E220 Series

Highly versatile, reliable and rugged routers

Available in 3G and LTE and with WAN, LAN, Wi-Fi and serial connectivity, the E220 series of M2M routers is designed for mission-critical enterprise applications.

- **Advanced Failover**
  Maximise uptime by seamlessly switching between multiple Internet interfaces

- **Advanced Load Balancing**
  Spread or bind your data traffic across the multiple Internet interfaces, based on data type, source or destination and the relative WAN connectivity costs

- **Multiple Tunnelling Schemes**
  Secure your data using a variety of VPN tunnelling schemes, including PPTP, L2TP, OpenVPN, GRE and IPsec

- **RS-485 Operation**
  Integrate sensors and thirdparty devices over the RS-485 serial port to provide seamless connectivity to IP networks

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.
# E220 SERIES SPECIFICATIONS

## HARDWARE
- **Material**: Brushed aluminium alloy
- **Dimensions (mm)**: 61 x 235 x 44 x 24 without connectors
- **Weight (g)**: Approx. 165
- **Temperature & Humidity Ranges**:
  - Operating: -20°C to +70°C (E225 Lite models) or -30°C to +70°C (E225 models); up to 95% RH
  - Storage: -40°C to +85°C; up to 95% RH
- **CPU**: MIPS32® 24KE™
- **Flash Memory**: Either 32 MB (E225 Lite models) or 64 MB (all other models)
- **DDR2 SDRAM**: Either 64 MB (E225 Lite models) or 128 MB (all other models)
- **Power Consumption (W)**:
  - Standby: 2 W (E225); 2.4 W (E224); 2.6 W (E228)
  - Communication (Tx max.): 5 W (E225); 6 W (E224); 6.4 W (E228)

## Software Suite
- **Web-based user interface**, **setup wizard**, **console log viewer**, **save / load configuration**, **NTP, SMS / OTA remote configuration**, **TR-069 capable**
- **Network Connectivity checks**: **failover** or load balancing
- **Network Fault Management**: **alerts**, **troubleshooting**, **diagnostic test tools**
- **Routing**: DHCP, static, port forwarding, traffic routing, **DHCP / DNS**
- **VPN**: PPTP, L2TP, OpenVPN, **SSL tunnelling**
- **Modbus**
  - RTU / TCP to IEC-60870-5-104 converter
  - Modbus Master mode
  - Modbus RTU to Modbus TCP converter
  - Modbus to MQTT / COAP / FTP / Azure / HTTP / Serial to FTP converter
  - IEC-60870-5-101 to IEC-60870-5-104 converter
  - Modbus to DNSP3 converter
  - IO to Modbus converter
  - I/O to IEC 104
  - I/O tagging through SMS

## POWER
- **Main Source**: 10 V DC to 60 V DC / ‘roadworthy’, i.e. **ISO 7873-2:2011** and more stringent **ISO 7873-2:2004**-certified at both 12 V and 24 V, by TUV
- **Backup Source**: **3** PD-PoE with seamless fail-over back onto the main source (if the latter is plugged in, obviously)
- **Operation Temperature & Humidity**:
  - Operating: -20°C to +70°C (E225 Lite models) or -30°C to +70°C (E225 models); up to 95% RH
  - Storage: -40°C to +85°C; up to 95% RH

## OPERATION AND CONTROLS
- **Two isolated digital I/Os** with common ground; via the three leftmost pins of an 8-pin, 2.5 mm pitch, plug-less, COMBICON header
- **Input**: 0 V or 5 V DC (open
- **Output**: open collector; 20 mA max.; 50 V dc max.
- **6 kHz (contact) and 8 kHz (air)** (isolated), either half-duplex (factory setting) or full-duplex (user-selectable via a slide switch), operation via the five rightmost pins of the header mentioned above

### EPACK SOFTWARE SUITE
- **Cellular and GNSS antennas
- Wi-Fi antennas
- DIN rail clip
- MFF SIM**

## ESSENTIAL ACCESSORIES
- **Power cord**
- **Cellular and GNSS antennas**
- **Wi-Fi antennas**
- **DIN rail clip**
- **MFF SIM**

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### Model Name | Territories or Operator(s) | Cellular Type | Bands | Backward Mode | Location Services | Planned / Obtained Certifications | Planned / Made FCA | Order Code
---|---|---|---|---|---|---|---|---
E225 Lite | EMEA: South-East Asia; South Asia | 3G1 | 8/1 | 2G/2 | x | CE | E225L
World | | 5/8/2/1 | 5/8/3/2 | E225L
E228G Mk II | EMEA: Taiwan | 28/20/6/3 | 4/1 | 8/1 | x | NCC | E228G
Brazil; ANZ; Thailand; Malaysia; Singapore; Indonesia; China | LTE cat. 4 | 28/5/8/3/1/7 | 5/8/1 | 8/3 | E228G
E225 | EMEA: South-East Asia; South Asia | 3G1 | 8/1 | 2G/2 | 8/3 | CE | E225L
World | | 5/8/2/1 | 5/8/3/2 | E225L
E224 | EMEA | LTE cat. 1 | 20/8/3 | 8/3 | CE | E224L
Asia Pacific | 28/5/8/3 | 5/8/1 | E224L
Rogers; AT&T Wireless, T-Mobile USA, Sprint | LTE cat. 4 | 17/5/4/2 | 3G2 | 5/2 | ISED: FCC | E228L
Verizon Wireless (user-configurable) | | 13/4/2 | N/A | E228L
ANZ | 28/3/7 | x | N/A | E228L
NIT docomo | 19/21/1 | E228L
KDDI | 18/11/1 | E228L
LG U | 5/3/17 | E228L

1. **Visit www.lantronix.com**
2. **Uplink / Downlink maximum data rates**
3. **Higher by increasing frequencies**
4. **More precisely, B41’s 2535 MHz – 2555 MHz subset**
5. **Rated by increasing frequencies**

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