Tektronix

Solutions for Quantum Research

For over 70 years, Tektronix measurement expertise and cutting-edge solutions have been frequently cited, earning its reputation as a trusted standard in the industry.



CONTROL

Generate complex signals that are extremely stable, ultra-low noise and operate across multiple, highly synchronized channels for exact precision every time.

Gate Driver Signals & Digital Control

Generates control signals to manipulate qubits, providing gate drive functionalities

AWG/AFG



AFG31000



AWG5200 OR AWG70000

Flux Control & DC Bias

Provides precise current control, crucial for managing the flux or power supplied to the quantum system

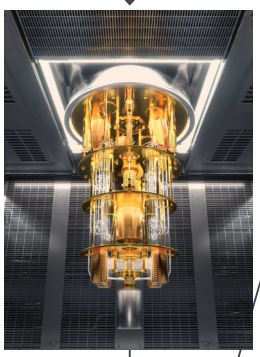
SMU/Power Supplies



Source Measurement Unit (SMU)

Qubits Control

Manages the precise application of control signals to qubits, ensuring accurate gate operations and flux adjustments necessary for quantum computations



Quantum Circuit

Provides precise current control, crucial for managing the flux or power supplied to the quantum circuit

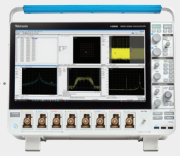
MONITOR

Verify and monitor your results with a portfolio of oscilloscopes and spectrum analyzers with the low latency, low noise and speed to find the unexpected defects you may otherwise miss.

Monitor & Calibrate Input Signals

Monitor the quantum emissions to ensure they meet your expectations

Oscilloscope





LPD64/6 Series B Oscilloscope for rack mounting

Signal Read Out & Monitoring

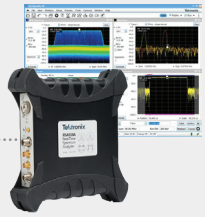
Monitor the quantum stimulus and control

Oscilloscope

Spectrum Monitoring

Find anomalies in the frequency domain

Real-time Spectrum Analyzer



RSA518 with SignalVu-PC Software

Troubleshooting

Easy troubleshooting around the lab

Portable Oscilloscope



2 Series MSO

Recommended Products

CONTROL






Quantum Purpose	SMU 2450/ 4200A-SCS	AFG31000	AWG5200	AWG70000
	Faster Insight from Data	Instaview™ Monitoring	Channel Density	Highest Performance
Control Pulse/ Readout Pulse	✓ Current and Voltage	✓ Direct to 250 MHz	✓ Direct RF to 4 GHz Low noise, Hi Res	✓ Direct RF to 18 GHz Lowest Noise
Bias or Flux: Swept and Stable Hold	✓ Hi Resolution Up to 32 Ch	✓ 14 Bit Resolution 128 MS/Ch	✓ 16 Bit Resolution 2 GS/Ch	10 bit Resolution 16 GS/Ch
Digital Control	Aux I/O		✓ Markers 5 GS/s	✓ Markers 25 GS/s
Highest Speed Optical Networking Source			✓ Up to 8 Ch/Unit Drive Optics	✓ Signals to 50 GS/s
16K Unique Fast Sequences			✓ Sequence in 200 pS	✓ Sequence in 20 pS
Precompensate for Fidelity			✓	✓
Software	KickStart™ / Clarius+	Kickstart™	SourceXpress™	SourceXpress™

MONITOR







Quantum Purpose	DPO77 (70 GHz/ 200 GS/s)	LPD-5 (1GHz) LPD-6 (8 GHz)	6 Series MSO (10 GHz)	2 Series (500 MHz)	RSA518 RTSA (18 GHz)
	Lowest Noise at High Speed	Channel Density and Precision	Visualize All Domains	Portable Mixed Signal Insight	Portable RTSA Insight
Signal Acquisition/ Readout	✓ Max. Perf. 8 Bit ADC 50-200 GS/s	✓ 12 Bit ADC 6.25-25 GS/s	✓ 12 Bit ADC 6.25-50 GS/s	8-16 Bit 2.5 GS/s	✓ 14 Bit 18 GHz BW
Signal Monitoring		✓ Tek 49 DDC	✓ Tek 49 DDC		✓ SW DDC Real Time
Troubleshooting Large Setup		✓ Compact 4-8 Channels Analog/ RF/Digital	✓ Friendly UI 4 Channels Analog/ RF/Digital	✓ Compact, Li-ion Portable	✓ Compact, Li-ion Portable

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