



2.4G RF Modules

High Sensitivity, Strong Anti-interference, Low Power Consumption Wireless Transceiver Modules, 120M w/o PA, while 650M with PA

SHENZHEN DREAMLNK TECHNOLOGY CO.,LTD



Brief Introduction

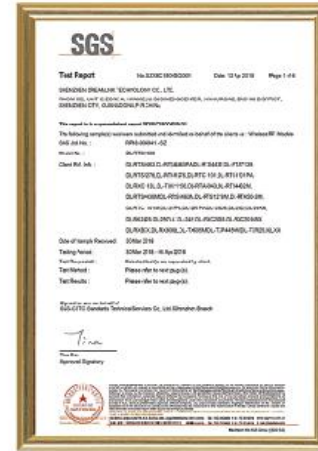
Shenzhen DreamLNK Technology Co., Ltd. (**DreamLNK**) is a professional high-tech enterprise specializing in ISM band micro-power wireless communication technology, for almost 8 years. We have a professional R&D team with abundant working experience; can provide you various RF modules and one-stop IoT solutions!

As a member of the CLAA (China LoRa Application Alliance), and a third-party design office of TI-chipcon, Silicon Labs, Semtech, our product range covers not only 433/868MHz RF modules, 2.4G modules, Bluetooth modules, LoRa modules, but also relative IOT products, such as antenna, remote control, etc. Welcome to inquire!



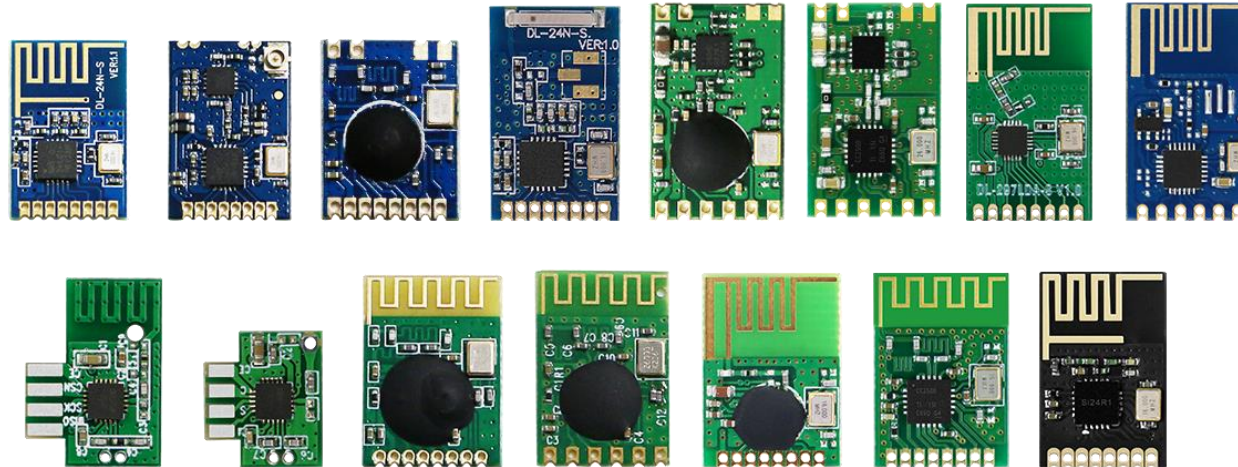
Honors & Qualifications

More than 10 Software Copyrights and 12 RF Patents, with Most of the Products FCC, CE, RoHS, REACH Certified



Brief Introduction

2.4G RF Transceiver Modules, High Stability, Good Spectrum Performance, Cost-effective, Compact Size, with Industrial Grade Components



2.4G is a wireless technology, since its frequency band is between 2.400GHz and 2.4835GHz, so it is referred to as 2.4G wireless technology for short. The highly integrated chipset based on the package of 2.4G wireless technology is called 2.4G wireless module, and 2.4G wireless transceiver module is one of 2.4G wireless modules.

They are widely used for UAV Communication Control, Industrial Automation, Field Data Collection, Wireless Communication, Network Monitoring, PLC, Telemetry, Wireless Meter Reading, Smart Home, Smart Agricultural, Smart Building, Fire Protection & Security System, Wireless Remote Control System, Data Communication Transmission and so on.

2.4Ghz ISM Band Worldwide License-Free

2.4GHz is the global open ISM band, which is commonly used in LAN, Bluetooth, ZigBee and other wireless networks



Adjustable Frequency Range

2.400~2.483Gz



ZigBee



Bluetooth



WLAN











Transmission rate available at
250Kbps, 1Mbps, 2Mbps










The power can be configured by
software, maximum 7dBm



1 to 32 bytes of data can be
transmitted in each packet

Chip	Interface	Model No.	Range	Picture	Antenna
TI Serial (CC2500)	SPI	DL-24TRGC	≈120m		PCB on Board Antenna
	SPI	DL-24D	≈120m		External Antenna
	SPI	DL-24D8	≈120m		External Antenna
	SPI	DL-24R1	≈120m		PCB on Board Antenna
	SPI	DL-24PA	≈650m		External Antenna
	SPI	DL-24D8A-C	≈120m		PCB on Board Antenna
	SPI	DL-24PA-C	≈650m		External Antenna
BEKEN (BK2425)	SPI	DL-24BK25	≈120m		PCB on Board Antenna

Chip	Interface	Model No.	Range	Picture	Antenna
NORDIC Serial (NRF24L01)	SPI	DL-24NPA	≈650m		External Antenna
	SPI	DL-24N	≈120m		PCB on Board Antenna
	SPI	DL-24N-I	≈120m		Ceramic Antenna
PANCHIP Serial (XN297L)	SPI	DL-297LD	≈120m		External Antenna
	SPI	DL-297LDA	≈120m		PCB on Board Antenna
	SPI	DL-297LDA-S	≈120m		PCB on Board Antenna
	SPI	DL-297LPA	≈650m		External Antenna

Supports Can be Provided

Encapsulation Files

Demo Program

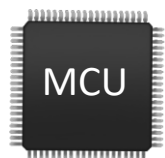
Specification Sheet

Technical Support

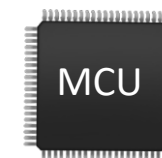
On-line Guidance





What is the SPI hardware module?

SPI module is a pure hardware module with SPI interface, and SPI communication mode. It needs to be connected to MCU, which is programmed to configure register parameters of the chip, and then complete the data communication.



```
00000111100000001010001100001
1011000001111110011111110000
00101100001110110100101111010
```



Name	Chip	Interface	Model No.	Range	Picture	Antenna
2.4g RF Module	BEKEN BK2461	IO	DL-BK24K6-TX	≈120m		PCB on Board Antenna
		IO	DL-BK24K6-RX	≈120m		PCB on Board Antenna
	BEKEN BK2452	IO	DL-BK24K6-52TX	≈120m		PCB on Board Antenna
	BEKEN BK2461	UART	M-BK2461U	≈120m		PCB on Board Antenna



2.4G RF Module with Program

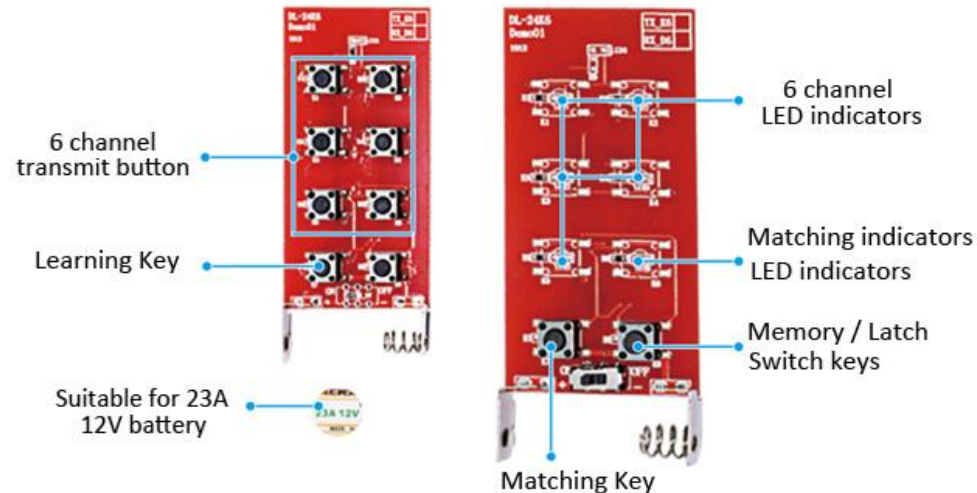
2.4g basic program has been written inside the module, which can be used without any programming. The coded chip is very convenient and simple to use. Multiple RF Modules can be used at the same time, without interfering with each other.

2.4G Six-channel Switching Value RF Transceiver Modules

DL-BK24K6 TX/RX wireless remote control module is a 2.4G SOC 6-channel switching module developed by DreamLNK, it is a learning code remote control module with MCU and software embedded, the 2.4g basic program and remote control learning code program have been written inside the module, which can be used without any programming. TX is the transmitting module, while RX is the receiving module.




✓ One to One ✓ One to Many ✓ Many to Many

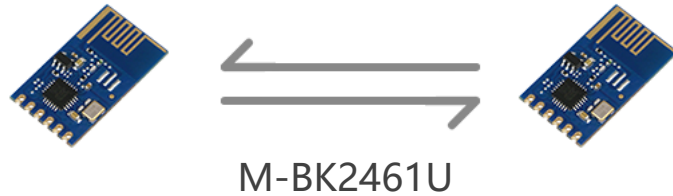
TX (Transmit Module) RX (Receive Module)



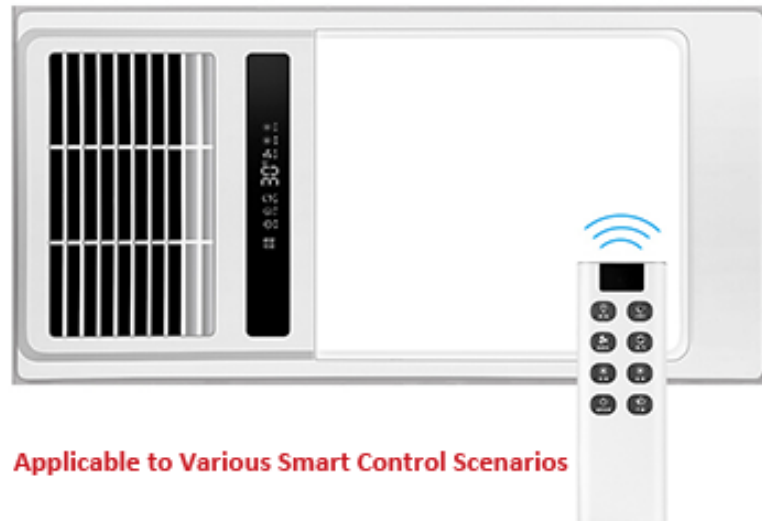
Advantages: avoid same frequency interference, multi-channel data in/out at the same time

Technical Parameters

Photo			
Model No.	DL-BK24K6-52TX	DL-BK24K6-TX	DL-BK24K6-RX
Module Type	RF Transmitter	RF Transmitter	RF Receiver
Frequency	2.4G-2.5Ghz	2.4G-2.5Ghz	2.4G-2.5Ghz
Working Current	20mA (instantaneous current)	90mA (instantaneous current)	23mA (defaulted) Customizable
TX Power / RX sensitivity	5dbm	12dBm	-96dBm
Max. Rate	2Mbps	2Mbps	Latched/Unlatched ; B8 setting
ID No.	individual	individual	Max. 20 transmit IDs can be stored
Distance	70M	120M	120M
Voltage	2.0~3.6V	2.8~3.6V	2.8~3.6V
Stand-by Current	5-10uA	10~12uA	/
Modulation	GFSK	GFSK	GFSK
Input / Output	6-channel switching value	6-channel switching value	6-channel switching value
Antenna	PCB Antenna	PCB Antenna	PCB Antenna



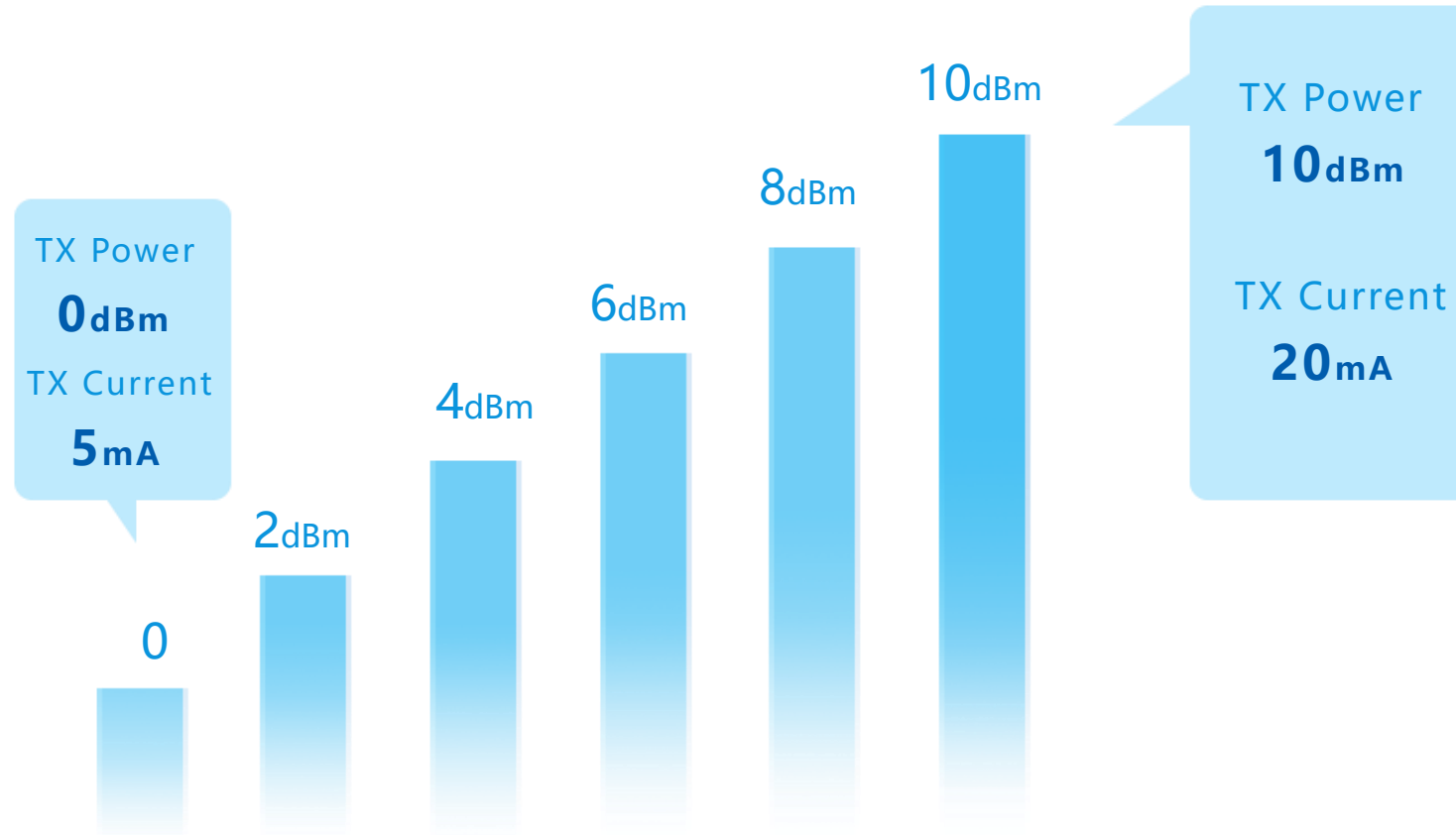
2.4G UART Module Application in the Wireless Remote Control System of Bath Heater



- URAT **transparent transmission**, communication protocol is provided ;
- Integrated transceiver, **half duplex communication**, multi-channel, strong anti-interference ability;
- Communication distance **120 meters**;
- Working frequency can be set, multiple modules frequency division multiplexing, non-interference;
- Communication protocol conversion and transmitter / receiver function **automatically switching**, no intervene needed, easy to use;
- The serial port communication rate is **0.6 KBPS -38.4 KBPS**, which can be configured by AT command.

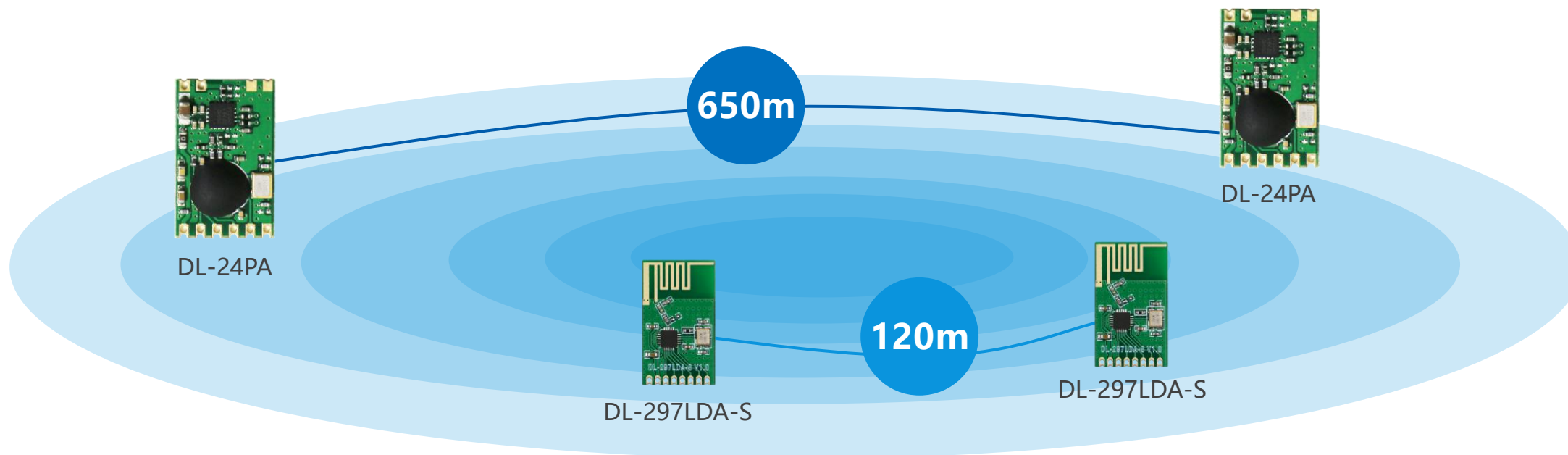
Multi-stage Adjustment of Transmission Power

The transmission power can be adjusted by software, up to 10dBm according to the demand



Up to 120m in an Open Air, while 650m with PA

The communication distance varies with the environment



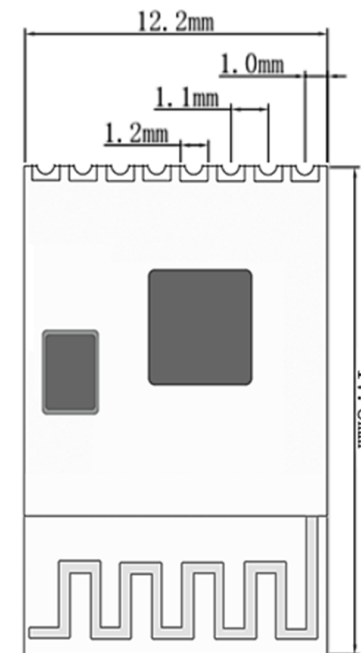
All the RF Modules are Small Size



Button Cell



DL-24D8A-C
Only 17.8x12.2mm





DL-24D8A-C



DL-24PA-C

2.4G Module with RF Chip

Can be SMT directly in mass production,
since it is Chip Scale Packaging



DL-24TRGC



DL-24PA

2.4G Module with Binding Wafer

Manual welding is required, due to different
thermal expansion coefficient

Can be Widely Used in Many **Applications**

It can be widely used in Smart Home, Smart Agriculture, Smart Vehicle, Environmental Monitoring, Automatic Meter Reading, Security System, Remote Irrigation System, Smart building and other IoT fields



Sweeping Robot



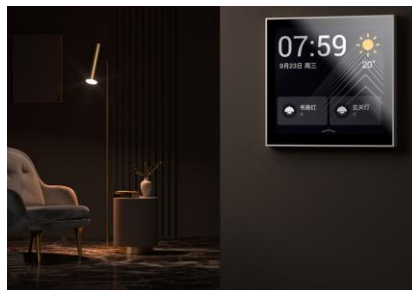
Smart Window Cleaner



Industrial Remote Control



Vehicle Remote Control



Intelligent Switch Panel



Toy Control

Our RF Modules, Remote Controls and RF Antennas are widely used in Wireless Data Acquisition, Consumer Electronics, Wireless Remote Control System; Wireless Alarm & Security Control System; Home Automation, Building and Residential (Smart Home) Control, Access control, Remote Sensing and Telemetry, Security Alarm Devices, Industrial Control, Motor Switching Control, Lighting Control, Meter Reading, and other remote control fields that supports RF technology.

The continuous development of the IoT industry brings not only new technologies, new products, but also new opportunity. The increased product morphology, makes higher requirements of these RF products, IoT sensors, as well as remote control products. We believe they will have broad market prospects in the future! Welcome to inquire at any time!





Thank You!

DreamLNK[®]

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