

# 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 30fps) 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-112 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)

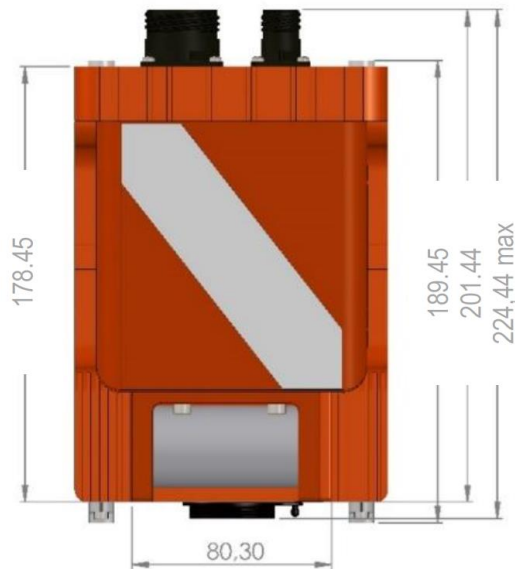
Lightweight and compact full integrated flight Data Recorder and data acquisition unit (DAU) who can provide combination of cockpit voice (CVR), flight data recording (FDR), an airborne image/video recorder (AIR) in a fully integrated solution. This system is providing for General, military aviation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



[www.etep.com](http://www.etep.com)

## MECHANICAL

	Specification	Remark
<b>Size</b>	189.5 (231.8 RIPS) x 126.2 x 101 mm	D x W x H ± 1mm
<b>Weight</b>	≈ 3.6Kg	+ 1Kg RIPS
<b>Connectors</b>	MIL-DTL-38999	Serie III
<b>Mounting</b>	ARINC 404	Customizable



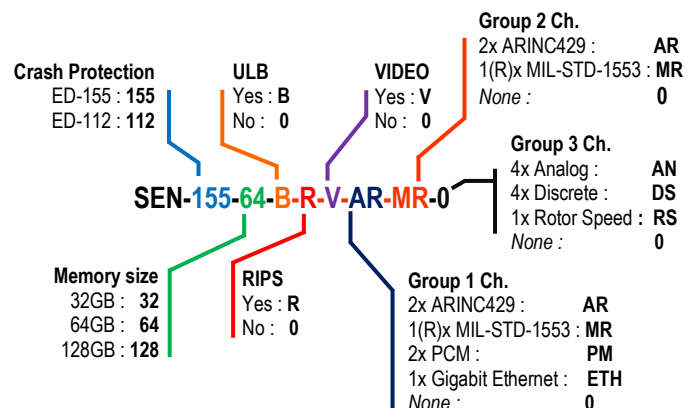
## ENVIRONMENTAL

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

## STANDARD FUNCTIONALITY

	Specification
<b>Gigabit Ethernet</b>	Configuration/Control Data download and Streaming
<b>Time synch</b>	GPS Antenna input / Irig B / PTP v2
<b>Voice</b>	4x Audio channels
<b>Microphone</b>	1x Area Microphone (Preamplified)
<b>Recording</b>	IRIG 106 Chapter 10 / DTMUX format
<b>Sensors</b>	Internal 3 Axis Gyro/ G force/ Pressure
<b>COM port</b>	RS-232 Configuration/Maintenance
<b>Status</b>	Status Led / Status output

## SENTINEL PART NUMBER COMPOSITION



## ELECTRICAL

<b>Input Voltage</b>	28Vdc (16 to 36Vdc)
<b>Power consumption</b>	≈ 12 to 25 watts (28Vdc)
<b>Power Interruption</b>	≈ 60 to 200ms
<b>Standard</b>	MIL-STD-704F / DO-160

## Video/Image Function



D.T.MUX Sentinel have capacity to acquire and record image or video in Full HD resolution from 1 to 30 fps. System can be coupled with cockpit Audio/video camera PN# HDCAM/MIC, who offering in same box an area microphone and Full HD (2Megapixels resolution) image capture.

## Internal RIPS option

An internal Independent Power Supply option (battery) is available to sustain 10 minutes (±1 minute) of power interruption or to be compliant with requirement of Cockpit Audio Recording Systems (CARS) (Power interruption of 2 seconds without loose of Audio data)

