

# Pole Mount MEC AI Compute Node



## Micro Edge Data Centers

A whole host of new data-intensive and latency-sensitive applications are pushing data compute resources to the edge of the network. Emerging applications such as autonomous vehicles, augmented reality, and IoT aggregation require real-time processing for optimized decision making and functioning of the application. Latencies approaching 1 msec will be required for acceptable user experiences. This drives the need for a myriad of small scale or micro data centers located very close to the data being generated. Extended temperature hardened servers protected in environmentally sealed and cooled enclosures are vital to enable these applications to provide successful operation for providers and users

## Pole Mountable Compute Node

Charles has teamed with ADLINK Technology to house the MECS-7210 Edge Computing Platform. ADLINK's MECS-7210 is an industry leading Multi-access Edge Computing server designed to meet the requirements of ultra-low latency, high bandwidth, and real time access to 5G radio networks. The server features an extended temperature range of - 5°C to + 55°C and a shallow chassis of only 420mm (16.5 inch) which make it ideally suited for traditional Telecom locations. The Charles Micro-Edge Data Center SC102 enclosure was designed specifically for the MECS-7210 and provides a reliable and protected environment to position a compute node on a small cell or 5G pole. The enclosures are self-contained, secure low profile units that come with integrated with power and cooling and are GR-487 compliant.

This partnership provides the industries first outdoor pole mounted compatible AI MEC solution. The solution is a key cost effective element to enable smart city and advanced community use cases. This includes a multitude of locate anywhere platform for processing data to spawn autonomous vehicles to become reality. Placing micro-edge compute platforms in close proximity with 5G radios can further enable artificial intelligence and machine learning applications to emerge by allowing these applications to process data fast enough to allow users to conduct interactions in real time. There are a growing number of new smart city services and applications that become feasible with compute resources co-located with low latency 5G radios from smart parking to anomaly recognition to enhanced entertainment. Communities will be become safer and more enjoyable.



# Pole Mount MEC AI Compute Node

## Features and Benefits

**GR-487 and NEMA 4X ratings:** Assures equipment protection in all outdoor environments and conditions including wind, rain, fire, and seismic events

**Advanced thermal design:** Solar shields and advanced venting, along with heat exchangers or air conditioners, protect equipment against the environment

**Monitoring solutions:** Charles monitoring solution provides status and alarms of temperature, humidity, pressure, and door intrusion

**Quick and easy deployment:** Shipped to site all together, ready to deploy and easily installed onto a Charles Composite Pad (CPAD) or standard concrete pad

**Customized options available:** Charles can provide specific configurations and footprints that more exactly meet customer needs

**Equipment integration:** Equipment integration can be done by Charles or third parties and shipped to site intact

## Specifications

### SC1021NMN1 Enclosure

- GR-487, NEMA 4 compliant
- 36"H x 24"W x 14"D
- 0.125 inch Al welded construction
- Off-white color
- -40°C to + 46°C ambient
- -5°C to + 55°C internal operating temp.
- 1880W heat exchanger
- 250W heater
- -40°C to +46°C Cooling:
- 3 point latching with pad-lockable door
- Door and temperature alarms
- Pole or wall mountable



### MECS-7210 Server

- 2 Intel Xenon scalable processors
- 16x DDR4 2133/2400/2666 ECC memory
- 3.5"H x 17.2"W x 16.5"D (2U 19 inch rack mount)
- -5°C to + 55°C operating temp.
- 1200W max power AC or DC
- I/O-front access
  - 2 x RJ45 10/100/1000BASE-T
  - 4 x 10G SFP+
  - 1 x VGA
  - 1 x RJ45 serial
  - 2 x USB 3.0
- Expansion
  - 2x PCIe x16 and 1 x PCIe x8 (single slot FHFL)
  - 2x PCIe x16 (dual slot FHFL)



Customer specific and application specific layouts are available. Also can integrate customer equipment or IT gear from a Charles partner.

For more information, please call (847) 806-6300 or visit [www.charlesindustries.com](http://www.charlesindustries.com)

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