

Avionics

DT600 ARINC 429/629 DATABUS ANALYZER

AEROFLEX
A passion for performance.



A powerful tool that can be used on the ramp or on the bench

The DT600 is a combination ARINC 429/629 databus analyzer with dual, independent ports for each bus standard. Nearly identical functions are provided for each bus type. These include basic receive and transmit functions along with a general record mode and a powerful breakpoint mode. The standard RS-232 port is used for downloading real time or recorded data and for uploading new label/word definitions. The standard DAC port can be used to provide a trigger pulse or to drive recorders or instruments. An optional GPIB port permits remote control of all functions. PC software is available to aid the user in defining customized data definition table(s). The large graphical display and integrated keyboard provide an informative and intuitive user interface.

FEATURES

- Two ARINC TX/RX ports and two ARINC 629 transceiver ports
- Operates six to eight hours on the internal battery or power from external 28 VDC or 105-250 VAC
- Easy menu-driven setup allows intuitive control of unit
- Multi-window display of data in ENGINEERING (B777 default for 629), HEX, BINARY, USER DEFINED, and GRAPHICAL formats
- Powerful record and fault analyzer modes
- Williamsburg Protocol software extension available for ARINC 429 file transfer functions
- RS-232C and DAC interface ports standard; GPIB optional
- Software available for RS-232 port (download/upload and word definitions)

GENERAL SPECIFICATIONS

ARINC 429 RECEIVER OPERATION

Ports

2

Bus Frequency

12-14.5 kHz or 100 kHz (selectable)

Input Levels

+ 6.5 VDC to + 13.5 VDC (A to B)

Input Impedance

12.0 K ohms

Word Update

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

Display Format

Pre-stored engineering units, hex, binary, user, ASCII, & 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

ARINC 429 TRANSMITTER OPERATION

Ports

2

Bus Frequency

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

For the very latest specifications visit

www.rootscomm.com.cn

Output Levels

+ 10.0 VDC (A to B)

Output Impedance

75 ohms

Word Update

1 ms to 10 sec, (selectable)

Burst Mode

01 to 99 burst outputs at a 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 of 0 to 999.999 sec

Additional Transmit Options

Recorded data, pre-stored tables

ARINC 429 BREAKPOINT OPERATION

Label Sequence

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

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;
optional time stamp

Trigger Pulse

5V, 20 μ S

ARINC 429 BITE OPERATION

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

ARINC 629 RECEIVER OPERATION

Ports

1 standard, 2nd optional

Bus Frequency

2 MHz

Input Electrical Characteristics

Doublet as specified for SIM input in the Boeing D227W201 Universal Data Sheet

Word Update

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

Display Format

Pre-stored engineering units, hex, binary, user, ASCII, & graphic plots

Word Strings Receivable

4096

Words Selectable

255 words per word string, 32 word strings

Bus Activity Monitor

Monitors loss of individual words; monitor sensitivity selectable

Real-time Download/Conversion

RS-232C or 12-bit DAC port

ARINC 629 TRANSMITTER OPERATION

Ports

1 standard, 2nd optional

Bus Frequency

2 MHz

Output Electrical Characteristics

Doublet as specified for SIM output in the Boeing D227W201 Universal Data Sheet

Transmit Interval

0.5 to 64 ms (selectable)

Synchronization Gap

16, 32, 64, and 127 μ S (selectable)

Terminal Gap

1 to 128 μ S (selectable)

Synchronization

C Mode communication provisions with external terminals

Display Format

Pre-stored engineering units, hex, binary, user, and ASCII

Maximum Words per Word String

256

Maximum Word Strings

31 x 31

Dynamic Transmit

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

ARINC 629 BREAKPOINT OPERATION

Label Sequence

A, B, A or B, A then B

Data Conditions

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

Event Count

1 to 99 before break

History

Up to 40,960 words in a programmable window; optional time stamp

Trigger Pulse

5V, 20 μ S

ARINC 429/629 RECORD OPERATION

Channels

429: Up to 16 labels from any combination of receive ports

629: Up to 32 data words from any combination of receive ports

Sample Interval

1 ms to 10 sec (selectable)

Record Capacity

120 Kbytes

Playback Options

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

PHYSICAL CHARACTERISTICS

Weight

24 lbs. (10.9 kg)

Size

5.7"H x 14.25"W x 12"D (14.5 cm x 36.2 cm x 30.5 cm)

VERSIONS, OPTIONS AND ACCESSORIES

When ordering please quote the full ordering number information.

Ordering Numbers

DT600-00-110	DT600 Databus Analyzer (110V)
DT600-00-220	DT600 Databus Analyzer (220V)
DT600-02-110	DT600 Databus Analyzer (110V) w/ Williamsburg Protocol Analyzer
DT600-02-220	DT600 Databus Analyzer (220V) w/ Williamsburg Protocol Analyzer

Standard Accessories

RSRead Software PC program for accepting RS-232 download of real-time receive, record, breakpoint history, or BITE data.

Optional Accessories

ACPCMGR-600	Software support for DT600/650/650H
AC20629700	Extender board for DT400/600/650
ACRS232CBL	DT400/400H/600/650 RS-232 cable
AC20670200	DT400/600 2-TX port expansion
AC20670400	DT400/600 1-DAC port expansion
AC20670600	DT400/600 IEEE-488 interface board

Extended Warranty

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



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