

DT.MUX.M[®]

Cockpit Mission Recorder

Technical Specifications
ETEP M[®] Data recorder



For more information,
visit www.etep.com

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ETEP is an ISO 9001 certified company.

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Unit possibility

Ultra-compact recorder is weight < 2Kg it allows to record in priority, video channel (JPEG 2000 Wavelet compression or MPEG 2 or 4) and MIL bus 1553, or PCM, Arinc 429 or RS 232 and 422. This recorder has also, the possibility to receive all modules of S family airborne recorder



Applications

The etep D.T.MUX M[®] series supports a wide range of applications. For flight test installation, Mission application such as video recording and debriefing tasks . Reconnaissance and surveillance (aircraft, Helicopter and UAV)

IRIG B time or GPS, and audio channels

Number of channels: 1 to 2

Sample frequency by channel:
12 KHz /channel

IRIG B Channel:

400 mV to 6 V pp, 1000 Hz, 1/3 3/3 modulation

Maximum bandwidth and resolution:
5 KHz, 16 bits

Configurable inputs
impedance and inputs levels:

600 ohms or 1 M ohms
Single ended
0 - 10 Vpp

PCM and/or MIL STD 1553B

Number of channels
1 for PCM and 1 for MIL STD 1553
or 2 PCM or 2 MIL STD 1553

Minimum flow rate by channel
> 1 KHz, PCM mode

Maximum flow rate by channel
20 Mbps/Channel, PCM mode

Acquisition mode: External clock for PCM

Programmable inputs NRZ or Biphas for PCM:

TTL, Analogic ± 5 Vpp (diff or single ended), RS 422,
MIL-STD1553B,

1 to 4 video channels (JPEG 2000 or MPEG)

Number of channels: 1 to 4 (1 to 2 high resolution or VGA)

Standard inputs:

- Composite PAL/NTSC
- RGB inputs
- STANAG A, High resolution or UXVGA.

Resolution and frame rate:

64x64 to 720x576
30fps (NTSC)- 25fps(PAL)
high resolution : 1920 x 1080 (FULL HD 1080p)

Compression mode:

JPEG 2000 (wavelet) encoding
Adjustable bit rate (1 to 20 Mbps) and frame rate (1 to 25/30 image/s).

Input levels
0,1 to 10 Vpp

AFDX/ ARINC 664, Four Channels Record

Number of channels: 8 or 4
4 redundant channels

Aircraft data network supported:
Arinc 429 (100Kbps) MIL-STD 1553 (1 Mbps)
or ARINC 629 (2 Mbps)

Protocol:
IEEE 802.3 normalised

Protocol:
AFDX network
UDP 10/100Mbps

Standard
Arinc 664, IEEE 802.3

Modules disponibles

4 channels video compressing JPEG
2000 W

PCM recording module
RS 422 inputs

MIL STD 1553 B recording
module
2 redundant channels

Arinc 429
AFDX[®] / Arinc 664

Analog recording module:
32 channels

Strain gauges, 16 channels

Irig 106 generator module

Video JPEG2000

Video HD264

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Temperature

In storage: - 55°C to + 85°C
In use: - 40°C to + 85°C.

Extreme of temperature in use: - 55° C to 85° C (no destructive)

Test MIL STD 810D method 520.0(procedure III)

Power

28Volts DC (10 to 40V)

MIL STD704 D/E

Consumption: 15 to 25 Watts (depends of configuration)
,except heating (25 w)

Vibrations and shocks

Vibrations
MIL STD 810D-E metod 514.3 (procedure 1).
0,04 g² of 5 to 1000 Hz, 1 hour per axis (3 axis)

Shocks
1/2 sinus , > 60g, 11 ms (6/2 axes)
(MIL STD 810D-E method 513.3 (proc.1&2)

Accelerations MIL STD 810E method 513.3 :
10 g (6/2 axes)

Crash test
20g on 3 axes

EMI/EMC
MIL-STD-461E

Dimensions

Height: 2.7 inches, 68 mm
Width 4.4 inches, 112 mm
Depth 3.9 inches, 100 mm
Weight ~ 0.6Kg with SSD (solid state disk)
Volume Adaptability to 3/8 ATR
0,7 litres

Altitude and decompression:

Min: -1500 feet, max: 60,000 feet
With 12.000 feet/minute (420 Kpa/minute).

MTBF

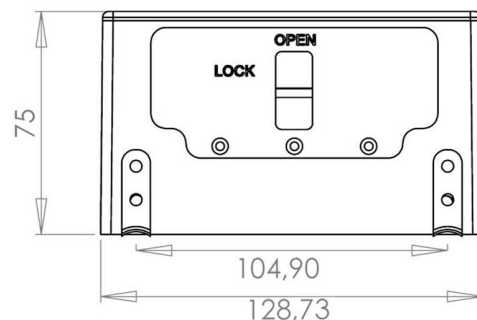
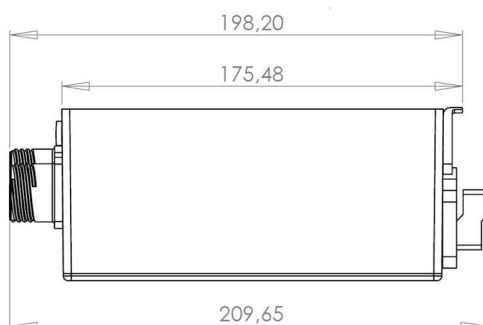
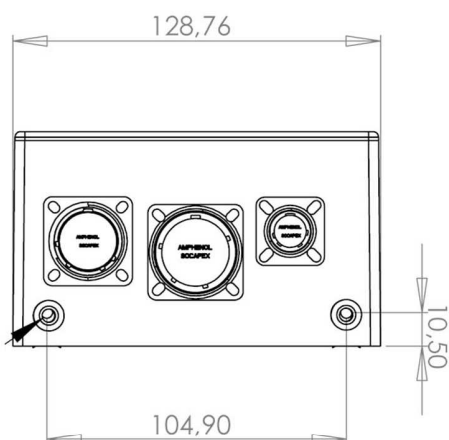
MIL HDBK 217F 50.000 hours

MTTR

<30 minutes

Humidity

In storage: 5% to 95% .
In use: 5% to 95 % without condensation
MIL STD 810D method 507.2 (procedure III)



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