

SARP-6

RF SIGNAL ACQUISITION RECORDING AND PLAYBACK INSTRUMENT

PRODUCT BROCHURE



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RF Signal Acquisition Recording and Playback Instrument



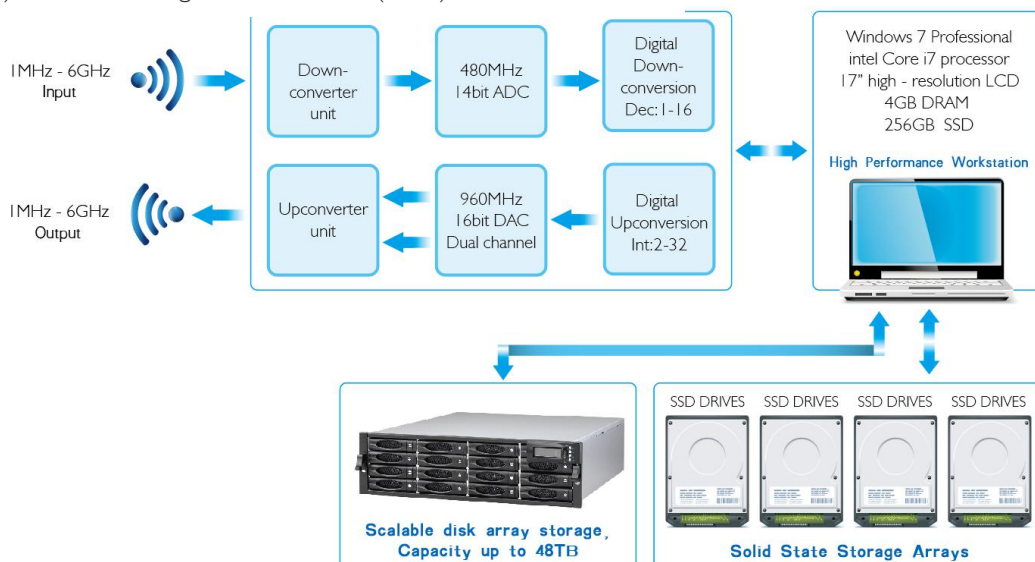
SARP-6 RF Signal Acquisition Recording and Playback instrument is a portable RF signal acquisition recording playback equipment. It can be used to directly acquire, record, and playback RF signal from 1MHz to 6GHz. Its data recording and bandwidth playback can reach 200MHz. The SARP-6 RF Signal Acquisition Recording and Playback system is composed of up and down converter module, high performance ADC and DAC, and large capacity solid-state FLASH or high performance disk. It is widely used in radar, communication, GPS, telemetry as well as many other circumstances when acquiring signal and recording it down.

Features & Benefits:

1. Digital persistence spectrum monitoring
2. Replaceable and customizable PXI RF module
3. Graphical interface storage and player, Data management Software
4. Flip-down portable chassis, 17" LCD monitor, resolution up to 1280*1024
5. Input signal frequency range 1MHz - 6GHz
6. Signal acquisition bandwidth up to 200MHz
7. Signal playback bandwidth up to 200MHz
8. Acquisition and playback speed up to 1GB/s
9. Data recording and playing capacity up to 8TB
10. When recording different bandwidths, recording time can be expanded dynamically, refer to storage options recording time comparison
11. Capable of installing Tektronix SignalVu Signal Analysis Software to analyze all the data after it is saved and stored.
12. Support NTFS binary file format, support for conversion to Matlab data files (.mat) and Tektronix Signal Vu file formats (.TIQ)

Applications:

Interference Analysis
Surveillance
Spectrum Management
Satellite Communications



Specifications

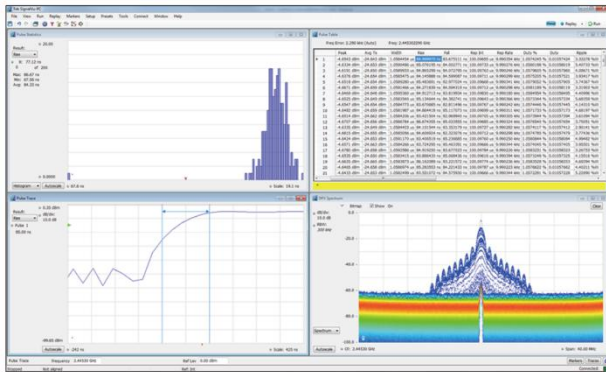
Signal Acquisition	
Acquisition and Signal Frequency Playback Range	1MHz to 6GHz (Other frequency bands can be customized)
Frequency Tuning Step Size	1kHz
Maximum Input of Signal Power	- 10dBm (Normal Mode) / +10dBm (Anti-burn) - 30dBm (Low Noise Mode) / +10dBm (Anti-burn)
Gain Tuning Range	-10 to +40dB (Normal Mode) 0 to +50dB (Low Noise Mode)
Gain Control Step	0.5dB
Input Noise Figure	≤10dB (During Low Noise Mode)
Inband Clutter Suppresion	≥55dBc
Excellent Phase Noise Figure (1GHz)	≤-95dBc/Hz@10KHz (Standard) ≤-115dBc/Hz@10KHz (LP)
Acquisition Signal Bandwidth	110MHz (S300) / 200MHz (S480)
Acquisition Clock Frequency	300MHz (S300) / 480MHz (S480)
Data Recording Speed	As high as 1GB/s
Data Recording Capacity	As high as 8TB (Internal) / 48TB (External)
Signal Playback	
Acquisition and Signal Replay Frequency Range	1MHz to 6GHz (Other frequency bands can be customized)
Frequency Tuning Step Size	1kHz
Power Output Range	-60 to +13dBm
Power Output Tuning Step Size	0.5dB
Harmonic Suppresion	≥20dB (During 0dBm output)
Clutter Suppresion	≥60dBc (Under the cirsumstances of single carrier output)
Excellent Phase Noise Specification (1GHz)	≤-95dBc/Hz@10KHz (Standard)
Signal Playback Bandwidth	110MHz (P600) / 200MHz (P960)
Playback Clock Frequency	600MHz (P600) / 960MHz (P960)
Time-frequency	
Internal Reference Frequency	10MHz
Internal Clock Aging Rate	≤±1E-7
Built-in clock temperature stability (0 to +55℃)	≤±5E-8
External Reference Input Frequency	10MHz
External Reference Input Power	≥0dBm
Physical and Electrical Characteristics	
Power Supply	100-240 VAC; 50/60 Hz
Power	Max. 250W
Size	425mm×338mm×230mm (L×W×D)

Weight			Approx 20kg		
Environmental Requirement					
Temperature Range			0℃ to +40℃（Operation） / -20℃ to +60℃（Storage）		
Altitude			≤3000m（Operation） / ≤12000m（Storage）		
Relative Humidity			20% to 80%（Operation） / 10% to 90%（Storage）		
Recording Time					
Bandwidth	Sample Rate	Recording Rate	SSD4	SSD8	SAS48*
			Recording Time	Recording Time	Recording Time
200MHz	480MSPS	960MB/s	1 hour	2 hours	12 hours
100MHz	240MSPS	480MB/s	2 hours	4 hours	1 day
50MHz	120MSPS	240MB/s	4 hours	9 hours	2 day
25MHz	60MSPS	120MB/s	9 hours	18 hours	4 day
12.5MHz	30MSPS	60MB/s	18 hours	36 hours	8 day

Options

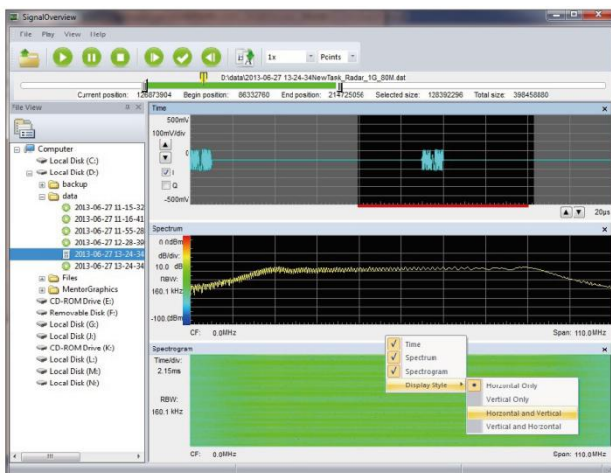
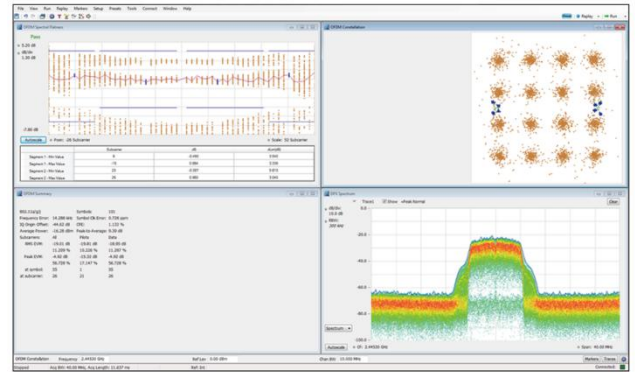
Name	Description	Configuration
SARP-6-PL	Portable record playback instrument platform, I5 processor, 4GB memory, 256GB solid-state drive	Standard
SARP-6-PH	Portable record playback instrument platform, I7 processor, 4GB memory, 512GB solid-state drive	Optional
SARP-DC-6	Downconverter: 600MHz to 6GHz	Standard
SARP-UC-6	Upconverter: 600MHz to 6GHz	Optional
SARP-DC-LF	Downconverter frequency range expansion to: 1MHz to 6GHz	Optional
SARP-UC-LF	Upconverter frequency range expansion to: 1MHz to 6GHz	Optional
SARP-LP	Low phase noise	Optional
SARP-SI-S300	Acquisition Option: sample rate 300MSPS (110MHz bandwidth) , 14-bit A/D	Standard
SARP-PI-P600	Playback Option: sample rate 600MSPS (110MHz bandwidth) , 16-bit D/A	Optional
SARP-SI-S480	Acquisition Option: sample rate 480MSPS (200MHz bandwidth) , 14-bit A/D	Optional
SARP-PI-P960	Playback option: sample rate 960MSPS (200MHz bandwidth) , 16-bit D/A	Optional
SARP-SSD2	Internal storage: capacity of 2TB	Standard
SARP-SSD4	Internal storage: capacity of 4TB	Optional
SARP-SSD8	Internal Storage: capacity of 8TB	Optional
SARP-SAS48	External Storage: capacity of 48TB	Optional
SARP-10Gb	Dual-port 10Gbe Data Interface	Optional
SignalBoxManager	Data acquisition playback management software, with spectrum monitoring ability	Standard
SignalOverView	Signal file quick-view software	Optional

Optional Software



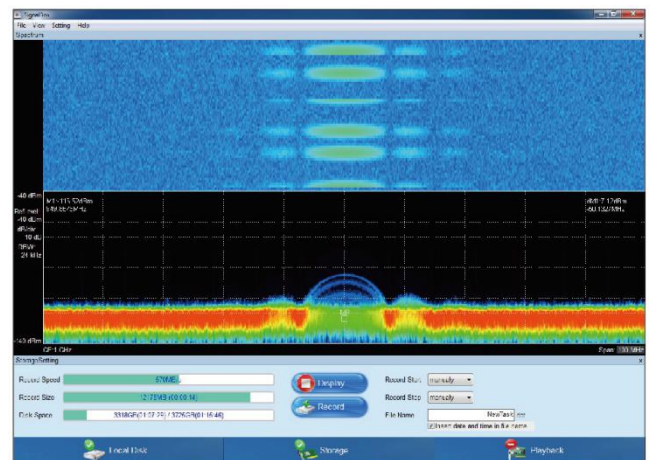
SignalVu Signal Analysis Software

Support Tektronix SignalVu signal analysis software



SignalOverView

Fast signal browsing for high volume data



SignalBoxManager

File management and conversion for data acquisition and playback

Contact

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3 Year Warranty

The combination of superior product reliability and 3-year warranty service helps you achieve the following goals: increased measurement confidence, reduced cost of ownership, and increased ease of operation.