

# MCS1101



## Modular Docking Computer

The MCS1101 features a powerful Intel® Core™ i7 processor in a standardized form factor, offering high performance with a small footprint.

### Modular Computer Series (MCS)

The MCS series computer is part of a larger ecosystem of computers, displays and accessories, aimed at reducing life cycle costs and improve ease of use compared to existing systems. All MCS series units follow a standardized form factor that are compatible with all MilDef MID displays.

### Military-relevant rugged design

MilDef products are designed to operate in extreme environmental conditions and challenging electromagnetic operational scenarios. Operationally proven, MilDef products are actively employed in military operations in over 60 countries.

### Guaranteed performance

MilDef products are designed for the long lifecycles of military programs and come with a lifetime support program to ensure your equipment maintains peak performance for many missions to come.

We also guarantee the availability of spare parts for an additional 5 years after product end-of-life.

### Features

- Intel® Core™ i7-1185GRE processor
- 48 GB RAM
- M2 NVME SSD
- Compatible with all MID displays

## Connector Interfaces

(back) • 1x Docking interface

## Technical Specification

Computer memory	Up to 48 GB RAM
Computer secondary memory	Up to 2 TB storage
Internal disk	M.2 SSD NVMe disk
Processor	Intel® Core™ i7-1185GRE
MIL-STD-1275E	Fully compliant
Power consumption	25 W
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
Dimensions	146 x 53.5 x 183.8 mm (5.8 x 2.1 x 7.3 in) (WxHxD)
Surface treatment chassis	Chromit-Al
Weight	1.5 kg (3.3 lbs)
MTBF	> 269,000 h
CE	Compliant

## Environmental Specification

Functional shock - Operating	MIL-STD-810H, Method 516.8, Procedure I - Functional shock. Table 516.8-IV, Terminal peak sawtooth pulse, Ground materiel 40 g 11 ms
High temperature - Operating	MIL-STD-810H, Method 501.7, Procedure II - Operation 60 °C (140 °F)
High temperature - Storage	MIL-STD-810H, Method 501.7, Procedure I - Storage 71 °C (160 °F)
Humidity	MIL-STD-810H, Method 507.6, Procedure II - Aggravated 95 ± 4% RH Ten 24-hour cycles
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X7
Low air pressure - Rapid decompression	MIL-STD-810H, Method 500.6, Procedure III - Rapid decompression 2,438 m (8,000 ft) 12,192 m (40,000 ft)
Low air pressure - Operating	MIL-STD-810H, Method 500.6, Procedure II - Operation/air carriage 4,572 m (15,000 ft)
Low temperature - Operating	MIL-STD-810H, Method 502.7, Procedure II - Operation -40 °C (-40 °F)

Low temperature - Storage	MIL-STD-810H, Method 502.7, Procedure I - Storage -46 °C (-50.8 °F)
Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
Salt fog	MIL-STD-810H, Method 509.7 5 ± 1% (by weight) Two cycles, 24 h wet + 24 h dry / cycle
Temperature shock - Operating	MIL-STD 810H, Method 503.7, Procedure I-C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) -40 °C (-40 °F)
Vibration - Helicopter	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
Vibration - Loose cargo	MIL-STD-810H, Method 514.8, Procedure II - Loose cargo transportation, Category 5 - Truck/ trailer - loose cargo
Vibration - Tracked vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Tracked vehicle
Vibration - Wheeled vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Wheeled vehicle

## EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102, Conducted emissions, power leads BASIC CURVE 10 kHz - 10 MHz
EMI radiated RE102	MIL-STD-461F, Method RE102, Radiated emissions, electric field Navy Mobile & Army 2 MHz - 18 GHz
EMS conducted CS101	MIL-STD-461F, Method CS101, Conducted susceptibility, power leads CURVE #1 30 Hz - 150 kHz
EMS conducted CS114	MIL-STD-461F, Method CS114, Conducted bulk susceptibility Army, Ground 10 kHz - 200 MHz
EMS conducted CS115	MIL-STD-461F, Method CS115, Conducted susceptibility, bulk cable injection, impulse excitation

# MCS1101

## EMS conducted CS116

MIL-STD-461F, Method CS116,  
Conducted susceptibility, damped  
sinusoidal transients, cables and  
power leads  
10 kHz - 100 MHz

## EMS radiated RS103

MIL-STD-461F, Method RS103,  
Radiated susceptibility, electric field  
Army  
2 MHz - 1 GHz