E210 Series

Cost-effective, rugged LTE routers

With WAN, LAN, Wi-Fi and serial connectivity, the E210 Series of M2M routers is designed for mission-critical industrial applications.

Multiple LTE options
Not only LTE cat. 4 but also LTE cat. 1 and dual mode LTE-M1 / NB-IoT, which are suited better to applications requiring low data throughput but high resilience and reliability.

Advanced Routing Features
State-of-the-art load balancing, multiple VPN tunneling schemes including IPsec, cellular / WAN / Wi-Fi failover scheme.

Multiple interfaces
To connect easily to any legacy or modern equipment with RS-232, LAN, WAN and Wi-Fi.

Snap Cap™
Snappily converts E210 Series’ RS232 port into an isolated, half- or full-duplex, RS-485 port.

D2SPHERE™ device management services let you monitor, diagnose, control and update your Lantronix Mobility Solutions devices. Information such as signal strength, geographic location, battery state, temperature, device firmware and software versions can be remotely monitored, stored and presented to help you to manage quality of service and prevent downtime.
### E210 SPECIFICATIONS

#### HARDWARE

- **Material:** Brushed aluminium alloy
- **Dimensions (MM):** 92±1 x 57.7 ± 2 x 32 ± 2 without connectors
- **Weight (G):** Approx. 150
- **Temperature & Humidity Ranges:**
  - Operating*: -20°C to +60°C; up to 95% RH
  - Storage: -40°C to +85°C; up to 95% RH
- **CPU:** MIPS32® 24KEc® CPU running at 580 MHz
- **Built-in Memory:** 64 KB [resp. 32 KB] instruction [resp. data] cache
- **FLASH MEMORY:** 32 MB
- **POWERS:**
  - RTCP with an approx. 100-day data retention period; courtesy of a 15 mWh lithium manganese battery (not functional below -20°C).
  - Idle: 0.15 (E115); 1.15 (E114); 1.2 (E118)
  - Standby: 2.15 (E115); 2.25 (E114); 2.35 (E118)
  - Communication (Tx max.): 5.15 (E115); 6.15 (E114); 6.25 (E118)

#### ePACK SOFTWARE SUITE

- **ADMINISTRATION AND NETWORK PROTOCOLS:** Web-based user interface, setup wizard, console log viewer, save / load configuration, NTP, SMS / OTA remote configuration, TR-069-capable
- **REDUNDANCY:** Ethernet, Cellular, Wi-Fi – configurable as failover or load balancing
- **RESILIENCE:** Network connectivity watchdog (configurable), internal application watchdog
- **Wi-Fi:** Client or Access point (approx. 40-user), multiple SSID, WEP, WPA, WPA-PSK / WPA2-PSK security modes
- **DEVICE MANAGEMENT SERVICES:**
  - Dynamic DNS, DNS proxy, NAT, STP
  - Load configuration, NTP, SMS / OTA remote configuration, TR-069
- **SECURITY:** Zone-based firewall, VLAN, DMZ, HTTPS local and remote connection, SIM PIN
- **PERFORMANCE AND FAULT MANAGEMENT:** Real time processor load and interface (WAN / LAN / Wi-Fi), traffic analysis, ICMP, trace-route, NS lookup
- **ROUTING:** DHCP, static routing, port forwarding, traffic shaping, static / dynamic DNS, DNS proxy, NAT, STP
- **VPN:** PPTP client, L2TP, OpenVPN client / server / pass-through, GRE, Ipsec
- **INDUSTRIAL PROTOCOLS:**
  - MODBUS RTU/TC to IEC-60870-5-104 converter, Modbus Master Mode, Modbus RTU to Modbus TCP converter, Modbus to MQTT / Cumulocity / FTP / Azure / Http, Serial to FTP converter, IEC-60870-5-101 to IEC-60870-5-104 converter, Modbus to DNPS converter IO to Modbus converter, IO to Modbus converter

#### OPERATING AND CONTROLs

- **Power:** 8 V dc ~ 32 V dc with SLOW START; via the upper row of a dual row, 4-pin, Micro-Fit®-3.0 header
- **I/Os:**
  - Input: 0 V dc ~ 1 V dc [resp. 1 V dc ~ 2 V dc; 2 V dc ~ 4 V dc [resp. 3 V dc ~ 6 V dc; 6 V dc max.]
  - Output: opens collector; 100 ma max.; 36 V dc max.
- **Reset button:** Short (2 s < 10 s) / Long (> 10 s) press for Soft / Hard Reset
- **RS-232:** Full implementation; via a 9-pin sub-D header
- **10/100BASE-T ETHERNET:**
  - 1T1 Wi-Fi 4; via an RP-SMA antenna connector
  - One- or two-antenna models as:
    - 3G E1115G; LTE-M1 E1123G; via an SMA antenna connector
    - LTE cat. 1 E1124G; LTE cat. 4 E1128G; via two SMA antenna connectors (main and diversity)
    - Dual SIM: Single standby (‘DSSYS’); via two mini-SIM held in trays
    - Concurrent GPS and GLONASS E1125G, E1123G; IZat™ gen. 8C gpsOne E1124G, E1128G
- **Cellular (details in the table below)**
  - Seven as green for (i) POWER; blue for (ii) SIM; (iii) Wi-Fi; amber for (iv) Activity; (v) Network; (vi) Signal; red for (vii) ALERT
  - **FACaCTOR OPTIONS** (subject to MOQ and other considerations)
- **XTR:** -30 °C ~ +70 °C operating temperature range
- **DD2 SRAM:** Doubled to 256 MB
- **ALTERNATE:** 64 MB [resp. 1 GB] of internal Flash memory, arranged in 512- [resp. 1024-] page blocks, substituted for the standard microSD card holder
- **MFF SIM(s):** Combination of (i) MFF + mini; or (ii) mini + MFF; or (iii) MFF + MFF SIMs, substituted for the standard two mini-SIM trays
- **LOCATION SERVICES:**
  - IZat™ gen. 8C gpsOne E1142F, E1142FQ, E1148FQ; via a dedicated SMA antenna connector
  - ADD-ON
  - SNAP CAP™
  - SC405, 8-pin sub-D plug that ‘snappily’ connects any E210 unit into an isolated, half- or full-duplex (user-selectable via a slide switch) RS-485 unit via a 5-pin, 3° mm pitch, COMBICON header

#### ESSENTIAL ACCESSORIES

- **Power Cords:** KDC424 or KDC44 (the latter with two more stripped wires for ICOMs)
- **REMOTE, ADHESIVE, CELLULAR AND GNSS SERVICES:**
  - All IP67-rated, except for A3110 (IP63) and A3110 (N/A)
  - A3130 or A3130, LTE E1125G
  - A1400 or A1440, ‘2-in’ LTE + GNSS E1142G, E123G
  - A3320 or A3920, ‘2-in’ LTE + LTE E1124G, E121
  - A3330 or A3390, ‘3-in’ LTE + LTE E1128G, E121G, E128G
- **Wi-Fi Antennas:** L-shaped, hinged, A2420G (while stocks last) or A2120H
- **DIN RAIL CLIP:** BR551, dual mount 5 m/s or 1.5 m; mounting bracket too

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Please consult us regarding the models shown in grey, or the features shown in grey italics, which are subject to MOQ and other considerations.

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**1.** Onuplink / Downlink maximum data rates:
- 2G: 85.5 kbps; or 236 (+) 236 kbps; or 296 kbps
- 3G: 57.6 / 7.2; or 0.9G; or 242 Mbps
- LTE-M1 (resp. NB-IoT): 375 / 300 [resp. 62.5 / 28.7 kbps] kbps currently; 1,000 / 600 [resp. 140 / 120] kbps in Jul. 20 via a 3GPP Release 14 software update
- LTE cat. 1: 15 / 10 Mbps (FDD); 3 / 8 Mbps (TDD)
- LTE cat. 4: 50 / 150 Mbps (FDD); 35 / 130 Mbps (TDD)

**2.** Based on measuring frequencies.

**3.** More precisely, B12’s 2555 MHz subset, suited to China’s three operators and incl. TDO B38

**4.** incl. North America’s (‘NorAm’s’) B17

**5.** incl. KDDI’s B18 as well as NorAm’s B5, the latter incl. NTT docomo’s B19, itself incl. Japan’s B6 (3G)

**6.** incl. Japan’s B9

**7.** incl. NorAm’s B10, itself incl. NorAm’s B4

**8.** Registered as Class 1 Division 2 for use in explosive atmospheres, as a factory option subject to MOQ and other considerations

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