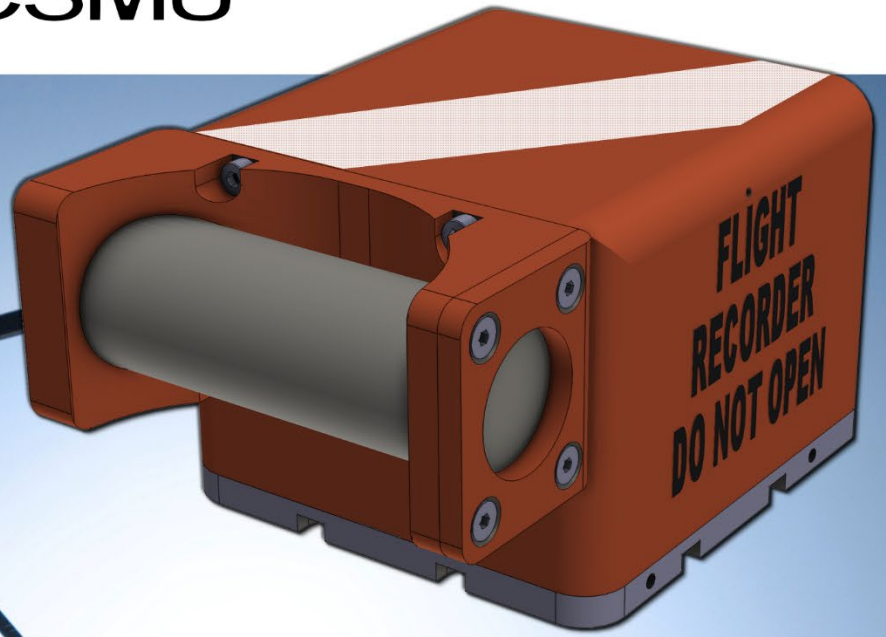


# D.T.MUX Sentinel™ CSMU



## Crash Survivable Memory Unit from 16 to 128GB

SEN-CPM-155/112



### Lightweight and compact

Sentinel - Crash Survivable Memory Unit (CSMU) is a memory unit protected against crash who answer to two world main standard concerning memory crash protection in airborne environment, if you need a crash protected module (CPM) for your integration applications, to be sure to recover data in case of a serious accident. This Crash Protected Memory has been designed to meet all the performance and crash survivability requirements of EUROCAE ED-155 or ED-112A normalization.

These units are proposed for your proper integration and can be configured following your needs.

Sentinel CSMU is available in two types of Version CSMU-ED155 light version and CSMU-ED112A more rugged version with 90 days underwater acoustic beacon to facilitate the location of the recorder under water.

### The Sentinel CSMU/CPM Key Features

- ED-155 standard available
- ED-112A standard available
- Compact and Ultra-Lightweight (2 to 2.5Kg)
- 16 to 128GBytes available
- Data Encryption option
- MTBF > 1 Million hours
- 90 Days Underwater Locator Beacon (ULB)



## CSMU PART NUMBER COMPOSITION

### MECHANICAL

	Specification	Remark
<b>Structure</b>	Titanium	
<b>Size</b>	109 (153.4 ULB) x 109 x 86 mm	D x W x H
<b>Weight</b>	≈ 2.5Kg	With ULB
	≈ 2 Kg	Without ULB
<b>Mounting</b>	4x M4 Screws	
<b>Color</b>	Bright Orange, and Reflective white strip	

### ENVIRONNEMENT

	Specification	Remark
<b>Temperature</b>	-40°C to 85°C	Operating
	-55°C to 95°C	Storage
<b>Vibration</b>	10 to 2000 Hz, 2.09 g rms	RTCA DO-160
<b>Acceleration</b>	20g	Operating
<b>Shock</b>	1500g, 0.5ms	Operating
<b>Humidity</b>	5% to 95%	Non-Condensing

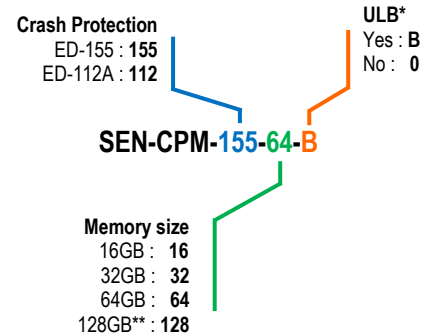
### MEMORY

	Specification	Remark
<b>Size</b>	16, 32, 64, 128GB	
<b>MTBF</b>	> 1 Million hours	
<b>W/E cycle</b>	20 0000 Erase cycles	iSLC
<b>Input wire</b>	Micro SATA	
<b>Power</b>	5 Volts	
<b>Consumption</b>	5 Watts max CSMU-ED112A 3 Watts max CSMU-ED155	

### UNDER WATER LOCATOR BEACON (ULB)

	Specification	Remark
<b>Operating life</b>	90 Days	
<b>Battery life</b>	6 years	
<b>Certification</b>	TSO-C121b ETSO-C142a	(Lithium less than 1 gram.)

- ULB and Mounting tray can be supplied alone
- ULB Battery replacement kit can be supplied.
- ULB Battery Tester can be supplied



\* ULB is automatically include with ED-112A crash protection level but is an option with ED-155 Crash protection level. ULB can be remove on ED-112A CPM if required.

\*\* MLC level memory

### CRASH SURVIVABILITY

SEN-CPM	ED-155
Impact	1000 g., 5ms,
Pin Penetration	200 lb., 10 ft.
Static Crush	1000 lb., 5 min All Axes
Low temperature fire	260°C ,2 Hours
High temperature fire	1100°C During 15 to 30 Minutes
Sea Water Immersion	3 Days
Deep Sea Pressure	5000 ft. 24 Hours
Fluid Immersion	Various Fluids 24 Hours

SEN-CPM	ED112A
Impact	3400 g., 6.5ms
Pin Penetration	500 lb., 10 ft.
Static Crush	5000 lb., 5 min All Axes
Low temperature fire	260°C, 10 Hours
High temperature fire	1100°C During 1 Hour
Sea Water Immersion	30 Days
Deep Sea Pressure	20 000 ft. 24 Hours
Fluid Immersion	Various Fluids 48 Hours
Under Water Locator Beacon	90 Days operation