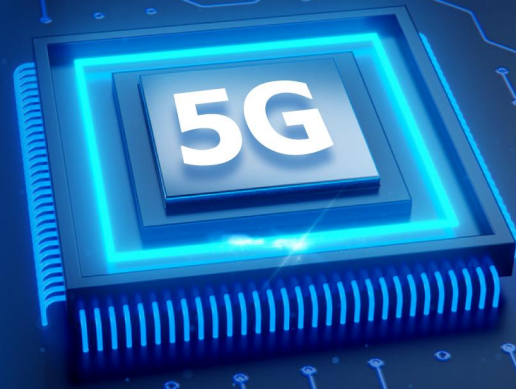


Pilot Performer

High Performance Lab Based 5G Cell Site Test and Verification



Pilot Performer is an industrial grade test and measurement solution for 5G gNodeB performance verification in a lab network environment. Pilot Performer integrated modular design enables flexible configuration according to the test case scenario. Scripted test cases can be automated and managed remotely. Upto 32 SA/NSA 5G Qualcomm X55/X62 chipset based test modules are supported. The Pilot Performer platform operates on MS Windows and equipped to handle high volume mobile network test cases



Pilot Performer (Front)



Pilot Performer (Back)



Remote Control Server



Remote Control Client (Multi UEs)

System Architecture

Item	Details
Supported Technologies	3G, 4G, 5G SA and 5G NSA
Size and weight	672*450*245mm, 33kg with accessories and case
Test Unit	Up-to 32 5G test modules (Qualcomm X55/X62)
CPU	Intel 8th/11th Gen Xeon®/Core™ (Configurable)
Hard Disk	128G-1T NVME SSD (Configurable)
RAM	Upto 128G RAM (Configurable)
Processing Board	20+4P
5G Modules	5G/4G/3G M.2 modules in Qualcomm chipset, upto 32 units of modules in one device
Antenna	External antenna for test modules, Built-in antenna combiner
Power Rating	450W (Certified energy-saving and silent, multiple protection)
Power	CPU: <50W Module: <200W Processing Board: <20W USB Connected Device: <5.5W
Expanded Ports	8-in-1 combiner RF SMA interface No Combiner RF SMA interface Built-in Nano SIM slot 2 USB ports 10/100/1000 Mbps LAN Port 1*HDMI Display interface
Radiator	Multi-zone passive cooling + CPU active cooling
Shield	Partition electromagnetic shielding, isolation degree>70 dB

Product Features

Release Highlights

- New CPU architecture high-performance hardware
- Upto 32 Qualcomm X55/X62 chipset based 5G test modules (with 3G/4G backward compatibility)
- Advanced 5G performance test platform supporting Multi-RAB test
- Test and measure 5G site performance and features
- Remote control with Pilot Pioneer application over TCP/IP protocol Socket Connection
- Control, configure and monitor test plans in Pilot Pioneer.
- Simultaneous 5G & 4G performance benchmarking
- Flexible and easy AT commands to simultaneously control multiple & automatically send multiple pre-defined AT commands
- Support standard cabinet installation
- Customized automatic test for different test scenarios
- Independent external antenna array
- Two antenna solutions: external antennas for test modules & built-in antenna combiner

Remote Management

Pilot Performer can be remotely managed by Pilot Pioneer application through TCP/IP protocol connection. This includes test plan configuration and execution, real-time equipment monitoring, statistics report generation, and firmware upgrade, among others. Customized test plan is supported.

5G Features

- Band & Frequency: FR1
- Mode: NSA/SA

Highly Integrated Design

- 32-channel 3G/4G/5G configurable test modules
- Remote control with Pilot Pioneer application over TCP/IP protocol Socket Connection to cater for high speed throughput and demanding processing power requirements for multi-channel 5G test and measurement.

Real Time Data Display in Pilot Pioneer Application

- Real-time and complete data display in Pilot Pioneer for future analysis.
- Test and post processing in Pilot Pioneer, e.g. configure test plan, monitor test, display data in real time etc.

Test 7 UgYg

- 5G device function verification (network and device capacity, basic performance testing)
- 5G service capability (network end-to-end testing, voice, data and social media testing)
- Multiple 5G network scenarios simulation testing (Network accessibility, signalling load, high network traffic, network configuration settings .)

Main Test Functions

- Data Collection
 - L1/L2/L3 messages and parameters
 - Test information
 - Customized data collection settings
- Automatic Control
 - Customized operation in batches and remote control
 - Execute test automatically for multiple scenarios
- Automatic Control
 - Attach, restart, power on/power off
 - Lock network/band&frequency/cell

Real-Time Monitoring of Test Status

Pilot Pioneer application monitors in real-time all test and measurement status (including geo-position, exceptions etc.) captured from the remote Pilot Performer unit.

Users may also connect Pilot Performer to Pilot Pioneer via Socket connection, to monitor real-time onsite information such as measurement parameters, events, messages, test status and test plan information.

Multiple Network Technologies and Services

Pilot Performer supports 3G, 4G, 5G network technologies and various services tests, which include the latest voice (VoNR, EPS Fallback, CSFB), data services.

VoLTE and VoNR

- VoLTE, VoNR and EPS Fallback measurement
- Simultaneous 32 channels voice quality testing with built-in test modules.

Product Values

For Network Operators, System Vendors and Service Providers

- Improves operational efficiency with automatic data processing and remote administration
- Supporting various test cases with high volume testing
- Simple user interface to manage complex test cases, data analysis and reporting

For Engineers

- Instant testing operations in batches to reduce operational complexity.
- Centralized test plan creation, assignment and execution. No onsite operation is required.
- Highly stable equipment allowing long-term, and uninterrupted testing