

Power-G Modem Transceiver Module Operational Description

The Power-G Modem Transceiver is OEM card designed to be integrated into a 3rd party control panel.

The Power-G Modem Transceiver is connected to the 3rd Host using system connected with the following line

1. 3.3V VCC
2. UART RX
3. UART TX
4. GND
5. RST
6. Boot0/System_INT_N
7. USB_N
8. USB_M

The Digital Part

Powered by 3.3V

Used Cortex STM32F103 CPU and operated with 12MHz crystal

UART RX & TX is used for communication between the chipcon and Cortex.

The Radio Part

The RF part is powered by regulated 3V.

The transceiver is based on a chipcon (Texas Instrument) CC1110 IC integrating in a signal component the Transmitter, Receiver and Microcontroller functionality.

In addition to the RF IC the design contain also

- RF Switches for TX,RX port separation
- LNA based on single RF transistor
- SAW band pass filter
- PA based on a single or double stage discrete RF amplifier
- RF Specification
 - Operation band ;902MHz-928MHz
 - Number of operations channels: 50
 - Modulation type: GFSK 0.5BT
 - Baud rate :50kbps
 - Deviation :25KHz
 - RX Bandwidth: 135KHz