5uA	<0.5uA	0.1uA	1.6uA	57uA
Transmission Rate	1.76~21.8kbps	0.16~21.8kbps	0.15~62.5kbps	0.16~21.8kbps	0.16~21.8kbps
Dimension	17.1x16.1mm	17.1x16.1mm	17.1x16.1mm	26x20.5mm	34.3x20.5mm
Reference Range	3km	3km	4km	3km	6km



2.4G Modules

TI Series

SPI Interface, More Applications





- Footprint File Can be Provided •
- Software Demo •
- Instruction Manual •
- Online Technical Support •



Model No.	DL-24TRGC	DL-24D8A-C	DL-24D	DL-24D8	DL-24PA	DL-24PA-C
Picture						
Working Voltage	DC1.8~3.6V	DC1.8~3.6V	DC1.8~3.6V	DC1.8~3.6V	DC1.8~3.6V	DC1.8~3.6V
Max. RX Sensitivity	-105dBm	-105dBm	-104dBm	-89dBm	-103dBm	-103dBm
Receiving Current	< 15mA	< 15mA	< 17mA	< 17mA	< 18mA	< 18mA
Transmitting Current	< 25mA	< 25mA	< 22mA	< 22mA	< 110mA	< 110mA
Reference Range	80m	80m	80m	80m	300m	300m

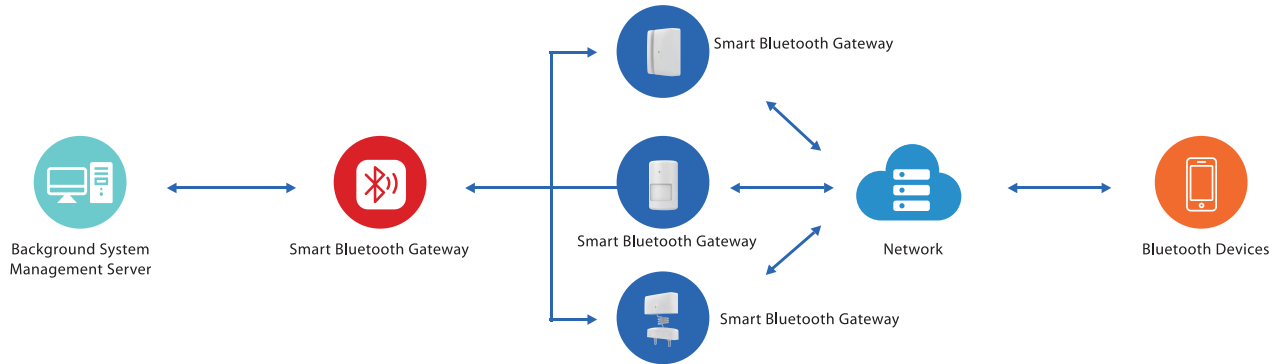
Model No.	DL-BK24K6-TX	DL-BK24K6-RX	DL-BK24K6-52TX	DL-M-BK2461U	DL-24BK25
Picture					
Interface	I/O	I/O	I/O	UART	SPI
Working Voltage	2.8~3.6V	2.8~3.6V	2.0~3.6V	2.5~3.6V	1.9~3.6V
Max.TX Power	12dBm	-	5dBm	0~11dBm	4dBm
Max.RX Sensitivity	-	-96dBm	-	-90dBm	-85dBm
Receiving Current	-	23mA	-	20mA	< 16.5mA
Transmitting Current	90mA	-	20mA	40mA	18mA@4dbm
Sleep Current	10~12uA	-	5~10uA	< 10uA	< 1uA
Dimension	23.3x13.9mm	23.3x13.9mm	23.3x13.9mm	23.3x13.7mm	18x12.2mm
Reference Range	100m	100m	100m	100m	100m

Model No.	DL-24N	DL-24N-S	DL-24N-I	DL-24NPA
Picture				
Chip	NRF24L01	NRF24L01	NRF24L01	NRF24L01
Interface	I/O	I/O	I/O	SPI
Working Voltage	1.9~3.6V	1.9~3.6V	1.9~3.6V	1.8~3.6V
Max. TX Power	-6dBm	-6dBm	-6dBm	20dBm
Max. RX Sensitivity	-95dBm	-95dBm	-95dBm	-94dBm
Receiving Current	14mA	14mA	14mA	23mA
Transmitting Current	12mA@0dBm	12mA@0dBm	12mA@0dBm	150mA@20dBm
Transmission rate	1.2~2000Kbps	1.2~2000Kbps	1.2~2000Kbps	250k~2Mbps
Sleep Current	0.9uA	0.9uA	0.9uA	1uA
Dimension	19x12mm	19x12mm	19x12mm	19.25x13mm
Reference Range	100m	100m	120m	650m

Model No.	DL-297LD / DL-297LDA / DL-297LDA-S	DL-297LPA	DL-Si24R1-A	DL-24LT
Picture				
Interface	SPI	SPI	SPI	SPI
Chip	XN297L	XN297L	Si24R1	LT8900
Working Voltage	2.3~3.6V	2.3~3.3V	1.9~3.6V	1.8~3.6V
Max. RX Sensitivity	-91dBm	-103dBm	-83dBm@2MHz	-87dBm
Receiving Current	15.5mA	20mA	15mA	< 17mA
Transmitting Current	16mA mA @TX Power 0dbm	120mA@22dBm	12mA@0dBm	18mA@2dbm
Sleep Current	2uA	< 2uA	1uA	1uA
Max. Power	13dBm	20dBm	7dBm	6dBm
Dimension	11.5x10mm / 16x11.8mm / 22.8x13.5mm	19.5x11.5mm	18x12mm	15.2x12mm
Reference Range	300m	650m	150m	100m



BLE Gateway System Architecture Diagram



Bluetooth 5.3 TI CC2340

Classic Bluetooth Module (BT)

These classic Bluetooth before BT 4.0 was mainly used for multimedia transmission Features: high-power consumption, high-speed, but short communication range

Bluetooth Low Energy (BLE)

Only BT 4.0 or higher version Bluetooth is BLE (Bluetooth Low Energy) Features: Long communication range, low power consumption, and small datatransmission volume



Model No.	DL-N52832	DL-CC2340-B	DL-CC2640	DL-CC2541	DL-TL8250-A	DL-32-BLE4.2
Picture						
Chip	nRF52832	CC2340	CC2640	CC2541	TLSR8250	BK3432
Version	BLE 5.0	BLE 5.3	BLE 5.0	BLE 4.2	BLE 5.0	BLE 4.2
Flash	512kB	512kB	128kB	160kB	512kB	160kB
RAM	64KB	12KB	8KB	20KB	32KB	20KB
Receive Sensitivity	-96dBm	-98dBm	-97dBm	-94dBm	-96dBm	-
Sleep Current	1uA	1uA	1uA	1uA	1uA	1uA
TX Power	-20dBm~4dBm	8dBm	5dBm	-	-	-
Current TX/RX	5.5mA/5.5mA	5.0mA/5.3mA	5.9mA/6.1mA	19mA/15mA	5.3mA/4.8mA	-
Reference Range	20m	20m	20m	10m	20m	10m



What is the UART Wireless Module?



```
00000111100000001010001100001
101100000111110011111110000
001011000011101010100101111010
```



- The UART Wireless module can be used for wireless communication through its serial port. Product designed base on the UART module is no need to care about its complex wireless parameters, but just easily transmit and receive the data through its serial port, which can be greatly reduce the development cost, and shorten the R&D cycle.



Smart Home

Smart Lock
Sweeper Robot
Smart Curtain

...



Smart Building

Smart Lighting
Power Supply Monitoring
Smart Security

...



Intelligent Agriculture

Irrigation System Control
Data Acquisition
Humidity Sensor

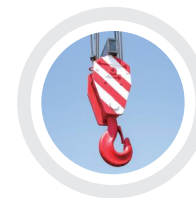
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Intelligent Security

Electric curtain Control
ATA (anti-theft alarm)
Access Control

...



Industrial Control

Engineering Lifting Equipment
Warehousing / Logistics Transmission
Heavy Industry Long-range Metallurgy

...

UART Wireless Modules



DL-RTM300-B



DL-CC1310-B



DL-A6601PA-B



DL-P3028M



DL-P3028MPA



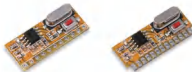



DL-M-BK2461U

Model No.	Working Voltage	Transmitting Current	Receive Current	Max. Receive Sensitivity	Working Frequency	Reference Range	Dimension
DL-RTM300-B	1.8~3.6V	73mA	9.5mA	-120dBm	433/868/915M	1km	15*13.8mm
DL-CC1310-B	2~3.6V	17mA@433M 10dBm	6.8mA	-124dBm	433/868/915M	800m	18*16.5mm
DL-A6601PA-B	3.4~5.4V	700mA@29dBm	6.6mA	-148dBm	433M/470M	7km	26*20.5mm
DL-P3028M	3.5~5.5V	165mA	24mA	-138dBm	433M/470M	3km	27.2*20.5mm
DL-P3028MPA	3.3V	-	24mA	-138dBm	433M/470M	6km	34.3*20.5mm
DL-M-BK2461U	2.5~3.6V	40mA	20mA	-90dBm	2400~2500MHz	120m	23.3*13.7mm

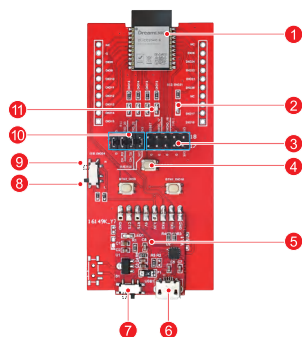
ASK Modules

Model No.	DL-RXC2016BH	DL-RXC2015	DL-TXR25	DL-TX19
Picture				
Working Voltage	2.0~5.5V	2.0~5.5V	1.5~12V	2.2~3.6V
Receiving Current	3.3~4.5mA	4.3~6.5mA	-	-
Working Temperature	-20~70°C	-20~70°C	-20~70°	-20~60°
Working Frequency	315/433MHz	315/433MHz	315/433MHz	315/433MHz
Receive Sensitivity	-110~-112dBm	-110~-115dBm	-	-
Transmitting Current	-	-	21mA	17.5mA
Max.TX Power	-	-	12dBm@3V	+12dBm
Sleep Current	-	<1uA	1uA	1uA
Dimension	22x9mm	30x12.5mm	15x11mm	13.2x13mm
Reference Range	300m	300m	300m	300m

ASK Modules

Model No.	DL-RXC6A/B	DL-RX06C-KO4	DL-RX06C-LO6	M-AF119M/PA
Picture				
Interface	Switching Value (4CH)	Switching Value (4CH)	Switching Value (6CH)	Switching Value (4CH)
Working Frequency	315/433MHz	315/433MHz	315/433MHz	433MHz
Working Voltage	2.8~5.5V	3~5.5V	3~5.5V	1.8~3.6V
Working Current	3.9mA@3.3V/315M 6mA@3.3V/433M	3.9mA@3.3V/315M 6mA@3.3V/433M	3.9mA@3.3V/315M 6mA@3.3V/433M	15mA@10dBm 56mA@22dBm MAX
Working Temperature	-20~75°C	-20~75°C	-20~75°C	-20~75°C
Sleep Current	-	-	-	< 1u A
Max. TX Power	-	-	-	Customizable
Max. RX Sensitivity	-20~75°C	-20~75°C	-20~75°C	-
Dimension	28.6x12mm	29x12.8mm	29x12.8mm	20x13/22.2x15mm

Development Kits



DB-SOC03 Development Kits

The Development Kit includes a USB to TTL signal serial port module, AUX/LED indicator, and mode switching button: AT mode/Low-power mode, used for AT firmware evaluation. At the same time, all GPIO ports of the module are introduced for secondary development, suitable for DreamLNK's SOC serial UART Modules, such as DL-CC1310-B, DL-CC2340-B, DL-A6601-B, DL-A6601PA-B, DL-RTM300-B, etc.

Diagram

1. Wireless Module

3. Download Port

5. USB to TTL Signal

7. Power Switch

9. Mode - AT Mode

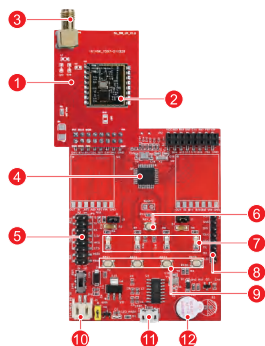
2/11. AUX/LED Indicator

4. Reset Button

6. Power (USB)

8. Mode - Low Power

10. Serial Port



DB-RF001 Development Kits

This Development Kit consists of a Switch Board and a Motherboard. The switch board can adapt to commonly used FSK and LoRa Front-end solutions on the market. The motherboard integrates a Cortex-M0 32bit MCU, and has several commonly used interfaces, such as SPI, UART and I2C. It adopts a low-power design and available for battery power supply. Two hardware SPI interfaces are introduced, and the buttons can be used to quickly evaluate the performance of the wireless RF front-end module. Currently, it supports the following Sub-1G modules: SX1278, SX1268, LLCC68, SI4432, SI4438, SI446X, A7139, A7149, PAN3029, PAN3028, PAN3031, CC2500, CC1100, CC1125, CMT2300, CTM2380, 2.4G: NRF24L01+, SI24R1.

Diagram

1. RF switch board

3. SMA connector
(for antenna)

5. UART2/DBG

7. LED indicators

9. Keys

11. USB 5V/serial port

2. FSK/LoRa module

4. MCU

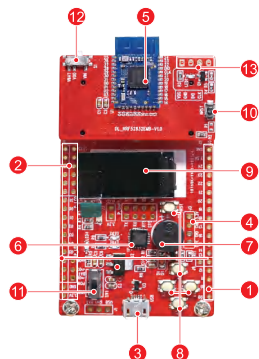
6. Reset Key

8. Download port
/TTL serial port

10. Battery powered

12. Buzzer

Development Kits

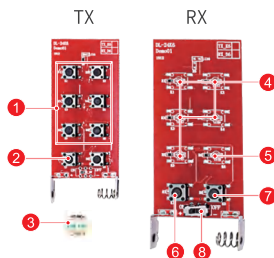


DK-A Development Kits

Bluetooth 5.0 provides a more stable connection, promotes the popularity of Bluetooth technology in IoT devices, and provides a seamless using experience for IoT applications. The Bluetooth project can be directly developed on this DK board, while external buzzer, sensors and buttons can be connected through GPIO. It can also display the control method of Bluetooth networking directly through DK board; for a better understanding of master/slave/multi-link/mesh networking.

Diagram

1&2. All the pins lead out	4. MCU download port	6. CP2102: USB-to-UART chip	8. Keys (including reset key)	10. RF reset	11. Power switch
3. USB 5V/ UART interface	5. Core52832: nRF52832 core module	7. Buzzer	9. TFT LCD screen	11. Power switch (USB/BAT)	12. Download Port



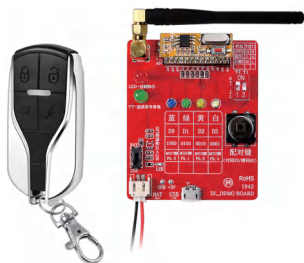
DB-BK24K6 Development Kits

This DB-BK24K6 Development Kits integrated with DreamLNK's DL-BK24K6 TX/RX 2.4G SOC 6-Channel Switching Value RF Modules, which can be used for project evaluation (for corresponding 2.4G RF modules). The 2.4G basic program and remote -control learning code program have been flashed into the module (backside of the Development Kits), which can be used without any programming. TX is for the transmitter module, while RX is for the receiver module.

Diagram

1. 6-Channel TX button	3. Suitable for 23A/12V battery	5. Coding LED indicators	7. Memory/Latch Switching Keys
2. Learning Key	4. 6-Channel LED indicators	6. Coding Key	8. Power Supply

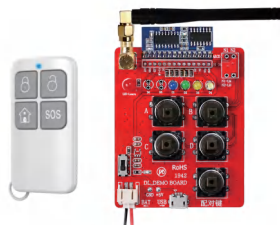
Demo Boards



DL-RXC6A/B Demo Board

Technical Parameters

- Working Frequency 315/433.92MHz
- Modulation ASK
- Receiving Sensitivity -112dBm
- Working Voltage 2.8~5.5V
- Working Current 3.9mA @VDD=3.3V/315M
6mA @VDD=3.3V/433M
- Protocol EV1527
- Reference Range 300m



DL-RX06C-KO4 Demo Board

Technical Parameters

- Working Frequency 315/433.92MHz
- Modulation ASK
- Receiving Sensitivity -112dBm
- Working Voltage 3~5.5V
- Working Current 4.5mA @VDD=3.3V/315M
6mA @VDD=3.3V/433M
- Protocol EV1527
- Reference Range 300m



DL-RX06C-LO6 Demo Board

Technical Parameters

- Working Frequency 315/433.92MHz
- Modulation ASK
- Receiving Sensitivity -112dBm
- Working Voltage 3~5.5V
- Working Current 4.5mA @VDD=3.3V/315M
6mA @VDD=3.3V/433M
- Protocol EV1527
- Reference Range 300m

Industrial
Remote Control



Medical Control



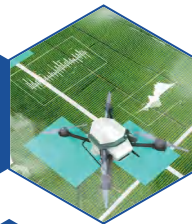
Smart Home



WIDELY USED FOR VARIOUS APPLICATIONS



Smart
Agriculture



New Energy

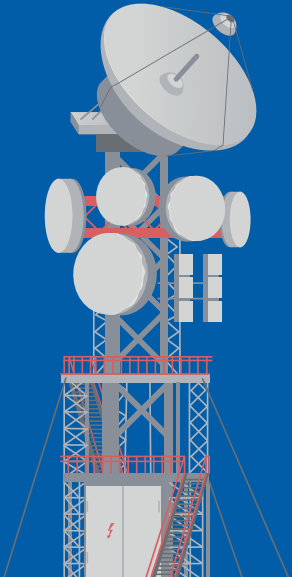


Children's
Education



DEVOTE TO BE YOUR RELIABLE

ANTENNA SOLUTION PROVIDER

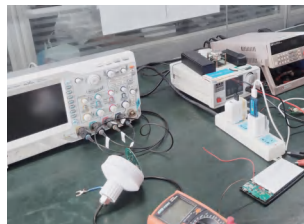




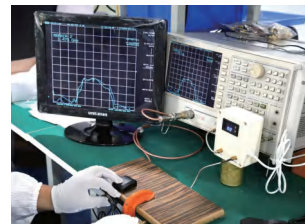
OTA Measurement System



R&D Center



Antenna Debugging



Data Testing



2000m² +

Factory Area



10 Years+

RF Experience



5/15 Days

Sample /Mass Production



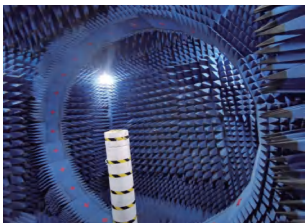
OTA

Professional Equipment



>10 K/Day

Production Capacity



Antenna Anechoic Chamber



Ceramic Sintering Furnace



Stripping Machine



Assembly Line



- Rubber rod antenna is a common external antenna that can be fixed on the product shield via SMA connectors. It is easy to install, with high gain, strong signal, wide frequency band, stable performance, good wall penetration, and can achieve long-distance signal transmission and receiving effects.
 - Frequency range: 2.4G/3G/4G LTE/5G/315/433/470/868/915MHz/GSM/GPS/ WCDMA/2.4G+5.8G dual band, etc.
-
- Can be applied to radio equipment such as network communication devices, wireless monitoring devices, smart home devices, industrial IoT devices, television broadcasting, satellite communication, etc.

Model No: DL-J001



Frequency 868~915MHz
Gain 5dBi
Dimension 198*13mm
Connector SMA-J
Impedance 50 Ω

Model No: DL-J002



Frequency 433MHz
Gain 5dBi
Dimension 195*13mm
Connector SMA-J
Impedance 50 Ω

Model No: DL-J004



Frequency 2.4/5G
Gain 5dBi
Dimension 196*13mm
Connector SMA-J
Impedance 50 Ω

Model No: DL-J023-5GB



Frequency 400~6000MHz
Gain 5dBi
Dimension 27.5*9.5mm
Connector SMA-J
Impedance 50 Ω

Model No: DL-J014-4G



Frequency 4G
Gain 2dBi
Dimension 50*17mm
Connector SMA-J
Impedance 50 Ω

Model No: DL-J006



Frequency 315/433/470/868 /2.4GHz/GSM
Gain 2dBi
Dimension 79*12mm
Connector SMA-J
Impedance 50 Ω

Model No: DL-W1/DL-W10



Frequency 2.4G / 4G
Gain 3dBi
Dimension 105*13mm
Connector SMA-J
Impedance 50 Ω

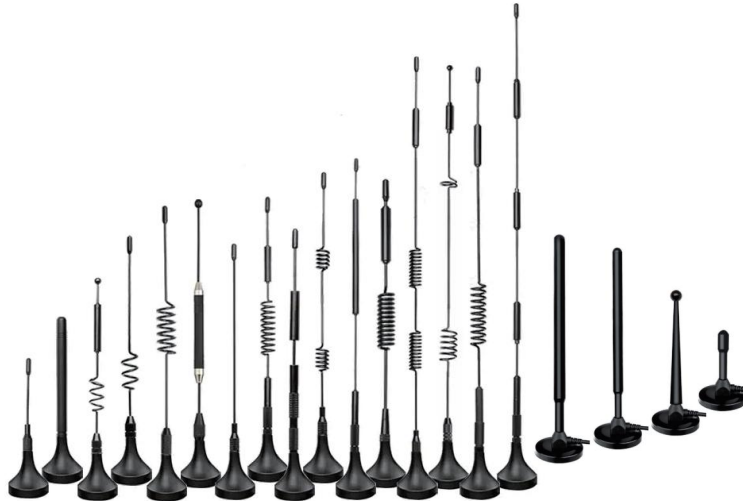
Model No: DL-J011-5G



Frequency 824-960/1710-2680 / 3400-3600/4800-4900MHz
Gain 5dBi
Dimension 171*13mm
Connector SMA-J
Impedance 50 Ω

Applications





- Chuck Antenna is an external magnet mount suction cap antenna, used for data acquisition and signal transmission. The Chuck Antenna can be installed to a better signal receiving position through an extension cable, which can enhance the sensitivity and stability of the antenna's signal transmission, improve the communication distance and signal quality, even in harsh environments.
 - Frequency range: 2.4G/3G/4G LTE/5G/315/433/470/868/915MHz/GSM/GPS/ WCDMA/2.4G+5.8G dual band, etc.
-
- The use of Chuck Antennas is very extensive. For example, vending machines, car radios, courier cabinets, charging piles, car GPS, vehicle monitoring systems, etc. The specifications of the wire and connector can be flexibly selected.
-



Model No: DL-X15-NB

Frequency 880-960/
1710-1880 MHz
Gain 1dBi
Impedance 50 Ω
VSWR < 2.0
Temperature -40~85°C
Dimension 90x29.8mm



Model No: DL-W8

Frequency 433MHz
Gain 3dBi
Impedance 50 Ω
VSWR < 2.0
Temperature -40~85°C
Dimension 148x29.8mm



Model No: DL-X013-470

Frequency 470MHz
Gain 5dBi
Impedance 50 Ω
VSWR < 2.0
Temperature -40~85°C
Dimension 158x29.8mm



Model No: DL-X014-4G

Frequency 4G
Gain 5dBi
Impedance 50 Ω
VSWR < 2.0
Temperature -40~85°C
Dimension 319x29.8mm



Model No: DL-W11

Frequency 2.4~2.5GHz
Gain 5dBi
Impedance 50 Ω
VSWR < 2.0
Temperature -40~85°C
Dimension 319x29.8mm



Model No: DL-W5

Frequency 900~1800MHz
Gain 5dBi
Impedance 50 Ω
VSWR < 2.0
Temperature -40~85°C
Dimension 208x29.8mm

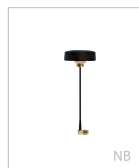
Applications





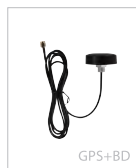
- Cabinet antennas can be used for various types of cabinets: Courier Cabinets, Dining Cabinet, Distribution Cabinets, Electricity Meter Cabinets, etc. It can be used to receive and transmit wireless signals, enabling communication between the cabinet and other devices. For example, the distribution cabinet can communicate wirelessly with electrical protection devices and monitoring systems, to achieve real-time monitoring and control automatically.

- Frequency range: 2.4G/3G/4G LTE/5G/315/433/470/868/915MHz/GSM/GPS/ WCDMA/2.4G+5.8G dual band, etc.
- Wireless Monitoring, Smart Home, Industrial IoT, Television Broadcasting, Satellite Communication and other transmission equipment.



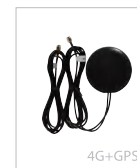
Model No: DL-803-NB

Frequency 870~960MHz
Gain 4dBi
VSWR ≤ 1.5
Dimension 46*15mm
Cable Length 100mm
Connector Type SMA-J



Model No: DL-803

Frequency 1560-1572.42MHz
Gain 4dBi
Amplifier Gain 28dBi
Dimension 45*16mm
Cable Length 2m
Connector Type SMA-J



Model No: DL-802

Frequency 820-960/1710
-2700MHz
Gain 4G - 4dBi
GPS - 28dBi
Dimension 80*16mm
Cable Length 2m
Connector Type SMA-J



Model No: DL-801

Frequency 2.4/5.8GHz
Gain 5dBi
Dimension 116*21.5mm
Cable Length 2m
Connector Type SMA-J
Temperature -30~80°C



Model No: DL-801-4G-B

Frequency 820-960/1710
-2700MHz
Gain 5dBi
Dimension 116*21.5mm
Cable Length 2m
Connector Type SMA-J
Temperature -30~85°C



Model No: DL-804

Frequency 1560-1572.42MHz
Gain 4dBi
Amplifier Gain 28dBi
Dimension 50*39*16.8mm
Cable Length 2m
Connector Type FAKRA

Applications





- Fiberglass (FRP) Antennas are waterproof omnidirectional antennas with low VSWR and high gain for outdoor use normally. The cover material is Fiber Reinforce Plastic (FRP), which adopts the film pressure technology under high temperature and high pressure. It is IP67 Waterproof, windproof, high temperature resistance, corrosion resistance, and strong sealing; It is easy to install, and suitable for various outdoor environments.
- Frequency range: 2.4G/3G/4G LTE/5G/315/433/470/868/915MHz/GSM/GPS, etc. Due to its high stability and reliability, FRP antenna can be widely used in Outdoor AP, Base Station, WIFI Coverage of Network Bridge, Car Radio, Wireless Data Radio, Wireless Terminal Device, Gateway, Wireless Module, Router, Intercom, Smart Building, Smart City, Remote Sensor Networking, Smart Agriculture etc.



433MHz

Model No: DL-B433W-001

Frequency	433MHz
Gain	5dBi
Impedance	50 Ω
VSWR	≤ 2
Efficiency	$\geq 62\%$
Power	20W
Connector Type	N-J
Dimension	$\Phi 20 \times 600 \pm 5\text{mm}$



2.4G

Model No: DL-B2400W-001

Frequency	2.4-2.5GHz
Gain	3dBi
Impedance	50 Ω
VSWR	≤ 2
Efficiency	Vertical
Power	20W
Connector Type	N-J
Dimension	$\Phi 20 \times 250 \pm 5\text{mm}$



860-930MHz

Model No: DL-B930W-001

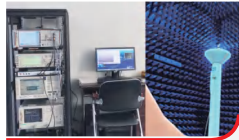
Frequency	860-930MHz
Gain	5dBi
Impedance	50 Ω
VSWR	≤ 2
Efficiency	Vertical
Power	20W
Connector Type	N-J
Dimension	$\Phi 20 \times 350 \pm 5\text{mm}$



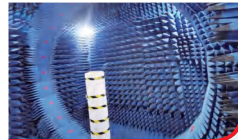
4G

Model No: DL-B4GW-001

Frequency	694-960/ 1710-2700MHz
Gain	2dBi
Impedance	50 Ω
VSWR	≤ 2
Efficiency	Vertical
Power	20W
Connector Type	N-J
Dimension	$\Phi 20 \times 200 \pm 5\text{mm}$



• Multi-probe OTA Measurement System



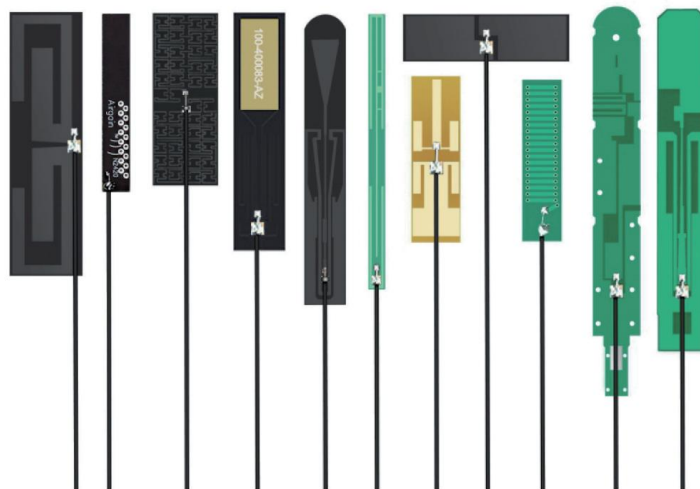
• Anechoic Chamber



• Ceramic Sintering Furnace

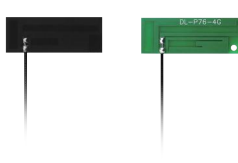


• Peeler



- Built-in FPC and PCB antenna, with 2.4G/4G/5G/GSM/GPS/WCDMA/2.4G+5.8G dual band frequency, suitable for various IoT applications. The copper foil of FPC antenna uses electrolytic copper, which is ultra-thin in thickness and not easy to curl up. The PCB antenna is a built-in rigid FR-4 board antenna, which is more resistant to high temperatures.

They are widely used in mobile phones, locomotives, Internet, artificial intelligence, smart home, smart city, intelligent agriculture, IoT industry and other fields



Model No: DL-F76/ DL-P76-4G

Frequency	824~960/ 1710~2680MHz
Gain	2.5dBi±0.5
Impedance	50
VSWR	< 1.5
FPC Size	40*15mm
Connector	IPEX-I
Temperature	-30 ~ +70 C



Model No: DL-F5/DL-F6

Frequency	2.4~2.5GHz
Gain	2dBi±0.5
Impedance	50
VSWR	< 1.5
FPC Size	34*9.5mm
Connector	IPEX-I/Solder Joint
Temperature	-30 ~ +70 C



Model No: DL-F1/DL-F2

Frequency	400~470MHz
Gain	2dBi±0.5
Impedance	50 Ω
VSWR	< 1.5
FPC Size	29*6mm
Connector	IPEX-I/Solder Joint
Temperature	-30 ~ +70 C



Model No: DL-F8-5G

Frequency	703-960/1710-2680/ 3300-3600/4700-5000MHz
Gain	3dBi±0.5
Impedance	50
VSWR	< 1.5
FPC Size	98.5*13.4mm
Connector	IPEX-I
Temperature	-30 ~ +70 C

Applications





DL-T1 915MHz



DL-T2 GSM



DL-T3 868MHz



DL-T4 868MHz



DL-T6 470MHz



DL-T10 GSM



DL-T14 433MHz



DL-T15 433MHz



DL-T16 315MHz



DL-T19 433MHz

- Spring coil antenna is a built-in antenna with compact size and simple structure. It has high reliability in various low-power wireless communication applications. The principle of a spring antenna is composed of a folding spring and a matching circuit. The material of our spring antenna is brass, or phosphorous copper, and some will be quipped with a heating shrink tube to prevent oxidation. All are produced from new pure copper materials and can pass the ROHS test. The diameter of the spring and the number of coils are important parameters for controlling the antenna frequency.

- The length of each coil is based on $\lambda/4$ units. It is the wavelength of the operating frequency. By increasing the number of coils in the spring, the frequency of the antenna can be reduced, while reducing the number of coils can increase the frequency. The length of a spring antenna is usually multiple of $\lambda/4$, otherwise it will cause reflection and waveform distortion issues. Therefore, when the spring length is not in the case of multiples of $\lambda/4$, a tuning component must be used to match the impedance.



Wire Antenna

Model No: DL-030-002

Frequency	2400~2500MHz
Gain	2dBi
Impedance	50 Ω
VSWR	≤ 1.5
Connector Type	Solder Joint
Dimension	35mm



Wire Antenna

Model No: DL-030-003

Frequency	2400~2500MHz
Gain	2dBi
Impedance	50 Ω
VSWR	≤ 1.5
Connector Type	Solder Joint
Dimension	76mm



Wire Antenna

Model No: DL-030-001

Frequency	2400~2500MHz
Gain	2dBi
Impedance	50 Ω
VSWR	≤ 1.5
Connector Type	Solder Joint
Dimension	140mm



Copper Tube ANT

Model No: DL-TG24-75

Frequency	2400~2500MHz
Gain	3dBi
Impedance	50 Ω
VSWR	≤ 1.5
Connector Type	Solder Joint
Dimension	75mm



Copper Tube ANT

Model No: DL-TG24-112

Frequency	2400~2500MHz
Gain	3dBi
Impedance	50 Ω
VSWR	≤ 1.5
Connector Type	Solder Joint
Dimension	112mm



Copper Tube ANT

Model No: DL-TG24-139

Frequency	2400~2500MHz
Gain	3dBi
Impedance	50 Ω
VSWR	≤ 1.5
Connector Type	Solder Joint
Dimension	139mm



GPS+BD Ceramic

Model No: DL-812

Frequency	1562/1575MHz
Gain	2dBi
VSWR	≤ 1.5
Connector Type	IPEX-I
Dimension	25x25x2mm
Cable	RG1.13- 42mm



GPS+BD Passive

Model No: DL-805-03

Frequency	1562/1575MHz
Gain	4dBi
VSWR	≤ 1.5
Connector Type	IPEX-I
Dimension	25x25x2mm
Cable	RG1.13- 42mm



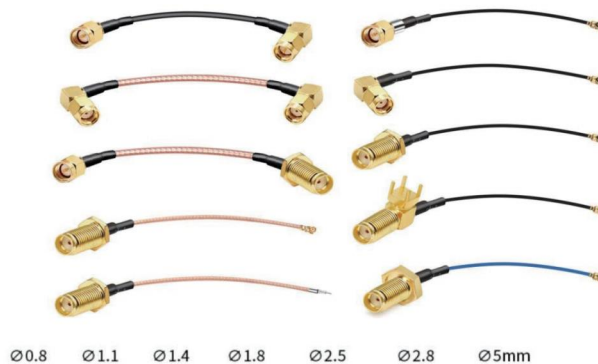
GPS+BD Active

Model No: DL-805

Frequency	1562/1575MHz
Gain	4dBi
Amplifier Gain	28dBi
Connector Type	IPEX-I
Dimension	25x25x2mm
Cable	RG1.13- 150mm



- Gain Loss $\leq 0.1\text{dB/GHz}$;
- Excellent electrical performance and easy installation;
- Compact structure, Standard size, suitable for various products;
- Stable performance and excellent consistency;



- High grade brass material plated with real gold (plated with 2u/1u gold);
- High quality eco-friendly pure copper;
- 48 hours salt spray testing;
- Good antioxidant properties, corrosion resistance

Vehicle Mounted Antennas

Full range of antenna matching services for buses and cars, including various vehicular antennas, for GPS/BD/GNSS positioning and radio communication.



Smart Power Solutions

Integrated antenna solution for 5G base station power management, railway engineering detection system, wireless electric power inspection, etc.



Aeromodelling Antennas

Antenna matching and customization solutions for drones, aeromodelling, remote-controlled toy, monitoring vehicles, etc



Smart Home Solutions

Customized antennas for smart home, smart wearables, and smart hotel solutions.



Industrial Remote Control and Receiver Solutions

Brief Introduction

This Industrial Remote Control and Receiver Solution were special designed for IIoT (Industrial Internet of Things) applications. We have a set of Remote Control (transmitter) & Receiver PCBA with mature software solution for any potential demand. It can be also ODM base on this system, according to your specified requirements.

With the help of this wireless remote-control system and ready PCBA, you can hold the portable transmitter (with your own cover), walk freely and choose the best location for remote operation, which can greatly improve the safety and reduce accidents such as work-related injuries. The operator can complete multiple tasks independently, which can greatly improve their work efficiency, and save your labor cost.



Ultra-long
Distance



Strong Anti-
interference



Stable Signals



FSK Two-way
Transmission

Main Features

- Stable communication, sensitive response, strong anti-interference
- 160mW maximum transmit power, greatly improves the communication distance
- 0.5~160mW, 25-levels power automatic adjustment
- Adaptive transmit power according to communication distance, for longer battery life
- Feedback the working status of the receiver through RGB lights
- Low battery alarm
- Ultra-low sleep current
- Antennas are well-matched and optimized for high efficiency
- RGB lights to indicate the signal strength
- Runaway relay reset (open)
- Two-way communication, and timeliness is guaranteed
- Interference detection for improved reliability



01

Transmitter RGB Lights to Indicate the Receiver Status



RX

Distinguish signal strength by RGB Lights

				
Strong Signal	Normal Signal / Interference Exist	Weak Signal	Communication Failed	Under Protection



TX



Red Light on the Transmitter
No signal received, out of range
or the receiver is working abnormally

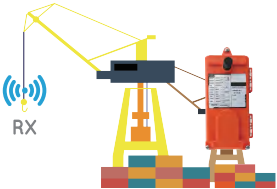
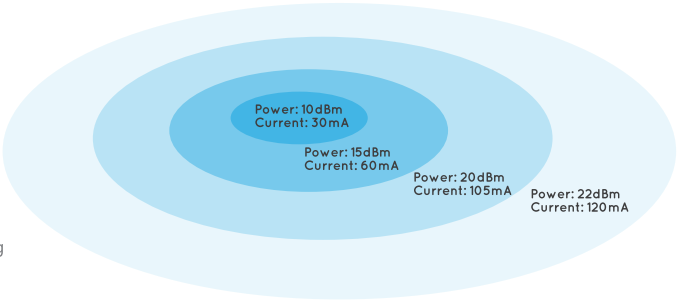
02

Adaptive Power



TX

50 meters range, close distance
Power is 7dbm, more energy saving






RX

03

Automatically Detect Signal Strength



RX

 In a tin room	 Motor at working	 In an open area
Weak Signal	Yellow Light on the Transmitter	Strong Signal



TX



04

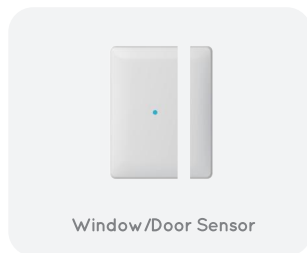
The Role of the Buzzer



- 1: Two beeps when power on, 500ms each time
- 2: One quickly beep means there is packet loss in communication
- 3: Beep twice means there is interference in communication
- 4: Beep slowly for 1s means the battery is low



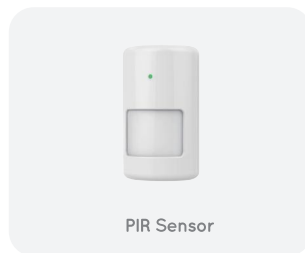
Low Battery Alarm
 Low battery buzzer alarm
 Battery needs to be replaced



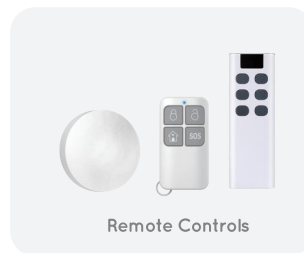
Window/Door Sensor



Gateway

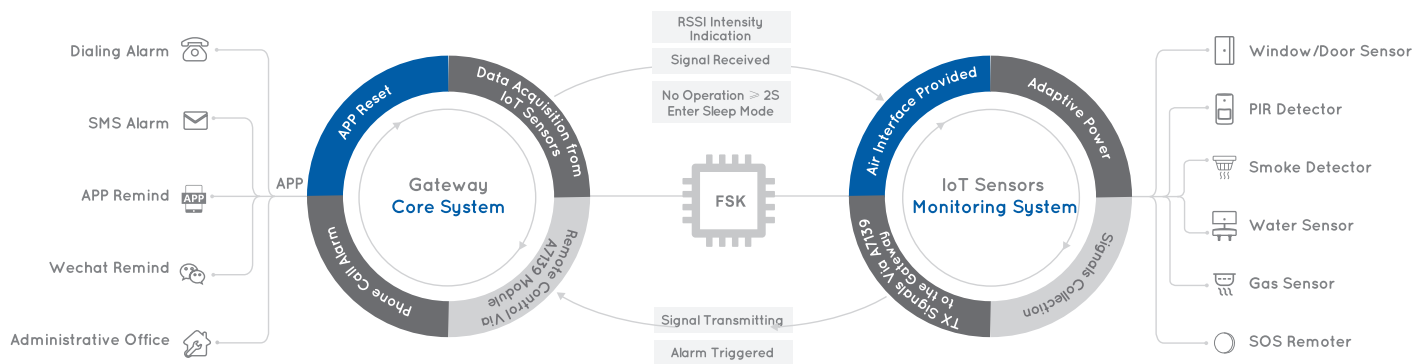


PIR Sensor



Remote Controls

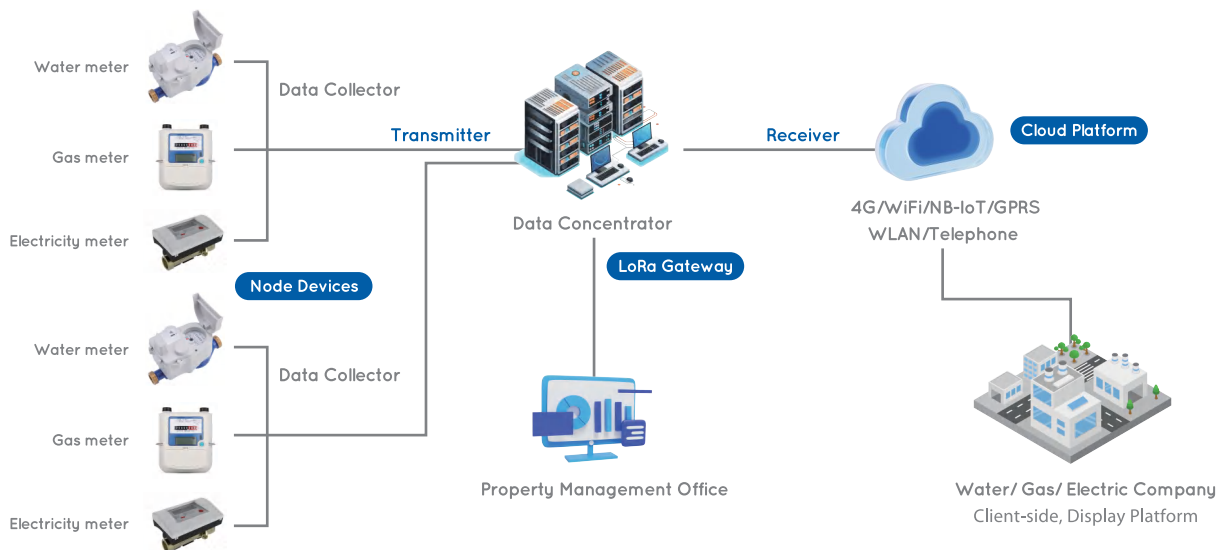
System Principle



Automatic Meter Reading (AMR) LoRa Application for Water Meter / Electricity Meter / Gas Meter



> Schematic Diagram of AMR System



Characteristics of LoRa AMR System

LoRa communication technology has advantages such as long range, low power consumption, and strong anti-interference ability, which can achieve remote management and intelligent control of the Water/Gas/Electricity Meters. Compare to traditional meters, LoRa meter has the following significant advantages:



Remote Monitoring and Management

LoRa meters can achieve remote monitoring and management through LoRa wireless communication technology.



Intelligent Data Analysis

The data collection of LoRa meters has the characteristics of high precision and stability, which can provide detailed and accurate data.



High Security

AES encryption algorithm is adopted to encrypt the data can effectively prevent eavesdroppers from obtaining sensitive information.



Powerful Anti-interference Ability

It has strong anti-interference ability, which will not be easily affected by other wireless signals, ensures the accuracy and stability of data collection.



Low Power Design

The low-power design of LoRa meter will greatly extend its battery life, and reduce maintenance costs caused by battery replacement.



Low Maintenance Cost

With OTA (Over the Air) upgrade technology, remote maintenance and software updates can be achieved, reducing maintenance costs.

Applications



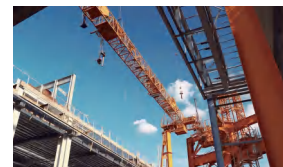
Smart City



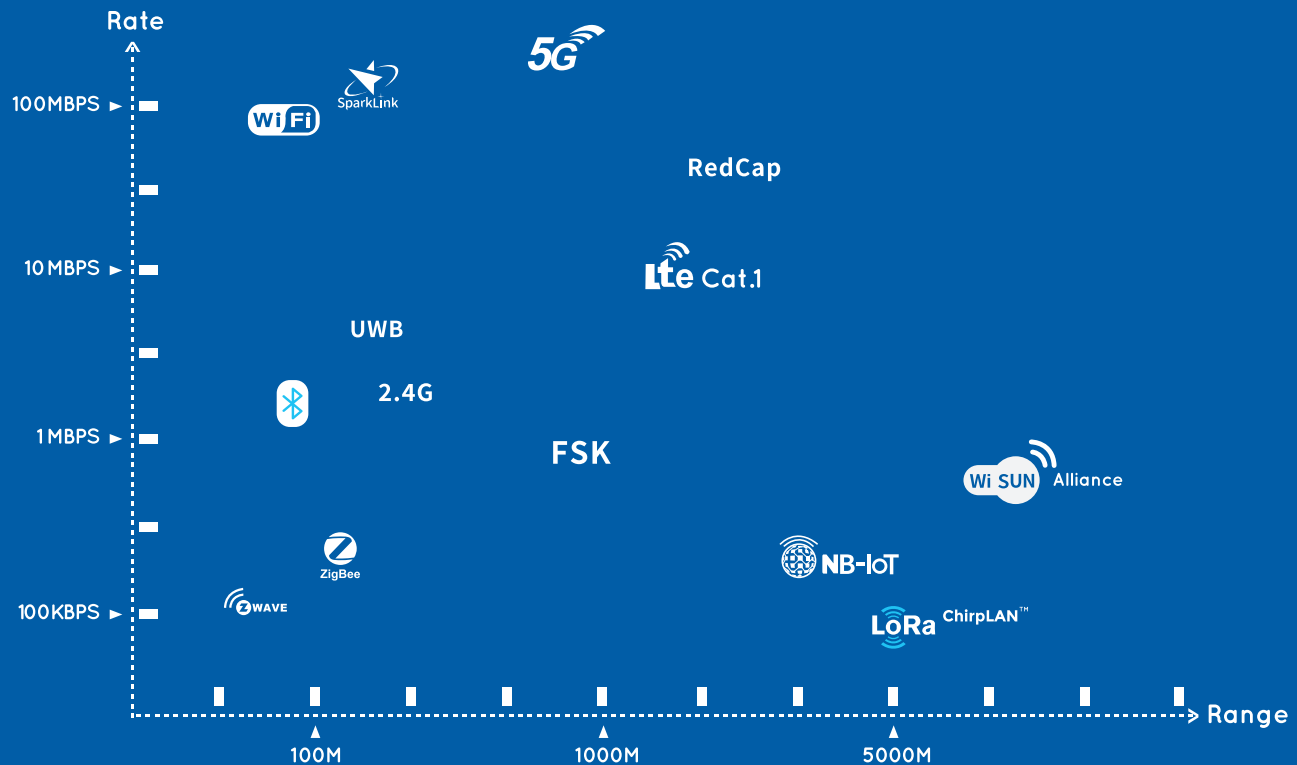
New Energy



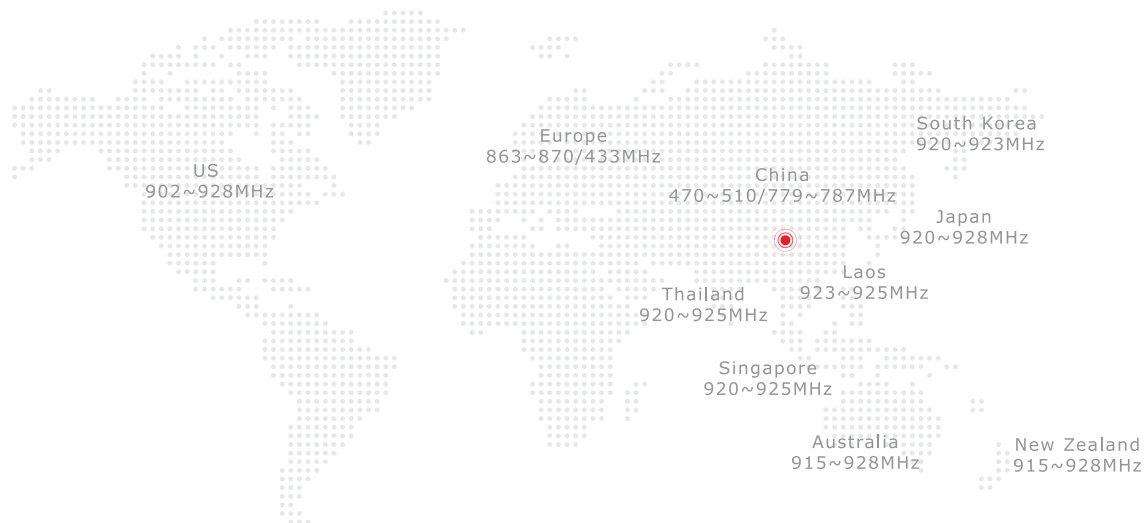
Environmental Monitoring




Industrial Automation




Here above are the common used wireless communication in IoT industry, while IoT architecture consists of the Perception Layer, Transport Layer, Processing Layer, and Application Layer. Our Wireless Modules and Antennas are mainly used in the Transport Layer of IoT applications, such as Smart Home, Smart City, Smart Robots, Smart Healthcare, AMR System, Energy Management, Industrial Control, Smart Traffic, Smart Wearable, Logistics Tracking and Positioning, Photovoltaic Inverters, and other IoT solutions. Welcome to inquire!



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