

Vitalwell Electronics (Zhuhai) Pte. Ltd.

# VW320BT-485 & VW320TSBR

## Wireless Bus Notification System

### User manual

Rev 1.0



## Vitalwell Wireless Bus Notification System

### Applications

- Wirelessly detecting bus arriving event, operating in the 446.28MHz ISM/SRD bands
- Sound & light alarms on receiver on event detection
- Allow Tx & Rx device pairing on the field
- Easy installation

### Product Description

The wireless bus notification system is designed for bus arriving notice applications. It can give a light (LED blink) & sound (buzzer beeps) alarm on the receiver when the bus is arriving. It can be used to ease the waiting of bus applications, etc.

The system includes 2 types of device: Transmitter- VW320BT-485 and Receiver- VW320TSBR.

Typically the transmitter will be fixed on a bus and be powered by the vehicle power;

And the receiver can be put inside a room, and be powered by a normal DC adapter, like a mobile phone charger.

### Typical Application Diagram:

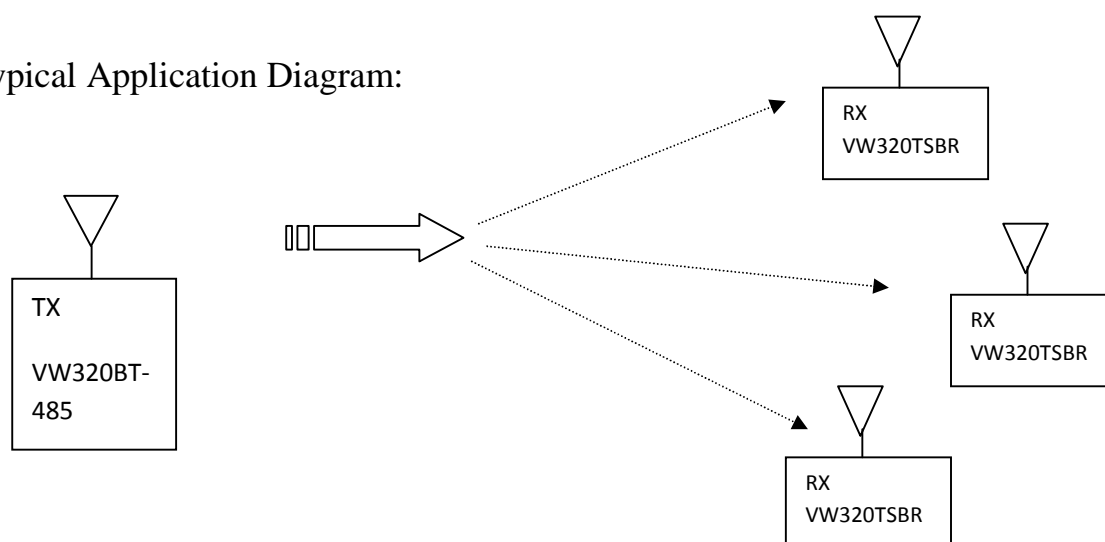


Figure 1: Typical Application diagram



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## 1 Operating Conditions

The operating conditions for the device are list below:

VW320BT-485:

Operating Temperature:  $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$

Operating supply voltage: DC  $+7.5\text{V} \sim +24\text{V}$

VW320TSBR:

Operating Temperature:  $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Operating supply voltage: DC  $+4.5\text{V} \sim +5.5\text{V}$

## 2 Signals assignments:

Transmitter VW320BT-485 :

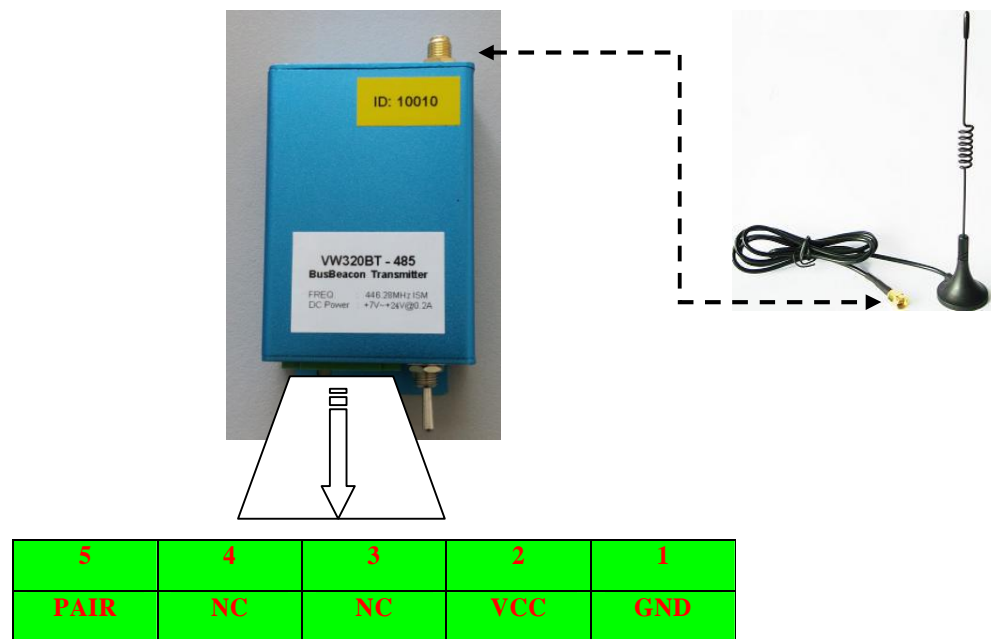


Figure 2: Pin configuration



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### 3 Installation

#### A) Transmitter VW320BT-485:

- 1) fixed the antenna to the SMA connector
- 2) for standard operation, connect a DC power +7.5V ~+24V to pin 2 & 1
- 3) if need advanced operation, like the pairing operation, please connect a switch between the Pair signal(pin5) and the GND (pin1)
- 4) switch on the power

Now the LED on the transmitter will blink about every 4s. that indicates a ready good working status.

#### B) Receiver: VW320TSBR



Insert the receiver to a DC +5V powers supply which with USB-A female socket.

A standard mobile phone charger or the USB port on a PC all can service this job.

When being inserted to the USB port, a short beep sound will be heard, as well as the green LED light will be ON. All these give the good ready status of the receiver.

If the paired receiver and the transmitter within the signals coverage range, the receiver will give beep sound alert, as well as LED blinks.



## 4 Pairing operation

- 1) Connect the pair switch to the transmitter
- 2) Press 1x the pair switch, you should notice the transmitter's LED now is blinking;
- 3) During the blinking , bring the target pairing receiver close to the transmitter, and re-apply power to the receiver, the receiver will receive the pairing message from the transmitter automatically.
- 4) After a few seconds, the paired receiver should be able to give a arriving event alert as normal, that means it already paired with this transmitter.

FCC statements:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and.(2) this device must accept any interference received, including interference that may cause undesired operation.



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