

The Integration Revolution

LTE CORE

4G LTE
eNodeB

P25
Basestation

DMR
Basestation

TETRA
Basestation

ANALOGUE
Basestation

e-LBS

A single network solutions merging several mobile communications technologies:

Etelm's 4G Linked solution is a full inter-technology-interface utilising the powerful LTE Core as a fully distributed IP network allowing narrowband radio base stations and broadband eNodeB to be directly connected onto the same 4G network.

The e-LBS is a Long Range eNodeB base station operating in the 700 MHz band allowing a greater broadband coverage and surpassing typical macro-cell sizes of traditional eNodeB by a factor of 4.

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 multiple narrow band base stations ETELM allows seamless interconnectivity of both narrowband and broadband systems over a single IP based, distributed network.

e-LBS LONG RANGE e-NodeB

To go the distance, Etelm's well established knowhow for narrowband infrastructure now expands its portfolio by adding the e-LBS Long Range e-NodeB base station to provide broadband LTE services over large unserved areas for networks of all sizes.

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

LTE Air Interface	Power Consumption
3GPP/ETSI Release 13	300 Watts
Frequency bands	Environmental
B12: 729-746 MHz / 699-716 MHz	Operating temperature / humidity:
B14: 758-768 MHz / 788-798 MHz	-13 to +131°F / -25 to +55°C
B17: 734-746 MHz / 704-716 MHz	5-95%, non-condensing
B20: 791-821 MHz / 832-862 MHz	Water and Dust proof
B28: 703-748 MHz / 758-803 MHz	Outdoor; IP64
Channel Bandwidth	Size and weight
1.4MHz to 10 MHz	Basic Mount Unit: 19" Rack Mount, 6U 33 Lbs / 15 Kg
Duplex Method	Portable unit: 16.73" H X 10.24" W x 7.48" D / 425 mm H x 260 mm W x 190mm D 33 Lbs / 15 Kg
FDD	Antenna Connector Type
RF Power	50 Ω , N-Type
15 W	Standalone mode
Modulation and Coding Scheme	Automatic switching without S1 link
ACM up to 64QAM	Key Features
Advanced Antenna Techniques	3 GPP normalised interface: S1, X2, M1, M2 and M3
SISO/SIMO	Optimized for Long Range and group communications
MISO/MIMO	MBSFN Transmission for eMBMS feature
Synchronization	Interferences mitigation near cell borders
GPS synchronization / IEEE1588	Fully compatible with Narrowband 4G Link Elements
Backhaul Interface	Maintenance
RJ45 SFP for copper Ethernet	Robust Construction
or fiber SFP	Local/ remote monitoring and configuration
Input Voltage	Visual Performance Indicators
48Vdc Floating	
110/220Vac with converter option	

All specifications subject are to change without prior notice.

