

T Total-Cost Efficiency

Lower CAPEX, Reduced OPEX

Greater Reach, Fewer Sites

Tower-mount installation eliminates feeder loss. With 50W high output power, -120dBm high receiving sensitivity, and quad-diversity reception, a single base station covers a larger area with stronger signal.

Energy-Efficient

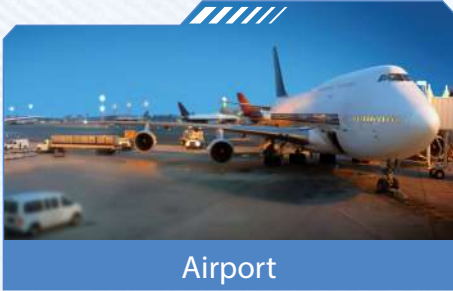
Total power consumption is below 340W, substantially lowering electricity fees. Supports solar and UPS power supply, requiring fewer solar panels and reduced battery capacity, further reducing total infra cost.

Effortless O&M

In case of failure, simply remove the SSD card from the faulty base station and insert it into a spare unit - services are restored immediately without re-downloading software, updating licenses, or any additional configuration. Frequency, power, and other parameters can also be configured remotely, minimizing on-site maintenance.



Industries



Specifications

Frequency Range	RX: 380-420 MHz, TX: 390-430 MHz RX: 806-824 MHz, TX: 851-869 MHz
Transmitting Power (antenna socket)	47 dBm (50 W, max.)
Max. Number of Carriers	4 carriers per unit; up to 8 carriers with 2 units cascaded*
Reception Diversity	No, dual, triple, or quad diversity
Sensitivity	Static: Typical -120 dBm (BER 4%) Dynamic: Typical -113 dBm (TU 50, TCH 7.2, BER 4%)
Synchronization	GNSS; PTP
Power Supply	-48 V DC
Power Consumption	340 W
Weight	< 17.5 kg
Dimensions	447 mm x 356.8 mm x 124.5 mm
Dust & Water Protection	IP66&IP68
Operating Temperature*	-40°C to +60°C

*:Extreme temperatures of 60°C may cause derating.

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DIB-R6 SMART
TETRA Digital Integrated Base Station
Safer, Wider, Greener — Your Mission, Always Connected



The Hytera DIB-R6 SMART is a compact, high-performance TETRA digital integrated base station. Built on multi-carrier and software-defined radio (SDR) technologies, it combines high output power into an ultra-compact, all-in-one design – without compromising performance. Frequencies and carrier capacity are fully software-configurable, making deployment effortless and expansion future-proof. With rugged design, it operates reliably in any environment – indoors or outdoors, from city centers to remote sites.

The DIB-R6 SMART integrates seamlessly into ACCESSNET-T IP networks and is fully compatible with the DIB-R5 series. It supports centralized, distributed, and mixed networking architectures, adapting to diverse deployment scenarios.

The DIB-R6 SMART supports the solution to bridge legacy TETRA networks with the 3GPP-compliant MCX ecosystem, enabling seamless interoperability between mission-critical narrowband and broadband. It protects existing TETRA investments while providing a cost-effective migration path to LTE/5G mission-critical communications.



S Secure

The Foundation of Trust in Critical Communications

Secure Boot & Hardware Encryption

The DIB-R6 SMART integrates a TPM 2.0 chip for secure boot and SSD hardware encryption for full data protection, complying with IEC62443 and En18031. It ensures end-to-end security from startup to operation – meeting the stringent requirements of mission-critical sectors such as public safety, government, and energy.

Secure Air Transmission

The DIB-R6 supports TETRA standard authentication to block unauthorized terminals, and Air Interface Encryption (supporting both TEA A and TEA B) to secure all voice and data transmissions over the radio link between terminals and base stations against eavesdropping.



TEA Set A & B

M Multi-Carrier & SDR

Flexibility to Evolve with Your Network

High Capacity, Scalable Performance

One DIB-R6 SMART unit supports up to 4 carriers, and two units can be cascaded to deliver up to 8 carriers, providing sufficient channel capacity for high-traffic demands.

Software-Defined Evolution

Future capacity expansion can be achieved through software licensing without additional hardware investment or on-site construction, supporting seamless network evolution.

Optimized Frequency Planning

With >50 kHz channel spacing, DIB-R6 SMART simplifies frequency planning and reduces spectrum coordination challenges in resource-constrained environments.



A All-in-One

Compact, Lightweight, Effortless Deployment

Lightweight & Compact

DIB-R6 SMART weighs less than 17.5 kg, enabling single-person installation. It supports pole-mount and wall-mount deployment scenarios, reducing installation complexity and deployment costs.

Flexible Networking

DIB-R6 SMART supports centralized, distributed, and Mixed networking architectures. It adapts to various deployment scenarios, from centralized networking to distributed standalone operations, meeting diverse requirements from dense urban areas to remote sites.



R Reliable

Built for Mission-Critical Continuity, and Always Connected

Extreme Environmental Adaptability

Rated IP66 and IP68, the base station withstands rain and operates reliably in extreme temperatures from –40°C to +60°C, without requiring a shelter. With an MTBF exceeding 250,000 hours, it keeps services continuously online.

Redundancy for Non-Stop Operation

Base station and link redundancy keep the network always online. Even when disconnected from the core network, full local trunking services continue to operate normally.

