

WBT-3100

Self-Contained Software Defined Radio Platform (SDRP)
for Radio Frequency Capture and Playback

Capturing up to 100 MHz of RF Spectrum from 100 kHz to 6 GHz

The WBT-3100 is capable of capturing up to 100 MHz of RF spectrum between 100 kHz and 6 GHz utilizing phase coherent or dual independent tuners and then playing the captured RF for post processing or analysis.

The WBT-3100's built-in general-purpose preselection filters limit energy going into the radios to specific bands, preventing unnecessary saturation and eliminating interference from out of band sources. This filtering capability is automatically configured by software, so no subject matter experts are required to configure the appropriate settings.

With the WBT-3100's high speed 10-GigE Ethernet connection, raw RF capture (I/Q) data can be streamed off of the box for external storage or processing as fast as it can be gathered.

The WBT catches what real time tools miss. Capturing and preserving a faithful replica of the RF environment that can be played back into any system with an RF input. The rugged design and ability to be powered from multiple sources, lends to its flexibility and capability to operate from several platforms in a multitude of environments.

The WBT's wide tunable range allows for the capture, replay and analysis of nearly all cellular, navigation, satellite, television, handheld transceivers as well as manned and unmanned vehicle communications.



Features

- Dual independent or Phase coherent tuners
- 100 kHz to 6 GHz
- 100 MHz instantaneous bandwidth
- IP-65
- Removable media
- 10 GigE capable
- FPGA support
- Internal RF filtering

Applications

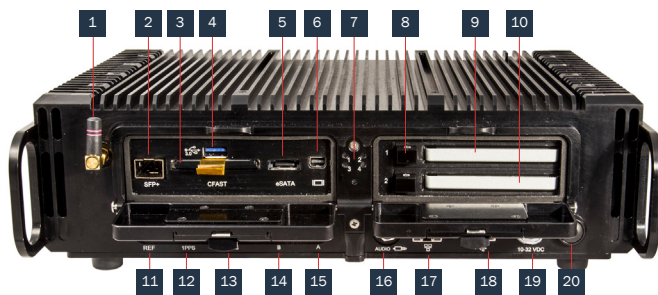
- RF signal recording & playback
- Signal analysis
- Interference analysis
- Remote spectrum monitoring
- Training
- Receiver test & design
- Spectrum allocation



This item is subject to the EAR. Accordingly, an export authorization may be required for certain clients, uses, and/or destinations. The time required to obtain an authorization may impact international delivery.

QRC Technologies - A Parsons Company / Sales

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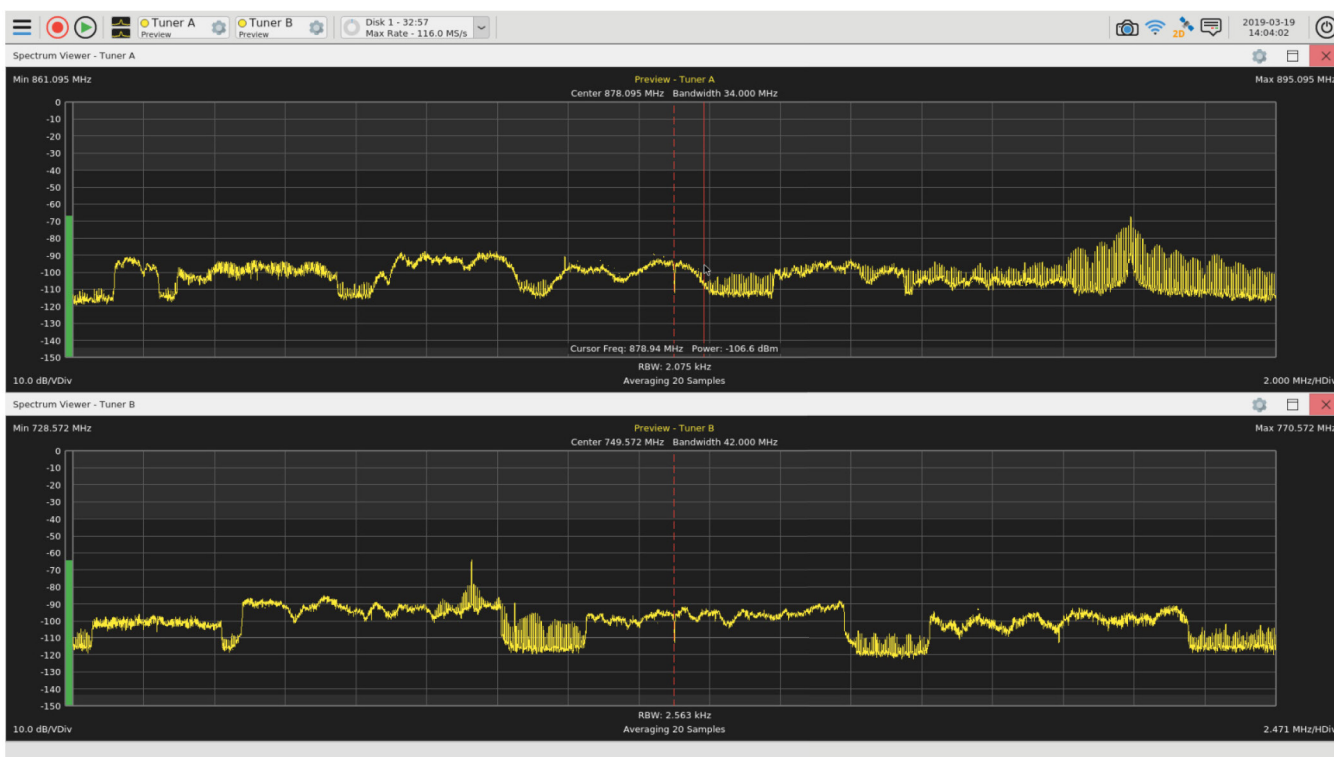
No.	Description
1	WiFi Antenna (RP-SMA) (Optional)
2	10 GigE SFP+
3	CFast Card
4	USB 3.0
5	eSATA
6	Mini Display Port
7	LEDs (Qty 4)
8	Disk Ejectors
9	Disk 1
10	Disk 2

* Component is hidden by open bay doors

No.	Description
11	Ref Clock In/Out (SMA*)
12	1 PPS In/Out (SMA*)
13	GPS Antenna Port (SMA*)
14	Tuner B - TX/Rx Antenna Port (SMA*)
15	Tuner A - Tx/Rx Antenna Port (SMA*)
16	Headphone/Microphone Jack*
17	Gigabit Ethernet*
18	Dual USB 2.0*
19	Power Connector
20	On/Off Power Switch

Technical Data: WBT-3100

Receiver Type	Direct Conversion
Number of Transceiver Channels	2
Channel Instantaneous Bandwidth (IBW)	50 MHz
System Instantaneous Bandwidth	100 MHz
Frequency Range	100 MHz to 6 GHz
Phase Coherency	Phase Coherent or Independent
Instantaneous Dynamic Range	74 dB
Preselection Filtering	Sub-Octave filtering (50-6000 MHz)
Signal Processing	FPGA
Internal Reference Clock Stability	+/- 1 ppb using GPSDO-conditioned TCXO
Internal 1 PPS Accuracy	+/- 12.5 nsec with GPS lock
Processor	i7 Quad Core, 32 GB RAM
Operating System	Linux
Storage	2 SSD removable drives (2 x 1 TB)
Sampling Rate	61 MS/s
I/O	GbE, USB 3.0, 1 PPS, 10 MHz Reference
Dimensions	12.54" W x 3.4" H x 10.33" L
Weight	11.4 lbs.
Power Consumption	65 W (typical)
DC Input Voltage	10 - 32 VDC
Operating Temperature	-10 to 50°C
Data File Format	VITA 49



Tuner A and Tuner B Displays

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