

M-OBC

On-board Computer

ACTIA Aerospace

 | Space

Processing unit

M-OBC

Platform & Payload Processing Unit

Designed for nanosatellites and smallsats

High performance |

Versatile |

PC104 format |

Flight-proven (TRL9) |

STEEL
électronique
AN ACTIA AEROSPACE COMPANY



ACTIA® 

KEY FEATURES

Processing core

- Zynq 7030 OR 7045
- 1 GB DDR3 (512 MB with ECC protection)

Large data storage

- 16 MB QSPI (boot)
- 1 GB NVM
- 32 GB mass memory
- 256 kB FRAM

Highly data storage

- 1 main CPU board
- 1 customizable interface
- Standard interface board
- Numerous interface

SPECIFICATIONS

EXTERNAL INTERFACES

Hardware Channels	CPU board	IF-board	PC1042	Total
Full-duplex RS422/485	2	5	1	8
Half-duplex RS422/485	2	2	1	5
CAN			1	1
I2C			1	1
SPI			1 (PL)	1
UART	10 in/out	1 (PS)		1
LVDS	5 (PL)	8 in or 4 in/4out		18
3.3V discrete I/O	10 in/4 out		10 (PL)/1 (PS)	16
5V discrete I/O		2 (PL)	8	24
1.8V discrete I/O	1		5	5
TTL discrete input	2			1
Open collector 40V/0.6A	3			2
Analog input				3
Thermistors input	1	5		5
PWM output			1	2
H-bridge power	3	3		3
5V power output		7		10
16.4V max power outputs		4		4

SWAP

Volume

90.2 x 99.4 x 34.4 mm

Mass

290 g with heatsink

Power supply Input

Main: 12-16.4 V (unregulated)
Power lines: 5 V

ENVIRONMENT

Vibrations

~ 20 Grms

Temperature

-30 to +55°C (operating)

Radiations

TID > 11 KRAD
SEL free

ABOUT US

STEEL Electronique is an ACTIA Aerospace company, an international leader of on-board electronics & SatCom systems.

ACTIA Aerospace is a division of ACTIA Group:

+ 1 000

Ground Systems delivered

+ 1 000

Satellites equipped

+ 4 000

Employees worldwide

+ 535 M€

Revenue in 2024



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