

Feature	NanoULTRA-Edge (OLD unit)	NanoULTRA - III <i>Elite</i>	NanoULTRA - III <i>Pro</i>	NanoULTRA - III <i>Lite</i>
<b>Mobile</b>	2G (Limited coverage and reducing)	2G, 3G, 4G (LTE Cat1)	2G, 3G, 4G (LTE Cat1)	2G, 3G, 4G (LTE Cat 1)
<b>Other communications</b>	No other comms	Wi-Fi, Ethernet	Ethernet	No other comms
<b>Location</b>	No on board GPS, cell mast tracking	On board GPS, cell mast tracking when no GPS	On board GPS, cell mast tracking when no GPS	No on board GPS, cell mast tracking
<b>Power</b>	9-30Vdc. < 1 W idle	9 – 30 VDC (4 pin industrial socket), reverse polarity protection; surge protection >31 VDC 10us max . < 2 W idle, < 7 W Max	9 – 30 VDC (4 pin industrial socket), reverse polarity protection; surge protection >30 VDC 10us max . < 1.2 W idle, < 5 W Max	9 – 30 VDC (4 pin industrial socket), reverse polarity protection, surge protection >33 VDC 10us max. < 5 W
<b>Size/Mounting</b>	109*29*109mm. DIN rail bracket	110*50*100mm. DIN-rail bracket	83 x 25 x 74.2 mm – DIN rail bracket	74.5*25*64.4mm-DIN rail bracket
<b>Antenna</b>	1* SMA for 2G	2 x SMA for LTE, 2 x RP-SMA for WiFi, 1 x SMA for GNSS	1 x SMA for LTE for GNSS	1 x SMA for LTE
<b>Environmental</b>	-10 to +75 °C (operational) , -20 to +85 °C (storage)	-40 °C to 75 °C, 10% to 90% non-condensing (operational)	-40 °C to 75 °C, 10% to 90% non-condensing (operational)	-40 °C to 75 °C, 10% to 90% non-condensing (operational)
<b>On board memory (for when communications are interrupted)</b>	Limited on board memory	200 modbus registers, sampled at a 20 second sample rate can be stored for 24 hours before being over written	200 modbus registers, sampled at a 20 second sample rate can be stored for 24 hours before being over written	200 modbus registers, sampled at a 20 second sample rate can be stored for 24 hours before being over written
<b>FOTA (Firmware upgrade over the air)</b>	Limited FOTA	Resilient and scalable FOTA	Resilient and scalable FOTA	Resilient and scalable FOTA
<b>Serial</b>	RS485	RS232/485/Modbus TCP	RS232/485/Modbus	RS485
<b>I/O's</b>	4 digital i/p's, 4 digital o/p's, 4 analogue inputs	3 digital i/p's, 2 digital o/p's (1*relay, 1 open collector), 1 analogue input (0-24V). USB2.0	3 x Configurable Inputs/Outputs. Digital input 0 - 6 V detected as logic low, 8 - 30 V detected as logic high. Open collector output, max output 30 V, 300 mA	2 x Configurable Inputs/Outputs. Digital input 0 - 6 V detected as logic low, 8 - 30 V detected as logic high. Open collector output, max output 30 V, 300 mA
<b>On board Ethernet</b>	No	4 x RJ45 ports (1xWAN, 3xLAN), 10/100 Mbps	16 port terminal (1xLAN) 10/100 Mbps	No
<b>Status LEDs</b>	1x Power LED 1* cell connection LED	1 x bi-colour connection status LED, 5 x connection strength LEDs, 4 x LAN status LEDs, 1 x Power LED	1 x bi-colour connection status LED, 3 x connection strength LEDs, 1 x LAN status LEDs, 1 x Power LED	3 x connection type status LEDs, 3 x connection strength LEDs, 1x Power LED

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<b>Sampling frequency</b>	Sampling time limited to 2 minutes	Sampling time down to 20 seconds (tested to 200 registers on 4 slaves). Event driven, burst sampling to 1second available	Sampling time down to 20 seconds (tested to 200 registers on 4 slaves). Event driven, burst sampling to 1second available	Sampling time down to 20 seconds (tested to 200 registers on 4 slaves). Event driven, burst sampling to 1second available
<b>SIM Holder</b>	Single SIM	Dual SIM card slots for application that require redundancy at this level	Dual SIM card slots (Mini SIM) for application that require redundancy at this level	Single SIM
<b>Modbus handling</b>	Limited modbus handling	Resilient, scalable and reliable modbus handling via SmartHub. Supports block and singular register reads. Modbus register maps stored and provisioned via SmartHub.	Resilient, scalable and reliable modbus handling via SmartHub. Supports block and singular register reads. Modbus register maps stored and provisioned via SmartHub.	Resilient, scalable and reliable modbus handling via SmartHub. Supports block and singular register reads. Modbus register maps stored and provisioned via SmartHub.
<b>Gateway diagnostics</b>	Limited diagnostics	Comprehensive diagnostic capabilities. Live interrogation of field based unit	Comprehensive diagnostic capabilities. Live interrogation of field based unit	Comprehensive diagnostic capabilities. Live interrogation of field based unit
<b>Extra functionality</b>	-	On board ethernet for routing ethernet based devices to the SmartHub e.g. Matrix+	On board ethernet	-
<b>Approvals</b>	CE	CE/RED, FCC, IC/ISED, EAC, RCM, PTCRB, RoHS, WEEE, Wi-Fi Alliance CE/RED, FCC, IC, PTCRB, RCM, EAC, CCC, RoHS, WEEE, IP rating, Anatel, GCF, REACH, E-mark, DNV GL, ECE Regulation 118, Morocco ANRT, Thailand NBTC, Ukraine UCRF, SDPPI (POSTEL), WiFi Certified, MODBUS Conformance AT&T, Verizon Vehicle- ECE R10 (E-mark), ECE R118	CE/RED, EAC, RoHS, WEEE	CE/RED, EAC, RoHS, WEEE
<b>SmartHub IoT platform connectivity</b>	Yes	Yes	Yes	Yes
<b>Extensive range of signal conditioning/expansion modules</b>	Yes	Yes	Yes	Yes