



# WST

## WS Technologies Inc.

*Innovation and Quality*

# New! BT200

# Beacon Tester

*The BT100 replacement. Completely integrated, more rugged, more reliable, and better performance! The new industry standard for handheld beacon testers!*

New and Improved! The BT200 follows in the footsteps of the BT100 – the most popular Beacon Tester in the world! The BT200 has improved measurement accuracies, is inherently rugged, and is intuitive to use. Now completely integrated, this tester packs a whole lot of measurement capability into a very small package. AIS measurements have been added to the extensive list of features. Use this instrument for your entire beacon testing needs: code verification, annual certifications, inspections, and even for troubleshooting! Test all 406 EPIRBs and PLBs, ELTs, and AIS-EPIRBs. Perform beacon testing and inspections without using expensive equipment.

#### FEATURES INCLUDE

- scalable to meet your requirements – EPIRB/PLB or add ELT, AIS, and LimitTester measurement capabilities
- compact, rugged device with integrated receiver
- familiar Android operating system
- device is IP68 rated – waterproof and very rugged!
- receives all Cospas-Sarsat frequency channels and protocols
- measures 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 10 meters away or connect beacon directly to tester at 50Ω
- no attenuator required
- add text comments, audio, photos or videos to each measurement
- user-defined cable loss factor
- easy to use file system
- creates PDF Test Report
- creates delimited text log file – for easy data extraction and analysis
- easily interface to PC via cable, wifi, or USB drive
- each unit includes a Certificate of Calibration with detailed calibration data
- free software and firmware updates online
- outstanding customer support
- Cospas-Sarsat Second Generation Beacon (SGB) ready



Comply with FAA Part 91.207, CAR 571 Appendix G, and CAA Euro CAE requirements for ELT certifications and MSC Circ. 1039 and 1040 for EPIRB Certifications. Make sure the beacons you are testing are operating properly by testing them thoroughly!

# BT200 SPECIFICATIONS

	Options		
BT200	-add ELT	-add AIS Rx	-add AIS Rx/Tx

406 MHz Measurements				Uncertainty
Measure all Cospas-Sarsat Channels	•			-
15 HEX ID	•			-
Full HEX	•			-
Decode Message – EPIRB & PLB	•			-
Decode Message – ELT		•		-
Frequency				
Leaving factory	•			± 100 Hz
Long Term				± 1.5 ppm/yr
Power output	•			± 0.25 dB
Power rise time	•			± 0.5 ms
Pre-burst level	•			± 1.0 dB
Pulse Repetition period	•			± 10 ms
Bit rate	•			± 0.2 bps
CW preamble time	•			± 0.5 ms
Total transmission time	•			± 0.5 ms
Rise time	•			± 20 µs
Fall time	•			± 20 µs
Phase deviation: positive	•			± 0.04 rad
Phase deviation: negative	•			± 0.04 rad
Modulation phase symmetry	•			± 0.005

121.5 MHz Measurements				Uncertainty
Frequency				
Leaving factory	•			± 100 Hz
Long Term				± 1.5 ppm/yr
Peak Power	•			± 1dB
Sweep Direction	•			-
Audio Frequency - upper	•			± 30 Hz
Audio Frequency - lower	•			± 30 Hz
Audio Sweep Range	•			± 60 Hz
Modulation Index	•			± 5%
Sweep Rep Rate	•			± 0.1 Hz
Duty Cycle	•			± 2%

243 MHz Measurements				Uncertainty
Frequency				
Leaving factory		•		± 100 Hz
Long Term				± 1.5 ppm/yr
Peak Power		•		± 1 dB
Sweep Direction		•		-
Audio Frequency - upper		•		± 30 Hz
Audio Frequency - lower		•		± 30 Hz
Sweep Range		•		± 60 Hz
Modulation Index		•		± 5%
Sweep Rep Rate		•		± 0.1 Hz
Duty Cycle		•		± 2%

AIS Measurements				Uncertainty
Frequency AIS1 & AIS2 (Ch 87B & 88B)				
Leaving factory		•	•	± 100 Hz
Long Term				± 1.5 ppm/yr
Output power		•	•	± 0.25dB
Digital Data (Burst Details for bursts 1-8)		•	•	-
Tx AIS for GMDSS			•	-

Graphic Measurements				Uncertainty
-406 spectrum mask graphics data	•			-
-406 output power during burst graphic data	•			-
-406 phase modulation graphics data	•			-

What's included ...
BT200 Rugged Handheld Device
RF Input Cable
USB Interface Cable
OTG/USB Cable (for direct connection to USB drive)
Operator's Manual
Certificate of Calibration (with Calibration Data)
AC Adapter
Pen/Stylus
Hard Case

Miscellaneous Parameters		
<b>RF Range</b>		
406 MHz	>10 m	
121.5 MHz/243 MHz	>1 m	
AIS	>1 m	
RF Input VSWR	1.20:1	
Dynamic Range (Antenna equivalent or Direct Connection)	406 MHz Burst	-20 dBm to +40 dBm
	121.5 MHz/243 MHz	-5 dBm to +35 dBm
	AIS	0 dBm to +43 dBm
Maximum Input Power (Burst)	+43 dBm	
Maximum Input Power (Continuous)	+33 dBm	
Operating Temperature Range	+5°C to +50°C	
Storage Temperature Range	-20°C to +60°C	
Ingress Rating	IP68	
Internal Temperature Sensor Accuracy	± 2°C	
RF Input Cable Termination	BNC-female	
<b>Dimensions and Weight</b>		
BT200: w x l x h mm (inches)	135 (5.31) x 70 (2.76) x 2.0 (0.79)	
Weight	222 g (0.49 lbs)	
Hard Case: w x l x h mm (inches)	363 (14.29) x 284 (11.18) x 124 (4.88)	
Weight	1.90 kg (4.2 lbs)	

## Ordering options ...

### Start with the base configuration ...

**BT200** – the basic version will decode all 406 EPIRBs and PLBs, and measure all 406 MHz and 121.5 MHz signal parameters.

### Then choose your options ...

#### add ELT:

Adds the additional capability to decode all ELTs and measure the 243 MHz channel.

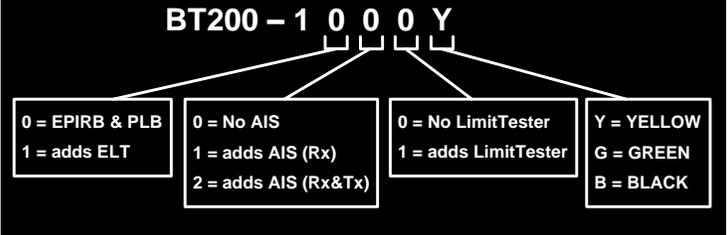
#### add AIS: AIS (Rx) OR AIS (Rx & Tx)

Adds the additional capability to decode and measure the AIS channel in AIS-EPIRBs (Rx only) or GMDSS (Rx & Tx)

#### add LimitTester:

Adds the LimitTester function to see at a glance if the beacon has passed or failed.

### Ordering codes ...



Developed and manufactured in Canada by:

## WS Technologies Inc.

WS Technologies Inc.'s lines of advanced Beacon Testers are the de facto Beacon Testers worldwide. These testers were developed in Canada by engineers that have 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 issues.

WS Technologies Inc. is an ISO 9001 Certified company

