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 paring 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 easy 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:

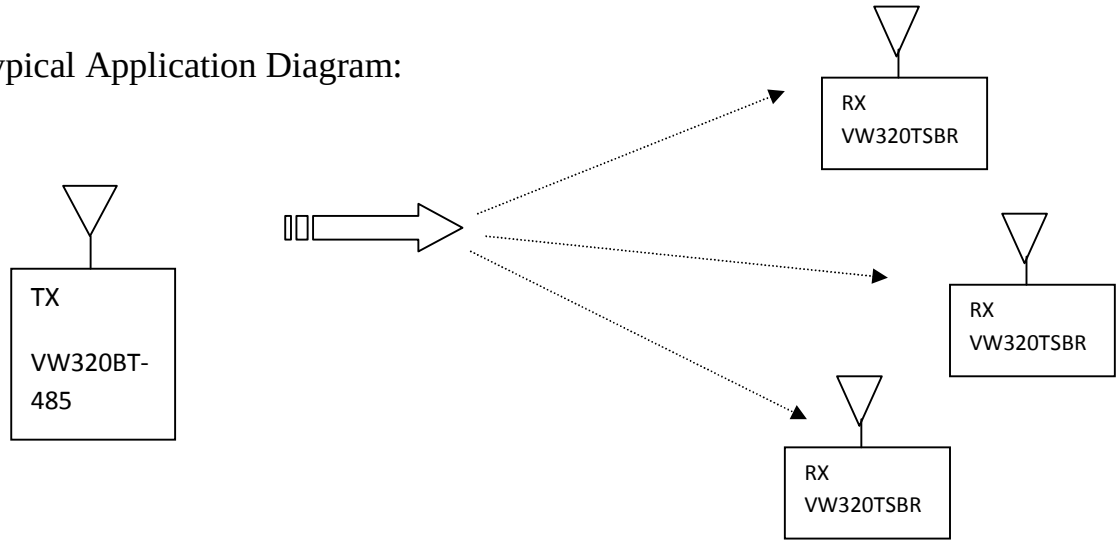

Figure 1: Typical Application diagram

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1 Operating Conditions

The operating conditions for the device are list below:

VW320BT-485:

Operating Temperature: -30 °C ~ +80 °C

Operating supply voltage: DC +7.5V ~ +24V

VW320TSBR:

Operating Temperature: -30 °C ~ +70 °C

Operating supply voltage: DC +4.5V ~ +5.5V

2 Signals assignments:

Transmitter VW320BT-485 :

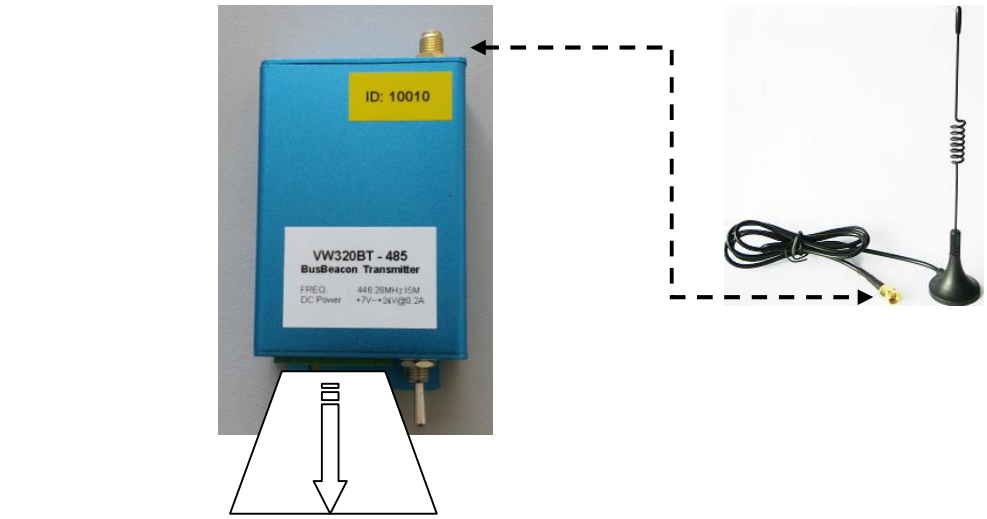

Figure 2: Pin configuration

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 paring 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.

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.