

## 5G Outdoor Small Cell and AI/Machine Learning Applications

# Pole Mountable Multi-access Edge & AI Server

Joint release by  
ADLINK Technology  
Charles Industries

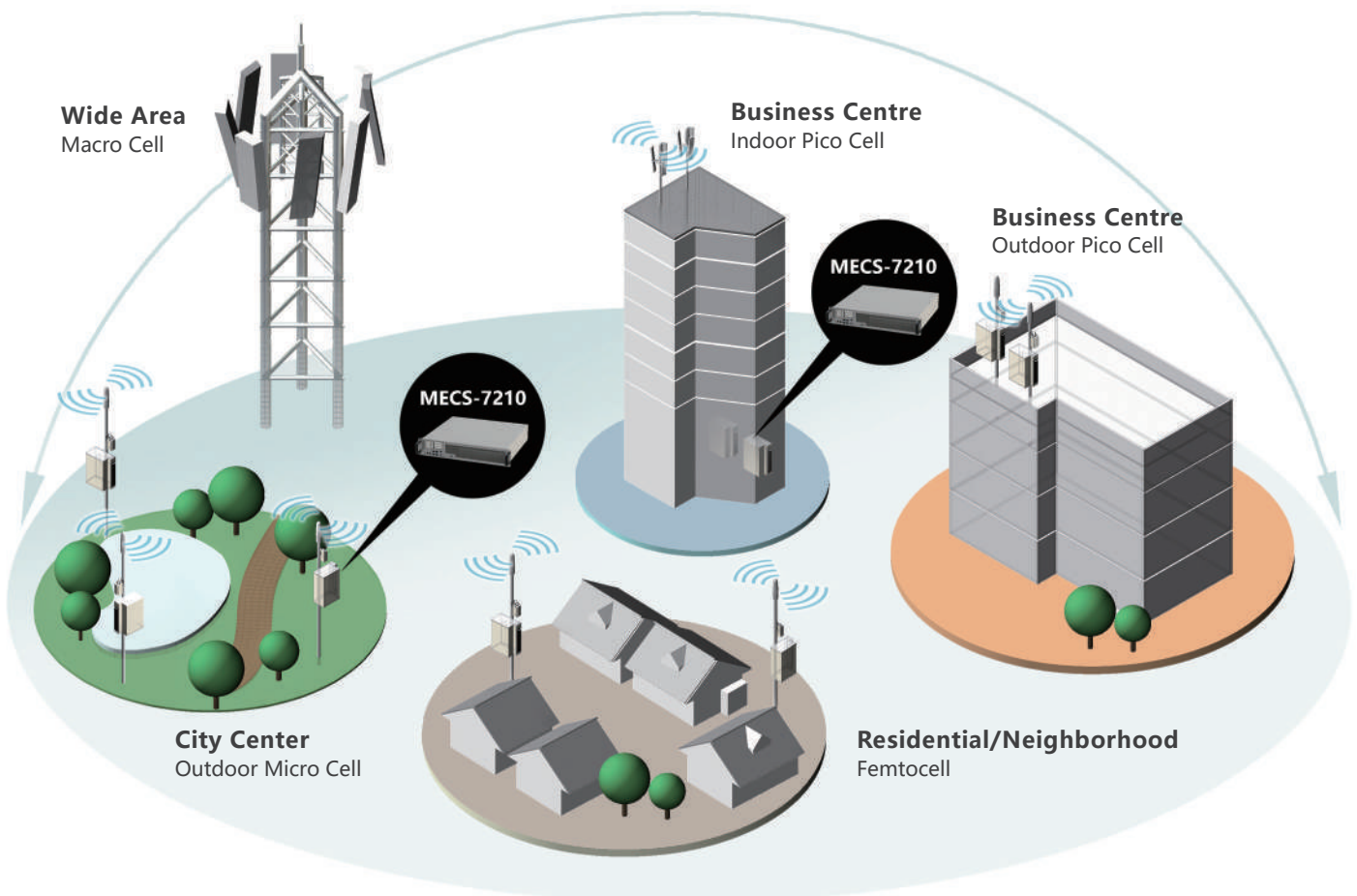




## Industry's First Pole Mountable Multi-access Edge Server for 5G Outdoor Small Cell and AI/Machine Learning Applications

### ■ Demand for Computing and Intelligence at the Edge

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**, **virtual and augmented reality**, **smart city**, **smart transportation**, 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.







## I Pole Mountable Edge Server

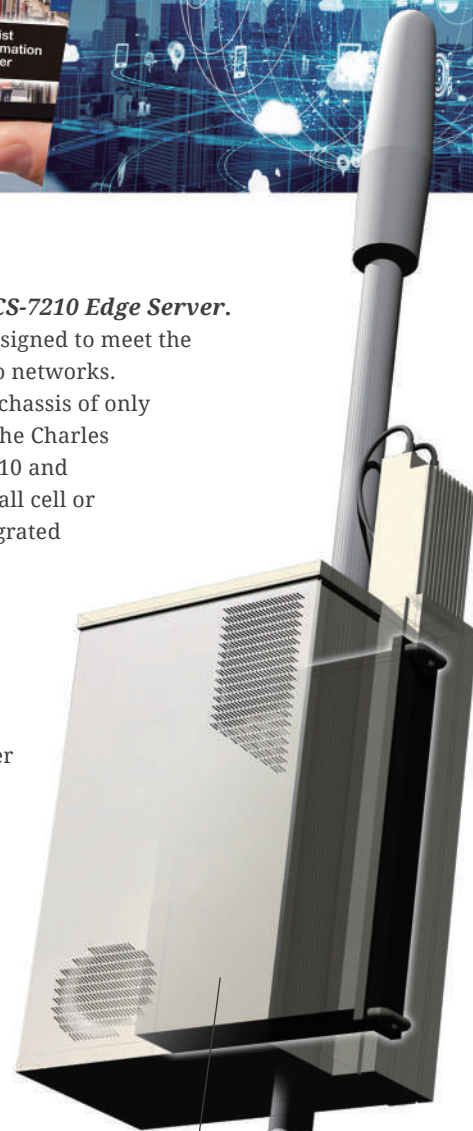
*Charles Industries has teamed with ADLINK Technology to house the MECS-7210 Edge Server.*

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 integrated power and cooling and are GR-487 compliant.

This partnership provides the industry's first outdoor pole mountable 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 platforms for processing data to enable autonomous vehicles becoming a reality. Placing micro-edge compute platforms in close proximity with 5G radios can further enable AI and machine learning applications to emerge by allowing fast enough data processing 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.



ADLINK Edge & AI Server installed  
in Charles **NEMA 4X (IP65)** Enclosure



Outdoor 5G Small Cell  
Computing Node

## Features and Benefits

### GR-487 and NEMA 4X (IP65) 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

### Charles Industries SC1021NMN1 Enclosure

- GR-487, NEMA 4X 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



### ADLINK Technology MECS-7210 Edge Server

- 2 Intel® Xeon® 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 temperature
- 1200W max. power AC or DC
- Front access
  - 2x RJ45 10/100/1000BASE-T
  - 4x 10G SFP+
  - 1x VGA
  - 1x RJ45 serial
  - 2x USB 3.0
- Expansion
  - 2x PCIe x16 and 1x PCIe x8 (single slot FHFL)
  - 2x PCIe x16 (dual slot FHFL)





## About ADLINK

ADLINK Technology is a global leader in Edge Computing. We provide robust boards, platforms and user interfaces; real-time data connectivity solutions; and application enablement for state-of-the-art industrial computing (e.g., AI-at-the-Edge). Together, these also enable innovative end-to-end IoT solutions in support of operational excellence or new revenue streams. ADLINK serves customers in many vertical markets and has an excellent eco-system of technology partners. ADLINK is a valued thought-leader and contributor to many standards and interoperability initiatives, with products available in more than 40 countries.

For more information, please visit

[https://www.adlinktech.com/en/Edge\\_and\\_AI\\_Server\\_Products.aspx](https://www.adlinktech.com/en/Edge_and_AI_Server_Products.aspx)



## About Charles Industries

2019 marks the Charles Industries' 51st year as a privately held, diversified manufacturing and technology company serving telecommunications, wireless, broadband cable, utility, marine, and industrial markets. Founded in 1968, the company is ISO 9001:2008 and TL9000 registered and headquartered in Schaumburg, Illinois with five additional US-based manufacturing centers.

For further information, please visit

[www.charlesindustries.com](http://www.charlesindustries.com)

or call 1-847-806-6300.

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