

Visit www.3d-p.com

To learn more, call 3D-P
at **+ 1.403.203.3018**

Product overview

The e110 LTE/InstaMesh® Hybrid Client is designed to remove the barriers to entry for LTE networks in mining. Beyond the rugged heritage that comes with the Intelligent Endpoint (IEP) product line, the e110 is designed to solve the challenges inherent to many LTE deployments in mining. The e110 includes both a high performance LTE modem, as well as a Rajant InstaMesh® node. The LTE modem can participate as one of the radios in the mesh, effectively creating a client meshing LTE solution.

A fleet of e110 connected devices provide greater connectivity than traditional LTE clients as the devices can mesh between each other to reduce network costs while solving connectivity, throughput, and L2 challenges on the LTE network:

- A truck that is shadowed from LTE infrastructure by a nearby shovel can send his traffic over the mesh to the shovel e110, which can then forward that traffic on via its available LTE link.
- When LTE throughput is limited by the available spectrum, or due to heavy traffic volumes, introduction of a Rajant InstaMesh infrastructure node in the vicinity can provide load balancing, offloading traffic to the local network.
- Traffic can be completely segregated, starting right at the machine, with applications like video and asset health being routed over an InstaMesh network and high priority traffic, such as autonomy, utilizing the predictability of LTE and being routed over that network.
- Deployment of the e110 in a traditional InstaMesh network can allow coverage in some areas of the mine to be provided by LTE and its comparably reduced infrastructure requirement, such as in long distance hauls between pits, etc.
- The e110 provides access to L2 capability over the L3 LTE links, solving the challenge of legacy mining applications on an LTE network.
- The e110 provides powerful wireless integration capability as it can be configured as an LTE only client, a Rajant only client, a Wi-Fi only client, an LTE/InstaMesh client with Rajant Meshing, or an LTE/InstaMesh client with Wi-Fi connectivity.
- The e110 includes 3D-P's powerful NPAT suite of data collectors that enable network monitoring from the edge. This critical tool allows network operators in the office, or around the world to see the performance of the network from the clients' perspective, allowing them to keep up with the constant changes of the mining network performance even as the mines topology changes.



MINING TOUGH

3D-P's hybrid clients are purpose built for mining and meet demanding environmental specifications. This makes the e110 ideally suited for deployment on heavy equipment.

RELIABLE COMMS

The e110 features onboard tools to seamlessly network your mining applications. Rajant and LTE radios with connection managers designed specifically for use in the mining environment provide dependable connectivity.

Rugged Mobile Computing

Specifications

POWER SUPPLY

- 10 to 36 VDC
- Max Power Consumption: 35W

WIRED INTERFACES

- 3x Ethernet
- 1 x Digital In
- 1 x USB 2.0

GPS

- <3m accuracy (WAAS)

MECHANICAL

- 8" x 11.25" x 4.25"
- Weight: 5.5kg

ENVIRONMENTAL

- -40 to +70C (operational)
- Vibration: 10g
- Shock: 20g
- Ingress Protection: IP67

STATUS INDICATORS

- Power & Radio

RADIO CONFIGURATION

- Rajant node integrated
- LTE

RAJANT SPECIFICATIONS

- 300 Mbps capable (2 x 2 MIMO)
- 2.4 / 5 GHz band support
- InstaMesh

LTE SPECIFICATIONS

- Class 3 LTE UE
- 100 Mbps DL, 50 Mbps UL (2 x 2 MIMO)
- Please contact 3D-P for available LTE bands.

CONNECTORS

- Power, Console, USB & Ethernet
- SIM: Push-Pull
- Radios: N-type female
- GPS: TNC female

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Visit www.3d-p.com

200-8 Manning Close NE, Calgary, Alberta, T2E 7N5

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