

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

ENVIRONNEMENT

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

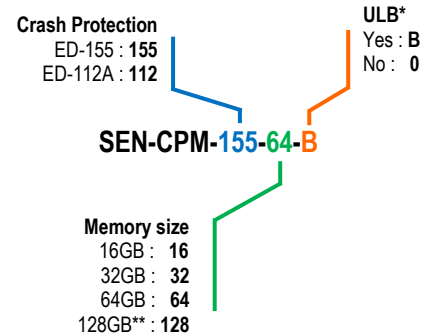
MEMORY

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

UNDER WATER LOCATOR BEACON (ULB)

	Specification	Remark
Operating life	90 Days	
Battery life	6 years	
Certification	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