

BT100AV series



“Satellite processing of 121/243MHz emergency beacons terminates on February 1, 2009” COSPAS SARSAT SECRETARIAT

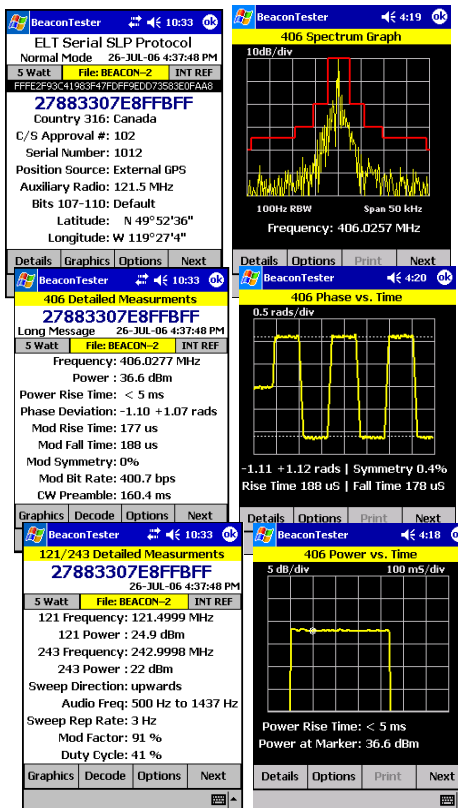
Are you ready for 406 MHz technology?

The BT100AV is the proven leader in ELT Testers. This tester packs a whole lot of measurement capability into a very small package. Use this instrument for all of your ELT testing needs: code verification, annual inspections and certifications, and even for troubleshooting! In fact, the majority of beacon manufacturers are using this instrument on their production lines! Test existing 121/243 ELTs and all 406 ELTs (also EPIRBs and PLBs!). Perform annual ELT inspections with using expensive equipment.



FEATURES INCLUDE

- easy to use software ... very intuitive!
- receives all Cospas-Sarsat frequency channels and protocols (ELTs, EPIRBs and PLBs)
- 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 ELT directly – no attenuator needed
- the user can listen to the real-time audio on 121.5 MHz or 243 MHz ... even decode Morse Code
- 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
- outstanding customer support



Comply with FAA Part 91.207, CAR 571 Appendix G, and CAA Euro CAE requirements for ELT inspections. Make sure the ELTs you are testing are operating properly by testing them thoroughly!

SPECIFICATIONS

Beacon Testers BT100 series		ELT Testers BT100AV series		
BT100A	BT100S	BT100AVdouble	BT100AVtriple	BT100AVS

PARAMETER	BT100A	BT100S	BT100AVdouble	BT100AVtriple	BT100AVS	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	•	•	•	•	•	± 100 Hz
Long Term						± 0.4 ppm/year
Frequency (using EXT REF) (resolution = 1 Hz)	•	•	•	•	•	± 1 Hz
Frequency * Stability	Nominal Frequency	•	•	•	•	
	Short Term	•	•	•	•	
	Medium Term - Mean Slope	•	•	•	•	± 2.5 x 10 ⁻¹¹
	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	•	•	•	•	•	± 100 Hz
Long Term						± 0.4 ppm/year
243 MHz Frequency (using INT REF) (resolution = 100 Hz)						
Leaving Factory			•	•	•	± 100 Hz
Long Term						± 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			•	•	•	✓

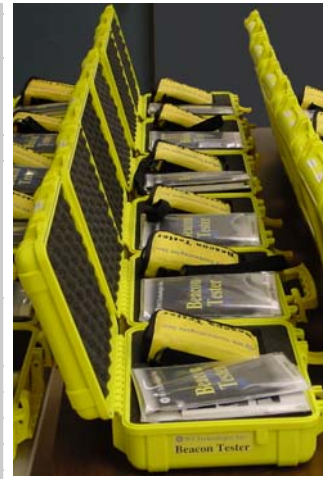
MISCELLANEOUS						
Graphic 406 Power During Burst screen	•	•	•	•	•	
Graphic 406 Phase Modulation screen	•	•	•	•	•	
Graphic 406 In-Band Spectrum screen	•	•	•	•	•	
User-defined Cable Loss factors at each frequency	•	•	•	•	•	

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	>15 m		
121.5 MHz/243 MHz	>3 m		
RF Input VSWR	1.10:1		
RF Input Level:		-13 dBm Min	+40 dBm Max
406 MHz Burst		-28 dBm Min	+30 dBm Max
121.5 MHz/243 MHz			
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 issues.

Three ELT Tester models to choose from:

BT100AVdouble:

- measure 121 MHz and 243 MHz – no 406

BT100AVtriple:

- decode and measure 406/121.5/243 MHz

BT100AVS:

- measure 406/121/243 MHz plus 406 frequency stability

All models are fully upgradeable ... order the BT100AVdouble now and upgrade to 406 capability in the future ... remotely!

Distributed By:

Developed and Manufactured in Canada By:

 **WS Technologies Inc.**

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Canada 

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