

CellAdvisor™

JD720C Series Cable and Antenna Analyzers

The majority of problems in mobile networks occur in the base station's infrastructure, consisting of the antenna system, RF and fiber cables, and connectors. To properly service and install cell sites requires suitable test equipment. The JD720C-series analyzers are optimal test solutions for characterizing cell-site infrastructure because of their handheld design, ease of use, and rich functionality.

The JD720C-series analyzers' measurement functions can accurately verify a site's transmission line and antenna system from signal reflections (voltage standing wave ratio [VSWR] or return loss) to RF or optical transmission power. They also accurately measure the distance to fault (DTF) for proper location identification.

The instrument's touch-panel operation and 7-inch-wide thin-film transistor (TFT) color display simplifies measurements and viewing results. Also, its application software permits easier measurement analysis and report generation.

The optional fiber inspection microscope and optical power meters provide all the tools needed in a single instrument to test both RF and fiber cell sites.

Key measurements include:

- Reflection — VSWR/return loss
- DTF — VSWR/return loss
- 1-port cable loss
- Smith chart
- 1-port phase
- RF power meter
- Optical power meter
- Fiber inspection

Key Benefits

- Carry a single instrument for both RF and fiber
- Manage assets/reduce costs with StrataSync™
- Easily detect signal degradation over time with Trace Overlay
- Reduce test time using dual display to make two measurements simultaneously
- Get instant problem notification with pass/fail analysis

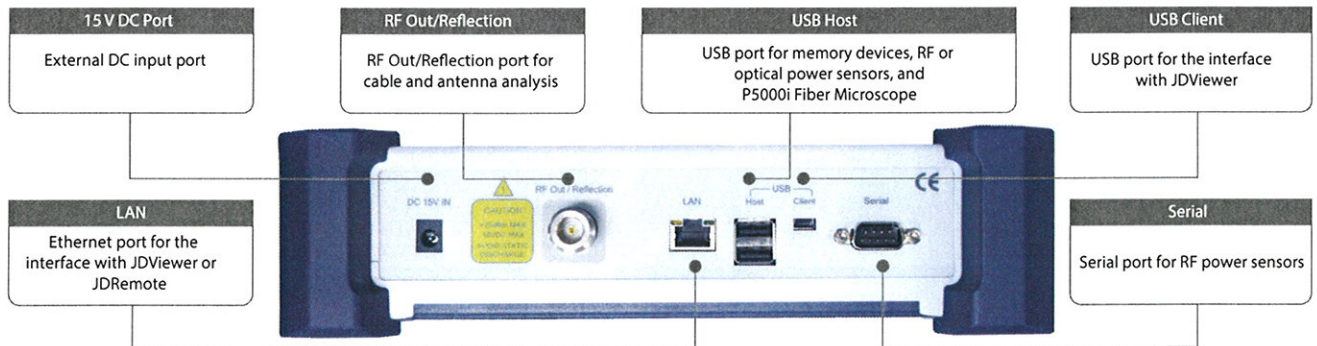
Key Features

- Fiber inspection with pass/fail (requires P5000i microscope)
- Measure RF and optical power
- 3 zoom zones enable detailed spectrum analysis
- RF port protection up to 40 dBm (10 W)
- Supports StrataSync cloud-enabled management, analysis, reporting; connect with Bluetooth®
- Generates PDF reports
- Auto-save events that exceed limits
- Free Windows-based JDViewer/JDRemote analysis and control

Applications

- Verify cell-site cable and antenna systems
- Test distributed radios with RF and fiber feed lines
- Validate DAS deployments

Top view



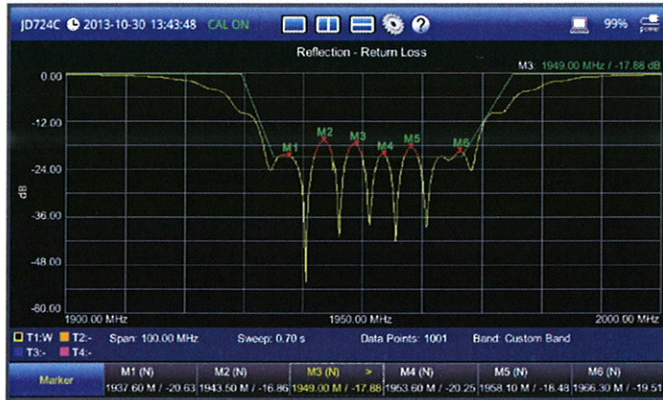
Front view



Key Measurements

Reflection measures the impedance performance of the cell-site transmission line across the selected frequency range in VSWR or return loss.

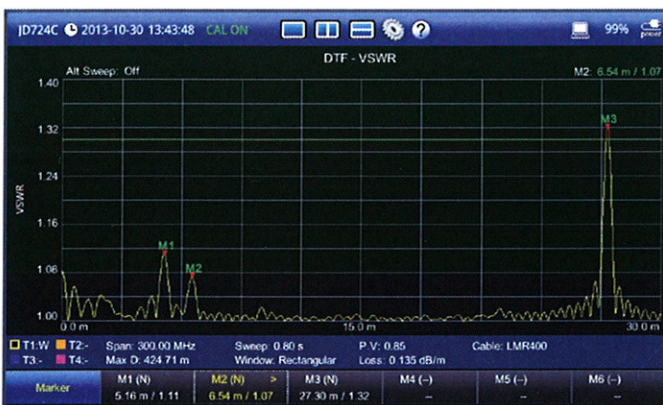
- The instrument's database includes over 80 wireless frequency bands with the ability to add more.
- A user-definable limit line automatically indicates pass/fail status.
- Users can set up to six markers for trace analysis.



Reflection — Return Loss

Distance to Fault (DTF) identifies fault locations in the cell site transmission system indicating signal discontinuities using VSWR or return loss.

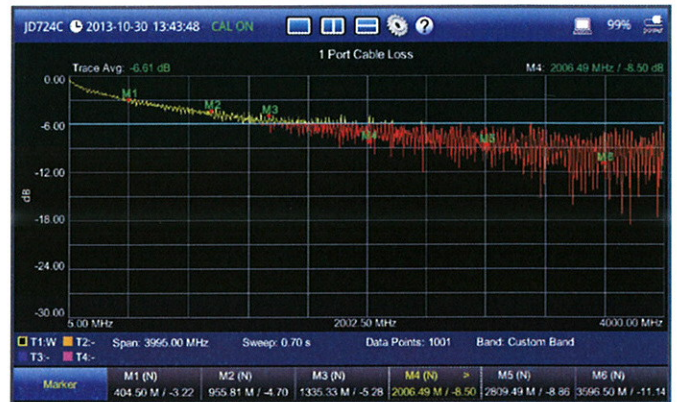
- Up to 1,500 m (4,921 ft) measurement distance.
- High-Resolution mode with 2001 data points.
- The instrument's database includes over 95 cable types with the ability to add more.
- A user-definable limit line automatically indicates pass/fail status.
- Users can set up to six markers for trace analysis.



DTF — VSWR

1-Port Cable Loss measures the signal loss through cables or other devices over a defined frequency range.

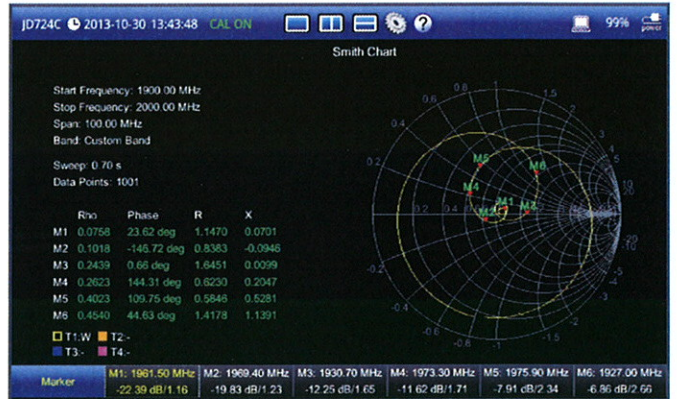
- A user-definable limit line automatically indicates pass/fail status.
- Users can set up to six markers for trace analysis.



1-Port Cable Loss

Smith Chart can be used to display impedance matching characteristics in cable and antenna systems as well RF devices.

Users can set up to six markers for trace analysis.



Smith Chart

1-Port Phase measures S_{11} phase to tune antennas and phase-match cables.

Users can set up to six markers for trace analysis.



1-Port Phase

Power Meter functions easily and comprehensively measure power using external power sensors and meters.

- JD72450551/2: economic RF power sensors via serial connection
- JD730 Series: high-precision RF power sensors via USB connection
- MP-60/MP-80: optical power meters via USB connection



Power Sensors

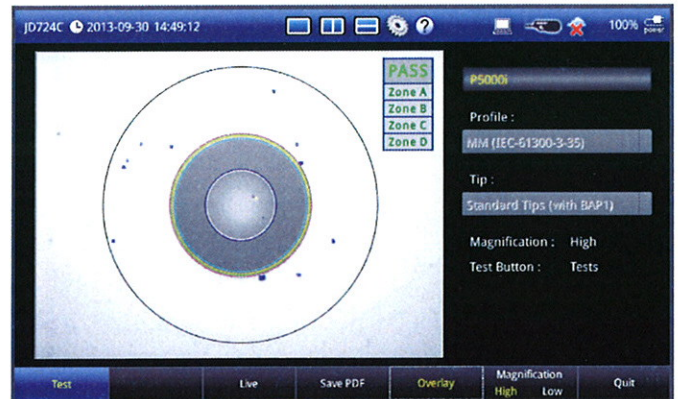
The power meter displays either the RF/optical power level in two formats: as a real-time power level value in an analog meter and as a power level trend through time in a histogram chart. Its configurable settings include display range, maximum and minimum limits, and power units in dBm or watts.

Users can set minimum and maximum power limits to automatically indicate pass/fail status.



Power Meter

Fiber Inspection eliminates the most common fiber link problems by verifying that connectors are not contaminated. Only the JD720C-series analyzers can quickly and easily troubleshoot and certify fiber connection quality and cleanliness. Connecting the optional P5000i Fiber Microscope lets users quickly inspect and clean fiber connections with a clear pass/fail indication. The free FiberChekPRO™ application can be used on a PC/laptop with the P5000i microscope to perform the same fiber analysis in parallel using the instrument to test RF and using the PC/laptop to test fiber. Users also can inspect, test, and certify any fiber connector and instantly generate comprehensive pass/fail summary reports.



Fiber Inspection

Key Benefits

Designed for Field Use

The compact, lightweight JD720C-series analyzers are especially convenient for users performing measurements in the field. The analyzers weigh less than 2.35 kg fully loaded and include a lithium ion (LiON) battery that lasts more than 7.5 hours. Its portability lets users take it anywhere, even to the top of a tower.

Its transfective display can be set for outdoor mode for viewing measurements in direct sunlight. Also, its backlit key panel with Night-Display mode makes it easy to use in the dark.

The JD720C-series analyzers can operate in temperatures ranging from -10 to 55°C; and its rugged bumper design protects it if it is dropped or if it receives an external impact that exceeds the MIL-PRF-28800F class 2 specification.



Outdoor Display mode provides easier reading in direct sunlight

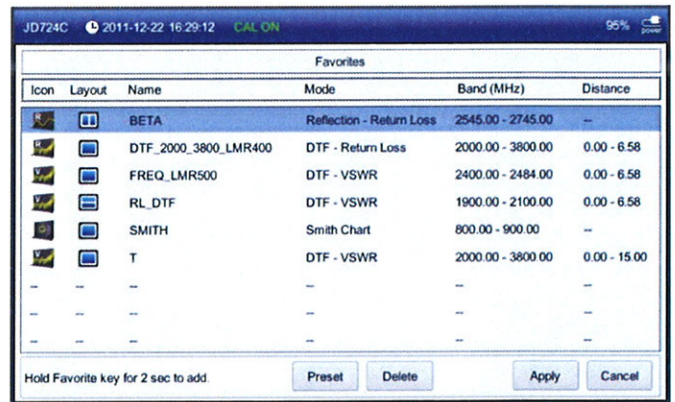
Quickly Sweeps

It can perform measurements in less than 0.8 ms/point, making these the fastest cable and antenna analyzers on the market with uncompromising fast sweep speed in Dual-Display mode.

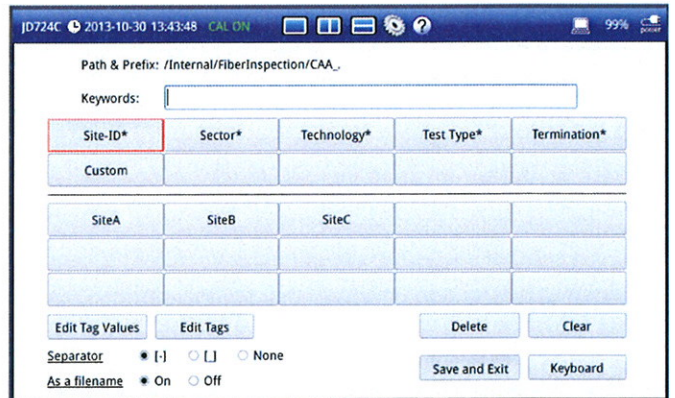
Easy to Use

Users can create favorite keys as a shortcut to conveniently access repeatedly used measurements rather than configuring them each time, reducing steps and completing tasks quicker and more efficiently. They can add editable key words to quickly create unique file names and can generate a PDF report directly from the instrument.

The Quick Save hard key lets users simultaneously save a trace file and a screen file. If two measurements are displayed on the screen at once, it generates two trace files, one for each screen.



Favorite



Key words

Multilanguage User Interface

The instruments' architecture can incorporate different languages into the menu structure for localization worldwide.

Bluetooth Connectivity (Option 003)

This option provides remote control and monitoring capability using JDRemote software via Bluetooth. Users can also transfer files from the instrument using file transfer. Users can also tether the instrument to a smartphone or tablet with a data service connection to upload or download data to the JDSU StrataSync cloud.

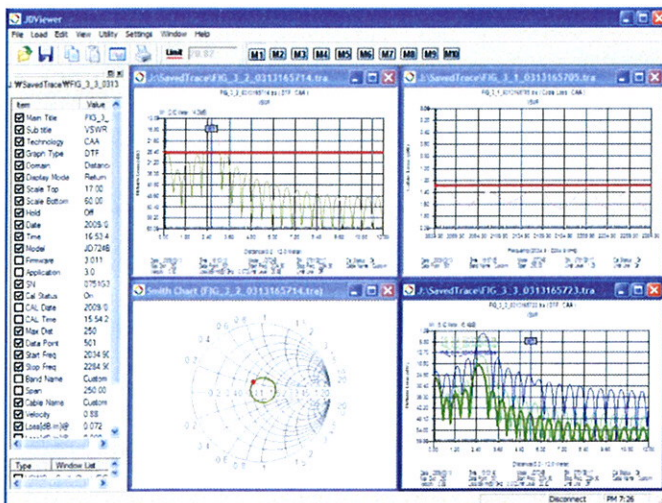


Bluetooth connectivity

JDViewer Features

The JDViewer application software provides all of the necessary tools to operate these instruments more conveniently including:

- Quickly exchange data via USB or LAN connection
- Retrieve or save measurements
- Export measurement results
- Analyze measurement results, assigning multiple markers and limit lines
- Register or edit user-definable frequency bands and cable types
- Easily compare measurement results
- Convert VSWR-DTF
- Access available report templates
- The ability to generate and print reports



JDViewer VSWR, DTF, cable loss, and Smith chart



Analyzer with JDRemote

Expand Capabilities with Essential Fiber Handling Tools

- Optical power meter (MP series)
- Fiber inspection and pass/fail analysis with P5000i Fiber Microscope



MP-60/MP-80



P5000i Microscope

StrataSync

The JD720C-series analyzers are compatible with the JDSU StrataSync cloud to manage instrument inventory and to locate all equipment and to identify which engineer is using it. StrataSync also helps to keep instruments current through remote upgrades to ensure all instruments have the latest firmware. It also centralizes configuration setting and distribution to ensure that engineers are using the same instrument settings to achieve consistent measurements. Once testing is complete, measurement results can be uploaded into StrataSync for secure storage and sharing. Engineers who are unable to resolve a problem can share measurement results with an expert to get analysis help from anywhere without having the expert be near the instrument.

- Asset inventory management
- Remotely distribute instrument upgrades
- Centralized configuration sharing
- Test data management
 - Trace files
 - Screenshots
 - Remote analysis

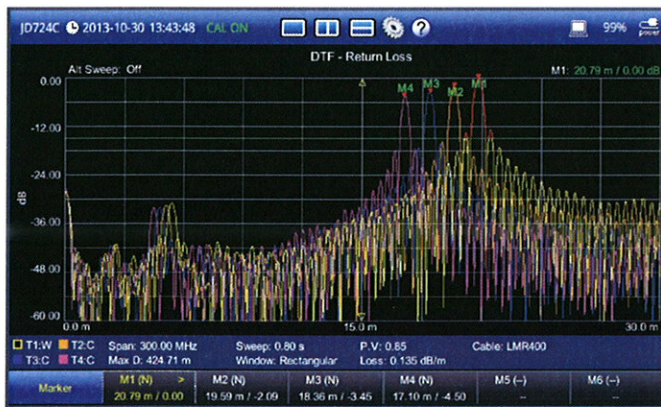


Key Features

Trace Overlay

Users can compare and analyze up to four traces by superimposing them onto one measurement display.

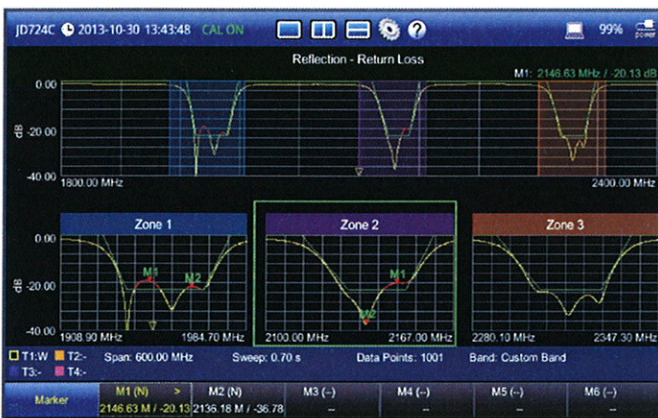
Additionally, they can set up to six markers on any trace independently.



Trace Overlay

Zoom Zones

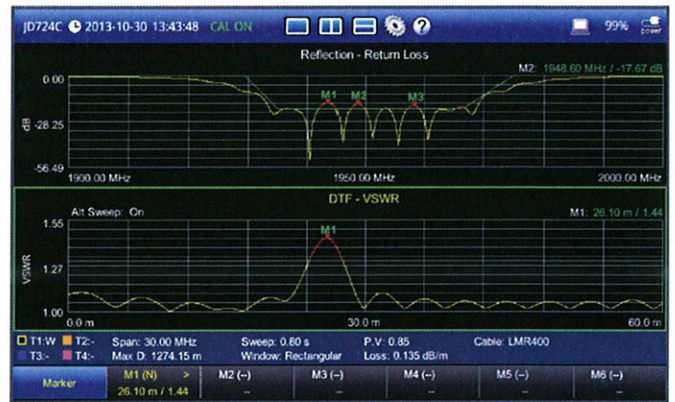
User-definable zones on frequency sub-bands let users visually identify uplink and downlink frequencies to verify compliance within a single measurement window for closer analysis of user-definable zones in separate windows.



Zoom Zones

Alternate Sweep in DTF

Users can perform two independent sweeps, such as a reflection measurement and a DTF measurement.



Alternate Sweep

Dual Display

The ability to display two measurements simultaneously, even if performed independently, reduces test time.



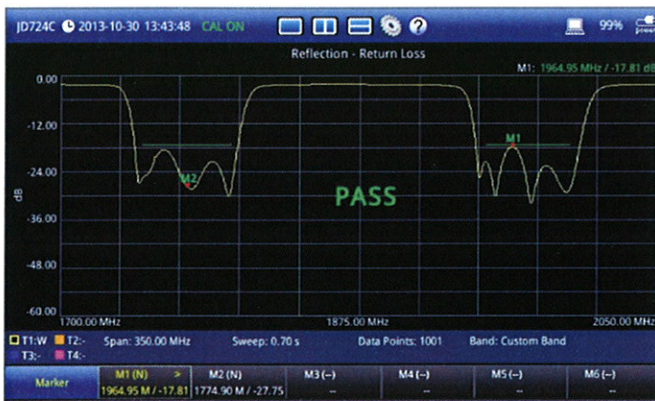
Dual Display

Limit Lines

Limit lines let users set variable thresholds to control the parameters that define whether a test passes or fails. Either exceeding the set limit or falling below it will show a failed test result. Users can also set a user-defined limit, and if any measurements fall outside of the area define, it will also result in a failed test.

Standard limit line

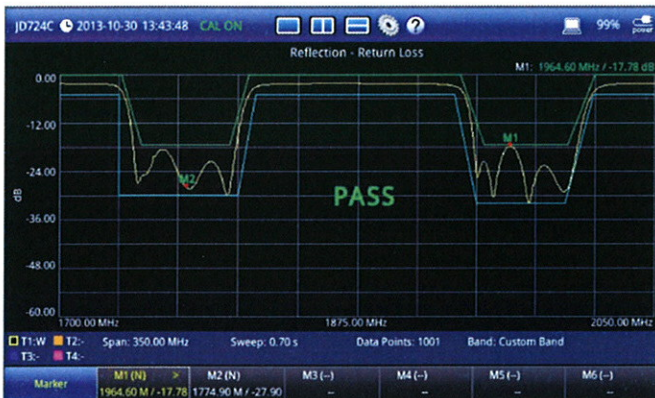
The standard limit line extends over the full signal spectrum and can be configured to indicate a fail when the measurement exceeds the threshold. Users also can set this limit line to measure only specific sections of the spectrum, and any sections exceeding the set threshold will indicate a fail.



Straight line with gap

Multisegment limit line (MSL)

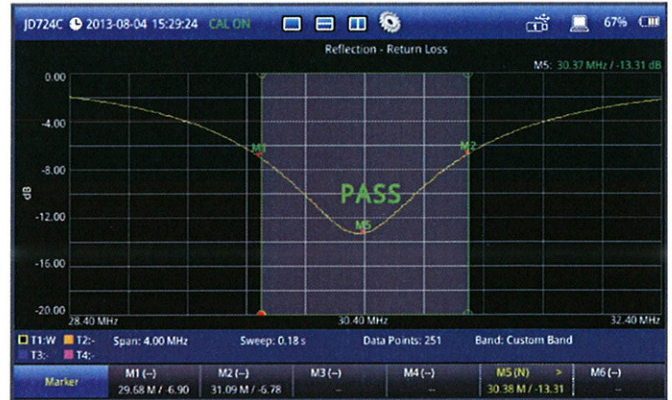
MSLs let users set upper- and lower-level parameter limit lines on both sides of the spectral signal, providing more flexibility than a single straight line. Measurements that fall within the boundaries of these lines will pass, while measurements that exceed the upper line or fall below the lower one will fail.



Multisegment limit line with upper and lower

Window Limit

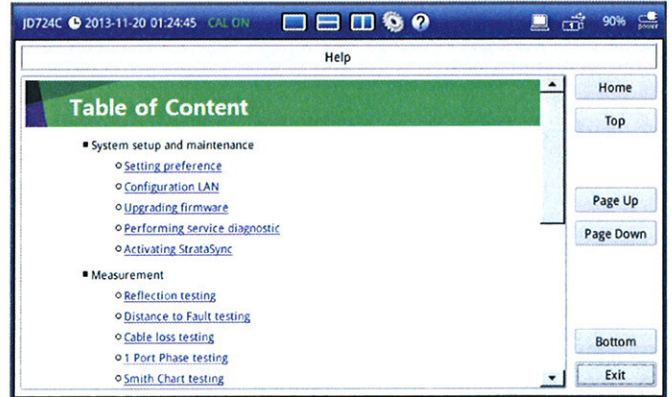
Users can define an area on the chart to help refine the test criteria, and measurements that fall within the area selected will pass. This capability is useful for tuning devices or antennas in real time, because it shows how adjustments affect the signal on the screen.



Window limit

Help Function

The Help function gives users task-based information in real time. Being able to easily browse or search topics for specific information improves productivity and reduces the number of inquiries.



Help



TechnoDis

Télécom Test Solutions

Symmetricom



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Si vous désirez la
documentation
complète, n'hésitez
pas à nous la
demander sur

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