# 19"/2 Appliance Server CS9122


## Appliance Server in a 19inch2 form factor

The 19"/2 Appliance Server packs high-performance computing power into a frame up to 75% smaller than standard 19" ruggged servers. This significantly reduces the server's weight, energy consumption and heat production.

### Built to take a beating

The Server is built to withstand the harshest conditions over the long haul. It features aluminium casing, rugged MIL connectors for easy integration and will operate down to -40 C.

### Guaranteed performance

Our products always come with a lifetime support to ensure your equipment maintains peak performance for many missions to come. We also serve units and stock spare parts for 5 years end-of-life.

### Concept

A MilDef concept describes a possible implementation of customer specific requirements. Realization might involve NRE cost.

### Features

- Up to 32 GB RAM ECC
- Intel Core i7-6822EQ processor
- Support for virtualization
- WiFi (dual SSID) and 4G/NET1 support
- Passively cooled

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## Connector Interfaces

| | |
|---|---|
| **GSM 3G 4G** (front) | • 1x 4G |
| **DC IN** (back) | • 1x Power |
| **CONSOLE** (front) | • 1x RS232 Console |
| **ETH2-ETH7** (front) | 6 connectors which each has:<br>• 1x ETH |
| **ETH8, ETH9** (back) | 2 connectors which each has:<br>• 1x ETH |
| **ETH0 PoE+, ETH1 PoE+** (front) | 2 connectors which each has:<br>• 1x ETH |
| **HDMI** (back) | • 1x HDMI |
| **SERVICE** (back) | • 1x RS232 Service |
| **USB3/4** (back) | • 2x USB |
| **USB1/2** (front) | • 2x USB 3.0 |
| **VGA** (back) | • 1x VGA |
| **WIFI** (front) | • 1x Wifi |

## Other Interfaces

1x Sim Card (Mini-SIM) (back)

1x System Button (front)

## Technical Specification

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|---|---|
| **Blanking** | Double-pressing the System button |
| **Computer primary memory** | Up to 32 GB RAM ECC |
| **Computer Processor** | Intel Core i7-6822EQ processor |
| **LAN** | 1000BASE-T standard |
| **Operating system** | CentOS 7 and later |
| **POE power delivery** | 25W in total (each port can handle 25W) |
| **Support for Virtualization** | Support for virtualization |
| **Wireless** | WiFi (dual SSID) and 4G/NET1 support |
| **MIL-STD-1275D** | 5.3.2.2<br>5.3.2.3<br>5.3.2.4 |
| **Polarity protection** | Protected against polarization failure on the power input in the voltage range of normal operation. |
| **Power input** | 12-32 VDC |
| **Coating and color** | Dupont AE0305-6603120 (RAL6031) |
| **Cooling** | Passively cooled |
| **Dimensions Width and Height** | 220x44mm (8,66x1,74 inch) (WxH) |
| **Earth point** | M6 12mm |
| **Rack Mounting depth** | 400mm (17,4 inch) |
| **Surface treatment chassis** | Chromit-Al |
| **Weight** | 4.1 kg |
| **MTBF** | Greater than 25000 h |

## Environmental Specification (*designed to meet)

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|---|---|
| **Functional Shock - Operating*** | MIL-STD-810G. Method 516.6, Procedure I - Functional Shock. Table 516.6-II, Terminal peak sawtooth pulse, Ground equipment<br>40g<br>11 ms |
| **High temperature - Operating*** | MIL-STD-810G, Method 501.5, Procedure II - Operation<br>55C (131F) |
| **High temperature - Operating*** | MIL-STD-810G, method 501.5, Procedure II - Operation<br>60 °C (140 °F) |
| **High temperature - Storage*** | MIL-STD-810G, Method 501.5, Procedure I - Storage<br>71 °C (160 °F) |
| **Humidity*** | MIL-STD-810G, Method 507.5, Procedure II - Aggravated<br>95 ± 4 %rh<br>Ten 24-hour cycles |
| **IP Class (Solid Particle Protection)*** | IP Class 6X |
| **IP Class (Water)*** | IP Class X5 |
| **Low air pressure - Rapid Decompression*** | MIL-STD-810G, Method 500.5, Procedure III - Rapid Decompression<br>75.2kPa, corresponding to 2,438m (8.000 ft)<br>17kPa, corresponding to 12192m (40.000 ft) |
| **Low air pressure - Operating*** | MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage<br>4572m (15.000 ft) |
| **Low temperature - Operating*** | MIL-STD-810G, method 502.5, Procedure II - Operation<br>-40 °C (-40 °F) |
| **Low temperature - Storage*** | MIL-STD-810G, method 502.5, Procedure I - Storage<br>-40 C (-40 °F) |
| **Noise level*** | Maximum noise level of 40dB SPL A-weighting @ 1m (3,3 ft) distance |
| **Salt fog*** | MIL-STD-810G Method: 509.5<br>5% +- 1% (by weight)<br>Two cycles, 24h wet + 24h dry /cycle |
| **Temperature Shock - Operating*** | MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature<br>55 °C (131 °F)<br>- 40 °C (-40 °F) |

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| **Transit drop, in shipping package*** | MIL-STD-810G, method 516.6, Procedure IV - Transit Drop. Table 516.6-VI, Transit drop test, < 45.4 kg (100 lbs), < 91 cm (36 inch), Manpacked or man-portable |
| **Vibration - Helicopter*** | MIL-STD-810G. Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter |
| **Vibration - Loose Cargo*** | MIL-STD-810G. Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/ trailer - loose cargo |
| **Vibration - Tracked Vehicles*** | MIL-STD-810G. Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles |
| **Vibration - Wheeled Vehicle*** | MIL-STD-810G. Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles |

## EMC Specification (*designed to meet)

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|---|---|
| **CE EMI*** | EN61000-6-3:2007 |
| **CE EMS*** | EN55032:2015 |
| **EMI conducted CE102*** | MIL-STD-461F, Method CE102<br>BASIC CURVE<br>10kHz to 10MHz |
| **EMI radiated RE102*** | MIL-STD-461F<br>2MHz – 18Ghz<br>Navy Mobile & Army |
| **EMS conducted CS101*** | MIL-STD-461F, Method CS101, conducted suceptibility, power leads<br>CURVE #1<br>30Hz to 150kHz |
| **EMS conducted CS114*** | MIL-STD-461F<br>10kHz - 200MHz<br>Army, Ground |
| **EMS conducted CS115*** | MIL-STD-461F<br>Conducted susceptibility, bulk cable injection, impulse excitation |
| **EMS conducted CS116*** | MIL-STD-461F<br>10 kHz to 100 MHz |
| **EMS radiated RS103*** | MIL-STD-461F<br>2MHz to 1GHz<br>Army |
| **ESD*** | EN61000-4-2:2009 Level 3<br>EN50024:1998 Performance criteria B + A1:2001 + A2:2003 |