

On Board Computer



DESCRIPTION

On Board Computer is a part of Satellite Command and Data Handling system, OBC Must be powerful and reliable enough to Manage All Onboard Process of Satellite in real time at space harsh environment, CubeOBC Uses Cortex-R CPU that works in dual lockstep mode for reliable operation and error detection, TMR MRAM Memory for Essential Configurations and many useful peripherals that met must of cubesat applications.

KEY HIGHLIGHT

- . Real Time Counter (RTC) in TMR Mode
- . Cold Redundant Capability
- . Qspi Connector for Mass Transfer from emmc memory.



TECHNICAL SPECIFICATION

Functional and Performance Characteristics		
Processor	ARM Cortex R dual core Lockstep	
Processor (CPU) Clock	Up to 180 MHz	
Flash	8~32GByte emmc FLASH ; 512KByte TMR MRAM Share	
Digital I/O	32 channel	
Analog Inputs	16 channel 12bit, Hardware Configurable Input Range	
Interfaces	SPI	1 with 6 chip select
	UART TTL	8 Channel
	RS422/485	4 Channel
	CAN2.0B	2
	1Wire	2 Bus for DS1820 Temperature sensor

Environmental and Mechanical Characteristics	
Storage Temperature Range	-40 °C to +85 °C
Mass	< 100 gr
Dimensions	95 mm x 95 mm x 25 mm

Electrical Characteristics	
Power Consumption	1 W

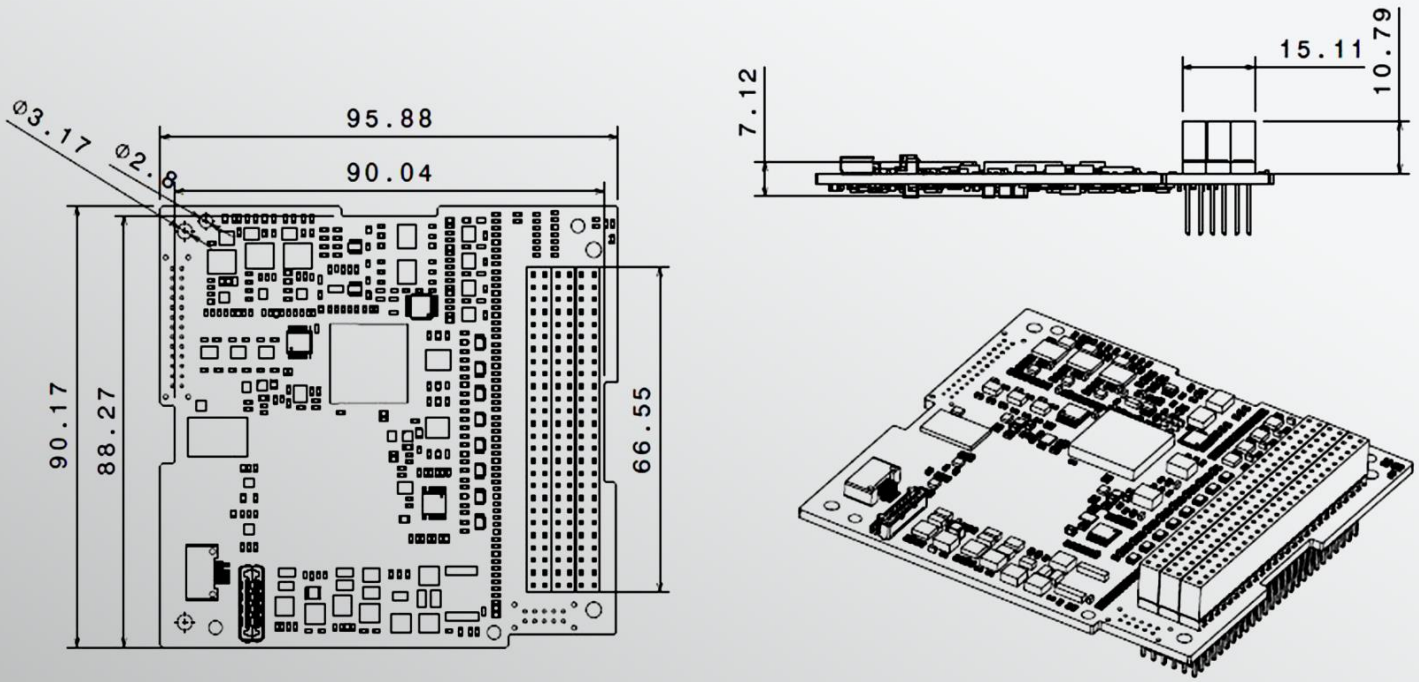
TEST SPECIFICATION

Qualification and Acceptance Testing (ECSS-E10-03A)		
Test Name	QT	AT
Functional	✓	✓
Random Vibration	✓	✓
Sinusoidal Vibration	✓	
Mechanical Shock	✓	
Thermal Cycling	✓	✓
Thermal Vacuum	✓	✓



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DRAWING



MODEL

