RADIX™

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LIMITLESS MONITORING AND MANAGEMENT ROOTED IN INTELLIGENCE.
RADIX IoT.

RD 121C Micro IoT Appliance

The RD 121C Micro IoT appliance enables cloud data collection and enterprise edge connectivity for OEM applications or smaller critical facilities or industrial IoT equipment that require mass data aggregation.

FAN-LESS | LOW POWER | 4G LTE | EXT. TEMP | CLOUD

Easily built into other equipment or enclosures, the unit also supports global cellular for remote data aggregation. The box easily provisions to the Mango OS Radix OEM OS for remote management or monitoring. The unit is a perfect solution for intelligent energy metering, property automation, oil and gas applications, solar or remote unstaffed site monitoring of equipment.

FUNCTIONAL OVERVIEW

Low Power Intel® Celeron® N3350 1.1 GHz dual-core processor with 8GB system memory delivering high performance and low power consumption.

Simple to Deploy and Provision. Wire up the devices to be monitored, add an Outbound Ethernet connection (optionally Wifi or LTE) and apply power. All setup can be performed within the Mango Cloud Platform remotely.

Native Connectivity to BACnet/IP, BACnetMS/TP, MQTT, Modbus RTU/TCP, Serial and over plenty of protocols to gather data.

The Mango Cloud platform consolidates, tags, and formats all the harvested data into a single source API allowing remote analytics and visualization platforms to access the entire data collection.

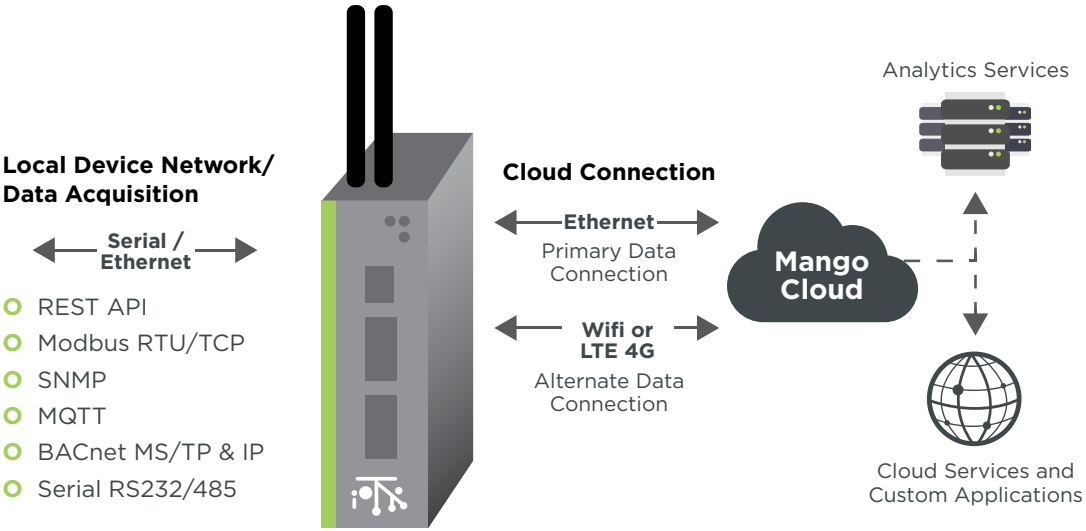
Global Cellular and Integral GPS allowing for data backhaul via worldwide cellular networks when ethernet is not a possibility.

IP40 Rating with a rugged wide-temperature operating range, and fan-less design making it perfect for housing directly in sealed equipment or electrical cabinets in areas without climate control.

HARDWARE FEATURES AT A GLANCE

- Solid State (Fan-less) Industrial Design for long service life
- Single Serial COM Port (RS232, RS485)
- Digital 8bit TLL Digital I/O port
- 12/24VDC Powered
- Simple cloud-based onboarding and configuration with Mango OS or Radix OEM OS
- Protocol support for prevailing building systems and protocols
- Unified RestAPI support for edge data device aggregation.
- Global cellular capabilities
- Integral GPS for location analytics
- Low profile design for integrated OEM applications
- Two Gigabit LAN/WAN ports
- Two USB 2.0 ports

THE RD 121C MICRO IoT APPLIANCE



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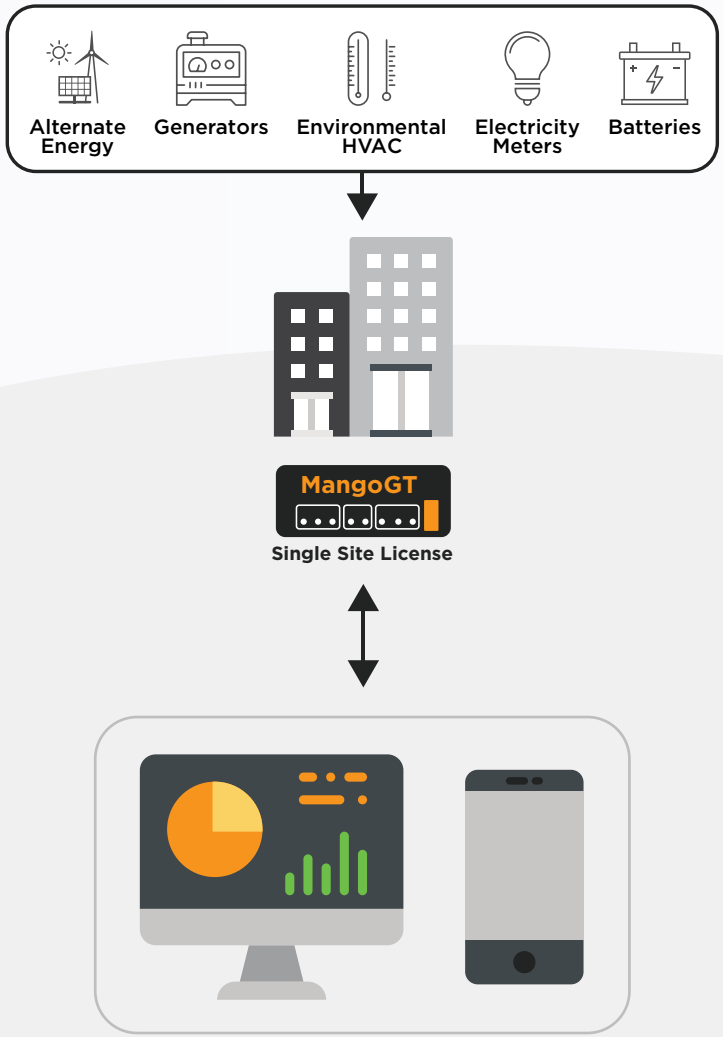
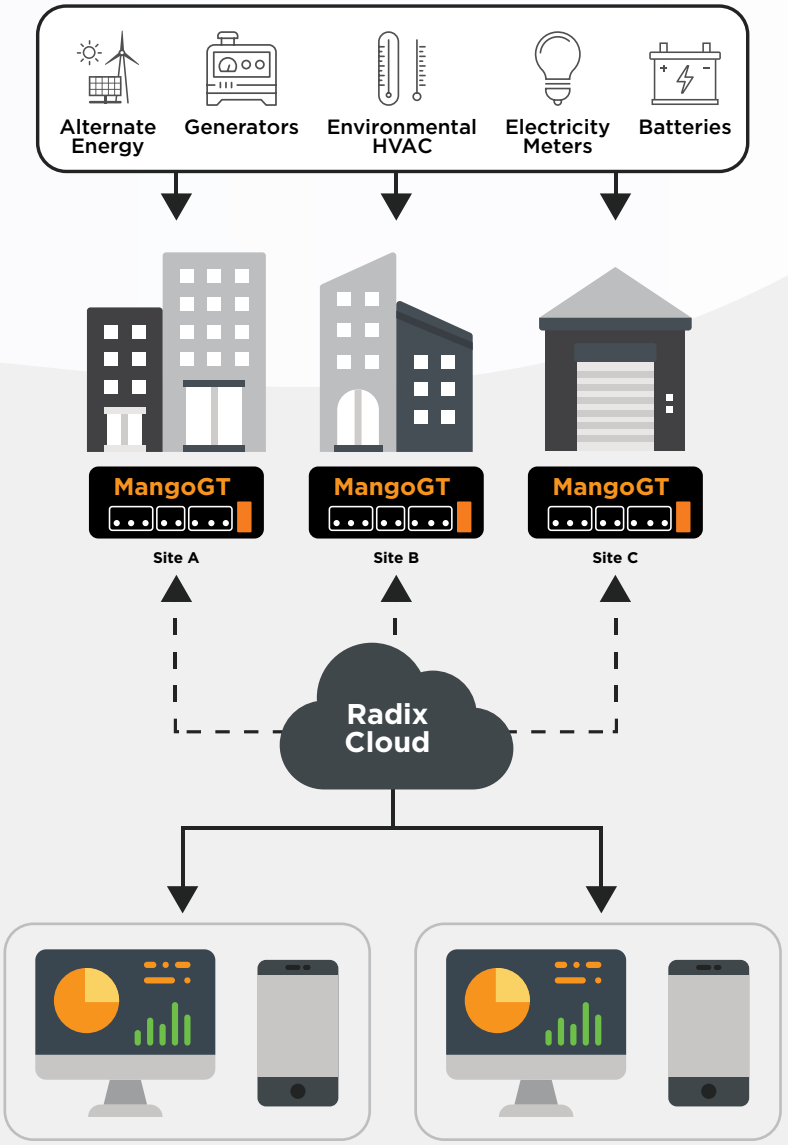
TOPOLOGIES

Single Site



Multiple Enterprise



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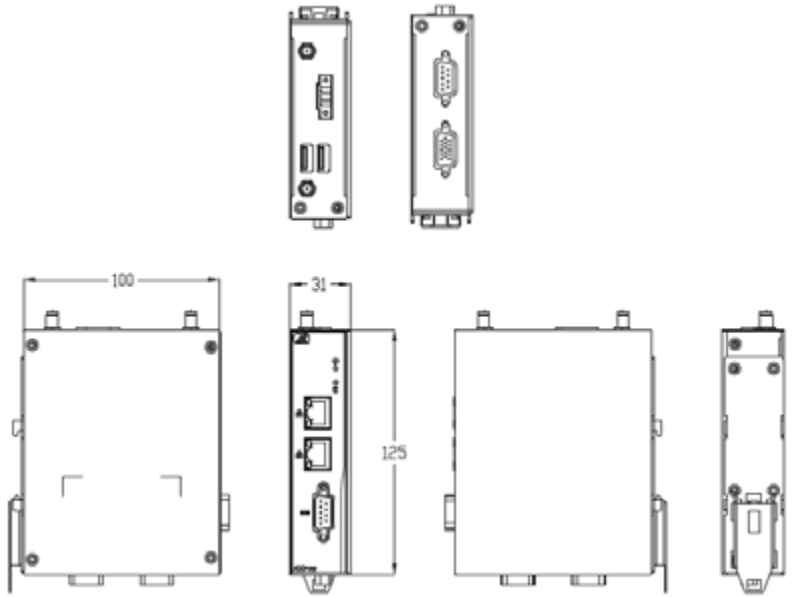
SPECIFICATIONS

Standard Color	White	
Construction	Extruded aluminum and heavy-duty steel, IP40	
CPU	Intel® Celeron® processor N3350 (1.1 GHz)	
Part Number	RD121C	
System Memory	8 GB DDR3L 1866Mhz	
BIOS	AMI UEFI BIOS	
I/O	**Serial Port**	1 x RS-232/485 (COM) with DB9 Connectors Native Protocols: BacNetMS/TP, ModBus RTU See Radixiot.com for further serial protocol options Supports Auto Flow Control in RS-485 mode
	USB	2 x USB 2.0
	RTC	Battery on-board
	Local Storage	SSD 64GB - SATA III 6.0GBit/s
	LAN Ethernet Ports	1 x 10/100/1000 Mbps Ethernet (WAN - Cloud Service Connection) 1 x 10/100/1000 Mbps Ethernet (LAN - Local Device Network)
	Power Input	DC terminal block: 12 - 24VDC Input (Power supply not included)
	Cellular	4G/LTE Global Compliant Cellular Standard Optional secondary transceiver [A]
	DIO	1 x DI/DO (8-Bit Programmable DB9 Female Connector) TTL - 5V External isolation required DIO programming operation: - I/O sink current 10mA - Individual Input/Output programming
	Options	RD121WM - Wall Mount Adapter RDCPM - Panel Mount Cellular Antenna Alternative RDGPSANT - Magnetic Mount GPS Antenna
	[A] Services fees apply per month for cellular connectivity	

Integral Watchdog	Timer based: 255 levels, 1 to 255 sec.
System Indicator	Power, active
Power Supply	Power Input Range: 12 ~ 24 VDC
	Power Input Rating: 12 ~ 24 VDC, 1.39A ~ 0.72A
	Power Protection: DC Version with Over Voltage Protection +20% Reverse polarity protection
Operating Temperature	-20°C ~ +70°C (-4°F ~ +158°F)
Humidity	10% ~ 95%
Vibration Endurance	2 Gms (5 ~ 500Hz, amplitude 0.35 mm; operation/storage/ Transport)
Certificate	CE, FCC Class A
Remote Software	Radix Engine, and Mango OS
Mounting	DIN-rail, wall mount
Weight	0.3 kg (0.67 lb)/0.46 kg (1 lb)
Dimensions	31 mm (1.22") (W) x 100 mm (3.93") (D) x 125 mm (4.92") (H)