

D.T.MUX Sentinel™



Reference#

SEN-XXX



Crash Protected System from 32 to 128GB

The D.T.MUX Sentinel Crash protected Airborne Data Recorder, is fully integrated solution in a lightweight compact system (FDR/CVR/AIR) providing crash-protected recording of flight data, audio, and image/video (Full HD 1080p or Ultra HD 4K until 30 fps) on lightweight helicopters and fixed-wing aircrafts. More than a simple recorder the unit can replace a Data Acquisition system with the advantage of crash protection. He has been designed to capture any type of data source, by serial bus or by internal Sensor to complete missing data. It can be used with all functions or just a one. This unit can cover "Crash requirements" of the ED-155 or ED-112A standard and can be easily integrated to any type of aircraft.

Applications

- Flight Testing Purpose
- Military Aircrafts (Fixed-wing, Rotary-wing and UAV/UCAV)
- Lightweight Aircrafts (Under take-off mass of 5700Kg)

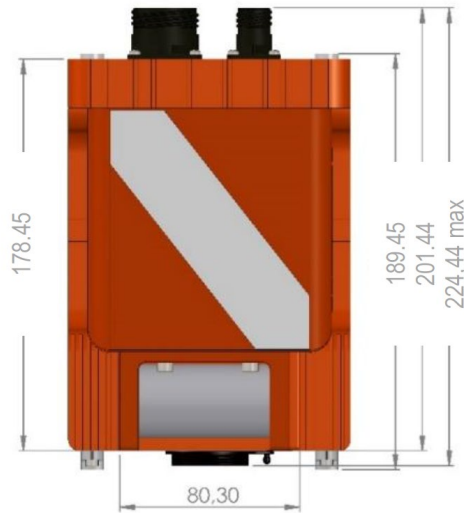
Lightweight and compact full integrated flight Data Recorder and data acquisition unit (DAU) who can provide combination of cockpit voice (CVR), flight data recording (FDR), an airborne image/video recorder (AIR) in a fully integrated solution. This system is providing for General, military aviation or flight test equipment (helicopters and fixed-wing aircrafts) who search a powerful system with the minimum cost, small footprint and weight.



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MECHANICAL

	Specification	Remark
Size	189.5 (231.8 iRIPS / 219.5 iEE) x 126.2 x 101 mm	D x W x H ± 1mm
Weight	≈ 3.30kg / 3.75kg ≈ 4.85kg	ED155/ ED112 iRIPS
Connectors	MIL-DTL-38999	Serie III
Mounting	ARINC 404	Customizable



ELECTRICAL

Input Voltage	28Vdc (16 to 36Vdc)
Power consumption	≈ 12 to 32 watts (28Vdc)
Power Interruption	≈ 200 to 800ms
Standard	MIL-STD-704F / DO-160

VIDEO/IMAGE FUNCTION



D.T.MUX Sentinel have capacity to acquire and record image or video in HD resolution from 1 to 30 fps. System can be coupled with cockpit Audio/video camera PN#

HDCAM/MIC / PN# UHDCAM-MIC, who offering in same box an area microphone and Full HD (2Mpx resolution) or Ultra HD 4K (8.5Mpx resolution) Video/image capture.

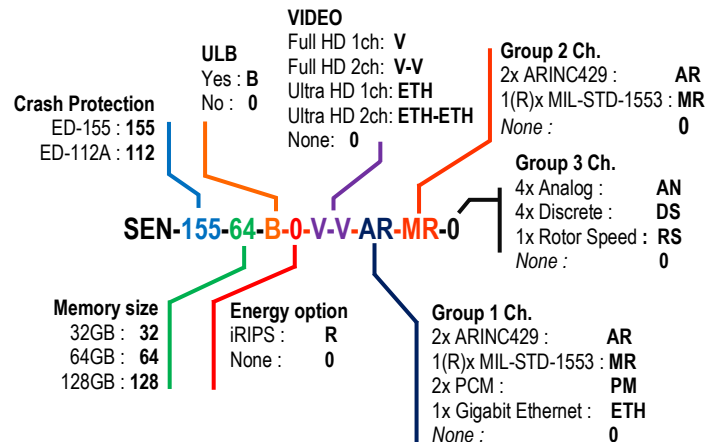
ENVIRONMENTAL

	Specification	Remark
Temperature	-40°C to 65°C	Operating
	-55°C to 90°C	Storage
Cooling	Passive	Convection
Humidity	95%	Non-Cond
Vibration	5Hz to 2KHz	6.29 g RMS
Shocks	20g 11ms	Operating
Acceleration	20g linear 3 axis	Operating
Altitude	+ 60,000 ft	Operating
Decompression	420Kpa/minute	Operating
MTBF	> 90,000 hours	Computed
EMI	DO-160	Rev G

STANDARD FUNCTIONALITY

	Specification
Gigabit Ethernet	Configuration/Control
	Data download and Streaming
Time synch	GPS Antenna input / Irig B / PTP v2
Voice	4x Audio channels
Recording	IRIG 106 Chapter 10 / DTMUX format
Sensors	Internal 3 Axis Gyro/ G force/ Pressure
COM port	RS-232 Configuration/Maintenance
Status	Status Led / Status output

SENTINEL PART NUMBER COMPOSITION



Internal battery (iRIPS)

Option: Lithium ion battery Internal Recorder Independent Power Supply option (battery) is available to sustain 10 minutes (±1 minute) of power interruption

