ITC2500-BOS

The powerful base station for digital and synchronous alerting

The ITC2500 base station is a fundamental component in wireless alert systems. This ITC2500 is a modern radio base station for deployment in synchronized POCSAG paging alert networks. The ITC2500 is backwards compatible to its predecessors ITC2100 and ITC2000, and can be added to these alert networks as well, for example as a network extension.

The ITC2500 facilitates both large-area synchronized alerts across the entire network infrastructure and local.

The ITC2500 can be programmed and implemented quickly using web browser, both on location or remotely. The powerful base controller guarantees future-proof applications and the best possible investment protection.

The ITC2500-BOS includes the following functional blocks:
- Power supply (PS)
- Controller (BSC)
- POCSAG decoder card (RC)
- POCSAG synchro card (SC)
- Transceiver (TRx)

Options:
- GPS interface card
- I/O card with 7 inputs and 8 outputs
- Fan and temperature sensor in wall-mount case for active cooling

Key performance features

))) Automatic response in the wave network
- Decentralised alerting request
- Transmission confirmation
- Status check

))) Extensive options for filtering log data using
- 18 criteria
- Time limitation ranging from one second to infinity

))) Two ports for fallback terminals

))) MTBF: 7.4 years

))) Fast-reacting Single-Page GUI

))) Partial parameterization by means of integrated radio channel

The ITC2500 assembled in wall-mount case

ITC2500-BOS

	Performance features	Technical data
Generell	Operational temperature range	-25°C to +55°C
	Cooling system	Convection (optional with fan in wall-mount case)
	Input voltage	90 - 264 VAC/47 - 63 Hz
	Power consumption	max.150W (optional: max.200W)
	Internal bus system	AT96 (96pin-DIN41612)
	Compliance with EU regulations: Radio Equipment Directive (RED), 2014/53/EU RoHS Recast Directive, 2011/65/EU WEEE Directive, 2012/19/EU	Safety EN 60950-1 EMC ETSI EN 301489-1 ETSI EN 301489-2 Radio ETSI EN 300113 RoHS EN 50581: 2012
	BOS approval (authorities and safety organisations, Germany)	DAU II 13/17
General radio data	Frequency bands (versions)	144 - 174 MHz 400 - 470 MHz 450 - 530 MHz
	Frequency stability (carrier)	±1.5 ppm
	Number of channels (per frequency band)	99
	Channel spacing	12.5/20/25 kHz
	Type of modulation / demodulation	DFSK max. 2.5 kHz (at12.5 kHz channel spacing) DFSK max. 4 kHz (at 20 kHz channel spacing) DFSK max. 5 kHz (at 25 kHz channel spacing) FM/PM 300 … 3000 Hz
	Switching bandwith	Whole frequency band
	POCSAG data rate	512, 1200 or 2400 Baud
	Radio datarate	4800 baud
	Antenna connection	50 Ohm coax N-Type (1 x for transmission, 1 x for reception)
Transmitter (Tx)	Tx output power	25 W +/- 1.2 dB, adjustable from 1-25 W in 1 W-steps
	Duty cycle	100 %
	Intermodulation attenuation	> 40 dB
	Adjacent channel power	< -70 dBc (at 20 kHz channel spacing)
	Spurious emissions	< 250 nW (30 MHz to 1 GHz)
Receiver (R	Sensitivity	< 2 µV (EMK) to decode 90 % of digital alerts < -118 dBm at 12 dB SINAD (0.282 µV)
	Co-channel rejection	> -8 dB
	Adjacent channel selectivity	> 70 dB (at20 kHz channel spacing)
	Spurious response rejection	> 70 dB
	Blocking	> 90 dBµV (±1 MHz to ±10 MHz)
	Spurious radiations	< 2 nW (30 MHz to 1 GHz)
	Intermodulation response rejection	> 70 dB
Controller (BSC)	CPU	615 MHz, 64-Bit
	RAM	1 GB
	Flashdisk	2 GB, safe against mains failure
	Operating system	Linux
	Peripheral interfaces	2x Gigabit Ethernet RJ45, 4x USB 2.0, 1x VGA (1920x1200)
Power supply (PS)	Maximum output voltage/current	13.8 V/8 A and 5 V/5 A (at 150 W) optional: 13.8 V/13 A and 5 V/5 A (@ 200 W)
	Battery low level protection	yes
	Efficiency	80 %, 10-15 A typical charge
	Connection for rechargeable battery	Screw connectors, 12 V
	Autonomy (optional battery operation)	> 4 h with battery 12 V 12 Ah (at Tx output power of 25 W and duty cycle 25 %)
Base station only (without wall-mount case)	Dimensions (W x H x D)	483 mm (19" rack) x 134 mm (3U) x 315 mm
	Weight	8.5 kg
Base station assembled in wall-mount case	Dimensions (W x H x D)	600 mm x 350 mm x 500 mm (internal 19", 6 U)
	Weight	36.5 kg (assembled with battery)
	Protection class	IP42

Specifications subject to change