

Technical Specifications

General	
System format	ETSI DMR standard digital trunking
Maximum number of carrier frequencies per station	32
Digital vocoder	AMBE++
Base station operating voltage	AC: 100~240V/DC: 13.6V ± 15%
Frequency Range	UHF1: 400-470MHz UHF 3 : 350-400MHz VHF: 136-174MHz
Channel Spacing	12.5kHz
Frequency Stability	±0.5ppm
Power consumption	4 Carrier: ≤600W 8 Carrier: ≤1200W 16 Carrier: ≤2400W
Dimension	18U: 600x600x983mm 42U: 600x600x2019mm
Weight	4 Carrier (18U cabinet): ≤130Kg 8 Carrier (42U cabinet): ≤210Kg

Environmental indicators	
Operating temperature	-30℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Environment humidity	5% ~ 95%
Waterproof and dust proof grade	IP20
Grounding requirements	Ground impedance ≤ 0.1 Ω

Electromagnetic compatibility	
Static immunity	capability: contact discharge ±6000V, air discharge ±8000V
Surge Immunity	±2000V between cable and ground

Reliability	
Mean time between failures (MTBF)	≥ 100000 hours
Mean time to repair (MTTR)	0.5 hours

Receiving Performance	
Sensitivity (digital typical)	0.14 uV (5% BER) /-124dBm
Intermodulation	75 dB (TIA603D) 70dB (ETSI)
Adjacent Channel Selectivity	65dB@12.5 kHz/75dB@25 kHz (TIA-603D) 65dB@12.5 kHz/75dB@25 kHz (ETSI)
Spurious response	80dB(TIA603D) 80 dB(ETSI)
Block	98dB (TIA603D) 95dB (ETSI)
Conducted Spurious Emission	-57 dBm

Transmission Performance	
Output Power	1W-50W (per carrier)
FM Modulation	12.5KHz :11K0F3E /25KHz:16K0F3E
4FSK Digital Modulation	12.5KHz data: 7K60FXD 12.5KHz voice and data: 7K60FXE
Conducted/Radiated Emissions	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz /±5.0KHz @25KHz
Adjacent Channel Power	-60dB@12.5KHz , -70dB@/25kHz



TBS6000
Digital Trunking Base Station

TBS6000 digital trunking base station system supports DMR professional digital trunking standard to realize the wide area network coverage, and supports diverse functions such as voice trunking communication, data, and positioning services.

Its module design comprises of base station controller, channel unit, power supply unit, RF unit and switch/route unit etc to support flexible networking of various capacities.



Product Highlights

Standard trunking system, flexible networking

- Supports ETSI DMR trunking system standards;
- All IP structure and multi-layer networking;
- Easy communication and unified management.

Good performance, rich functions

- Channel unit has 2.0-inch display and LED indicators to clearly show the operating status;
- High performance channel unit with receiving sensitivity of -124 dBm and diversity reception capability;
- It has a complete user authentication and end-to-end service encryption mechanism to ensure security communication.

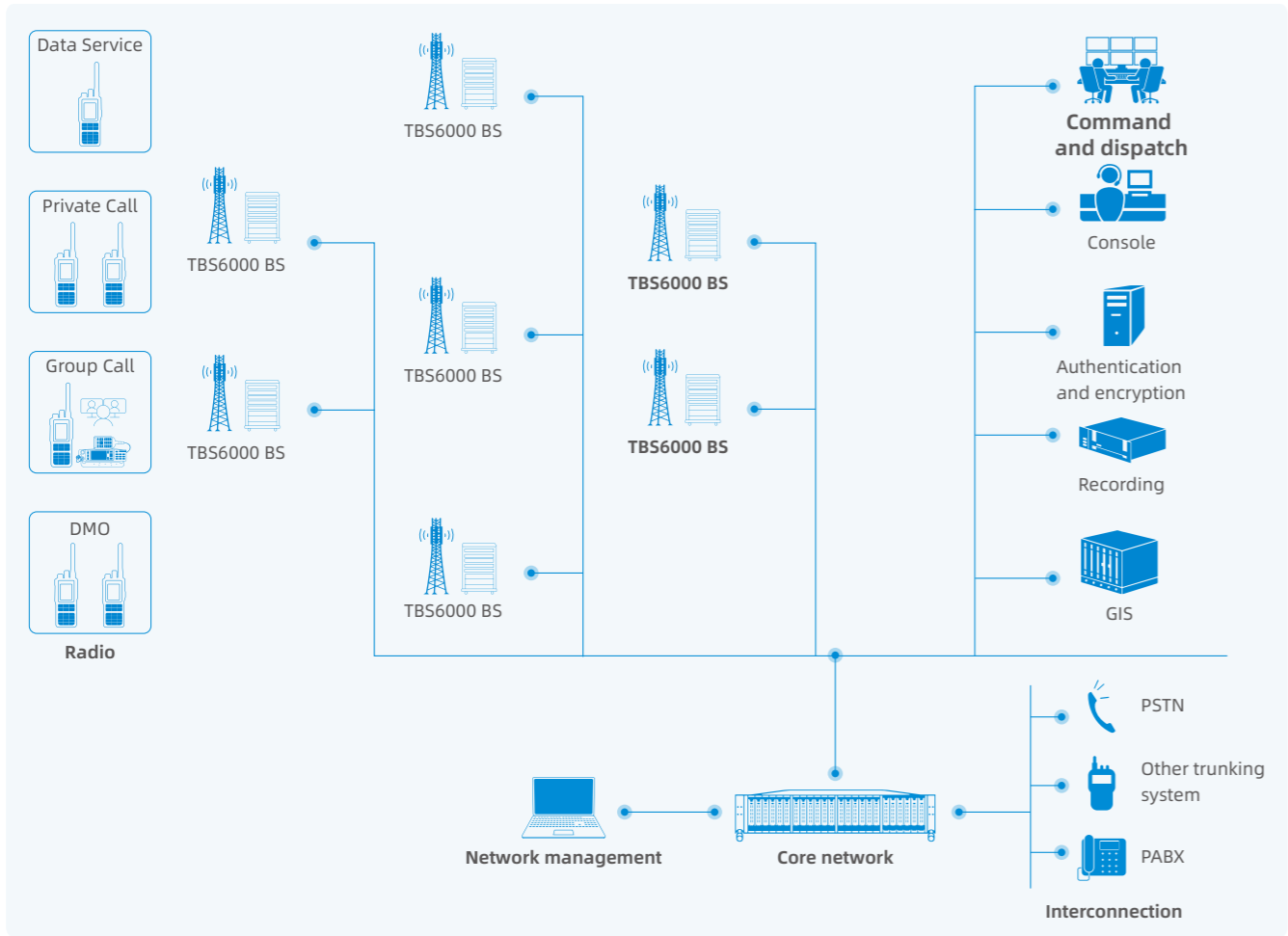
Advanced design, fast deployment

- Adopts module design, easy expansion from 1 to 32 carriers;
- 1U compact size of base station controller, channel unit and power supply unit, easy to install;
- Base station controller integrates Ethernet switch function and supports multiple LAN ports.

Stable system, reliable network

- The base station controller and the channel unit are designed with cooling fans for temperature control, which ensures that the equipment operates stably at 100% full power for a long time;
- The base station controller supports power supply backup channel, when one channel fails, it automatically switches to the other channel.
- Supports the core network dependency, remote network management backup, base station controller backup, channel unit backup, control channel periodical switch etc.

Typical Networking



Base Station Overview



Application scenario

