Model: E32-TTL-100  
E32-TTL-100 is a wireless transceiver module based on SX1278 from SEMTECH(can be transmitter and receiver both).  
It adopts LoRa spread spectrum technology, with this technology the transmitting distance and penetration ability of the module improved more than 1 times compared with traditional FSK.  
The module features FEC (forward error correction) algorithm, which ensure it's good anti-interference ability.  
E32-TTL-100 can be compatible with other E32 modules.  
  
**Specifications:**  
  
1. Interface: UART  
2. Power: 20dBm  
3. Distance: 3000m  
4. RF connector: SMA-K  
5. Frequency: 433MHz (410-441MHz)  
6. Dimension: 24x43mm  
7. Slot: SMA  
  
**Electrical parameter:**  
  
1. Frequency band: 410 - 441MHz, default: 433.0MHz, channel:32, 1MHz stepped frequency,Recommending frequency: 433±5MHz,  
2. Connector: 1\*7\*2.54mm,plug-in  
3. Supply voltage: 2.3 - 5.5V DC (Note: the voltage higher than 5.5V is forbidden.)  
4. Communication level: UART, USART  
5. Operation range: About 3000m(test condition:clear and open area& maximum power,antenna gain: 5dBi,height:> 2m,air date rate: 2.4Kbps)  
6. Transmitting power: Maximum 20dBm(100mW)| four optional level(0-3),step by 3dBm  
7. Air data rate: Default 2.4kbps, can be configured to 0.3,1.2,2.4,4.8,9.6,19.2Kbps  
8. Standby current: 2.0uA(mode 3,M1=1,M0=1)  
9. Transmitting current: 110mA at 20dBm  
10. Receiving current: 14.5mA(mode 0 or mode 1) | minimum 30uA(mode 2 + 2s wake-up time)  
11. Communication interface: UART, 8N1,8E1,8O1, eight kinds of UART baud Rate, from 1200 to 115200 bps  
12. Driving mode: UART can be configured to push-pull/high pull, open-drain  
13. Transmitting length: 512 bytes buffer,58 bytes per package  
14. Receiving length: 512 bytes buffer,58 bytes per package  
15. Address: 65536 configurable addresses(easy for network, broadcast and fixed transmission)  
16. RSSI support: Built-in intelligent processing  
17. Sensitivity: -130dbm at 0.3Kbps ( sensitivity has nothing to do with serial baud rate and timing)  
18. Antenna type: SMA-K (External thread hole, 50 ohm impedance)  
19. Operating temperature: -40 to +85℃  
20. Operating temperature: 10% to 90%  
21. Storage temperature: -40 to +125