

# TetraNode High End



## General description

The TetraNode High End core platform performs the switching of voice and data traffic and provides the signalling between radios and/or between radios and gateways in real time. User traffic (voice and data) and signalling are carried on a single connection between the TetraNode eXchange and Base Station System.

The switching platform runs Carrier Grade Linux; a secure, robust operating system featuring high availability and redundancy. TetraNode High End is designed to support millions of calls per day.

## KEY FEATURES

- Supports up to 130 sites and 320 transceivers
- Proven reliability and carrier-grade availability
- Easy configuration and maintenance
- Powerful management, dispatch and logging solutions
- Easy to integrate with IP backhaul networks

## Application

TetraNode High End is typically used to build large TETRA networks for the Public Safety and Utility market segments. Demanding Airport and Public Transport applications can also benefit from high availability and performance features of the TetraNode High End platform.

## Basic configuration

TetraNode High End is based on AdvancedTCA high end server platform that offers space for up to four server blades. One server blade provides a single TetraNode eXchange.

All TETRA and network functionality is implemented in software instead of additional hardware. This makes TetraNode extremely flexible, easy to install, configure and troubleshoot. This makes TetraNode High End switch the ultimate solution for demanding, large TETRA radio networks.

The TetraNode High End chassis is built in a 32U cabinet enclosure. Beside the TetraNode eXchange and power supply systems, the system can also include the following servers, applications and licenses:

- R-809 Authentication and Key management Server
- R-816 Voice logging Server
- R-817 Dispatcher server
- R-818 Coverage Guard Server
- R-819 Coverage Plot Server
- R-820 TetraNode Expansion Platform
- R-880 SIP Telephony Interface
- R-1800 I/O interface
- R-1810 Site power controller

Licenses for:

- L-1100 Conference Bridge
- L-222 Radio User Assignment
- L-962 TetraNode Packet Data Gateway

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## ORDERING SPECIFICATIONS

### Deliverable system

R-827 TetraNode High End (TNX-H):

- S-806 ATCA High End processor board
- S-801 ATCA rack
- L-1010 TNX License

### Options

R-827-R Redundant Processor board in same enclosure as Main TNX-H:

- S-806 ATCA High End processor board
- L-1010 TNX License

R-827-GR Geo-Redundant TNX-H in physically separated enclosure from Main TNX-H:

- S-806 ATCA High End processor board
- S-801 ATCA Rack
- L-1010 TNX License

### Standards

- Storage according EN 300 019-1-1 Class 1.1
- Transport according EN 300 019-1-2 Class 2.2
- Operative according EN 300 019-1-3 Class 3.1

## TECHNICAL SPECIFICATIONS

### Mechanical

- 32U Cabinet
- Dimensions (H x W x D): 1650 x 600 x 600 mm
- Weight: maximum 198 kg

### Power supply

- Power supply voltage:  $-48 V_{DC}$  or 90 to 240  $V_{AC}$ , 50/60 Hz
- Power consumption: up to 350 Watt for single ATCA TNX blade

### Environmental

- Operating temperature: 0 to 45 °C
- Storage temperature: -40 to 70 °C
- Humidity: < 93% at +40 °C, non-condensing



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