

BT100 series

Beacon Tester

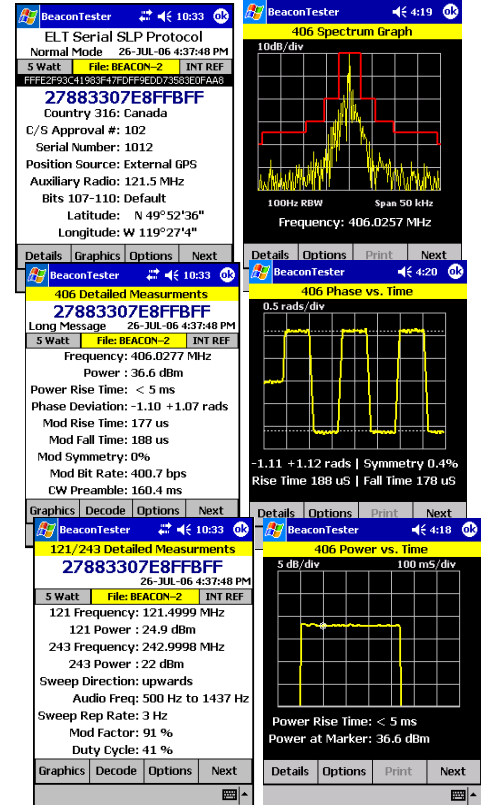
Make sure the EPIRBs you are testing are operating properly!



Whether you are testing EPIRBs for IMO's Shore-Based Maintenance requirements or verifying the coding on PLBs, the BT100 is the perfect tool. This tester packs a whole lot of measurement capability into a very small package. Use this instrument for all of your Beacon testing needs ... even for troubleshooting! In fact, the majority of beacon manufacturers are using this instrument on their production lines! The BT100 series works on all existing 406 EPIRBs, all 406 PLB's, and all ELT's ... also measures any 121.5 MHz equipment!

FEATURES INCLUDE

- easy to use software ... very intuitive!
- receives all Cospas-Sarsat frequency channels and protocols (EPIRBs, PLBs, and ELTs,)
- measures all RF parameters and modulation details
- powerful 406 MHz graphic measurements for power, phase modulation and in-band spectrum
- internal antenna receives 406 burst from very close to 15 meters away, or connect directly – no attenuator needed
- add text comments or audio comments to each measurement
- user-defined cable loss factor
- simple or detailed measurement mode
- easy to use file system
- store hundreds of measurements
- produces printable Test Report
- includes detailed calibration data with each Certificate of Calibration
- recommended 2 year calibration cycle
- currently in use throughout the world
- outstanding customer support



Exceeds IMO MSC/Circ. 1039 and MSC/Circ. 1040 requirements.

Discover the power of the this tester for yourself ... try the online interactive demo at www.wst-inc.ca

SPECIFICATIONS

| Beacon Testers BT100 series | ELT Testers BT100AV series |
|--------------------------------|-------------------------------|
| | |

| PARAMETER | BT100A | BT100S | BT100A V-donble | BT100A V-triple | BT100A VS | ACCURACY |
|---|--------------------------|--------|-----------------|-----------------|-----------|----------------------------|
| 406 MHz MEASUREMENTS | | | | | | |
| Measure all Cospas-Sarsat Frequency Channels | • | • | • | • | • | |
| Decode all Cospas-Sarsat Protocols | • | • | • | • | • | |
| UIN & Full HEX | • | • | • | • | • | |
| Frequency (using INT REF) (resolution = 100 Hz) Leaving Factory Long Term | • | • | • | • | • | ± 100 Hz ± 0.4 ppm/year |
| Frequency (using EXT REF) (resolution = 1 Hz) | • | • | • | • | • | ± 1 Hz |
| Frequency * Stability | Nominal Frequency | • | • | • | • | ± 2.5 x 10 ⁻¹¹ |
| | Short Term | • | • | • | • | |
| | Medium Term - Mean Slope | • | • | • | • | |
| | Medium Term - Residual | • | • | • | • | |
| Power | • | • | • | • | • | ± 1 dB |
| Power Rise Time | • | • | • | • | • | ± 0.5 ms |
| Phase Modulation | • | • | • | • | • | ± 0.04 rad |
| Modulation Rise and Fall Times | • | • | • | • | • | ± 10 µs |
| Modulation Symmetry | • | • | • | • | • | ± 0.005 |
| Modulation Bit Rate | • | • | • | • | • | ± 0.2 bps |
| CW Preamble | • | • | • | • | • | ± 0.8 ms |

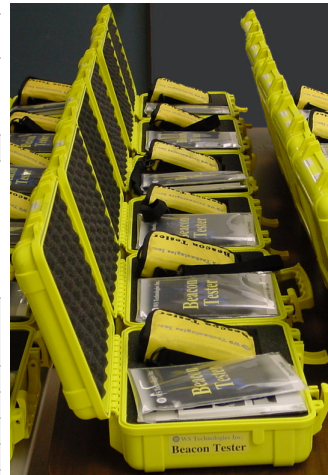
| 121.5 MHz/243 MHz MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|----------------------------|
| 121.5 MHz Frequency (using INT REF) (resolution = 100 Hz) Leaving Factory Long Term | • | • | • | • | • | ± 100 Hz ± 0.4 ppm/year |
| 243 MHz Frequency (using INT REF) (resolution = 100 Hz) Leaving Factory Long Term | | | • | • | • | ± 100 Hz ± 0.4 ppm/year |
| 121.5 MHz Frequency (using EXT REF) (resolution = 1 Hz) | • | • | • | • | • | ± 30 Hz |
| 243 MHz Frequency (using EXT REF) (resolution = 1 Hz) | | | • | • | • | ± 30 Hz |
| 121.5 MHz Peak Power | • | • | • | • | • | ± 1.5 dB |
| 243 MHz Peak Power | | | • | • | • | ± 1.5 dB |
| Sweep Direction | • | • | • | • | • | ✓ |
| Audio Frequency | • | • | • | • | • | ± 30 Hz |
| Sweep Range | • | • | • | • | • | ± 60 Hz |
| Duty Cycle | • | • | • | • | • | ± 2% |
| Modulation Factor | • | • | • | • | • | ± 5% |
| Sweep Repetition Rate | • | • | • | • | • | ± 0.1 Hz |
| Listen to Real-Time 121.5 Audio | | | • | • | • | ✓ |
| Listen to Real-Time 243 Audio | | | • | • | • | ✓ |
| Decipher Morse Code | | | • | • | • | ✓ |

| MISCELLANEOUS | | | | | | |
|---|---|---|---|---|---|--|
| Graphic 406 Power During Burst screen | • | • | • | • | • | |
| Graphic 406 Phase Modulation screen | • | • | • | • | • | |
| Graphic 406 In-Band Spectrum screen | • | • | • | • | • | |
| User-defined Cable Loss factors at each frequency | • | • | • | • | • | |

| | | | | | | |
|--|---|---|---|---|---|--|
| RF Input Cable | • | • | • | • | • | |
| Reference Input Cable | • | • | • | • | • | |
| Zipper Pouch | • | • | • | • | • | |
| Operator's Manual | • | • | • | • | • | |
| Certificate of Calibration (with Calibration Data) | • | • | • | • | • | |
| Hard Case | • | • | • | • | • | |
| Personal Data Assistant (PDA) | • | • | • | • | • | |
| AC Adapter | • | • | • | • | • | |
| Activesync Cable | • | • | • | • | • | |
| PDA User's Guide | • | • | • | • | • | |

| | | | |
|---|------------------------------------|--|----------------------------|
| RF Range (using Internal Antenna): 406 MHz 121.5 MHz/243 MHz | >15 m >3 m | | |
| RF Input VSWR | 1.10:1 | | |
| RF Input Level: | 406 MHz Burst 121.5 MHz/243 MHz | -13 dBm Min -28 dBm Min | +40 dBm Max +30 dBm Max |
| 10 MHz REF Input VSWR | 1.15:1 | | |
| 10 MHz REF Input Level | | -10 dBm Min | +10 dBm Max |
| Operating Temperature Range | | 0°C to +50°C | |
| Storage Temperature Range | | -20°C to +60°C | |
| Internal Temperature Sensor Accuracy | | ± 0.5°C | |
| RF Input Cable Termination | | BNC-female | |
| 10 MHz REF Cable Termination | | SMA-female | |
| Dimensions: BT100 w x l x h mm (inches) | | 43.5 (1.71) x 58.5 (2.30) x 12.7 (0.50) | |
| BT100 in PDA w x l x h mm (inches) | | 77.0 (3.03) x 140.0 (5.51) x 17.0 (0.67) | |
| Hard Case w x l x h mm (inches) | | 324 (12.75) x 273 (10.75) x 114 (4.50) | |

* User must supply a stable 10MHz Reference Signal Specifications subject to change without notice.



WS Technologies Inc.'s line of advanced Beacon Testers are rapidly becoming the de facto Beacon Testers worldwide. These testers were developed in Canada by a staff that has extensive experience in the development and manufacturing of 406 ELTs, EPIRBs and PLBs. Not only does WST offer the most advanced and comprehensive testers available, we offer unprecedented support for beacon testing

Two Beacon Tester models to choose from:

- BT100A:**
- measure 121.5 MHz and 406 MHz
- BT100S:**
- measure 406 & 121.5 MHz plus 406 frequency stability

Testing ELTs or need 243 MHz capability?
Check out our selection of ELT Testers at www.wst-inc.ca

Distributed By:

Developed and Manufactured in Canada By:



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www.wst-inc.ca



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