

LTE CORE

TETRA Basestation

DMR Basestation

e-TBS

TETRA 4G Linked

e-TBS is a TETRA basestation directly connected to the LTE Evolved Packet Core [EPC] Network. Every e-TBS includes the LTE protocol S1 connection thereby avoiding any black box or gateway interface.

LTE EPC - Inter System Interface

The IP based core transmission network is the most powerful mobile communications transmission network available today. The EPC is an open internationally standardised network, meaning that any technology may connect directly. By integrating LTE connectivity to the e-TBS TETRA basestation this allows TETRA and LTE cell equipment to be interconnected over a single IP based, distributed network.

e-TBS TETRA

The e-TBS TETRA base station combines Etelm's well established TETRA infrastructure into the LTE Core. The system allows direct communications between standard 4G LTE subscribers and TETRA subscribers. The e-TBS system management automatically manages the conversion between 4G and TETRA identities, allowing individual and group calls to be made between users of different technologies.

Integration with Other Technologies

Etelm has recognised the power of 4G LTE and in conjunction with other manufacturers has released a range of 4G Linked products integrating other technologies over a single IP based network. This allows users to merge the benefits of different technologies and allows group and individual calls between different technology subscribers.



Technical Specification

Size and weight
Basic unit: ½ rack 19", 6U, 20 Kg
Basic unit with cavity coupling: rack 19", 6U
Up to 6 diversity ways: rack 19", 6U
Netis cabinet
Frequency bands
350/370 MHz
380/400 MHz
410/430 MHz
450/470 MHz
806/866 MHz
Frequency channels
Spacing 25 KHz
In step of 6.25 KHz
Normal or reverse duplex
Power
48Vdc (220V ac with external converter)
350 Watts
Environmental
Operating temperature: 5/55°C
Extreme temperature: - 30/+60°C
EMC: EN 301 489-18, EN 301 489-1, EN 50385
Transmitter
RF power: 25 Watts
Internal circulator for protection
Noise and spurious: according to EN 300 392
Receiver:
Static sensitivity: -118 dBm
Dynamic sensitivity: -115 dBm
C/I: 12 dB

Reboot
Reboot time < 2 minutes
TMO mode
S1 interface (IP based)
Bearer management
IMS SIP signalling
OAM connections (7 types)
Stand alone mode
Automatic switching without S1 link
Functions
According to TETRA standard (basic services + supplementary services)
Economy mode energy
Multislots
TEA encryption
End to end encryption
Type 1, 2 and 3 hand over
Synchronization
Local ultrastable oscillator
GPS synchronization (optional module)
Logical access
8 parallel inputs and 8 outputs
Maintenance
Plug in boards
Only 2 boards specialized according to frequency band
Front panel LED and access
Internal temperature sensors

