

# E210 Series

Cost-Effective, Rugged  
LTE Routers



LANTRONIX  
Connectivity Services



## WAN, LAN, WI-FI SMART IOT ROUTER WITH EDGE CAPABILITY IN A COMPACT, INDUSTRIAL FORM FACTOR

Lantronix E210 industrial-grade routers are designed with high resiliency, Cellular Cat-M1, NB-IoT or Cat1, WAN, LAN, Wi-Fi, and serial connectivity, providing robust connectivity for faultless requirements. Now offered with PercepXion, our secure cloud platform that provides comprehensive life cycle management, application integration and analytics through a single pane of glass. E210 is perfect for IoT and enterprise applications, including industrial automation, Industry 4.0, smart city, smart building applications, and transportation connectivity. E210 series routers provide state-of-the-art load balancing and multiple VPN tunneling schemes, including IPsec, and cellular/WAN/Wi-Fi failover schemes.

### Protect, Process, and Customize the Edge

Based on Linux frameworks and Lantronix ePack software suite, the E210 routers provide a user-friendly environment to develop your application, leverage the crowd and the community of Linux developers, and more than hundreds of applications supported by our Linux framework.

Reduce your recurring cost and ensure the fastest response time from your device in two ways:

- Store logs for records, store external device data for data logging purposes on E210 SD card
- Send to the cloud only what you need by processing the data to the edge

### Ultimate Stability with Load Balancing and Failover Using Dual SIM Operation

Lantronix E210 has an automatic failover functionality that prevents your loss of communication even if you have a connection problem with cellular redundancy by dual SIM support. Switching based on Quality of Service. Program your scripts and conditions of switching.

### Security and VPN support

Keep your critical data safe from cyber-attack by using advanced encryption such as AES, SSL/TLS. E210 supports major VPN profiles, including Open VPN, which offers the highest performance, is reliable on high latency connections, and is easy to set up. With a 256-bit encryption protocol, your information is safe. This platform offers improved stability and compatibility for all your devices.

### Lantronix Software Services

PercepXion - This secure cloud platform provides comprehensive, ready-to-use device life cycle management, application integration and analytics through a single pane of glass. <https://www.lantronix.com/percepXion/>

Connectivity Services - North American and global cellular data plans and VPN security with an easy-to-use cloud platform to manage your SIMs and services. <https://www.lantronix.com/connectivity-services/>

### Perfect For:



Industry 4.0



Smart Building &  
Smart City



Security



Sales &  
Payment

### E210 Series Highlights

- Pre-configured with PercepXion™ IoT Edge solution platform
- Fieldbus protocol conversion: Modbus, DNP3, IEC 104, DLMS, Dual Sim
- Edge programming and processing
- Ultra-compact form factor
- Multiple interface
- Industrial-grade
- Compatible with all Lantronix Connectivity Services SIM Cards

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## Hardware

### Wi-Fi

- 1T1R Wi-Fi 4; via an RP-SMA antenna connector

### Cellular

One- or two-antenna models as:

- LTE-M1 E213G; via an SMA antenna connector
- LTE cat. 1 E214[G]; LTE cat. 4 E218[G]; via two SMA antenna connectors (main and diversity)

### I/Os

Two isolated digital I/Os; via the lower row of the same header

- INPUT: 0 V dc ~ 1 V dc → ZERO; 1.4 V ~ 36 V dc → ONE
- OUTPUT: open collector; 100 mA max.; 36 V dc max.

### Serial Communication

- RS232 Full implementation; via a 9-pin sub-D header

### 10/100Base-Ethernet

- One LAN port and one WAN port, user-reconfigurable as second LAN port; via RJ-45 headers fitted with two LEDs

### Dual SIM

- Dual SIM / Single standby ("DSSS"); via two mini-SIM held in trays

### Location Services

- Concurrent GPS and GLONASS (E213G); IZat™ gen. 8CpsOne (E214G, E218G); via a dedicated SMA antenna connector

### Data Storage

- Via a user-accessible microSD card (not provided)

### DDR2 SDRAM

- Doubled to 256 MB

### Alternate Data Storage

- 64 MB [resp. 1 GB] of internal Flash memory, arranged in 512- [resp. 2,048-] byte pages, 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

### Physical Description

- Brushed aluminum alloy
- Size: (MM) 92.5 x 57.2 x 22.5
- Weight: Approx. 150 g
- LED: (i) POWER; blue for (ii) SIM; (iii) Wi-Fi; amber for (iv) Activity; (v) Network; (vi) Signal; red for (vii) ALERT

### Temperature & Humidity Ranges

- Operating: -20 °C ~ +70 °C; up to 95% RH
- Storage: -40 °C ~ +85 °C; up to 95% RH

### CPU

- MIPS32® 24KEc™ CPU running at 580 MHz
- Built-in 64 KB [resp. 32 KB] instruction [resp. data] cache
- SPI Flash Memory: 32 MB

### Power-off Timekeeping

- RTC with an approx. 100-day data retention period; courtesy of a 15 mWh lithium manganese battery (not functional below -20 °C)

### Power Consumption (W)

- All figures worst-case (60 °C, 32 V, all subsystems fired on, etc.)
- Idle: 1.10 (E213); 1.10 (E214); 1.10 (E218)
- Standby: 2.63 (E213); 2.63 (E214); 2.63 (E218)
- Communication (Tx max.): 6.18 (E213); 6.18 (E214); 6.18 (E218)

### 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

## 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

- Web-based user interface, setup wizard, console log viewer, save / load configuration, NTP, SMS / OTA remote configuration, TR-069-capable
- 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

- Lantronix PercepXion™ platform or third-party platforms

### Connectivity Services

- Compatible with all Lantronix Connectivity Services SIM Cards

### 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 routing, static /dynamic DNS, DNS proxy, NAT, STP

### VPN

- PPTP client, L2TP, OpenVPN client / server / passthrough, GRE, IPsec
- SSL v3, SSH v2 Client & Server - up to 2048-bit certificates
- Encryption: AES 3DES, RC4
- Authentication: SHA-1, MD5, Base-64 connectors

### Security

- Zone-based firewall, VLAN, DMZ, HTTPS local and remote connection, SIM PIN

### Industrial Protocols

- MODBUS RTU/TCP 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 DNP3 converter
- I/O to Modbus converter
- I/O to IEC 104
- I/O toggling through SMS

### Warranty

- One Year Limited

### Certifications

- E213 FCC, RCM, NBTC, CE, SIRIM
- E214 RCM, NBTC, CE, SIRIM
- E214G FCC, Verizon Wireless, ISED, PTCRB, AT&T Wireless
- E218 NBTC (Thailand)

### Ordering

Visit [www.lantronix.com/products/e210-series-routers/](http://www.lantronix.com/products/e210-series-routers/) for a full listing of available accessories.

Part Number	Description
E214F002S	Router E214 EMEA Malaysia - LTE cat. 1 band 28, 20, 8, 3, 1, 7 - 3G FB 8, 1 - 2G FB band 8, 3 - 2 Ethernet, Dual SIM, RS-232 port, Wi-Fi, SD card, 2 I/O - Epack
E214F00CS	Router E214 China, Indonesia, India - LTE cat. 1 band 5, 8, 3, 1; TDD 40, 41 - 3G FB 8, 1 - 2G FB band 8, 3 - 2 Ethernet, Dual SIM, RS-232 port, Wi-Fi, SD card, 2 I/O - Epack
E214G000S	Router E214 AT&T, T-Mobile - LTE cat. 1 band 12, 5, 4, 2 - 3G FB 5, 4, 2 - 2 Ethernet, Dual SIM, RS-232 port, Wi-Fi, SD card, 2 I/O - Epack
E214G001S	Router E214 Verizon - LTE cat. 1 band 13, 14 - 2 Ethernet, Dual SIM, RS-232 port, Wi-Fi, SD card, 2 I/O - Epack
E218F004S	Router E218 Brazil ANZ Thailand Malaysia Singapore - LTE Cat4 band 28, 5, 8, 3, 1 - 3G FB 5, 8, 1 2G FB 8, 3 - 2 Ethernet, Dual SIM, RS-232 port, Wi-Fi, SD card, 2 I/O - Epack
E213F102S	Router, E213 Worldwide, LTE-M1/NB-IOT, 2G FB, 2 Ethernet, Dual SIM, RS-232 Port, Wi-Fi, SD Card, 2 I/O EPACK