

LTE CORE

DMR
Basestation

TETRA
Basestation

e-DBS

DMR 4G Linked

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

LTE EPC - Inter System Interface

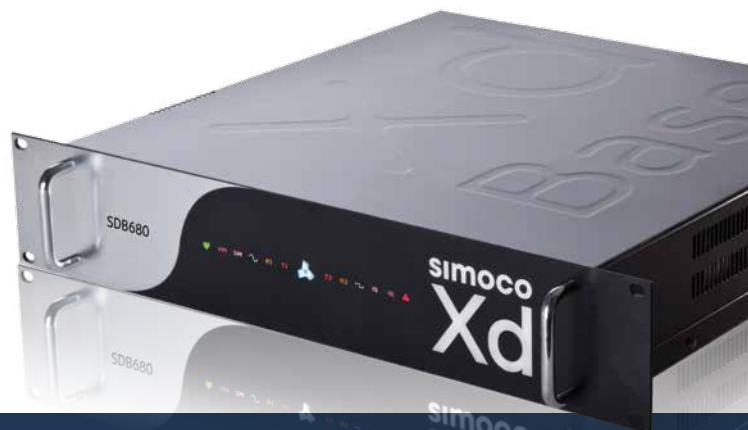
The IP based core transmission network is the most powerful mobile communications transmission network available today. The EPC is an open internationally standardised network. Integration of the e-DBS DMR basestation to the LTE Core allows DMR and LTE cell equipment to be inter-connected over a single IP based, fully distributed network.

e-DBS Basestation

The e-DBS DMR basestation allows DMR technology to be integrated over a single IP network with other telecommunications standards. The system allows direct communications between standard 4G LTE subscribers and DMR subscribers. The e-DBS system management automatically manages the calls between different technology subscribers, supporting individual and group calls.

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	Transmitter
Basic unit: rack 19", 2U, 9 Kg	RF power: 25 W and 50 W variants
408 x 487 x 88.9 mm	Modulation limiting +/- 2.5 @ 12.5 KHz, +/- 5 KHz @ 25KHz
Frequency bands	FM hum and noise -40 dB (TIA-603-B)
136 / 174 MHz	Conducted/radiated emission: complies with ETS086-1 / ASNZS4295 / TIA603-B
400 / 480 MHz	Adjacent channel power: -60 dBc (ETS086-1)
440 / 520 MHz	Spurious emission: - 80 dBc
Channel spacing 12.5 kHz and 25 KHz	Audio response: +1/-3 dB
Power supply	Audio distortion: 3% (TIA603-B)
(25W): 110/240 Vac or 13.6 Vdc	Receiver
(50W) 13.9 Vdc	Analog sensitivity: -117.5 dBm (12 dB sinad)
Environmental	Digital sensitivity: -117.5 dBm (BER 1%)
Operating temperature: -30 / + 60°C (DC variant) -30 / + 55 (AC variant)	Hum and noise: -40 dB (TIA603-B)
Storage temperature: -40/+80°C	Audio response: +1/-2 dB (0.3 – 2.25 kHz)
Emission mask 7K60FXD (data), 7K60FXE (voice) 7K60F1W (voice & data) for 4FSK digital	Audio distortion: 3% @ 4 W
Modulation, 11KOF3E for 12.5 kHz modulation	Conducted spurious emission: -57 dBm (ETS086-1)
	Functions
	Auto switching between DMR Tier II conventional and analogue modes
	Tier III trunked
	Configuration and monitoring: by OAM

