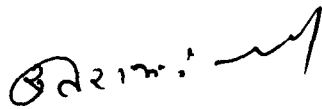



**CLAIMS**

We claim that Compact Protected Memory Module (CPMM)

- is for use on Civil/Military aircraft for airborne application
- has Memory capacity of 384 MB
- has been designed & developed to store & protect aircraft data from crash conditions to meet TSO C124 (a) requirement and can sustain
  - Temperature of 1100 degree Celsius for one hour
  - Temperature of 260 deg Celsius for 10 hrs
  - Static crush of 22.25 KN for 5 minutes
  - Impact shock of 3400g for ~~6.5~~ 6.5 mili seconds.
  - Deep Sea pressure of 60MPa for 24 hrs
  - Penetration Resistance of 230Kg weight drop from 3 meter height
- New generation Compact Protected Memory Module unit has been designed & developed by HAL, Korwa & ~~HAL~~ DMSRDE, Kanpur in country

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(S.D Khattri)

  
(S.K. Srivastava)

**TECHNICAL SPECIFICATION**  
**OF**  
**COMPACT PROTECTED MEMORY MODULE**  
**FOR**  
**CIVIL/MILITARY AIRCRAFT**

**TECHNICAL SPECIFICATION****1. Mechanical Dimensions**

Length – 146 mm (Max.)  
Diameter of Housing -  $75 \pm 0.1$  mm  
Flange Dimension – 92 mm (Max.)

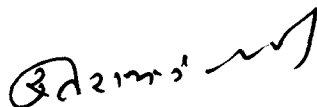
**2. Weight**

Weight - The weight of CPMM unit shall be  $\leq 2.5$  Kg. (Without beacon).

**3. Electrical Characteristics**

Power Supply :  $3.3 \pm 0.3$  Volt  
Power Consumption :  $< 1$  W  
Memory Capacity : 384 M bytes (Minimum)

4. CPMM shall remain protected against crash conditions specified in ED55/56A or TSO- C124 (a) (which caters for penetration, impact, crush & fire-proofing).



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### **ANNEXURE - III**

Compact Protected Memory Module (CPMM) is a data storing device which is required for storing the recorded data transmitted from Solid State Flight data Recorder fitted on the platform into solid state non-volatile memory. It can store the aircraft audio & parameter data. The memory capacity of CPMM is 384 MB.

The stored data is protected against stipulated crash conditions to enable its subsequent retrieval and decoding by Ground Replay Equipment.

The CPMM consists of two parts namely body assembly/housing and Memory Module (MM). The housing consists of armour shells filled with thermal barrier & shock absorbing materials and providing central cavity for fitment of stack of solid state memory board/module, hence keeping the memory board to survive during hostile environments.

The Memory Module (MM) consists of a printed circuit board (PCB) assembly containing memory array/devices and associated electronic circuitry. The memory array will have solid state disks (Disk on chips). Disk on Chip is a fast, high-capacity, nonvolatile memory solution.