

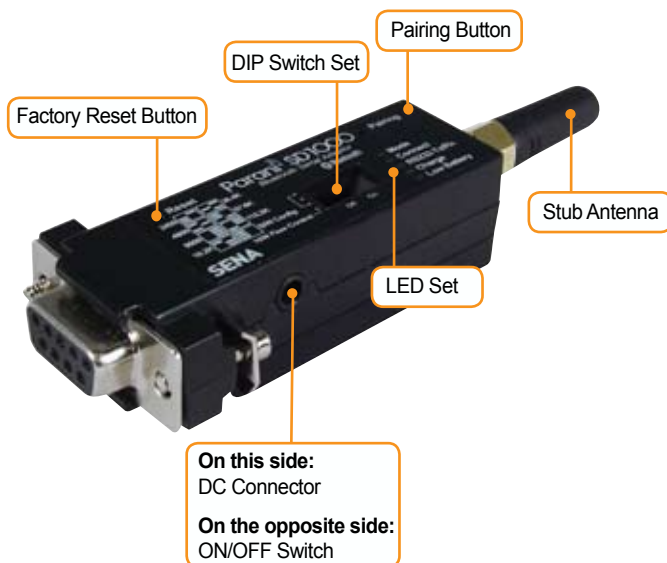
# Bluetooth Serial Adapter, Parani™ SD1000



## Features

- Bluetooth Specification v2.0 + EDR
- Provides transparent RS232 serial cable replacement
- Supports up to 4 multiple simultaneous connections
- Basic Transmit Power: Max. +18dBm, EDR Transmit Power: Max. +6dBm
- Receiving Sensitivity: -88dBm(0.1%BER)
- Supports Bluetooth profiles SPP(Serial Port Profile)
- Interoperability with PDA, laptops etc.
- Supports firmware upgrade via windows-based software (ParaniUpdater)
- Working distance ( In an open field ): Nom. 100 meters, up to 1000m using patch antenna
- Enhanced portability: standard & extended battery pack options
- Easy to use Windows configuration tool available.
- No external drivers required.

## Panel Layout



**The Parani-SD1000** is a Class1 type of Bluetooth Serial Adapter that supports 100 meters of wireless transmit distance by default. The Parani-SD1000 has an extension option so that users can extend the transmit distance up to 1000 meters using optional antennas. It supports Bluetooth v2.0+EDR specification. Parani-SD1000 has two battery-pack options, standard and extended battery pack. By these options, Parani-SD1000's portability is more enhanced. The Parani-SD1000 also supports up to 4 multiple simultaneous connections.

Typical application areas of the Parani-SD1000 include:

- RS232 Cable Replacement
- Truck/Bus Monitoring System
- Car Diagnostics
- Wireless POS System
- Wireless Machine(Healthcare/Industrial) Monitoring
- Wireless Factory Monitoring
- PLC Programming
- Wireless Printing
- Wireless Logistics

## Specifications

### Serial Interface

- Serial speed up to 921.6kbps
- CTS/RTS flow control, DTR/DSR for loop-back & full transfer

### Bluetooth Interface

- Bluetooth v2.0 + EDR
- Class 1
- Profiles - SPP
- Working distance (in open field)
 

|           |   |           |              |
|-----------|---|-----------|--------------|
| SAT-G01R  | - | SAT-G01R  | 100 meters   |
| SAT-G01R  | - | DAT-G01R  | 150 meters   |
| DAT-G01R  | - | DAT-G01R  | 200 meters   |
| DAT-G01R  | - | DAT5-G01R | 300 meters   |
| DAT-G01R  | - | PAT-G01R  | 500 meters   |
| DAT5-G01R | - | DAT5-G01R | 400 meters   |
| DAT5-G01R | - | PAT-G01R  | 600 meters   |
| PAT-G01R  | - | PAT-G01R  | 1,000 meters |

#### [Antennas]

- SAT-G01R: +1dBi Stub Antenna
- DAT-G01R: +3dBi Dipole Antenna
- DAT5-G01R: +5dBi Dipole Antenna
- PAT-G01R: +9dBi Patch Antenna

**Max. Tx power:** +18dBm

**Receive Sensitivity:** -88dBm

### Configuration

- ParaniWin, ParaniUpdater
- Modem AT command set

### Diagnostic LED

- BT Status (mode)
- Connect
- RS232-RX/TX
- Charging/Done (Battery Charging/ Battery Charging completed)
- Low Battery

### Power

- Power input: 5~12VDC
- Power Consumption: Minimum 2mA, Maximum 80mA

### Battery Pack

- Capacity
  - 240 mAh(standard)
  - 900 mAh(extended)
- Charging Power: minimum 5V/200mA
- Charging Time
  - Approximately 2 hours (standard)
  - Approximately 5 hours (extended)
- Battery life (Test based on 9600 bps data loopback. Actual battery life varies by configuration, operating conditions and other factors)
  - Approximately 4.5 hours (standard)
  - Approximately 16.5 hours (extended)

### Environmental

- Operating temperature: -20°C to 70°C
- Storage temperature: -40°C to 85°C
- Humidity: 90% Non-condensing

### Physical properties

- Dimension (L x W x H)
  - 76 x 31 x 16 (mm) (No battery pack)
  - 76 x 31 x 19.5 (mm) (with standard battery pack)
  - 76 x 31 x 31.4 (mm) (with extended battery pack)
- Weight
  - 24g (No battery pack)
  - 30g (with standard battery pack)
  - 42g (with extended battery pack)

### Certification

- FCC(A), CE, MIC, TELEC, SIG, IC

### Warranty

- 3-year limited warranty

## Ordering Information

### Single Pack SD1000-A1 Includes ✳ Stub antenna NOT included

- SD1000: SD1000 Bluetooth-serial adapter

### Single Pack SD1000-00 Includes

- SD1000: SD1000 Bluetooth-serial adapter
- DPA-G01: Parani-DPA DC power cable for SD series
- UPA-G01: Parani-UPA USB Power Cable
- SAT-G01R: 1 dBi Stub Antenna - RP-SMA Plug Right-hand Thread
- FM9GD-G01: DB9 Female to Male Gender Changer
- CD-ROM

### Single Pack SD1000-01 Includes

- Single pack SD1000-00
- OPA-G01: Parani-OPA External Power Adaptor-International - 4 types: EU, America, UK, Australia

### Bulk Pack SD1000-B10 Includes

- SD1000(×10EA): SD1000 Bluetooth-serial adapter
- SAT-G01R(×10EA): 1 dBi Stub Antenna - RP-SMA Plug Right-hand Thread
- DPA-G01(×10EA): Parani-DPA DC power cable for SD series

### Optional Accessories

- SAT-G01R: 1 dBi Stub Antenna - RP-SMA Plug Right-hand Thread
- DPA-G01: Parani-DPA DC power cable for SD series
- UPA-G01: Parani-UPA USB Power Cable
- OPA-G01: Parani-OPA External Power Adaptor-International - 4 types: EU, America, UK, Australia
- BPC-G02: Parani-BPC standard Battery Pack for SD1000
- BPC-G03: Parani-BPC extended Battery Pack for SD1000
- DAT-G01R: 3 dBi Dipole Antenna - RP-SMA Plug Right-hand Thread
- DAT5-G01R: 5 dBi Dipole Antenna - RP-SMA Plug Right-hand Thread
- PAT-G01R: 9dBi Patch Antenna with RP-SMA Plug Right hand Thread Default Cable. (SMA Jack Right hand Thread w/o Default Cable)
- SEC-G01R: 15cm Extension Cable(For SAT-G01R / DAT-G01R / DAT5-G01R)
- RFC-G01R: 1m Extension Cable(For PAT-G01R)
- FM9GD -G01: DB9 Female to Male Gender Changer

**For more information,  
please visit us at <http://www.sena.com>**

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