

Multi-role/Mission Recorders

D.T.MUX™ M



Reference: DT-MUX-M

The D.T.MUX-M is a **lightweight, mission-ready airborne data recorder** designed to capture **digital/analog avionics data, video and voice** in a compact form factor.

Available in **ARINC 404** or **cockpit DZUS** installation, it integrates **removable SSD cartridges** from **64 GB** up to **16 TB**, with options for **military-grade encryption, quick erase** and **physical destruction**.

Capable of recording **multiple video channels** (Ultra HD 4K/60 fps, Full HD, 720p/i – H.264/H.265) as well as **avionics data buses** (MIL-STD-1553, ARINC 429/717/573, PCM, CAN Bus, Gigabit Ethernet, RS232/422) and **analog inputs with signal conditioning** (strain gauge, ICP, thermocouple).

Applications

- Mission data recording & downloading
- Pilot training and mission debriefing (helicopter & aircraft)
- Reconnaissance & surveillance operations
- UAV and aircraft damage assessment

The D.T.MUX-M is **IRIG 106 Chapter 10 compliant**, offers **file server capabilities** (FTP, TFTP, NFS, SMB/CIFS), and can be operated via the **D.T.MUX Remote Control Unit** with event marking. With a weight of only **2 kg (4.4 lbs)** and compliance with **MIL-STD-810/704/461** and **DO-160**, it is built for **harsh environments** and requires **no preventive maintenance**.

Key Advantages

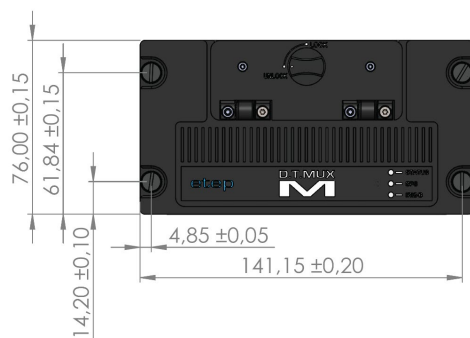
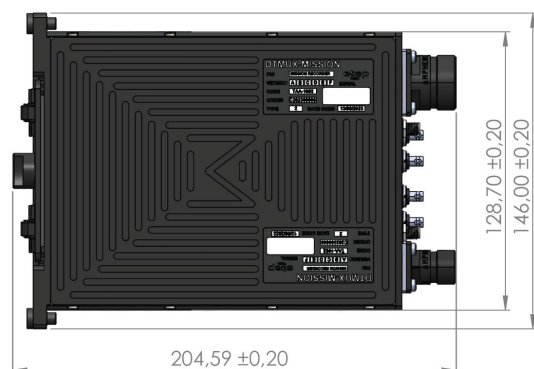
- Compact, lightweight multi-role recorder
- Up to 16 TB removable SSD memory
- Flexible design for aircraft-specific configurations
- Crash-resistant secure data handling (encryption, erase, auto-destruct)
- DTMUX format / IRIG-106 Chapter 10



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MECHANICAL

	Specification	Remark
Size (S)	204.6 x 146 x 76 mm	Standard
	204.6 x 146 x 88 mm	CP option
Weight	≈ 2Kg	≈ 4.4lbs
Connectors	MIL-DTL-38999	Serie III
Mounting	DZUS or Fix plate	Customizable



ELECTRICAL

Input Voltage	28Vdc (16 to 36Vdc)
Power consumption	≈ 25 to 50 watts (28Vdc)
Power Interruption	≈ 85 to 100ms
Standard	MIL-STD-704F

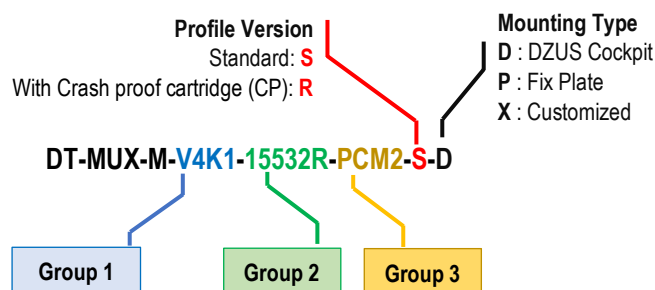
ENVIRONMENTAL

	Specification	Remark
Temperature	-40°C to 71°C	Operating
	-55°C to 95°C	Storage
Cooling	Passive	Convection
Humidity	95%	Non-Cond
Vibration	5Hz to 2kHz	6.29 g RMS
Shocks	60g 11ms	Operating
Acceleration	24g linear 3 axis	Operating
Altitude	+ 60,000 ft	Operating
Decompression	420Kpa/minute	Operating
MTBF	> 50,000 hours	Computed
EMI	MIL-STD-461	Rev F

STANDARD FUNCTIONALITY

	Specification
GbE	Configuration/Control
Ethernet	Data download and Streaming
Time synch	GPS Antenna input / Irig B / PTP v2
Audio	One included
Recording	IRIG 106 Chapter 10 / DTMUX format
COM port	RS-232 Configuration/Maintenance
LED	Status / GPS / IRIG B

PART NUMBERING GUIDE



SELECTABLE CHANNELS

TYPE	CODE	Max Channels**		
MIL-STD-1553	1553	2R (4)	2R (4)	0
ETHERNET (GbE)	ETH	4	4	0
ARINC 429	A429	12	12	8
ARINC 717	A717	12	12	8
ARINC 573	A573	12	12	8
PCM	PCM	4	4	4
RS232/422	RS	12	12	8
CAN	CAN	8	8	8
DISCRETE	DS	24	24	12
ANALOG	LOG	16	16	8
VIDEO SD	VSD	2	2	2
VIDEO HD	VHD	2	2	2
VIDEO 4K	V4K	2	2	0

System can be design following your special requirement.

**You can select number of channel desired from 0 to max value.

STORAGE CARTRIDGE

SSD-256-DE-QE-0-M



Storage Capacity	64 / 128 / 256 / 512 / 2TB / 8TB ...
Data Encryption	DE / 0*
Quick Erase	QE / 0*
Physical Destruction	PD / 0*
Crash Proof	CP / 0*

*0= None

SSD for configuration is also available
PN# **SSD-CONF-M**