BCE-GENTrx0-001 User Guide

■ Abstract

Bestcomm RF's BCE-GENTrxN-00z development board is divided into three types (without MCU and with HT8, HT32) for users to evaluate and develop wireless products.
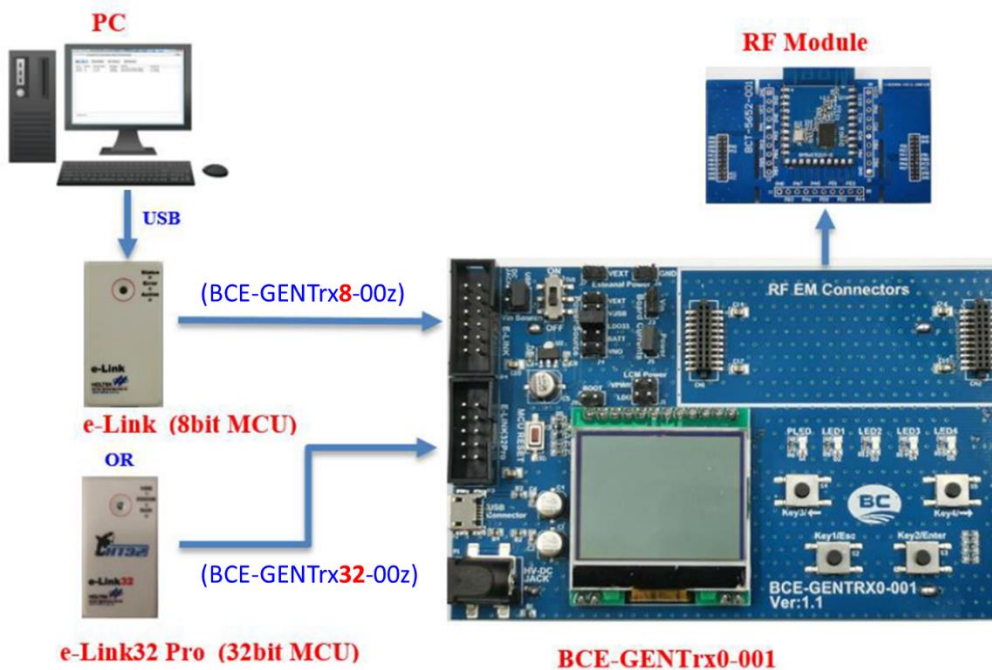
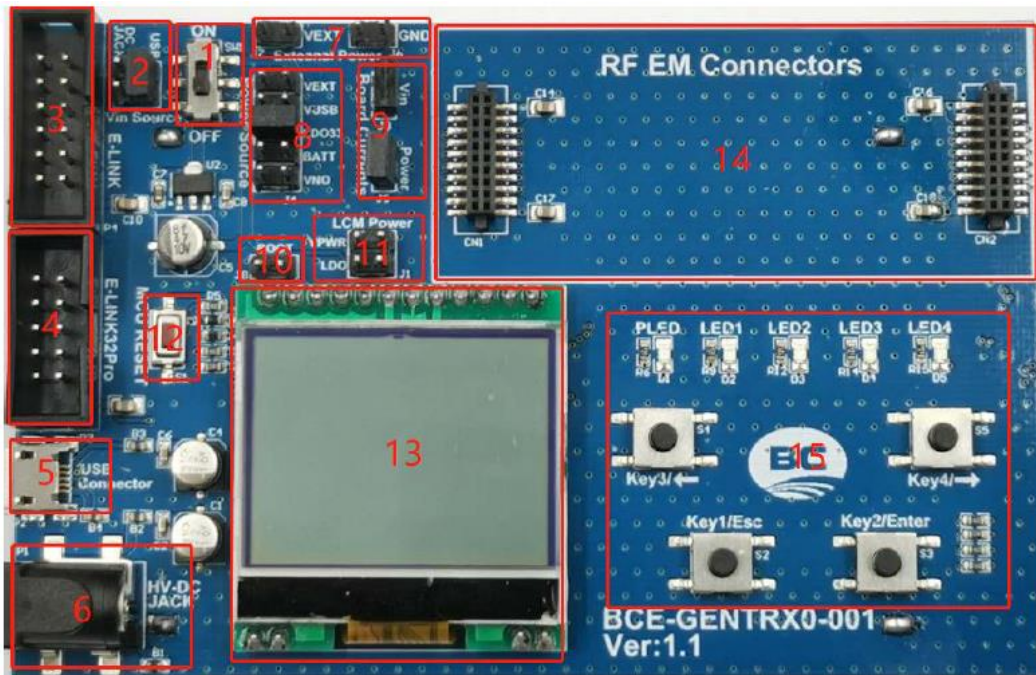| PN	Description
BCE-GENTrx0-00z	Without MCU
BCE-GENTrx8-00z	With HT8 MCU (8-bit)
BCE-GENTrx32-00z	With HT32 MCU (32-bit)

Note:
(1) Z : Version
(2) N: Type

■ System diagram

Users can use e-Link (8-bit MCU) or e-Link32Pro (32-bit MCU) development tools for programming and development according to different types of RF modules.

■ **Hardware diagram**

The BCE-GENTrxN-00z development board is divided into 15 parts:

(1) Power switch(ON/OFF):

This is the system power switch

(2) LDO input power supply selection (Jump):

LDO can choose USB interface or DC-Jack as input power supply

(3) HT8 MCU emulation/programming interface:

This interface can be used with e-Link emulation and programming and can also be connected to E-Writer programming.
Note: This interface is invalid when using 32-bit MCU

(4) HT32 MCU JTAG interface(emulation/programming):

This interface is for e-Link32Pro emulation and programming.
Note: This interface is invalid when using 8-bit MCU

(5) USB Interface:

The Micro-USB interface can be used as the input source of the LDO and can also be used to directly supply power to the development board and also supports USB communication.

(6) DC-Jack:

This interface can input power supply the LDO. If the DC-JACK external power supply is selected as the input voltage source of the LDO, the LDO source selection (Jump) needs to select DC-JACK.

The DC-JACK can be connected to an adapter with an output voltage of 5V/9V/12V.

(7) External power input port:

This port can be used as the system power supply directly. If choose an external power supply as the system power source, need to select VEXT in the system power selection (Jump).

(8) System power selection (Jump):

The system power source selection (Jump) can choose VEXT (external power port), VUSB (USB interface), LDO33 (LDO output), BATT (AAx2 series battery) four kinds.

(9) RF module power supply port(Jump):

When the RF module needs power supply, this port needs to be shorted and this port can also be used as the measurement point of the operating current loop.

(10) HT32 MCU Boot loader Mode Port(Jump):

When the HT32 needs to boot with the bootloader mode this port needs to be shorted.

(11) LCM input power supply selection (Jump):

LCM power can be selected from system power or LDO.

(12) System reset button:

This button is used for MCU reset.

(13) LCM Module:

This LCM model is SN74LVC8T245 (128x64 display).
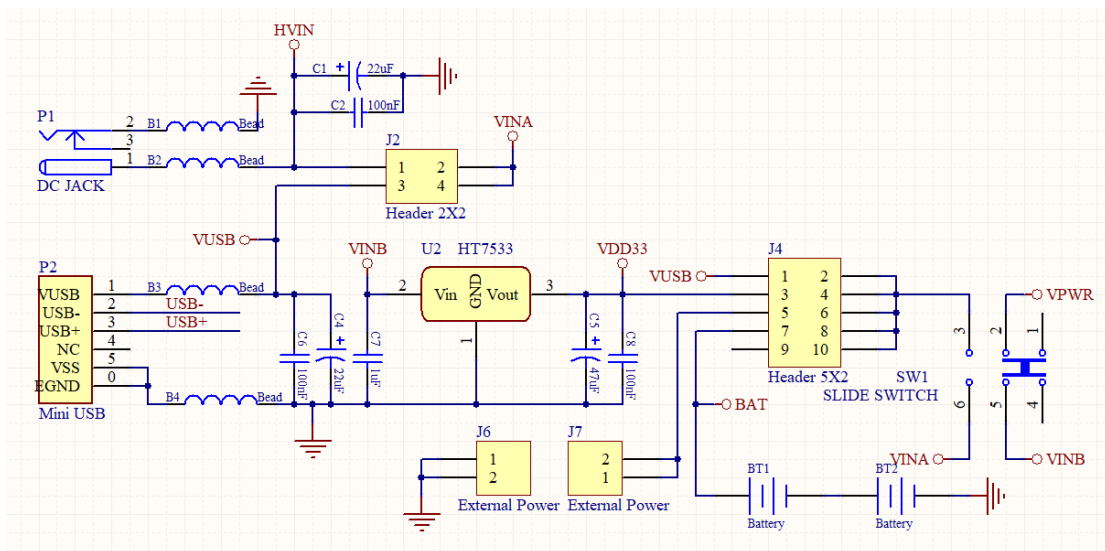
(14) RF module interface:

Supports BM36C521x/BM36C621x/BM56C5210/BM56C6210 RF modules.
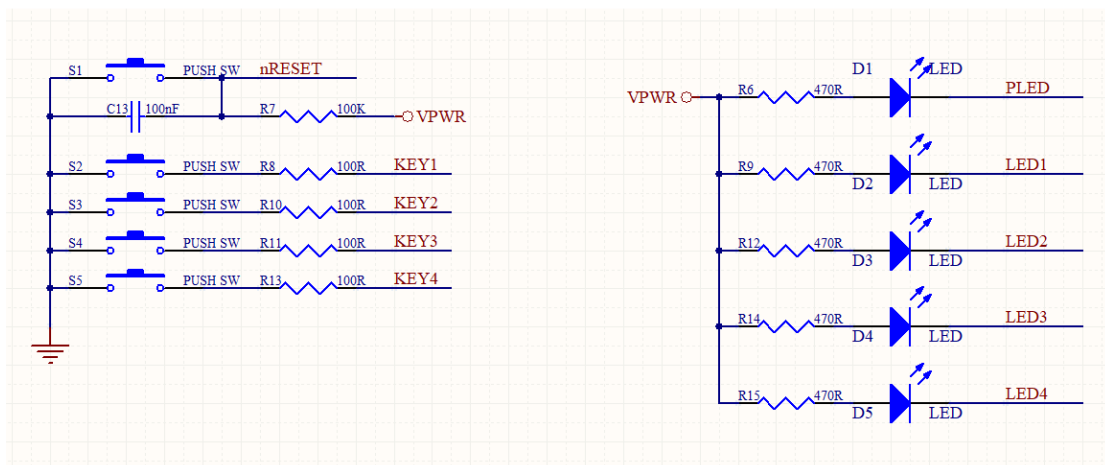
(15) LEDs x 4 Buttons x4:

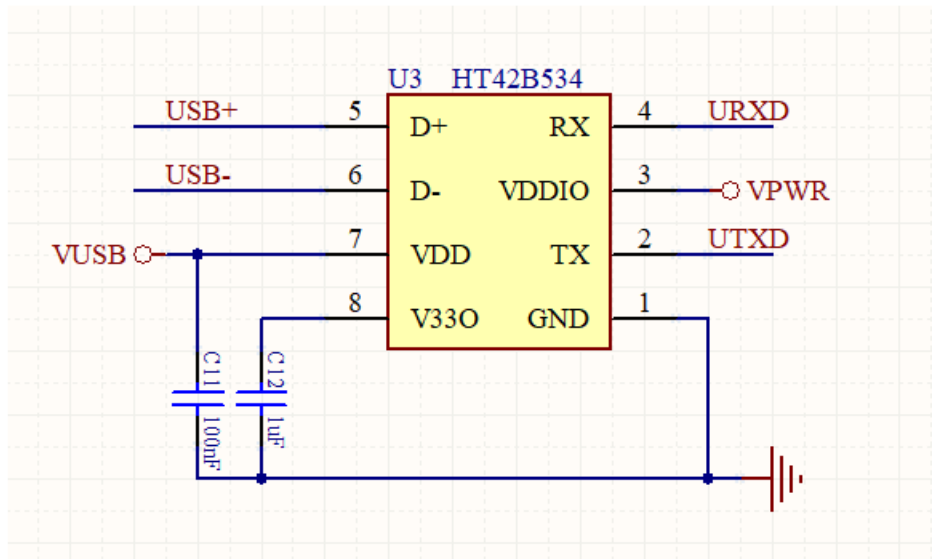Used as GPIO output(indication) and input function.
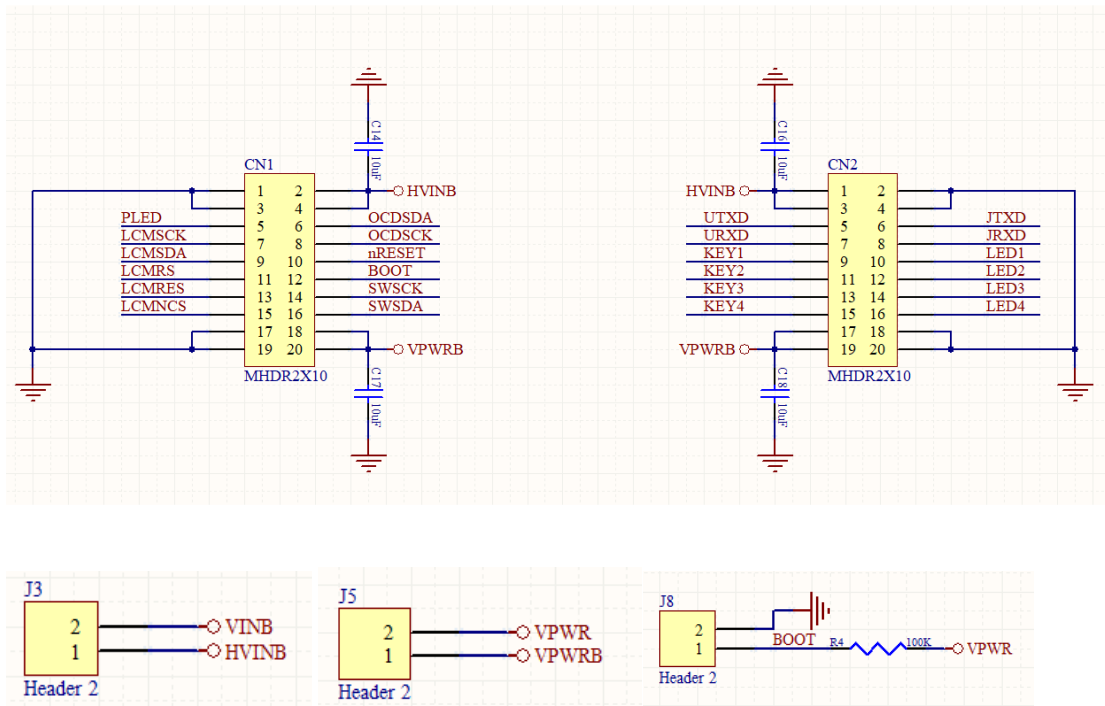
■ Schematic diagram

(1) Power circuit:

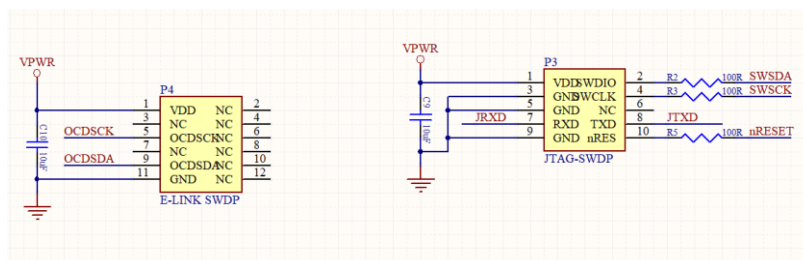### (2) LED & Button circuit:

(3) USB Interface circuit:

(4) RF Module interface circuit:

(5) e-Link & e-Link32 Pro interface circuit:

(6) LCM interface circuit: