



## BTI 1000 I

### New-generation multifunctional field tester

BTI 1000 I tests MkXIIAS IFF/SSR interrogators and transponders, combined interrogators and transponders as well as TCAS/ACAS equipment.

BTI 1000 I is based on an innovative and flexible digital system architecture allowing for compact design, low weight, remote operation and simple and cost-effective functional enhanceability.

BTI 1000 I positions itself as a gap filler between plain ramp testers and complex test benches.

BTI 1000 I covers a large array of use cases from flight line testing to frontline-level maintenance, depot-level maintenance and support to system integration.

## Interrogation and response capabilities

- MkXA (modes 1, 2, 3/A and C)
- MkXII (Mode 4)
- MkXIIA (Mode 5 Level 1 and Level 2)
- Mode S elementary and enhanced surveillance (Level 1 and 2)
- TCAS 7.1
- Beacon Mode

## Performance

Transmitter output power	+15 to -55 ± 1dBm (antenna), -25 to -95 ± 1dBm (direct port), 1dB steps
Transmitter output frequency	1,030 MHz ± 10 kHz
Receiver input power	+35 to -25 ± 1dBm (antenna), +65 to +15 ± 1dBm (direct port)
Receiver measurement range interrogator	1,020.0 to 1,040.0 MHz
Receiver measurement range transponder	1,080.0 to 1,100.0 MHz
Receiver measurement accuracy	± 150 kHz
Measurement range, SUT Effective Radiated Power (ERP)	+35 to -25 dBm (antenna), +65 to +5 dBm (direct port)
Measurement accuracy	± 2dB (DC), ± 1dB nominal, ± 3 dB (antenna)
Measurement range, SUT MTL sensitivity	+9 to -49 dBm (antenna), -31 to -89 dBm (direct port)
Typical range of use in RF mode : 20 m - 200 m between tester antenna and tested platform	

## Standards compliance

STANAG 4193 parts I to VI, ICAO Annex 10, FAR 43

## Crypto-compatibility

QRTK4NG (Mode 4 and Mode 5) crypto-computer, Legacy QRTK4B (Mode 4) crypto-computer, IR/XP Crypto Simulator

## Ergonomics and use

- Large 6.5-inch display
- Operation from local front panel
- Operation with local or remote antenna
- Remote operation from Laptop or Tablet
- Omnidirectional and directive antenna application
- Antenna can be directly fixed on BTI 1000 I or on tripod
- BTI 1000 I with fixed antenna can be installed on tripod
- Tests via radiation or cable link (antenna port and direct port)
- Battery or external power supply
- Internal battery charger

## Physical characteristics

Weight	< 7 kg without crypto
Dimensions	200 x 250 x 350 mm (height x width x length)
Environmental range, ruggedness and durability	Operation -20°C to +50°C, IK08 and IP 54

## Availability

Power-off/power-on modes, auto power-off mode

Battery autonomy (crypto installed)      Power-on = 8 h of which 4h in intensive operation

## Interfaces

- 1 RF transmission channel (electronically switched  $\Sigma$  and  $\Delta$  channels)
- USB, Ethernet LAN interface
- GPS NMEA0183 (DAGR interface)
- DC 18-32V external power supply or battery

## Growth potential

- Growth potential towards validation bench capabilities, functional evolution by SW upgrade
- ADSB broadcast testing on receive and transmission
- Antenna field analysis
- Expert performance assessment tools for fault detection, etc.

## Accessories

- Omnidirectional antenna
- Directional antenna
- Antenna cables (0.6 m and 10 m)
- Tripod for antenna
- Direct port cable (10 m)
- GPS cable (for DAGR GPS)
- Antenna mask
- USB/LAN tool cable
- External power supply
- Transport container
- Power supply cable (10 m)
- Antenna mount set