

MT 6020 Simulator

Entry-level Performance

ModelingTech
远宽能源



MT 6020 Simulator is an entry-level real-time simulator independently developed by ModelingTech. It uses FPGAs as the computing core and can simulate controlled objects in time steps as small as 1 μ s. It creates a safe testing environment for users to quickly verify control algorithms and test under fault conditions, which dramatically improves the efficiency of new product&technology pre-research, control algorithm optimization and product iterative testing.

Detailed Highlights

Innovative Hardware Architecture

Adopting the hardware architecture of CPU+FPGA, it supports users to realize the joint simulation of power system and power electronic system with large and small time-steps on the same platform.



Multi-FPGA cascade simulation

Configured with 4 SFP+ fiber optic interfaces, it helps users to realize synchronous parallel simulation of multiple FPGAs and meet the demand for parallel simulation of multiple inverters.

Rich industrial communications

Supporting a lot of industrial communication protocols such as Modbus TCP, CAN, Ethernet TCP/UDP, Serial, which assists engineers in the actual industrial inverter testing.



MT 6020 Simulator

System Schemes



Technical Parameters

Model	MT 6020
Processor	Dual-core ARM Cortex-A9, Clock Speed 800MHz
Memory	2GB DDR4 SDRAM
FPGA	444K logic units, 26.5Mb Block RAM, 2020 DSP Slices
Analog Output	24 channels, 16bit, 1MSPS, $\pm 10V$
Analog Input	16 channels, 16bit, 1MSPS, $\pm 10V$
Digital Input	64 channels
Digital Output	16 channels
Communication	Modbus TCP, CAN, Ethernet TCP/UDP, Serial, 4 SFP+
Dimension	307mm*335mm*134mm (L*W*H)

Application Scenarios



Renewable Energy

Wind Power Converter Testing
PV Inverter Testing
Multiple PCS Testing



Power System & Micro-grid

Microgrid Research
Green Hydrogen Microgrid Simulation
Renewable Energy Farm Simulation
Power Hardware in the Loop Testing



Multi-level System

Modular Multi-level Converter (MMC)
High Voltage Converter (HVC)
Static Var Generation (SVG)



Electrified Transportation

Electric Motor Drive Controller Testing
Traction Motor Testing

