

STB100 BEACON TEST BENCH SPECIFICATIONS

406 MHz Measurements		Uncertainty
Measures all Cospas-Sarsat Channels		-
15 HEX ID		-
Full HEX		-
Decodes all Cospas-Sarsat protocols		-
Frequency (Ext Ref)		± 0.1 Hz
Frequency (Int Ref)		
Leaving factory		± 100 Hz
Long Term		± 1.0 ppm/yr
Frequency Stability (using Ext Reference)	Nominal Frequency	± 2.5 x 10 ⁻¹¹
	Short Term	
	Medium Term – Mean Slope	
	Medium Term - Residual	
Power		± 0.25 dB ¹
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
121.5/243 MHz Measurements		
Frequency (Ext Ref)		± 30 Hz
Frequency (Int Ref)		
Leaving factory		± 100 Hz
Long Term		± 1.0 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%
Graphic Measurements		
-406 spectrum mask graphics data		-
-406 output power during burst graphic data		-
-406 phase modulation graphics data		-

¹35-39 dBm

Interface Parameters		
50 Ω RF Input		
Connector		BNC-f
VSWR		1.20:1
Dynamic Range:	Direct Connection	Screen Box Connection
406 MHz Burst	+20 dBm to +43 dBm	-10 dBm min
121.5 MHz/243 MHz	+ 5 dBm to +35 dBm	-15 dBm min
Absolute Maximum Input Level (Burst)		+44 dBm
Absolute Maximum Input Level (Continuous)		+35 dBm
Antenna RF Input		
RF Range		
406 MHz		>10 m
121.5 MHz/243 MHz		>3 m
Connector		SMA-m (RP)
Absolute Maximum Input Level		10 dBm
10 MHz Input		
Connector		BNC-f
VSWR		1.40:1
Input Level Range		-10 to +10 dBm
GPS ANT Input		
Connector		SMA-f
Bias		+5V current limited
USER I/O Connector		
Connector		D-subminiature, 26 pin, HD
Functions:		
-AUX I/O		-8 I/O lines, 5V TTL Tolerant
-AUX ADC		-8 analog inputs, 0V -12 V
-RELAY1		-Relay1 NC/NO 60V 2A
-RELAY2		-Relay2 NC/NO 60V 2A
-PPS Out		-GPS 1 PPS Output
-GPS Tx		-GPS Tx
-GPS Rx		-GPS Rx
-Ground		-Ground
PPS OUT		
Connector		SMA-f
Level		Logic level
AC Power Input		
Connector		IEC 320 Appliance Input
Voltage		85-264 VAC
Frequency		47-63 Hz

Miscellaneous Measurements	Range	Uncertainty
Vin @ DC PWR IN	1V to 30V	± 2%
Vout @ DC PWR OUT	1V to 30V	± 2%
Iout @ DC PWR OUT	5mA to 8A	± 2% (>100mA)
leakage current @ DC PWR OUT	200 nA to 40 µA	± 5%
Vdropout (Vin to Vout)	50 mV/A	-
Aux Analog Input (Aux ADCn)	0 – 12V	± 2%
Temperature (probe 1 and probe 2)	-60°C to +75°C	± 0.5 C°
Environmental and Mechanical		
Operating Temperature Range	+10°C to +35°C	
Storage Temperature Range	-20°C to +60°C	
Temperature Probe type	RTD	
Dimensions: w x l x h mm (inches)	210 (8.3) x 280 (11.1)	
Weight	x 64 (2.5) 2.73 kg (6.0 lbs)	