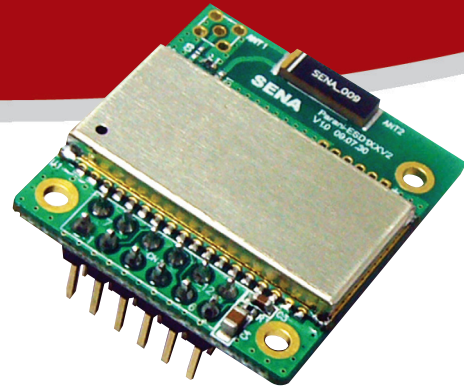


# OEM Bluetooth-Serial Module, Parani™ ESD100



## Features

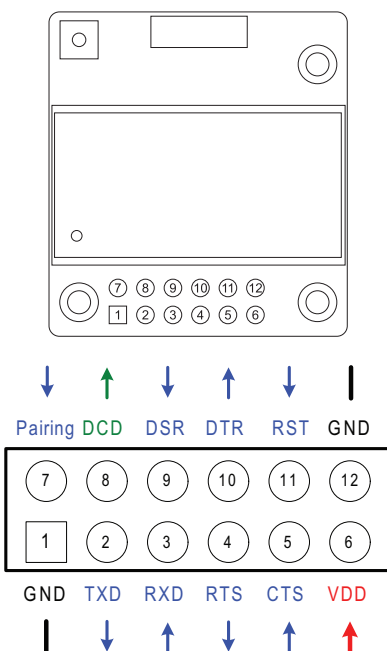
- Output Interface UART, Bluetooth Specification v2.0+EDR
- Transmit Power - Max. 18dBm
- Receiving Sensitivity: -90dBm(0.1%BER)
- Compact size - 27.5 x 30.0 x 14.0 (mm)  
1.08 x 1.18 x 0.55 (in)
- Provides transparent RS232 serial cable replacement.
- Supports up to 4 multiple simultaneous connections.
- Profile: Bluetooth Serial Port Profile.
- Interoperability with PDA, laptops etc.
- on-board chip antenna
- Firmware upgrade via windows-based software (ParaniUpdater)
- Working distance ( In an open field ): Nom. 100 meters
- Easy to use Windows configuration tool available.
- No external drivers required.

The **Parani-ESD100** is a Bluetooth v2.0+EDR Class1 type Embedded Bluetooth serial module for RS232 cable replacement. The Parani-ESD100 is a compact size Bluetooth serial module with built-in chip antenna. It supports 100 meter of wireless transmit distance. The Parani-ESD100 also supports up to 4 multiple simultaneous connections.

Typical application areas of the Parani-ESD100 include:

- RS232 cable replacement
- Wireless Factory monitoring
- Truck/Bus monitoring system
- PLC programming
- Car Diagnostics
- Wireless Printing
- Wireless POS system
- Wireless logistics
- Wireless machine(healthcare/industrial) monitoring

## Pin Assignment



| Pin # | Signal  | Direction | Description                           | Signal Level |
|-------|---------|-----------|---------------------------------------|--------------|
| 1     | GND     | -         | Power Ground                          | Ground       |
| 2     | TxD     | Output    | UART Data Output                      | TTL          |
| 3     | RxD     | Input     | UART Data Input                       | TTL          |
| 4     | RTS     | Output    | UART Ready to Send                    | TTL          |
| 5     | CTS     | Input     | UART Clear to Send                    | TTL          |
| 6     | VDD     | Input     | DC Input (3.0~3.3V)                   | Power        |
| 7     | Pairing | Input     | Pairing Input (Active Low)            | TTL          |
| 8     | DCD     | Output    | Bluetooth Connect Detect (Active Low) | TTL          |
| 9     | DSR     | Input     | Data Set Ready                        | TTL          |
| 10    | DTR     | Output    | Data Terminal Ready                   | TTL          |
| 11    | RST     | Input     | Reset (Active Low)                    | TTL          |
| 12    | GND     | -         | Power Ground                          | Ground       |

## Specifications

### Serial Interface

- UART interface, 2.54mm Pin Header 2X6 (12pin)
- Serial UART speed up to 921.6kbps
- CTS/RTS flow control, DTR/DSR for loop-back & full transfer

### Bluetooth

- Bluetooth v2.0 + EDR Class1
- Level - 18 dBm
- Profile: Serial Port Profile
- Working distance: Nominal 100m

### Max. Tx power

- 18 dBm

### Receive Sensitivity

- -90 dBm

### Configuration

- ParaniWIN, ParaniWizard, Modem AT command set

### Firmware upgrade

- by ParaniUpdater

### Power

- Supply voltage: 3.3V DC
- Supply current:10mA – 60mA

### Environmental

- Operating temperature: -30°C to 80°C
- Storage temperature: -40°C to 85°C
- Humidity: 90% Non-condensing

### Physical properties

- Dimension:  
 27.5 mm L (1.08 in )  
 30.0 mm W (1.18 in )  
 14.0 mm H (0.55 in )
- Weight: 6g

### Regulatory Approvals

- FCC, CE, TELEC, KCC, Bluetooth SIG

### SIG QDID

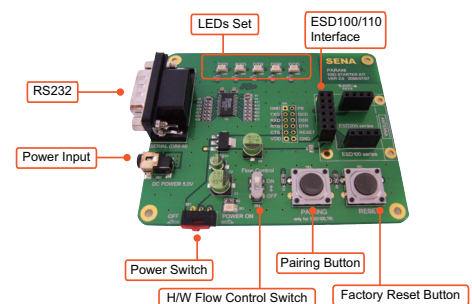
- B015896

### Warranty

- 1-year Limited Warranty

## Parani-ESD100 Starter Kit

Parani-ESD100 Starter Kit includes the development board with the sample circuitry for Parani-ESD100 interface, power, RS232 Interface, Reset, LEDs, Pairing, H/W flow control for user device development.



## Ordering Information

| Part number   | Description/Package Contents  |
|---------------|---|
| ESD100B-DC    | Parani-ESD100 Rev.B OEM Bluetooth-Serial Module-Class 1 Bluetooth v2.0+EDR with built-in chip antenna<br><br><b>Package contents:</b><br>- Parani-ESD100 Rev.B Module (on-board chip antenna)   |
| ESD100B-SK-WW | Starter Kit for Parani-ESD100 Rev.B,<br>ESD100 Rev.B included.<br><br><b>Package contents:</b><br>- Parani-ESD100 Rev.B Module (on-board chip antenna)<br>- Development board<br>- Serial data cable<br>- DC Power Adapter<br>- A hardcopy of Quick Start Guide |