



HENSOLDT BTI 1000I

New-generation Multifunctional Field Tester

BTI 1000I tests MkXIIAS IFF/SSR Interrogators and transponders, combined Interrogators and transponders as well as TCAS/ACAS equipment. BTI 1000I 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 1000I positions itself as a gap filler between plain ramp testers and complex test benches. BTI 1000I covers a large array of use cases from flight line testing to frontline-level maintenance, depot-level maintenance and support to system integration.

BTI 1000I - New-generation Multifunctional Field Tester

Technical data

Integration and response capabilities			
MkXA (Modes 1, 2, 3/A and C)	Mode S: Elementary Surveillance (ELS), Enhanced Surveillance (EHS) and Custom BDS Surveillance		
MkXII (Mode 4)	TCAS (Scheduled for current 2021, Software upgrade)		
MkXIIA (Mode 5 Level 1 and Level 2)	Beacon Mode		
Performance			
Transmitter output power	-55 to +15 ± 1dBm (antenna), -95 to -25 ± 1dBm (direct port), 1dB steps		
Transmitter output frequency	1,030 MHz ± 10 kHz		
Receiver input power	-25 to +35 ± 1dBm (antenna), +15 to +65 ± 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)	-25 to +35 dBm (antenna), +15 to +65 dBm (direct port)		
Measurement accuracy	± 2dB (DC), ± 1dB nominal, ± 3 dB (antenna)		
Measurement range, SUT MTL sensitivity	-49 to +9 dBm (antenna), -89 to -31 dBm (direct port)		
Typical range of use in RF Mode 5 m - 150 m between tester antenna and tested platform			
Standards compliance			
STANAG 4193 parts I to VI, ICAO Annex 10, (Stanag Ed3 ready for end of 2019)			
Crypto – compatibility			
QRTK4NG (Mode 4 and Mode 5) crypto-computer, Legacy QRTK4B (Mode 4) crypto-computer, (KIV 77/ KIV78/ Q6 with adapter, Scheduled for current 2020) → Hensoldt France SAS – Plaisir, do not guarantee operation with IR/XP Crypto Simulator			
Ergonomics and use			
Large 6.5-inch display	Antenna can be directly fixed on BTI 1000I or on tripod		
Operation from local front panel	BTI 1000I with fixed antenna can be installed on specific military tripod		
Operation with local or remote antenna	Tests via radiation or cable link (antenna port and direct port)		
Remote operation from Laptop or Tablet	Battery or external power supply		
Omnidirectional and directive antenna application	Internal battery charger		
Physical characteristics			
Weight	< 10 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 = 6 h of which 4h in intensive operation		
Interfaces			
• 1 RF Antenna transmission channel (electronically switched Σ and Δ channels inside directive antenna)	GPS NMEA0183 (DAGR Interface) • Civil internal GPS (Option only)		
• 1 RF Direct port transmission channel (with 50 dB internal attenuator)	• 1 BNC 50 Ohms (output Synchro)		
USB port (Exporting tests reports only)	• DC 18-32V external power supply or battery		
Extra capability			
Growth potential towards validation bench capabilities, functional evolution by SW upgrade			
ADSB broadcast testing on receive and transmission	Expert performance assessment tools for fault detection, etc.		
	ISLS capability		
Accessories			
Omnidirectional antenna	Tripod for antenna	Antenna mask	Transport container
Directional antenna	Direct port cable (10 m)	USB tool cable	28 V Power supply cable (10 m)
Antenna cables (0.6 m and 10 m)	GPS cable (for DAGR GPS)	External power supply	Antenna mount set