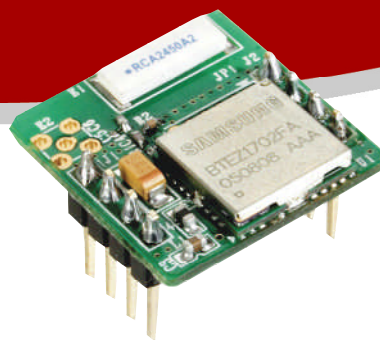
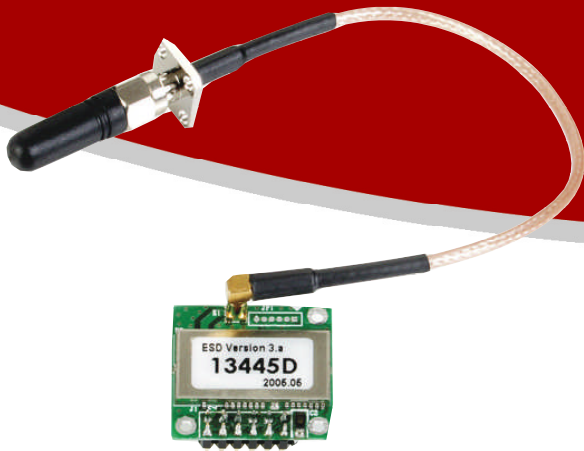


# Embedded Serial-Bluetooth Module, Promi-ESD01/02



## Features

- \* Output Interface UART, Compliant Bluetooth Specification v1.1
- \* Receiving Signal Range -84 to -20dBm
- \* Compact size - Promi-ESD01: 27 x 27 x 14(mm), Promi-ESD02: 18 x 20 x 11.7 (mm)
- \* Provides transparent RS232 serial cable replacement.
- \* Supports Bluetooth Serial Port Profile and Generic Access Profile.
- \* Interoperability with PDA, laptops etc.
- \* Working distance:
  - Promi-ESD01: Class 1, Nom. 100 meters, up to 1000m using patch antenna
  - Promi-ESD02: Class 2, Nom. 30 meters,
- \* Easy to use Windows configuration tool available.
- \* No external drivers required.

## Promi-ESD Series

is an Embedded Serial-Bluetooth Module type product line based on Bluetooth technology. Promi-ESD Series is designed for integration into user devices by on-board installation. They are connected to the device via built-in UART interface and communicate with other Bluetooth device.

Promi-ESD Series enables RS232-based serial devices to communicate wirelessly throughout the range of 30m (Promi-ESD02-Class 2) or 100m ~ 1000m (Promi-ESD01-Class 1).

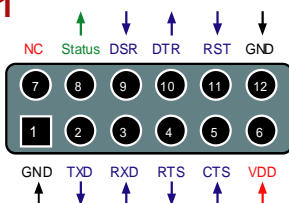
Users may configure the Promi-ESD Series by using easy-to-use Windows-based utility software or by using standard AT command set.

Typical application areas of the Promi-ESD Series 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

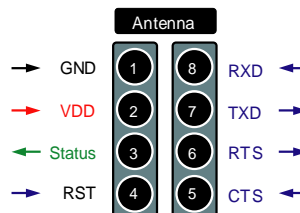
## Pin Assignment Information

### Promi-ESD01



Pin no.	Pin name	Direction	Description	Signal Level
1	GND	I	Power Ground	Ground
2	TXD	O	UART data out	TTL
3	RXD	I	UART data input	TTL
4	RTS	O	UART Ready to Send	TTL
5	CTS	I	UART Clear to Send	TTL
6	VDD	I	DC input (3.0 ~ 3.3V)	Power
7	NC	I	No Connection	-
8	Status	O	Bluetooth Connect Detect (Active Low)	TTL
9	DSR	I	Data Set Ready	TTL
10	DTR	O	Data Terminal Ready	TTL
11	RST	I	Reset (Active Low)	TTL
12	GND	O	Power Ground	Ground

### Promi-ESD02



Pin no.	Pin name	Direction	Description	Signal Level
1	GND	I	Power Ground	Ground
2	VDD	I	DC input (3.0 ~ 3.3V)	Power
3	Status	O	Bluetooth Connect Detect (Active Low)	TTL
4	RST	I	Reset (Active Low)	TTL
5	CTS	I	UART Clear to Send	TTL
6	RTS	O	UART Ready to Send	TTL
7	TXD	O	UART data out	TTL
8	RXD	I	UART data input	TTL

# Embedded Serial-Bluetooth Module, Promi-ESD01/02

## Specifications

### Serial Interface:

- \* Promi-ESD01:
  - UART Interface, 2.54mm Header 2x6, 1200 to 230 Kbps
  - CTS/RTS flow control: Default
  - DTR/DSR for loop-back & full transfer
- \* Promi-ESD02:
  - UART Interface, 2.54mm Header 1x4x2, 1200 to 230 Kbps
  - CTS/RTS flow control: Default
  - DTR/DSR is not available

### Bluetooth Interface:

- \* Promi-ESD01 :
  - Bluetooth v1.1
  - Class I
  - Level - 18 dBm
  - Protocols - RFCOMM, L2CAP, SDP
  - Profiles - General Access Profile, Serial Port Profile
  - Working distance
    - Default Antenna - Default Antenna 100 meters
    - Default Antenna - Dipole Antenna 150 meters
    - Dipole Antenna - Dipole Antenna 200 meters
    - Patch Antenna - Dipole Antenna 400 meters
    - Patch Antenna - Patch Antenna 1,000 meters
- \* Promi-ESD02 :
  - Bluetooth v1.1
  - Class 2
  - Level - 4 dBm
  - Protocols - RFCOMM, L2CAP, SDP
  - Profiles - General Access Profile, Serial Port Profile
  - Working distance
    - Nominal 30 meters

### Configuration:

- \* PromiWin, PromiWizard
- \* Modem AT command set

### Power:

- \* 3V~3.3V, minimum 150mA
- \* nominal power consumption of 26mA@9600bps and 29mA@115Kbps speed

### Environmental:

- \* Operating temperature: 0 c to 50 c
- \* Storage temperature: -20 c to 66 c
- \* Humidity: 90% Non-condensing

### Physical properties:

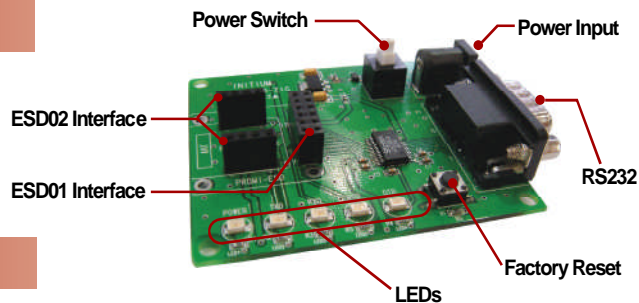
- \* Promi-ESD01
  - 27x27x14(mm)
  - 1.06 x 1.06 x 0.55 (in.)
- \* Promi-ESD02
  - 18x20x11.7(mm)
  - 0.7 x 0.78x 0.47 (in.)

### Warranty:

- \* 1-year limited warranty

## Promi-ESD Starter Kit

Promi-ESD Starter Kit includes the evaluation board with the sample circuitry for Promi-ESD01/02 interface, power, Bluetooth status, reset, LED for user device development.



## Ordering Information

**ESD01** Promi-ESD01 Embedded Serial-Bluetooth Module-Class 1

### Single Pack and 50-Unit Bulk Pack Includes :

- \* SAT : Promi-SAT Stub Antenna-SMA Male-Left Handed
- \* EEC : Promi-EEC 15cm Antenna Extension Cable for ESD01

### Optional Accessories:

- \* DAT : Promi-DAT Dipole Antenna-SMA Male-Left Handed
- \* PAT : Promi-PAT Patch Antenna-SMA R/A Female-Right Handed
- \* RFC : Promi-RFC 1m Antenna Extension Cable for all antennas

**ESD02** Promi-ESD02 Embedded Serial-Bluetooth Module-Class 2 with On-board Antenna.

### Single Pack and 50-Unit Bulk Pack Includes :

- \* Embedded On-board Antenna

**ESD01SK** Promi-ESD Starter Kit for Promi-ESD01

**ESD02SK** Promi-ESD Starter Kit for Promi-ESD02

### Includes :

- \* Jig board
- \* DC Power Adapter
- \* Serial data cable
- \* CD-ROM

**U.S. / Canada / South America**

Tel : +1 (408) 573-7425 Fax: +1 (408) 907-3738

**EU / Africa**

Tel : +33 (0) 1 53 53 16 29 Fax: +33 (0) 1 70 24 70 90

**Asia / Pacific**

Tel : +82-2-571-8283 Fax: +82-2-573-7710

### Contact us via E-mail

General Information : info@sena.com  
Sales & Distribution : sales@sena.com  
Technical Support : support@sena.com

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

**SENA**  
[www.sena.com](http://www.sena.com)