

KTX433 Wireless Transceivers

User Guide

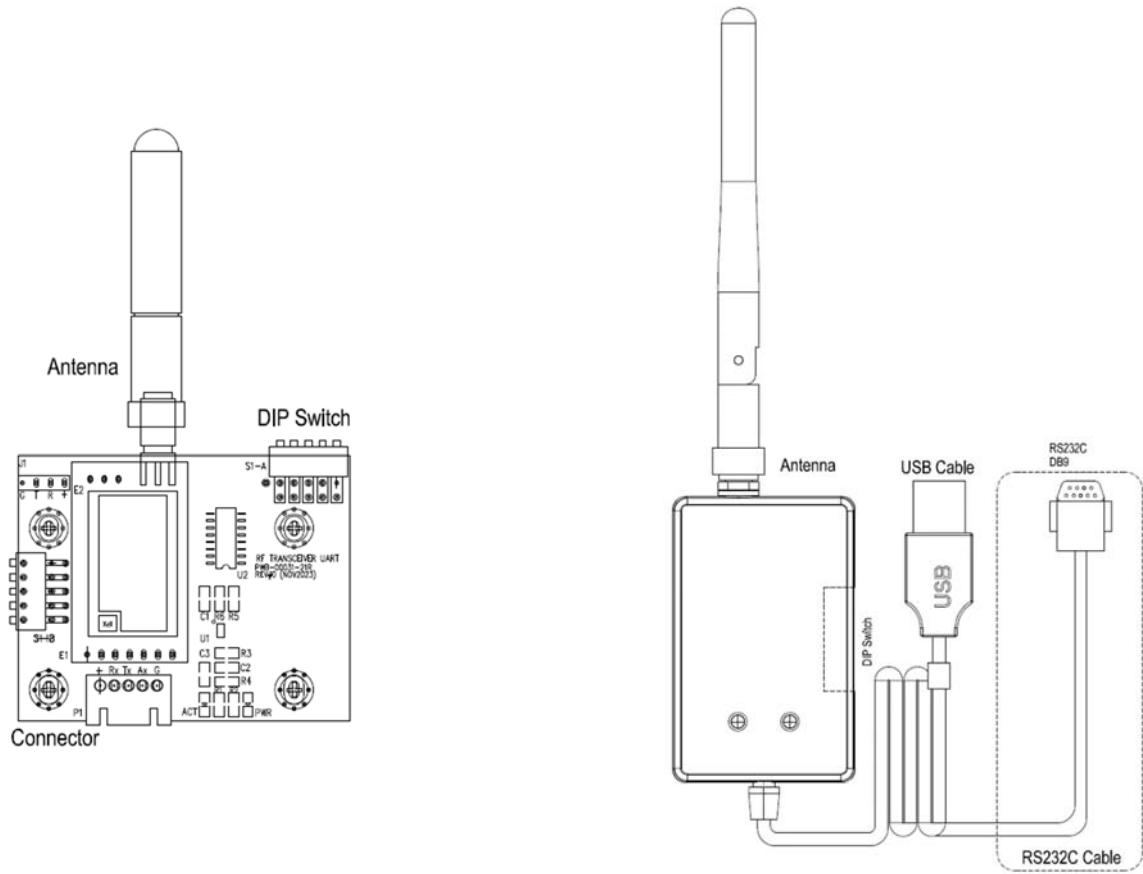


Figure 1. Wireless transceivers

Features:

1. Providing USB, RS232C and UART interface, highly integrated wireless transceiver can be connected with equipment directly for establish wireless communication linkage.
2. Low RF power transmission: Maximum transmit RF Power 100mW.
3. GFSK modulation mode.
4. Crystal frequency stabilization.
5. High-efficiency forward error correction channel encoding technology is used.

Main Applications:

1. AMR – Automatic Meter Reading
2. Wireless alarm and security system
3. Wireless POS and PDA
4. Long-distance non-contact RF smart card, RFID tags
5. Wireless Field Bus, Wireless conference voting system
6. Remote control of industrial equipment
7. Industrial telemetry

Technical Specifications:

RF Channels (MHz)	432.125,433.125,434.125,435.125, 436.500,437.125,438.125,439.125
Modulation Mode	GFSK
Baud Rate	9600bps
Interface Data Format	USB RS232C: 8E1/8N1 data format UART : 8E1/8N1 data format
Power Supply	DC 3.6V---5V
Overall Dimensions	USB/RS232C: 60 X 42 X 21 mm UART: 54 X 47 X 10 mm

Physical Dimension:

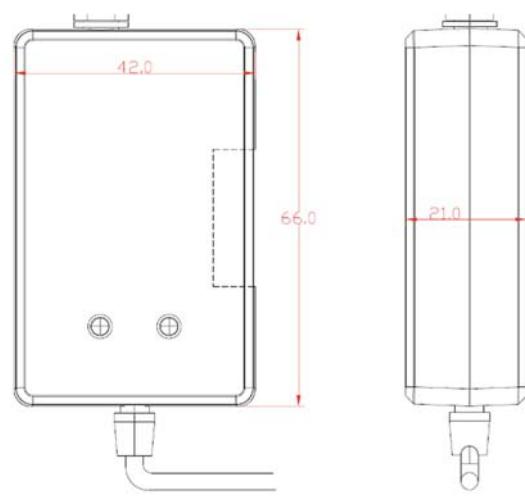
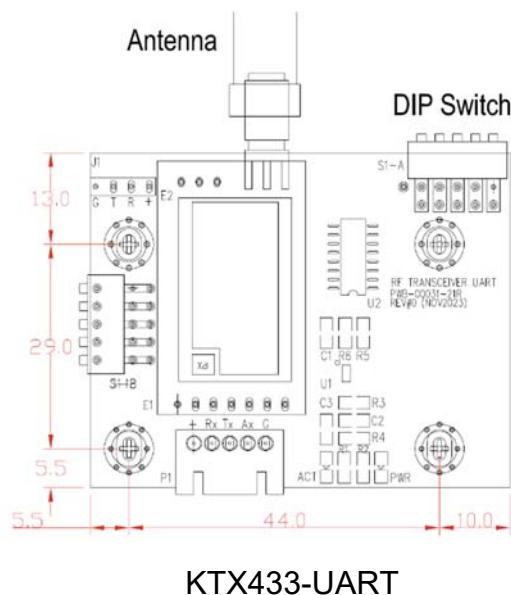
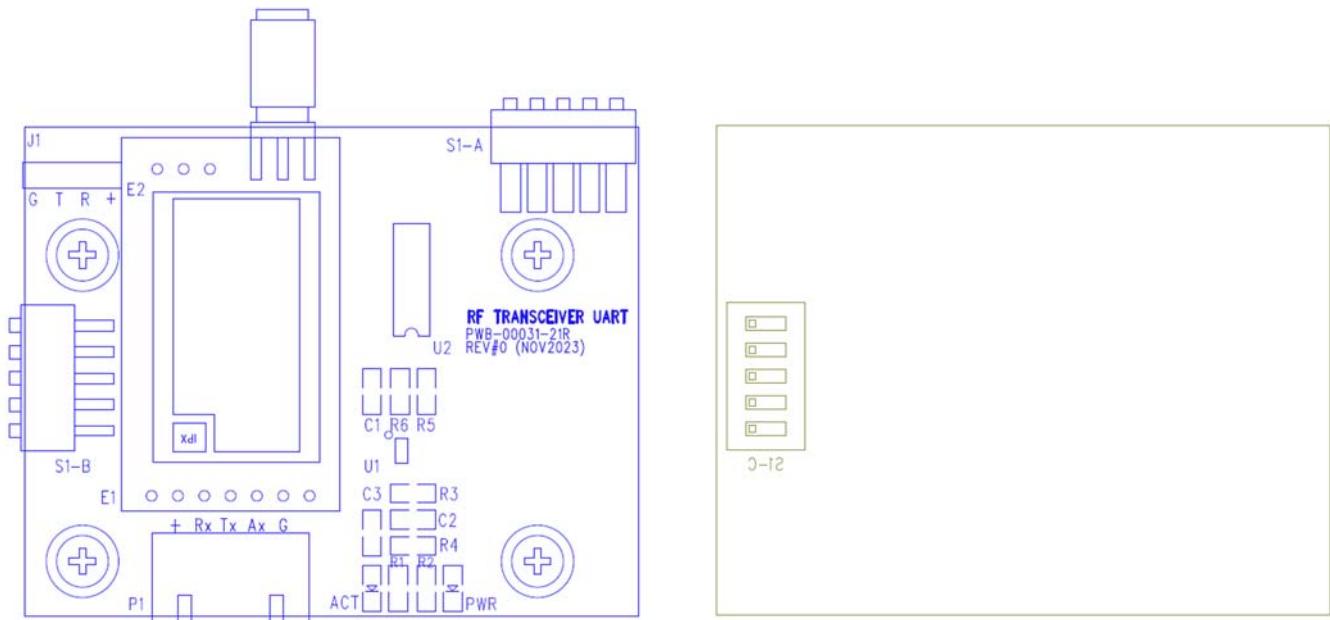


Figure 2. Interface and Size

Interface Description:

KTX433 wireless transceiver can be connected directly to the device through the interface port, as show in Figure 3 and Figure 4.

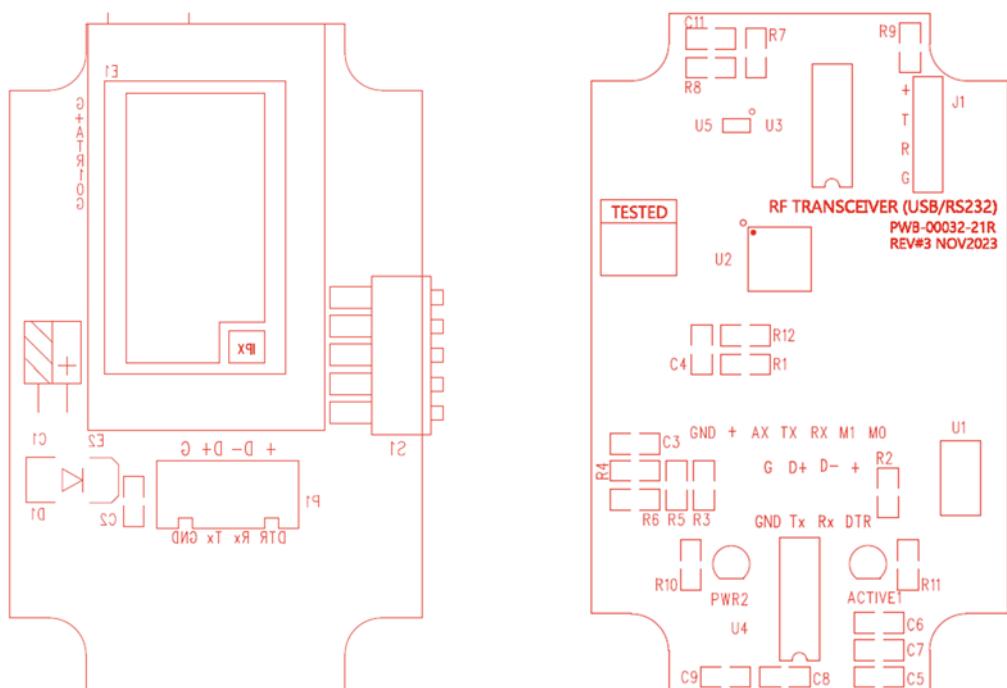
KTX433-UART can be directly connected to equipment's UART port



UART Interface Connector: P1	1	2	3	4	5
UART Signal	VCC	RXD	TXD	AUX	GND

Figure 3

KTX433-USB can be directly connected to equipment's USB port



USB/RS232C Interface Connector: P1	1	2	3	4
USB Interface Signal	Vbus	D-	D+	GND
RS232C Interface Signal	VCC	RX	TX	GND

Figure 4

Options:

Referring to Figure 3, KTX433 transceivers have the options listed in Table 1 and Table 2 below:

Options for KTX433-UART	Remark
With Power and Active Indicator	Populate components R1, R2, PWR, ACTIVE
Channel setting DIP switch –Top access	Populate DIP switch on S1-A
Channel setting DIP switch –Side access	Populate DIP switch on S1-B
Channel setting DIP switch –Rear access	Populate DIP switch on S1-C
DIP package RF module	Install DIP package RF module on E1
SMT package RF module	Install SMT package RF module on E2

Table 1

Options for KTX433-USB	Remark
With Power and Active Indicator	Populate R1, R2, PWR, ACTIVE
DIP package RF module	Install DIP package RF module on E2
SMT package RF module	Install SMT package RF module on E1

Table 2

Frequency Channel Setting

There is a channel setting switch as shown in table below. Defined as A1, A2, A3, A4 and A5 respectively, where A1~A3 is used for frequency selection and A4~A5 is used for RF transmission Power selection.

Switch Channel	A1	A2	A3	Frequency	A4	A5	
1	0	0	0	432.125Mhz	0	0	
2	1	0	0	433.125Mhz	1	0	
3	0	1	0	434.125Mhz	0	1	
4	1	1	0	435.125Mhz	1	1	
5	0	0	1	436.125Mhz			
6	1	0	1	437.125Mhz			
7	0	1	1	438.125Mhz			
8	1	1	1	439.125Mhz			

Communication Application:

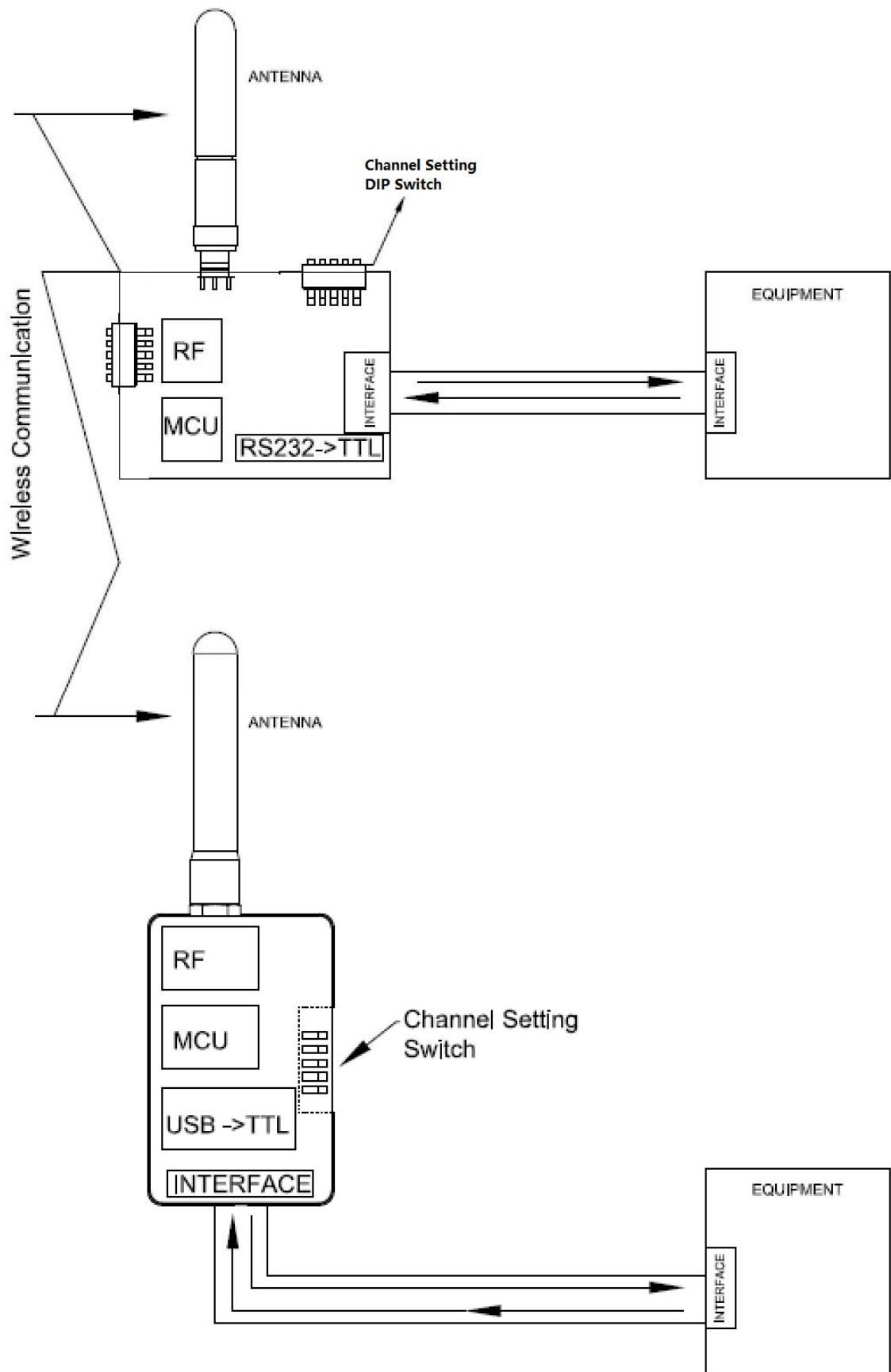


Figure 4. KTX433 Wireless Communication Application Diagram

FCC Notices

1. The manufacturer is not responsible for any radio or TV Interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.
2. This device complies with Part 15 of the FCC Rules. (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.