TB3hp mini TETRA base station
World’s smallest and smartest with more power

The TB3hp mini TETRA base station from Airbus Defence and Space is the world’s smallest high power TETRA base station.

Use the TB3hp for:
- rapid deployable networks
- wide area coverage
- standalone use
- setting up temporary radio coverage over an area.

The TB3hp can provide wide area coverage with a variety of antenna configurations, because:
- It achieves high output power (15W) to the antenna
- TB3hp is extremely sensitive
- It implements Rx diversity.

The TB3hp has extremely small carbon footprint compared to a macro base station.

The miniaturization of the base station has not been at the cost of features. The TB3hp offers exactly the same powerful features as its big brothers TB3 and TB3c, from TEDS data to air interface encryption and from type 1 handover to base station fallback.
The TB3hp mini TETRA base station is a powerful little package. It stuffs all of the features of the big TB3 base station into a unit that is about the size of a briefcase.

Provides coverage
Using the TB3hp as a standalone base station can provide radio coverage where there is no radio network.

Connect the TB3hp via satellite to a DXT3 switch and it can provide the same services as the other base stations in the network.

Or, build a powerful radio network over a wide area by connecting TB3hps to a DXT3p switch.

The TB3hp can also provide indoor coverage in metro tunnels, for example, where you need two carriers either for capacity or resilience. Thanks to its TEDS capability, the TB3hp can also provide coverage as a data hot spot.

Smallest carbon footprint
The TB3hp’s power consumption is less than 200 W, which is less than half of that of a conventional macro base station.

Saves money
The TB3hp base stations don’t require costly sites, which means they are cost-effective. Base station site rentals and transmission fees typically account for up to 80% of operating costs.

Flexible
The TB3hp can use either the conventional time-division multiplexing (TDM) transmission but also the internet protocol (IP) transmission. The TB3hp comes pre-configured, so setting it up requires no RF expertise.

Easy to deploy
One person can easily carry the TB3hp to the site, install it and set it up. Or, it can just as easily be set up to provide temporary coverage. There is no need to visit the TB3hp in person. You can operate and maintain it over a remote connection.

O&M functions:
- Remote and local configuration
- Remote and local alarm handling
- Remote and local SW downloading
- Remote and local test services
- 9 alarms and 6 control ports in 2-carrier variant,
  4 alarms and 3 controls in 1-carrier variant.

TB3hp technical specifications
- Size (Width*Height*Depth)
  250*140*400 mm (1-carrier)
  270*180*400 mm (2-carrier)
- Weight (max.):
  14 kg (1-carrier)
  20 kg (2-carrier)
- RF power max. 15 W per carrier
- Dynamic sensitivity: < -112 dBm
  (TCH 7.2, BER 4%, TU50) without diversity
- Receiver class Class A and B
- Number of receivers per radio 1 or 2
- Duplex spacing 10 MHz
  (45MHz @800MHz band)
- Switching range ≤ 5 MHz
  (18MHz @800MHz)
- Carrier spacing 25 kHz
- Combiner options: Wideband hybrid combiner with duplexer or combiner by-pass with duplexer
- Supply voltage 10-32 V DC
- Power consumption:
  ~100 W (1-carrier)
  ~200 W (2-carrier)
- Operating temperature (ambient):
  -10°C to +55°C
- TBS transmit mode
  Downlink continuous (D-CT)
  (as specified in the TETRA standard)