

Airborne & Military Mobile Data Recording & Analysis System

CMC-e-1000 Data Recording and analysis unit is designed for airborne or mobile military environments.

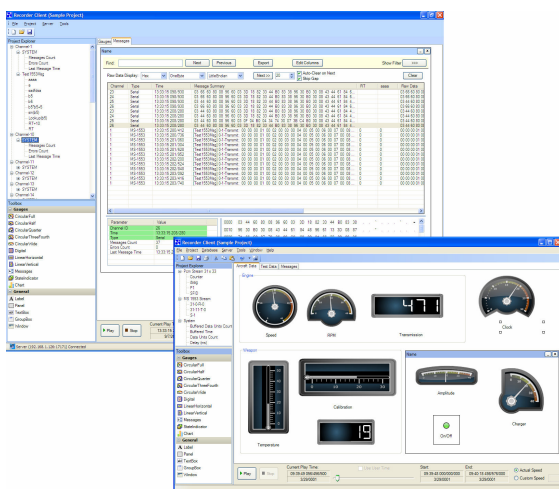
The system which is easily configured to various buses, has a Client Server configuration for multiple concurrent clients, working with single data recorder. The unit stores the recorded messages with time stamps in database per IRIG-B Chapter 9, 10.

A typical configuration

- ◆ Up to 4 MIL-STD-1553 (A+B),
- ◆ Up to 16 x RS-422/232/485 (up to 1 Mbit per ch.),
- ◆ Up to 20 discrete signals,
- ◆ Up to 2 Real time Ethernet (TCP/IP or AFDX).
- ◆ Easy integration of additional inputs (PCM, Video, Audio, ArinC-429, CAN Bus, ...).

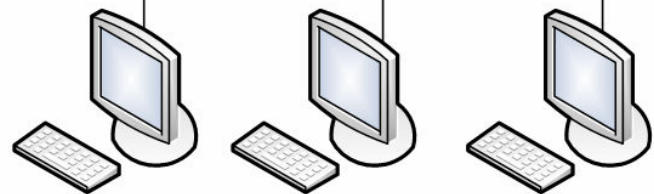
Hardware

- ◆ 18-36VDC per MIL-704E.
- ◆ 32-256GB Removable Flash Disk.
- ◆ Internal 100BaseT SWITCH.
- ◆ Vibration, Shocks per MIL-STD-810F (Planes and Helicopters).
- Extended Temperature Range.
- Option – Add external IRIG B time source.



Input Signals Recording Server

Mil-STD-1553
ARINC-429
RS 422/232/485
Ethernet
Discrete



Administration & Analysis workstations

Software (available as a stand alone package)

- ◆ Up to 1 μ Sec timestamp resolution.
- ◆ Real time and offline data analysis capabilities;
 - Real time data view local/remote.
 - Offline file/session view for historical recorded data (remote/local).
- ◆ Advanced soft panel capabilities
- ◆ Multiple display TABS;
 - User can design his own view for each TAB.
 - Message view option (WireShark like view)
 - Integrated Graphical display gauges and indicators .
- ◆ Standalone / Client Server configuration allowing multiple concurrent clients working with single data recorder.
- ◆ Serial Communication Support RS422, RS232, RS485 Interfaces;
 - Up to 1Mbit baud rate per channel.
 - Integrated protocol analysis capabilities.
 - Integrated Protocol analysis capabilities.

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Reliable and rugged

The CMC-e-1000 withstands severe environmental conditions. Compact and easy to install, the unit is self-cooled. It operates autonomously from a 18-36VDC power source. The CMC-e-1000 uses either solid-state or hard-drive recording media, with the storage capacity for many hours of continuous operation

CMC-e-1000 Construction

The unit is designed and constructed in accordance with the general requirements of MIL-STD-454.

Thermal Design

The cooling of the components on the CMC-e CPU and Power Supply is accomplished by conduction through the aluminum enclosure of the unit. The cooling of the plug in boards is accomplished by circulated air.

External Connectors

External connectors are used for interfacing with the subassemblies or equipment and are in accordance with requirement of MIL-STD-454. Connector mating bodies are keyed, and keyed locations are varied to prevent improper installation.

BES Customizes the Panel of Connectors per Customer's requirements



Identification and Marking

The marking and labels of the equipment meet the requirements of MIL-M-13231.

Environmental

Temperature range:

- ◆ Operating: 0°C to +55°C
Option: -20°C to +65°C (with Flash disk).
- ◆ Non-operating: -40°C to +75°C;

Relative humidity: Vibrations

Up to 95% relative humidity, non-condensing, MIL-STD-810F

Salt Fog:

5% solution per MIL-STD-810F method 509.3

Vibration:

MIL-STD-810F Method 514.5 Procedure I

Shock:

MIL-STD-810F for flight equipment 40g, 11ms saw tooth

Altitude:

With standard hard disks up to 15,000ft (or the equivalent atmospheric pressure), operating and non-operating. With Flash disks up to 40,000ft (or the equivalent atmospheric pressure), operating and non-operating

Fungus, Sand and Dust

MIL-STD-810F

EMI/RFI

Per MIL-STD-461E

- ◆ CE102, conducted emissions, power leads, 10 kHz to 10 MHz.
- ◆ RE102, radiated emissions, electric field, 100 kHz to 1.0 GHz.
- ◆ RS103, radiated susceptibility, electric field, 2 MHz to 2.0 GHz.
- ◆ CS114, conducted susceptibility, DC cable injection, 10 kHz to 400MHz.