

MBTS 1.1

**DIMETRA
BASE STATION**



The MBTS is the flexible answer to TETRA base station implementation.

Designed to improve site management options, but without compromising Dimetra IP's full feature set.



WHY SELECT MBTS?

- Ideal fit for problematic sites
- Reduces site costs for installation and operation
- When space is limited and access is difficult
- To improve radio coverage through "fill in" site options
- For temporary transportable base station options, e.g. disaster planning for additional coverage at short notice

SITE ACQUISITION

Acquisition is an important factor in any radio system planning and rollout. The design implementation of the MBTS on its weight, size and mechanical configuration, ensures key requirements are met, whether that is rural, suburban or urban criteria.

EASY TO INSTALL AND MAINTAIN

Its size, weight and operating temperature makes the MBTS ideal for installation either indoor or outdoor (in an IP55 cabinet). At only approximately 70 kg, roof top installations are possible without the need for additional reinforcements.

Further design considerations have ensured that valuable space is saved. Firstly through front cabinet access, allowing mounting against walls or neighbouring equipment.

Additional space saving has been achieved through low power requirements, flexible input voltages and integrated battery charger. Its hybrid combiner & receiver multicoupler supports up to 16 time slots on just two antennas.

Alternative infrastructure connections are offered X.21 or E1 improving installation flexibility.

Its modular design conception, front access and ability to dissipate heat without fans are a major advantage for inaccessible sites, where maintenance can be expensive and problematic in bad weather.

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DIMETRA BASE STATION

Small, lightweight design enables considerable cost savings on the acquisition, installation, operation, and maintenance of radio sites.

- Small & compact (0.60m x 0.47m x 0.60m [HxDxW])
- Weight: App. 70 kg
- Temperature range -20 to +55 °C
- Power:
 - Input power 115/230V ac, 50/60Hz and -48V dc
 - Power consumption 330 Watt for the prime cabinet with 2 base radios
 - 10 Watt transmit power (after combiner)
 - Option for 20 Watt transmit power(This configuration supports maximum 2 base radios with 2 Tx/Rx antennas)
- Up to 2 base radios (8 time slots)
- Expandable up to 4 base radios (via expansion cabinet)
- X.21 or fractional E1 connection to the central network equipment
- Frequency range: 380-400 MHz, 403-433 MHz
- Operating bandwidth 5 MHz
- Dual diversity as standard
- Hybrid combiner - offering remote frequency agility, no site visits
- Duplexed Rx/Tx maintains the antenna requirements to just two.
- Best in class receiver sensitivity, at input connector:
 - 119.5 dBm typical (static at 4% BER)
 - 112.0 dBm typical (faded at 4% BER)
- Integral battery charger saves space and duplicated equipment
- Full Front Access and top cable entry – for easy maintenance
- Door alarming contacts as standard – for added security
- Remote antenna monitoring as standard – for improved availability
- Support for 8 external user alarms – for additional site monitoring
- Optional remote GPS allows for tunnel or underground housing
- No mechanical moving parts (fans), ensures greater resilience and reduces maintenance
- Resilience supported through Dimetra Local Site Trunking



Further information:

www.motorola.com/TETRA



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