

# DCS-211

## 19" Rackmount Data Collection System

### Features

- Intel Atom® x5-E3930 processor
- 8x Digital I/O with 2kVrms isolation, 4x 2A relays in DO-R
- 3x M12 GbE, 1x RJ-45 GbE, 2x isolated RS232/422/485, 2x USB and one lockable HDMI port
- Up to 3x PCI Express mini slots with one USIM card slot each
- Storage: up to 64GB eMMC 5.0, 1x 2.5" SATA drive bay (optional CFast) and onboard M.2 slot

### Specifications

#### • System

##### Processor

Intel Atom® x5-E3930 1.6GHz

##### Memory

1x SODIMM socket, 4GB DDR3L 1600MHz (up to 8GB)

##### Storage

eMMC 5.0 32GB (default), 64GB (optional)

1x hot swappable 2.5" SSD or accessible CFast slot on front panel (optional)

1x M.2 slot for SATA storage only (2280 type) supports "M key"

#### • External I/O Interfaces

##### Ethernet

4x GbE (Intel® I210IT), 1x RJ-45 and 3x M12, 2kVrms isolation

Speed and Activity LEDs on front panel

##### Serial Port

2x RS-232/422/485 programmable, DB-9 connector on front panel, 1kVrms isolation, supports auto flow

##### USB 2.0

1x USB 2.0, Type A connector on front panel, 1000mA

##### USB 3.0

1x USB 3.0, Type A connector on front panel, 1600mA

##### Graphics Output

1x HDMI (lockable)

##### Digital Input

8x isolated digital input channels

2.5kVrms optical isolation

Input voltage up to 137.5V (nominal voltage 24/36/72/110V)

8x status LEDs

Reserved redundant design by BOM option

Connector Type: D-sub on front panel

Preliminary



#### Digital Output

4x DO channels without isolation in D-sub connector

Additional 4x isolated digital output channels and independently controlled internal integrated relays in separate D-sub connector (DO-R)

2.5kVrms optical isolation

NC/NO contacts can be connected to outsider connector

Working voltage from 16.8V to 137.5V (nominal voltage 24/36/72/110V)

Relay working current level 2A DC at 110V, short-term over-load capability

8x status LEDs

Reserved read back design by BOM option

#### Antennas

7x antenna connector cutouts reserved

#### CAN/MVB

Two DB-9 connector cutouts on front panel reserved for MVB or CAN modules

#### GNSS

Supported by Mini PCIe module with one SMA connector reserved

#### Audio

1x M8 connector audio port on front panel

Analog single-end Line-in

Analog differential Speaker-out

#### • Internal I/O

##### Mini PCIe

2x Mini PCIe slots (PCIe + USB 2.0) + 1x Mini PCIe slot (USB 3.0), compliant to PCIe mini card spec v1.2; both support Full/Half size modules, w/ USIM for each slot

Two SIM slots are externally accessible with protective covers, support 3G/4G/GPS/CAN/MVB function Mini PCIe modules

##### USIM

3x SIM slots, one onboard, two externally accessible via front panel with protective cover

##### USB

1x wafer connector reserved

## Specifications

- **Power**

### DC Input

Input range: 16.8V to 154VDC, 2kVrms isolation  
 Max. input current: 0.5A @ 137.5VDC  
 A-coded M12 connector with 4 pins, cable type

### Power/Fail Reset

System reset & power button, 1x power LED

### Power Consumption

20W typical

### Backup

Industrial grade coin cell battery, supports RTC

- **Notifications**

### Thermal Sensor

1x CPU Tj, 2x thermal sensors (located on PCBA top & bottom sides)

### LED Indicators

Power (on/off)  
 Storage activity  
 Ethernet activity/speed  
 Serial port activity  
 Overtemp warning  
 1x WDT, 2x user defined  
 All LEDs on front panel

- **Mechanical**

### Dimensions

19" 1.5U rack, 445mm x 250mm x 65.5mm (W x D x H)

### Conformal Coating

By request

### Mounting

Rack mount (mounting kit included)

### Weight

Without rackmount ears: 5.3 kg  
 With rackmount ears: 5.76 kg

- **Software**

### BIOS

AMI EFI BIOS

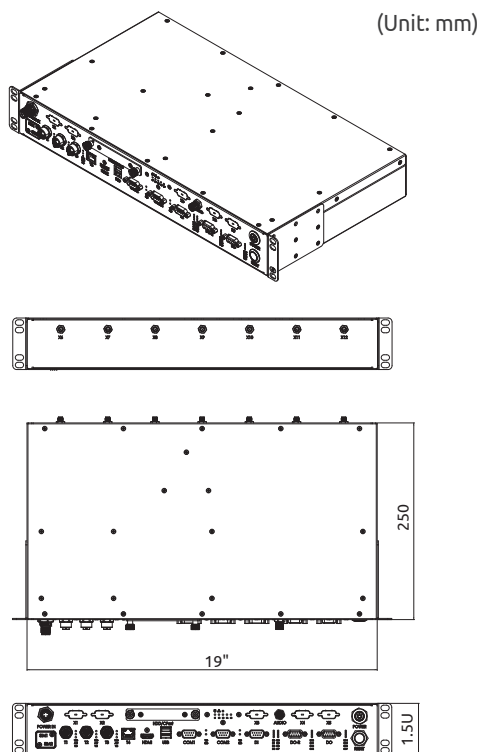
### SEMA

ADLINK SEMA 3.5 for WDT, hardware monitor, and fail-safe dual BIOS

### Operating System

CentOS  
 Linux Ubuntu 16.04 LTS, QT compatible, 64 bit

## Mechanical Drawing



## Mechanical Layout

