

DMA-Aero Technical Note

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MPS XXX control via Bluetooth - some details

DMA-Aero offers the ability to remotely control the MPS range of air data testers via a wireless link from a PDA, or PC. This capability brings with it the attractive facilities offered by the graphics screens to present control programs in a host of different formats, not possible on the standard alpha-numeric displays of the hand terminal or front panel keypad.

Additionally the wide variety of computer recording and display methods available such as spreadsheet results tabulation and analysis tools makes the PDA / PC a natural extension of the MPS operating system.

DMA-Aero have produced software routines to enable the above features to be readily utilised without the user having to produce custom software.

The following are the main characteristics of a Bluetooth implementation:

- wire and cable replacement technology
- short range – typically up to 10m
- low bandwidth - around 720kbps max
- low MPS internal component cost keeping the price attractive
- low power – 0.3 mA standby and 30 mA maximum during data transfer
- 2.45 GHz ISM means that the operator does not require a licence
- limited interference issues - Spread Spectrum Frequency hopping and very fast hopping between the 1-MHz bands (1,600 times/sec)
- secure operation with built in encryption

DMA-Aero MPS instruments incorporate purchased transmitters and receivers, and with practical use we have experienced 50 metres range where there is no significant shield between the operator and the MPS.

Up to 7 simultaneous loops are possible but this facility is not needed by DMA-Aero.

The frequency used is the same as that utilised for wi-fi but there are no interference problems due to the frequency hopping technique.