

HANDHELD MIL-STD-1553B DATABUS TESTER

The DATAIR-1500/M3 hand held data bus Tester performs a simple first line diagnostics and real time data analysis of the MIL-STD-1553B data bus. It allows the user to connect a MIL-STD-1553B data bus and conveniently view the active 1553 traffic on the bus. Displays of active Remote Terminals (RT's), their respective Sub-addresses (SA's), Mode Codes (MC's) and their associated data words can be displayed within a few simple key strokes. Data words can be viewed in Hexadecimal format or customised engineering unit's format.

The active RT's, SA's, MC's and associated Data words contained within a selected 1553 message are displayed in a scrollable format on the 8-line backlit LCD. Control of the displayed information is selected by using the **↑↓←→** and **ENT** navigation keys and by positioning a cursor over the require field of interest.

When an RT has been selected from the Search list (see below), a display of associated Sub addresses and/or Mode Codes ("RT:10 R SA:10") will be displayed. The SA list format can be switched (by pressing **SYM** key) between a list of SA/Mode message descriptors and a list of standard 1553 message idents and the hexadecimal values of the displayed Command Words. The '*' shown against RT13 indicates that this message does not have a Status response from the receiving RT.



Selecting a message from the list above causes the Command Monitor to be displayed. This provides the basic information about the selected message including the hexadecimal representation of the Command and Status words, a breakdown of the sub-fields within the Command word, RT number, T/R, sub-address number and the Word Count / Mode Code. The repetition rate for the message is displayed in milliseconds. It also provides an indication of which of the two buses are being used [P]rimary or [S]econdary.

- ✈ DATAIR-1500/M3 dual redundant bus analyser.
- ✈ Automatic Bus Search for RT's, SA's and Mode Codes.
- ✈ Manual Search entry for specific RT, SA and MC.
- ✈ Real time data word monitor for selected RT/SA/MC.
- ✈ Primary [P] and Secondary [S] Bus identification.
- ✈ Display of Word Count Errors.
- ✈ Missing Status word detection.
- ✈ Status Bit Error identification.
- ✈ User definable 16/32 bit word definition on unit.
- ✈ 8 Hour operation from detachable rechargeable battery.
- ✈ 8-line backlit LCD.
- ✈ Triax (BJ-77) connectors.
- ✈ Firmware updatable via USB.
- ✈ Supplied with carry case for all accessories.

Message protocol errors such as “Word Count Errors” for short or long word messages are displayed when they occur.

“Status (Word) Bit Set” errors are displayed in English according to the 1553B specification and can also be displayed in binary.

Data Words associated with the currently selected message are displayed as a list in hexadecimal and in user defined engineering units’ format if a definition has been entered for the displayed Word. Words can also be displayed in tabulated format shown.



Custom Engineering units

The DATAIR-1500/M3 allows for the creation of user defined data words and saving them to non-volatile memory.

User Profiles

Up to ten user Profiles can be created and saved that will contain user defined sets of Word definitions allowing different test scenarios to be recalled quickly for a given test.

Firmware upgradable and customisation.

The firmware on the DATAIR-1500/M3 can be upgraded by the customer via USB link using the supplied cable.

DATAIR-1500/M3 Flite Case

The DATAIR-1500/M3 instrument and accessories are supplied in a flite case.



DATAIR-1500/M3 Technical specification

Bus network front end:

Input levels:

Connectors:

Input impedance:

Weight:

User interface:

Power requirements:

Operating environment:

Single or Dual Redundant MIL-STD-1553B transformer coupled.

5-22 V pk-pk.

Standard BJ-77 Triaxial.

3 kΩ minimum (balance).

600 grams.

8-line backlit LCD and numeric keypad with navigation keys.

5 to 30V DC external power OR 4.8V @ 2200mAH NiMH detachable battery. Approximately 8 hours of use from full charge.

+0°C to 50°C. Humidity Range 0% to 95% non-condensing.



Email: sales@yed.com

Web: <http://www.yed.com>

Registered Office:

YED Avionics Limited
Park House
10 Park Street
Bristol
BS1 5HX, UK.

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