

# Yoyang Inc.

make easy of wireless solution

## TRT-610U 2 way Transceiver Modules (in pair)

For Remote Controller Application

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### UHF band Transmitter and Receiver on a board

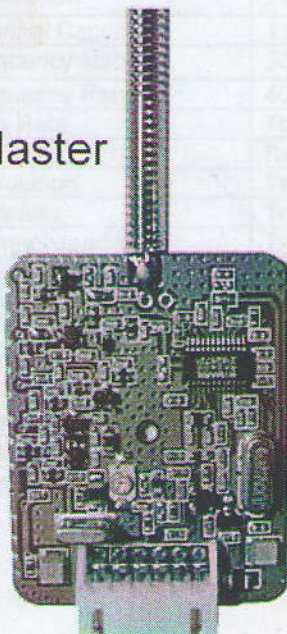
The TRT-610U UHF band data transceiver is an ideal design pair module used for Car Alarm, Security System, and Remote controller, etc..

#### Main Function

- Long distance up to 2KM
- Built-in helix antenna
- High power output
- High sensitivity
- Data rate, 300bps to 4Kbps
- Low power consumption
- Wide operation temperature
- Small Size



#### Master



PCB size 36 X 45 X 8mm

#### Portable



PCB size 17 X 48 X 9mm



### Specification of Master

Description	Part No: TRT-610U [A] Master unit
Channel Capacity	1 Channel for Transmitter and 1 Channel for Receiver
Frequency stability	10ppm for Transmitter, 30ppM for Receiver at 25°C
Frequency Range	400-490MHz Typ. TX433.920MHz/RX434.120MHz
Data Rate	Transmitter 300bps to 2400bps. Receiver 300bps to 4Kbps.
Modulation	Transmitter by narrow band FSK. Receiver wide band ASK.
Deviation	Transmitter $\pm 4.5K$ NRZ, Receiver ASK.
Channel spacing	Transmitter 12.5KHz, Receiver 200KHz.
Working Voltage	5V $\pm 10\%$
RF power output	15dBm (31.6mW).
Receiver sensitivity	-108dBm.
Power consumption	Standby 150uA/RX on 5mA/TX on-air 75mA.
Working temperature range	-20°C-+70°C
Module Size	36mm X 45mm X 8mm. antenna 32mm.
Weight	12g.

### Specification of Portable

Description	Part No: TRT-610U [B] Portable unit
Channel Capacity	1 Channel for Transmitter and 1 Channel for Receiver
Frequency stability	30ppm at 25°C for Transmitter, 10ppM for Receiver
Frequency Range	400-490MHz Typ. TX434.120/RX433.920MHz
Data Rate	Transmitter 300bps to 4Kbps. Receiver 300bps to 2400bps.
Modulation	Transmitter by ASK. Receiver by FSK.
Deviation	Transmitter ASK/Receiver $\pm 4.5KHz$ NRZ.
Channel spacing	Transmitter 200KHz, Receiver 12.5KHz.
RF power output	10dBm (10mW).
Receiver sensitivity	-120dBm.
Working Voltage	3V $\pm 10\%$
Power consumption	Standby 110uA/RX on 2mA/TX on-air 30mA.
Working temperature range	-20°C-+70°C.
Battery saving wakeup	<5mSec.
Module Size	17mm X 48mm X 9mm. antenna 18mm.
Weight	10g.



### Pin Description of Master

Pin Number	Name	Description
1	VCC	Power Supply DC V+ 5V
2	TX Data	Transmitter Data Input
3	GND	System Ground
4	RX Data	Received Data output
5	PTT	TX Enable (low to TX ON)
6	NC	Not to Use

Connector size: 2.54mm 6 pin single row header

### Pin Description of Portable

Pin Number	Name	Description
1	GND	System Ground
2	TXEN	Transmitter Enable (high to TX ON)
3	TX Data Input	Transmitter Data Input
4	GND	System Ground
5	VCC	Power Supply (battery) V+ 3V
6	GND	System Ground
7	RX Data	Receiver Data output
8	ALM	Battery low alarm(VCC<1.1V high)
9	BS	Battery saving (high for RX ON)

Connector size: J1 (pin #5-#9) 1.27mm 5 pin single row header and  
J2 (pin #1-#4) 1.27mm 4 pin single row header

### PCB Size and Pin Assignment

