

# ADM Bluetooth

 **Wireless Technology**



## General Description

The ADM Bluetooth Serial Plug offers a replacement of serial cables by means of a wireless link based on the Bluetooth wireless technology. The ADM Bluetooth Serial Plug is a Class 1 Bluetooth device housed in a very small package. The unit gives a nominal range of approximately 100m. No external drivers are needed, a user-friendly Windows application is included that can be used to configure the plug to suit your requirements. The ADM Bluetooth Serial Plug can be used together with other Bluetooth units that support the Serial Port Profile.

## Applications

The ADM Bluetooth Serial Plug can be applied to applications that currently use cables for serial communication. The Ad Hoc connectivity will give you the serial link as soon as the communicating devices are within range of each other.

Examples of applications are:

- Digital Indicators and Controllers
- Embedded systems
- Computers and Printers
- PLC's and Industrial sensors
- Scales, Balances and Remote Displays

## Example



ADM Bluetooth Serial plug fitted to an AD-4406 digital weight indicator transmitting ASCII weight data to a personal computer, programmable logic controller, ticket printer and remote display.



*The maximum transmission distance of the live weighing data is 100 meters.*

## Features:

- Nominal 100 meter range
- No need for external drivers
- Small form factor 47 x 33 x 19mm
- Easy to use Ms Windows interface
- Transparent serial cable replacement
- Configurable for use of different baud rates and serial settings
- External power supplied via D-SUB connector or via DC connector



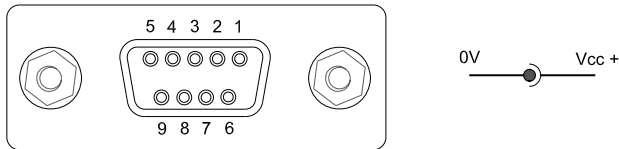
## Specifications

- Physical size: 47 x 33 x 19 mm
- Temperature range: 0 °C to 70 °C
- Baud rates: 2400 up to 115200
- Data Bits: 8
- Stop Bits 1 or 2
- Parity Bit: None, Even or Odd
- Flow Control: CTS/RTS or None
- Sniff, Park and Page Scan
- Power settings -90dBm to +20dBm
- Connecting and Endpoint Settings
- Authentication, Passkey & Paired

**AND**  
A&D Mercury Pty. Ltd.

## Wiring

The ADM Bluetooth Serial Plug utilizes a female nine (9) pin "D" connector. The pin assignment has already been cross wired to suit any standard RS232 9 pin serial output port. Care should always be taken to confirm the mating devices serial wiring configuration.



Pin No:	Signal	Direction
1	CD	Not Connected
2	TxD	Output
3	RxD	Input
4	DSR	Not Connected
5	GND	Signal Ground
6	DTR	Not Connected
7	CTS	Input
8	RTS	Output
9	Vcc Power	Input 4 - 5VDC

## Power supply

The ADM Bluetooth plug needs to be powered by an external voltage of 4.0 - 5.0VDC. Power can be supplied either using a DC-connector or via the "D" Sub connector pin 9 (RI).

The current consumption measured with a 5V power supply returned a peak consumption of 190mA configured as a Bluetooth slave.



## The Main Features of Bluetooth

- Operates in the 2.4GHz frequency band, not requiring for a license for wireless communications
- Real-time data transfer usually possible between 10 to 100m
- Close proximity is not required, as is the case with IrDA communication devices. Bluetooth doesn't suffer from interference from obstacles such as walls
- Supports both point-to-point wireless connections without cables between mobile phones and personal computers, as well as point-to-multipoint connections to enable ad hoc local wireless networks

## When and How was it Conceived ?

Bluetooth was originally conceived by Ericsson in 1994, when they began a study to examine alternatives to cables that linked mobile phone accessories. Ericsson already had a strong capability in short range wireless, having been a key pioneer of the European DECT cordless telecommunications standard, which had been largely based upon their earlier proprietary DCT900 technology. Out of their study was born the specification for Bluetooth wireless.

## Where did the Name Come From ?

Bluetooth was named after Harald Blatand (*Harold Bluetooth in English*), a tenth century Danish king who had united and controlled large parts of Scandinavia which are today Denmark and Norway. The name was chosen to highlight the potential of the technology to unify the telecommunications and computing industries although it was chosen as an internal code name, and it was never at the time expected to survive as the name used in the commercial arena - *but that is another story...*

## Where did the logo come from ?

The logo itself was originally designed by a Scandinavian firm at the time the trade association was announced to the public. Keeping to the traditions of the name, the logo combines the runic alphabetic characters "H" which looks similar to an asterisk and a "B". Look carefully you can see both represented in the logo.



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