

# Avionics

## DT400 ARINC 429 DATABUS ANALYZER



**AEROFLEX**  
A passion for performance.

Sets a standard for databus test equipment in the field or shop

The DT400 clearly establishes the standard for databus equipment. Never have so many powerful tools and features been assembled for supporting your digital avionics.

Data may be read from up to four buses and displayed in every format you might conceive including graphic plots. Using the DT400's many diagnostic functions adopted from the most sophisticated logic analyzer systems, it is now much easier to isolate troublesome intermittent data. A suspect LRU can be monitored for hours with a breakpoint condition programmed to capture and display fault information. BITE mode provides a very effective tool for interrogating maintenance data from ARINC 604 avionics. Equipment menus may be read, allowing the user to select and view present fault data, and recall flight data or generate a self test. You may even use the DT400 to record fault messages for later viewing or downloading. Here are some of the DT400's powerful features:

### FEATURES

- Up to four receive and four transmit ports
- Displays ARINC 604 BITE messages
- 16-channel data recorder
- RS-232C and DAC ports for download and conversion
- Sophisticated analyzer features including breakpoint, history, etc.
- Eight display formats including engineering units and graphic plots
- Dynamic transmit patterns
- User defined labels and transmit tables

## GENERAL SPECIFICATIONS

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### RECEIVER OPERATION

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#### Ports

2 standard, expandable to 4 with additional board

#### Bus Frequency

12-14.5 kHz or 100 kHz (selectable)

#### Input Levels

$\pm 6.5$  VDC to  $\pm 13.5$  VDC (A to B)

#### Input Impedance

12.0 k $\Omega$

#### Word Update

1 ms to 10 sec, update rate displayed as instantaneous, min or max value

#### Display Format

Pre-stored engineering units, full or data field hex and binary, user, ASCII, and graphic plots

#### Maximum Words

256 per SDI per channel

#### Bus Activity Monitor

Monitors loss of individual words; sensitivity selectable

#### Real-time Download/Conversion

RS-232C or 12-bit DAC port

### TRANSMITTER OPERATION

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#### Ports

2 standard, expandable to 4 with additional board

For the very latest specifications visit [www.aeroflex.com](http://www.aeroflex.com)

### **Bus Frequency**

12.0, 12.5, 14.5, or 100 kHz (selectable)

### **Output Levels**

±10.0 VDC (A to B)

### **Output Impedance**

75 Ω

### **Word Update**

1 ms to 10 sec (selectable)

### **Burst Mode**

01 to 99 burst output at selectable rate

### **Display Format**

Pre-stored engineering units, full or data field hex and binary, user, and ASCII

### **Maximum Words**

128 per channel

### **Transmit Word Gap**

2, 3, 4, 5, 6, 8, 12 bits (selectable)

### **Dynamic Transmit**

Repeat pattern of ramps and flat segments. Levels programmable between ± full scale and segment times or 0 to 999.999 sec

### **Add'l Transmit Options**

Recorded data, pre-stored tables

## **BREAKPOINT OPERATION**

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### **Label Sequence**

A, B, A or B, A then B, B then A

### **Data Conditions**

EQ, NEQ, OR, GT, LT, /GT/, /LT/

### **Event Count**

1 to 99 before break

### **History**

Up to 24,576 words in a programmable window about the breakpoint; optional time stamp

### **Trigger Pulse**

5V, 0.1 ms

## **RECORD OPERATION**

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### **Channels**

Up to 16 labels from any combination of receive ports

### **Sample Interval**

1 ms to 10 sec (selectable)

### **Record Capacity**

120 Kbytes (e.g., 8.5 hours of single label at 1/sec)

### **Playback Options**

Graphic plots, data lists, DAC download, RS 232C download

## **BITE OPERATION**

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### **BITE Formats**

Compatible with distributed and centralized BITE concept used on 747-400, 737-300, MD-11, A320, A330, and A340 aircraft

### **Menu Display**

Standard 14-line x 24-character format, with selectable menu choices

### **Maintenance Words**

Displays 350/351 label maintenance bits. Bit status along with pre-stored text presented.

### **Recording Feature**

Save up to 240 BITE screens for later viewing or downloading

### **Display**

High contrast, twisted pneumatic LCD, 240 x 128 dot graphics or 16-line x 40-character format, Front panel brightness control

### **Power Requirements**

18-36 VDC -15 Watts 105-250 VAC, 47-400 Hz - 14 Watts or rechargeable internal lead-acid battery

## **PHYSICAL CHARACTERISTICS**

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### **Weight**

18 lbs (8.16 kg)

### **Width**

14.25" (36.2 cm)

### **Height**

5.7" (14.47 cm)

### **Depth**

12" (30.48 cm)

## **ORDERING INFORMATION**

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DT400-00-110	ARINC 429 Databus Analyzer (110V)
DT400-00-220	ARINC 429 Databus Analyzer (220V)
DT400-01-110	ARINC 429 Databus Analyzer w/ IEEE-488 (110V)
DT400-01-220	ARINC 429 Databus Analyzer w/ IEEE-488 (220V)
DT400-02-110	ARINC 429 Databus Analyzer w/ Williamsburg Protocol (110V)
DT400-02-220	ARINC 429 Databus Analyzer w/ Williamsburg Protocol (220V)
DT400-03-110	ARINC 429 Databus Analyzer w/ IEEE-488 & WPC (110V)
DT400-03-220	ARINC 429 Databus Analyzer w/ IEEE-488 & WPC (220V)

## **STANDARD ACCESSORIES**

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RS-Read Software/Cable, Operations Manual

## **OPTIONAL ACCESSORIES**

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ACPCMGR-400	Software support for DT400/DT400H PC program allowing complete user modification of the DATATRAC 400 configuration; redefine and rescale labels; create transmit and setup tables.
AC20629700	Extender board for DT400/DT600/DT650 Used in calibration and troubleshooting.

## **EXTENDED WARRANTY**

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WDTRC/203C	Extended standard warranty 36 months with scheduled calibration
WDTRC/205C	Extended standard warranty 60 months with scheduled calibration

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