



*Enabling Australia's Field Technicians to build, troubleshoot and maintain better communications networks.*



This reference material is provided by TMG Test Equipment, VIAVI's **only** Master Distributor for Contractors in Australia



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**FREECALL 1800 680 680**

# VIAVI

## CellAdvisor

### JD720C Series Cable and Antenna Analyzers

The majority of problems in mobile networks occur in cell-site infrastructure, consisting of the antenna system, RF and fiber cables, and connectors. Properly servicing and installing cell sites requires suitable test equipment. VIAVI CellAdvisor™ JD720C analyzers are the optimal test solutions for characterizing cell-site infrastructure due to their handheld design, ease of use, and rich functionality.

JD720C analyzers have all of necessary measurement functions to characterize cell-site cable and antenna system, including VSWR or return loss reflection tests, distance to fault (DTF), and cable loss. It also can perform RF component measurements, including insertion gain/loss, antenna isolation, TMA performance, and verification of devices such as duplexers and combiners.

The instrument's 7-inch color touch-screen display simplifies its operation and clearly displays measurement results. Its connectivity to VIAVI application software allows for easier measurement analysis and report generation.

In addition, JD720 analyzers are capable of fiber inspection using the VIAVI fiber microscope and optical power measurement using VIAVI optical power meters. This single integrated solution with RF and fiber capabilities provides all the physical layer tests needed for the installation and maintenance of cell sites.

Key measurements include:

- Reflection — VSWR/Return Loss
- DTF — VSWR/Return Loss
- 1-Port Cable Loss
- 1-Port Phase
- Smith Chart
- 2-Port Transmission\*
- 2-Port Phase\*
- RF and Optical Power Meter
- Fiber Inspection
- High-Power CW Signal Generator\*



### Benefits

- RF and fiber testing in single-box solution
- Manage assets and reduce costs with cloud-enabled StrataSync™ Core at no charge
- Detect signal degradation over time with Trace Overlay
- Reduce test time in simultaneous and dual measurement mode
- View pass/fail results instantly
- Calibrate faster and easier with EZ-Cal™

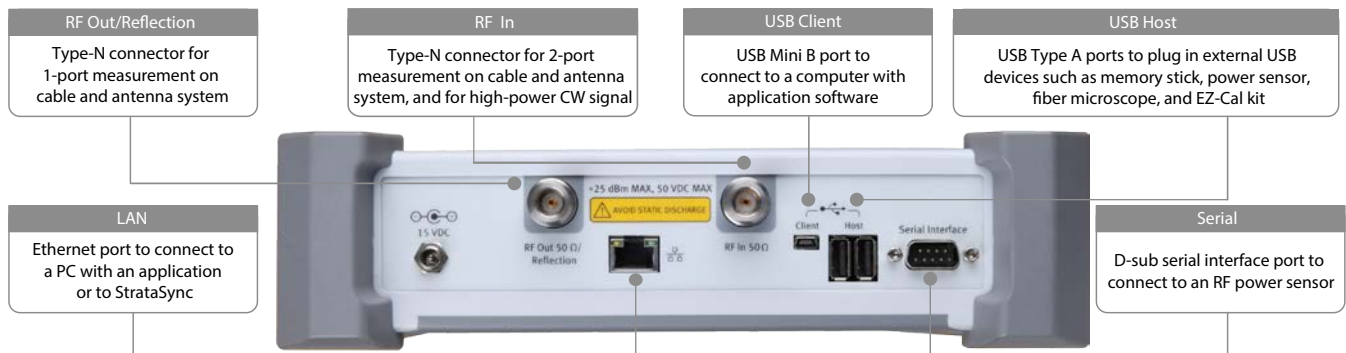
### Features

- Perform self-guided systematic test procedures with TestWizard
- Inspect fiber with pass/fail indications using P5000i fiber microscope
- Measure RF and optical power using power sensors
- Three zoom zones for detailed analysis on multi-frequency bands
- Up to 40 dBm (10 W) RF port protection
- Generate PDF/HTML reports
- Automatically saves events that exceed pre-defined limits
- Application software for post-analysis (JDViewer) and remote control (JDRemote)
- Web-based remote control via Bluetooth and Wi-Fi

### Applications

- Verify cell-site cable and antenna systems
- Test distributed radios with RF and fiber feed lines
- Validate DAS deployments
- Test NFC antennas (RFID and security equipment)

## JD725C Top View



## JD725C Front View



## Key Measurements

**Reflection** measures the cell-site transmission line impedance performance 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.

- Cable length up to 1,500 m (4,921 ft)
- 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

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

- Users can set up to six markers for trace analysis.



1-Port Phase

**Smith Chart** displays impedance matching characteristics in cable and antenna systems as well RF devices.

- Users can set up to six markers for trace analysis.



Smith Chart

**2-Port Transmission\*** measures the characteristics of passive and active devices such as filters, jumpers, splitters, and amplifiers and verifies antenna or sector-to-sector isolation.



2-Port Transmission

**2-Port Phase\*** measures  $S_{21}$  phase to characterize transmission devices such as filters and amplifiers.



2-Port Phase

### Bias Tee (Option 001)\*

The optional built-in Bias Tee supplies user-selected voltages of 12 to 32 V in 1 V steps on the RF-In port, eliminating the need for an external power supply.

**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

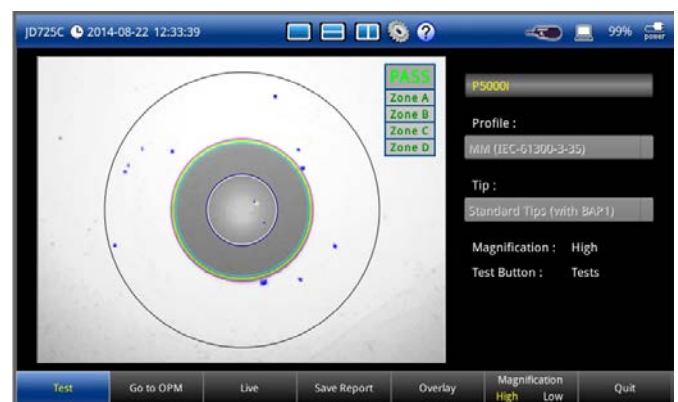
The power meter displays either the RF/optical power level in two formats: as a real-time power level value in an analog meter and as a power level trend through time in a histogram chart. Its configurable settings include display range, maximum and minimum limits, and power units in dBm or watts.

Users can set minimum and maximum power limits for pass/fail status.



RF Power Meter

**Fiber Inspection** eliminates the most common fiber link problems by verifying that connectors are not contaminated. Interfacing with a VIAVI fiber microscope, fiber connectors can be quickly inspected with a clear pass/fail indication. Reports with pass/fail summary results can be automatically generated.



Fiber Inspection

### High-Power CW Signal Generator (Option 005)\*

The optional CW signal generator provides a continuous wave (CW) source for small cell coverage or DAS path loss testing.



## Key Benefits

### Designed for Field Use

Compact, lightweight JD720C analyzers are especially convenient for performing measurements in the field. The analyzers weigh less than 2.35 kg (fully loaded) and include a lithium ion (LiION) battery that lasts more than 7.5 hours.

Its transfective display can be set to an 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.

JD720C analyzers operate in  $-10$  to  $+55^{\circ}\text{C}$  temperatures; and its rugged bumper design protects it for field use, such as drop and vibration, complying with MIL-PRF-28800F class 2 specification.



Outdoor Display mode provides easier reading in direct sunlight

### Quickly Sweeps

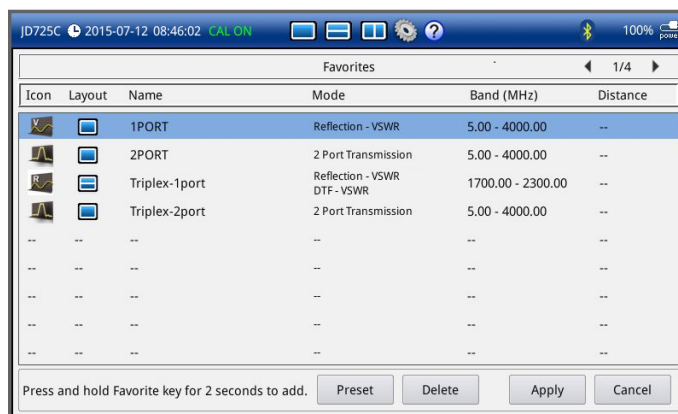
It can perform measurements in less than 0.8 ms/point, making these the fastest cable and antenna analyzers on the market with uncompromising fast sweep speed in Dual Display mode.

### Multilanguage User Interface

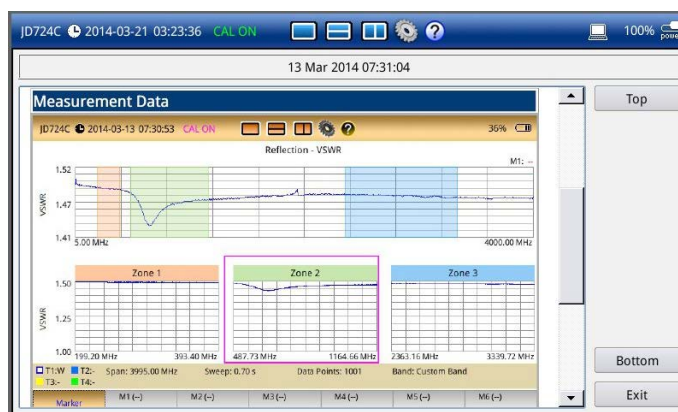
The instrument supports multiple languages. Users can select their language of choice from English, French, German, Spanish, Portuguese, Russian, Chinese, Japanese, and Korean.

### Easy to Use

Users can create favorite keys 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.



Favorite keys

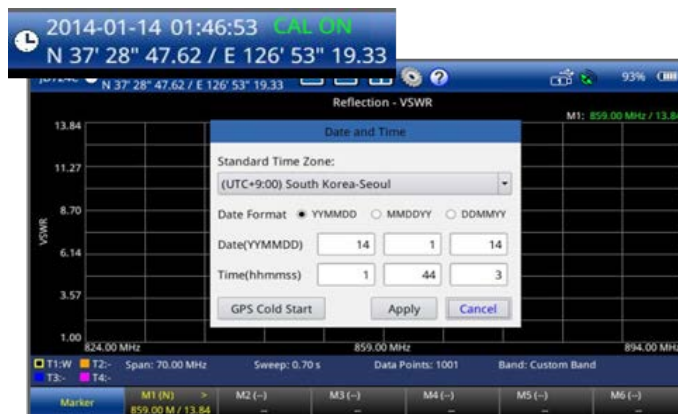


Report generation

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.

### GPS Connectivity (Option 004)

This option provides getting position stamp and save the current measurement screen or data in a PDF report with GPS tag.



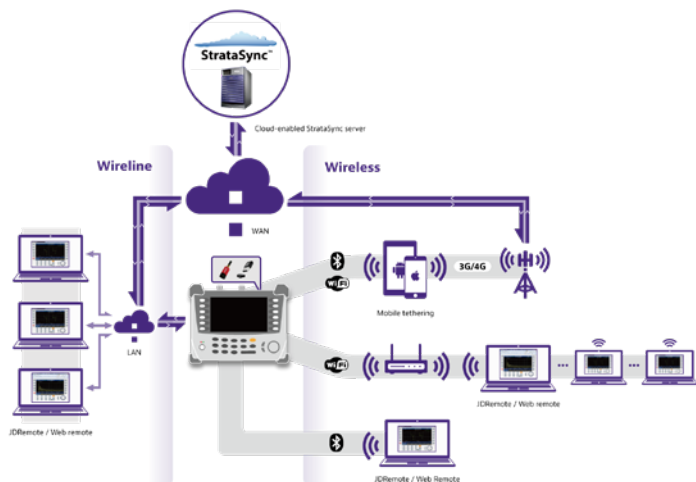
GPS position

### Bluetooth Connectivity (Option 003)

This option provides wireless remote control and monitoring capabilities from a Windows®-based computer running JDRemote application software. This capability also lets users wirelessly connect to the cloud-enabled StrataSync by tethering the instrument with a smartphone or tablet.

### WiFi Connectivity (Option 006)

This option provides a USB WiFi dongle for faster and more stable wireless remote control and monitoring capabilities from any web browser. Connectivity can be established from multiple computers or mobile devices.

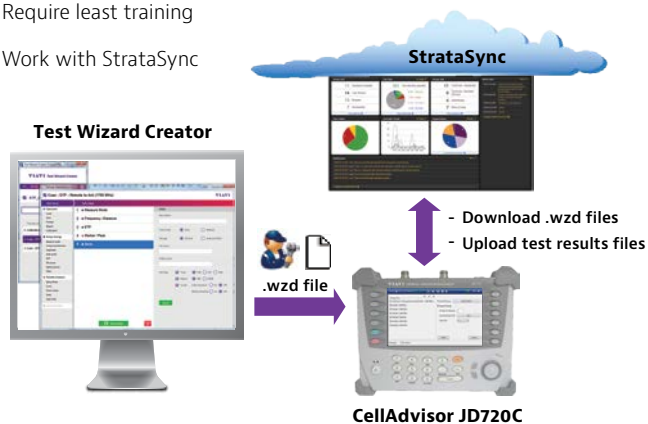


Connectivity

### Test Wizard (Option 007)

This option enables any cell-technician to perform a systematically self-guide testing and make repeated measurements. They can simply run a pre-defined Test Wizard file that has been created in Test Wizard Creator application on a computer. Benefits of this option are:

- Reduce test time and workload
- Minimize manual work
- Collect consistent test results
- Require least training
- Work with StrataSync



### JDViewer Application Software

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

- Quickly exchanges data via USB or LAN connection
- Retrieves or saves measurement results
- Exports measurement results
- Analyzes measurement results, assigning multiple markers and limit lines
- Registers or edits user-definable frequency bands and cable types
- Easily compares measurement results
- Converts VSWR/DTF traces
- Accesses available report templates
- Generates and prints reports

### Expand Capabilities with Essential Fiber Handling Tools

- Optical power meter (MP series)
- Fiber inspection with pass/fail indication (P5000i fiber microscope)



### StrataSync Cloud Services Core and Plus

JD720C analyzers are compatible with the VIAVI StrataSync service to provide cloud-enabled asset, configuration, and test-data management.



#### Empower Your Assets:

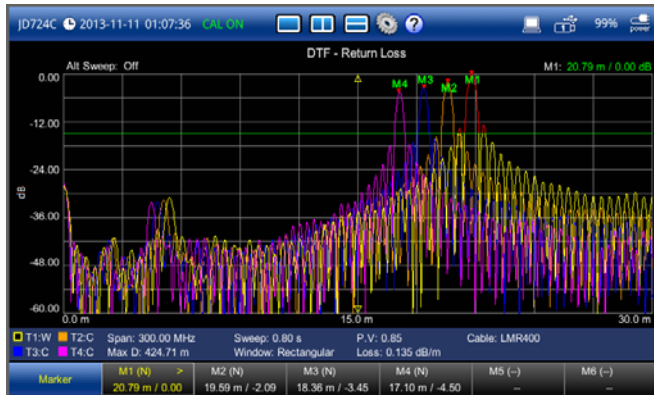
- INSTRUMENTS: Manage and track test instruments
  - Display assets, modules, versions, and locations
  - Maintain accurate instrument configurations and setups
  - Provide visibility into instrument utilization
- WORKFORCE: Inform and train the workforce with:
  - Notifications and alerts
  - Procedures and instructions
  - Product-knowledge library
- RESULTS: Collect and analyze results with:
  - Centralized collection and storage
  - Secure visibility from anywhere
  - Consolidated test data/metrics

## Key Features

### Trace Overlay

Allows users to compare and analyze up to four traces by superimposing them into one measurement display.

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



Trace overlay

### Zoom Zones

User-definable frequency zones can be set to visually identify sub-band regions such as uplink and downlink frequencies to verify compliance within a single measurement and independent view for closer analysis of each zone.



Zoom zones

### Alt DTF Band

Allows users to perform two independent sweeps and to display the measurements, such as a reflection and a DTF, in the same window.



Alt DTF band

### Dual Display

Provides the ability to display two measurements simultaneously, reducing test time.



Dual display

### Peak and Valley All Zones

Allows users to easily and automatically set markers to identify the trace peaks and valleys in each zone.



Peak and valley all zones



## Limit Lines

Limit lines let users set variable testing thresholds with automatic pass/fail indication.

### Standard Limit Line

The standard limit line extends over the full measurement frequency range and can be configured to indicate a fail when measurements exceed it. Users can also set a limit line for only specific sections.



Straight line with gap

### Multi-Segment Limit Line (MSL)

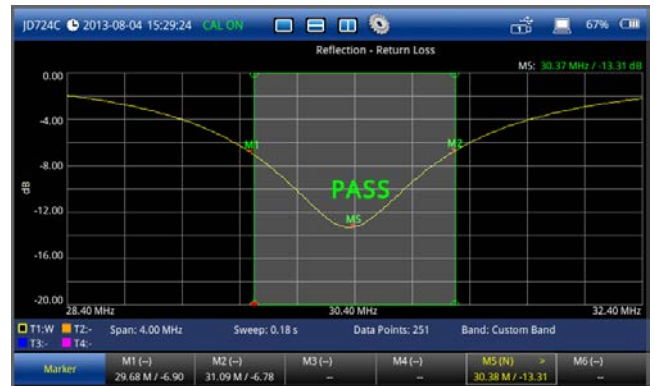
Multi-segment limits let users set upper- and lower-level thresholds for greater flexibility than single limit lines. Measurements falling within the multi-segment limit line boundaries are indicated as pass, while measurements outside the boundaries are indicated as fail.



Multi-segment limit line with upper and lower thresholds

## Window Limit

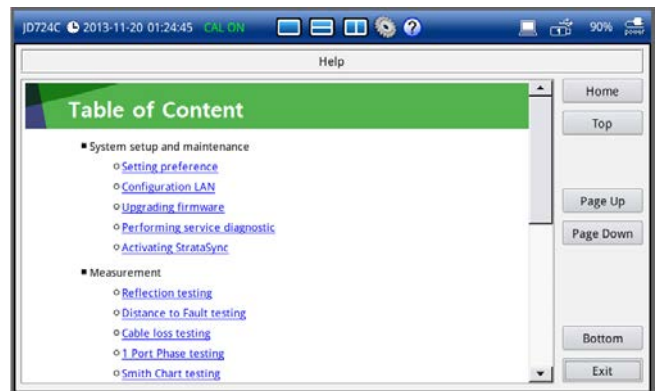
Window limit lets users define a measurement area in which to apply the test criteria. Measurements within the configured area are compared to the defined threshold and are indicated as pass/fail based on whether they fall within or outside the threshold. This capability is useful for tuning devices or antennas in real time.



Window limit

## Help Function

The Help function gives users task-based information related to instrument operation or the test performed. Users can then easily browse or search topics to get specific information.



Help function

## Available Measurements and Options

|  | <i>JD723C</i> | <i>JD724C</i> | <i>JD725C</i> | <i>JD726C</i> |
|--|---------------|---------------|---------------|---------------|
| Reflection – VSWR and Return Loss          | ■             | ■             | ■             | ■             |
| DTF – VSWR and Return Loss                 | ■             | ■             | ■             | ■             |
| 1-Port Cable Loss                          | ■             | ■             | ■             | ■             |
| 1-Port Phase                               | ■             | ■             | ■             | ■             |
| Smith Chart                                | ■             | ■             | ■             | ■             |
| 2-Port Transmission                        |               |               | ■             | Option 002    |
| 2-Port Phase                               |               |               | ■             |               |
| Bias Tee                                   |               |               | Option 001    |               |
| High-Power CW Signal Generator (RF Source) |               |               | Option 005    |               |
| RF Power                                   | ■             | ■             | ■             | ■             |
| Optical Power                              | ■             | ■             | ■             | ■             |
| Fiber inspection                           | ■             | ■             | ■             | ■             |
| Bluetooth connectivity                     | Option 003    |               |               |               |
| USB GPS connectivity                       | Option 004    |               |               |               |
| WiFi connectivity                          | Option 006    |               |               |               |
| TestWizard                                 | Option 007    |               |               |               |

## Specifications<sup>1</sup>

|                          | JD723C  | JD724C        | JD725C            | JD726C        |
|--------------------------|---|---------------|-------------------|---------------|
| Frequency                |   |               |                   |               |
| Range                    | 100 MHz – 2.7 GHz   | 5 MHz – 4 GHz | 5 MHz – 4 GHz     | 5 MHz – 6 GHz |
| Resolution               | 10 kHz  |               |                   |               |
| Accuracy                 | ±5 ppm at 25°C <sup>2</sup>   |               |                   |               |
| Aging per year           | ± 1.5 ppm <sup>2</sup>  |               |                   |               |
| Data Points              |   |               |                   |               |
|                          | 126, 251, 501, 1001, 2001   |               |                   |               |
| Measurement Speed        |   |               |                   |               |
| Reflection               | < 0.7 ms/point  |               |                   |               |
| DTF                      | < 0.8 ms/point  |               |                   |               |
| Measurement Accuracy     |   |               |                   |               |
| Corrected directivity    | >42 dB (typical) <sup>3</sup> after OSL calibration   |               |                   |               |
| Reflection uncertainty   | ±(0.3 +  20log (1 + 10 <sup>-EP/20</sup> ) ) (typical)<br>EP = directivity – measured return loss |               |                   |               |
| Corrected directivity    | After EZ-Cal calibration:<br>≤ 4 GHz: >38 dB (typical)<br>> 4 GHz: >33 dB (typical)               |               |                   |               |
| Reflection uncertainty   | ±(0.3 +  20log (1 + 10 <sup>-EP/20</sup> ) ) (typical)<br>EP = directivity – measured return loss |               |                   |               |
| Output Power             |   |               |                   |               |
| High                     | 0 dBm (nominal)   |               | 0 dBm (nominal)   |               |
| Low                      |   |               | –30 dBm (nominal) |               |
| Maximum Input Level      |   |               |                   |               |
| Average continuous power | +25 dBm (nominal)   |               |                   |               |
| DC voltage               | ±50 V DC  |               |                   |               |
| Interference Immunity    |   |               |                   |               |
| On channel               | +15 dBm (nominal)   |               | +17 dBm (nominal) |               |
| On frequency             | +5 dBm (nominal)  |               | +10 dBm (nominal) |               |

|                                | JD723C  | JD724C | JD725C  | JD726C |
|--------------------------------|---|--------|---|--------|
| Measurements                   |   |        |   |        |
| Reflection                     |   |        |   |        |
| VSWR range                     | 1 to 65   |        |   |        |
| Resolution                     | 0.01  |        |   |        |
| Return loss range              | 0 to 60 dB  |        |   |        |
| Resolution                     | 0.01 dB   |        |   |        |
| Distance to Fault (DTF)        |   |        |   |        |
| Vertical VSWR range            | 1 to 65   |        |   |        |
| Resolution                     | 0.01  |        |   |        |
| Vertical return loss range     | 0 to 60 dB  |        |   |        |
| Vertical resolution            | 0.01 dB   |        |   |        |
| Horizontal range               | 0 to (# of data points – 1) x horizontal resolution<br>Maximum = 1500 m (4921 ft)                                   |        |   |        |
| Horizontal resolution          | (1.5 x 10 <sup>8</sup> ) x (VP)/delta<br>VP = propagation velocity<br>delta = stop frequency – start frequency (Hz) |        |   |        |
| 1-Port Cable Loss              |   |        |   |        |
| Range                          | 0 to –30 dB   |        |   |        |
| Resolution                     | 0.01 dB   |        |   |        |
| 1-Port Phase                   |   |        |   |        |
| Resolution                     | –180 to +180°   |        |   |        |
| Smith Chart                    |   |        |   |        |
| Resolution                     | 0.01°   |        |   |        |
|                                | JD725C  |        | JD726C  |        |
| 2-Port Transmission            |   |        |   |        |
| Output Power                   |   |        |   |        |
| High                           | 0 dBm (typical)   |        |   |        |
| Low                            | –30 dBm (typical)   |        |   |        |
| Measurement Speed              |   |        |   |        |
| Vector                         | < 1.3 ms/point  |        |   |        |
| Dynamic Range                  |   |        |   |        |
| Vector                         | 5 MHz to 3 GHz: 80 dB at average 5<br>3 GHz to 6 GHz: 75 dB at average 5  |        |   |        |
| Measurements                   |   |        |   |        |
| Insertion Loss/Gain            |   |        |   |        |
| Range                          | –120 to +100 dB   |        |   |        |
| Resolution                     | 0.01 dB   |        |   |        |
| 2-Port Phase                   |   |        |   |        |
| Range                          | –180° to +180°  |        |   |        |
| Resolution                     | 0.01°   |        |   |        |
| Bias Tee                       |   |        |   |        |
| Voltage                        |   |        |   |        |
| Voltage range                  | +12 to +32 V  |        |   |        |
| Voltage resolution             | 1 V   |        |   |        |
| Current                        | 250 mA at +32 V, 500 mA at +12 V  |        |   |        |
| High-Power CW Signal Generator |   |        |   |        |
| Output Power                   |   |        |   |        |
| Range                          | 5 MHz to 4 GHz,<br>–30 to +10 dBm   |        | 5 MHz to 4 GHz,<br>–30 to +10 dBm<br>4 GHz to 6 GHz,<br>–30 to +5 dBm |        |
| Step                           | 1 dB  |        |   |        |
| Accuracy                       | +15 dB (20 to 30°C)   |        |   |        |

## Specifications

|                                | JD723C  | JD724C | JD725C                                  | JD726C |
|--------------------------------|---|--------|---|--------|
| Bluetooth® Connectivity        |   |        |   |        |
|                                | Personal area network (PAN)                             |        |   |        |
|                                | File transfer profile (FTP) interface                   |        |   |        |
| Web-based remote control       | Internet Explorer, Chrome, Safari                       |        |   |        |
| WiFi Connectivity              |   |        |   |        |
| Interface type                 | USB LAN Card  |        |   |        |
| Interface standard             | IEEE 802.11 b/g/n                                       |        |   |        |
| Web-based remote control       | Internet Explorer, Chrome, Safari                       |        |   |        |
| USB GPS Connectivity           |   |        |   |        |
| GPS location                   | Latitude and longitude on display                       |        |   |        |
| Indicator                      | Latitude and longitude with trace storage               |        |   |        |
| Interface                      | USB 2.0   |        |   |        |
| RF Power Meter (Standard)      |   |        |   |        |
| Display range                  | –80 to +120 dBm   |        |   |        |
| Offset range                   | 0 to 60 dB  |        |   |        |
| Resolution                     | 0.01 dB or 0.1 x W (x = m, u, p)                        |        |   |        |
| External RF Power Sensors      |   |        |   |        |
| Directional Power Sensor       | JD731B  |        | JD733A                                  |        |
| Frequency range                | 300 MHz – 3.8 GHz                                       |        | 150 MHz – 3.5 GHz                       |        |
| Dynamic range                  | 0.15 to 150 W (average)<br>0.1 to 50 W (average)        |        | 4 to 400 W (peak)<br>0.1 to 50 W (peak) |        |
| Connector type                 | Type-N female on both ends                              |        |   |        |
| Measurement type               | Forward/reverse average power, forward peak power, VSWR |        |   |        |
| Accuracy                       | ±(4% of reading + 0.05 W) <sup>4, 5</sup>               |        |   |        |
| Terminating Power Sensor       | JD732B  | JD734B | JD736B                                  |        |
| Frequency range                | 20 MHz – 3.8 GHz  |        |   |        |
| Dynamic range                  | –30 to +20 dBm  |        |   |        |
| Connector type                 | Type-N male   |        |   |        |
| Measurement type               | Average   | Peak   | Average & Peak                          |        |
| Accuracy                       | ±7% <sup>4</sup>  |        |   |        |
| Optical Power Meter (standard) |   |        |   |        |
| Display range                  | –100 to +100 dBm  |        |   |        |
| Offset range                   | 0 to 60 dB  |        |   |        |
| Resolution                     | 0.01 dB or 0.1 mW                                       |        |   |        |
| External Optical Power Meters  |   |        |   |        |
|                                | MP-60   |        | MP-80                                   |        |
| Wavelength range               | 780 to 1650 nm  |        |   |        |
| Max. permitted input level     | +10 dBm   |        | +23 dBm                                 |        |
| Connector input                | Universal 2.5 and 1.25 mm                               |        |   |        |
| Accuracy                       | ±5%   |        |   |        |

- Specifications for JD720C series analyzers apply under these conditions:
  - Cable and antenna measurement applies after calibrating to the OSL standard
  - The instrument is operating within a valid calibration period
  - Data with no tolerance are considered typical values
 Typical value: Expected instrument performance operating under 20 to 30°C at 15 minutes sustained. Nominal value: A general, descriptive term or parameters.
- For JD723C/JD724C, these accuracy and aging per year values are applied to serial number IDE33869 and later.
- Using recommended calibration kits. Available only for serial number KR31659001 and later.
- CW condition at 25°C ±10°C.
- Forward power.

## General Information

|                                  | JD723C  | JD724C | JD725C   | JD726C |
|----------------------------------|---|--------|--|--------|
| RF In                            |   |        |  |        |
| Connector                        | N/A   |        | Type-N, female   |        |
| Impedance                        | N/A   |        | 50 Ω (nominal)   |        |
| Damage level                     | N/A   |        | > +25 dBm, > ±50 V DC                                      |        |
| Reflection/RF Out                |   |        |  |        |
| Connector                        | Type-N, female  |        |  |        |
| Impedance                        | 50 Ω (nominal)  |        |  |        |
| Damage level                     | > +40 dBm, > ±50 V DC (nominal)   |        |  |        |
| Connectivity                     |   |        |  |        |
| USB host <sup>1</sup>            | Type A, 2 ports   |        |  |        |
| USB client <sup>2</sup>          | Mini B, 1 port  |        |  |        |
| LAN                              | RJ45, 10/100Base-T  |        |  |        |
| Serial                           | 9-pin D-SUB male <sup>3</sup>   |        |  |        |
| Display                          |   |        |  |        |
| Type                             | Resistive touch screen  |        |  |        |
| Size                             | 7-inch, LED backlight, transfective LCD   |        |  |        |
| Resolution                       | 800 x 480   |        |  |        |
| Speaker                          |   |        |  |        |
|                                  | Built-in speaker  |        |  |        |
| Power                            |   |        |  |        |
| External DC input                | 12 to 15 VDC  |        |  |        |
| Power consumption                | 12 W<br>34.5 W maximum<br>(when charging battery)                               |        | 15 W<br>37.5 W maximum<br>(when charging battery)          |        |
| External AC Power Adapter        |   |        |  |        |
| Input                            | 100 to 250 V (50 to 60 Hz, 1.2 A)   |        |  |        |
| Output                           | 15 V DC, 4 A  |        |  |        |
| Battery                          |   |        |  |        |
| Type                             | 10.8 V, 7800 mA/hr (LiON)   |        |  |        |
| Operation time                   | >75 hr (typical)  |        | >5.5 hr (typical)<br>Bias-T off, > 3 hr<br>Bias-T on (Max) |        |
| Charge time                      | 3 hr (80%), 5 hr (100%)   |        |  |        |
| Charging temperature             | 0 to 45°C (32 to 104°F) ≤85% RH   |        |  |        |
| Discharging temperature          | –20 to 55°C (4 to 131°F) ≤85% RH  |        |  |        |
| Storage temperature <sup>4</sup> | 0 to 25°C (32 to 77°F)<br>≤95% RH (noncondensing)                               |        |  |        |
| Data Storage                     |   |        |  |        |
| Internal <sup>5</sup>            | Minimum 130 MB  |        | Minimum 500 MB   |        |
| External <sup>6</sup>            | Limited by size of USB flash drive  |        |  |        |
| Environmental                    |   |        |  |        |
| Operating temperature            |   |        |  |        |
| AC power                         | 0 to 40°C (32 to 104°F) with no derating  |        |  |        |
| Battery                          | 0 to 40°C (32 to 104°F) at charging<br>–10 to 55°C (14 to 131°F) at discharging |        |  |        |
| Maximum humidity                 | 95% RH (noncondensing)  |        |  |        |
| Storage temperature <sup>7</sup> | –40 to 70°C (–40 to +158°F)   |        |  |        |
| Shock and vibration              | MIL-PRF-28800F Class 2  |        |  |        |

- Connects flash drive, power sensor, P5000i, Bluetooth adapter, WiFi LAN card, or GPS receiver.
- Connects to PC/laptop for data transfer.
- For JD72450551/JD72450552.
- 20 to 85% RH, store battery pack in low-humidity environment; extended exposure to temperatures above 45°C could significantly degrade battery performance and life.
- UP to 3,800 traces (JD723C/JD724C) and 21,000 traces (JD725C/JD726C).
- Supports USB 2.0-compatible memory devices.
- With the battery pack removed.

## General Information

|  | JD723C  | JD724C | JD725C                               | JD726C |
|--|---|--------|--------------------------------------|--------|
| EMC (complies with European EMC)             |   |        |                                      |        |
|  | EN 61326-1:2013<br>EN 61326-2-1:2013                                    |        | EN 61326-1:2013<br>EN 61326-2-3:2013 |        |
| ESD  |   |        |                                      |        |
|  | IEC/EN 61000-4-2  |        |                                      |        |
| Safety (complies with European LVD TUV NRTL) |   |        |                                      |        |
|  | EN 61010-1:2010<br>UL 61010-1:2012<br>CAN/CSA C22.2<br>No. 61010-1:2012 |        | EN 61010-1:2010<br>UL 61010-1:2012   |        |
| RoHS   |   |        |                                      |        |
|  | EN 50581:2012   |        |                                      |        |
| Size and Weight (with battery)               |   |        |                                      |        |
| Size (W x H x D)                             | 260 x 190 x 60 mm (10.2 x 7.5 x 2.4 in)                                 |        |                                      |        |
| Weight                                       | 2.35 kg (5.18 lb)   |        | 2.50 kg (5.51 lb)                    |        |
| Warranty                                     |   |        |                                      |        |
| Mainframe                                    | 3 years   |        |                                      |        |
| Battery and accessories                      | 1 year  |        |                                      |        |
| Calibration Cycle                            |   |        |                                      |        |
|  | 2 years   |        |                                      |        |

## Ordering Information

### JD720C Series

| Basic Model <sup>1</sup>                             | Part Number |
|--|-------------|
| 100 MHz to 2.7 GHz                                   | JD723C      |
| 5 MHz to 4 GHz                                       | JD724C      |
| 5 MHz to 4 GHz 2-port (standard) <sup>2</sup>        | JD725C      |
| 5 MHz to 6 GHz 2-port (optional)                     | JD726C      |
| <b>Included Accessories</b>                          |             |
| AC/DC power adapter                                  |             |
| Cross LAN cable                                      |             |
| USB A to Mini B cable                                |             |
| USB memory   |             |
| Automotive cigarette lighter/12 V DC adapter         |             |
| Rechargeable LiON battery                            |             |
| Stylus pen   |             |
| Soft carrying case                                   |             |
| JD720C series user's manual and application software |             |
| <b>Options</b>                                       |             |
| Bias tee <sup>2</sup>                                | JD720C001   |
| 2-port transmission <sup>3</sup>                     | JD720C002   |
| Bluetooth connectivity <sup>4</sup>                  | JD720C003   |
| USB GPS connectivity <sup>5</sup>                    | JD720C004   |
| High-power CW signal generator                       | JD720C005   |

|  |           |
|--|-----------|
| WiFi connectivity <sup>6</sup>   | JD720C006 |
| TestWizard   | JD720C007 |
| NOTE: Upgrade options for the JD720C use the designation JD720CU before the respective last three-digit option number. |           |

### Optional Accessories

| Calibration Kits                                       | Part Number             |
|--|-------------------------|
| Y-calibration kit Type-N(m), DC to 6 GHz, 50 $\Omega$  | JD78050509              |
| Y-calibration kit DIN(m), DC to 6 GHz, 50 $\Omega$     | JD78050510              |
| 50 $\Omega$ load, DC to 4 GHz, 0.5 W                   | GC72550511 <sup>7</sup> |
| Dual-port Type-N(m) 6 GHz calibration kit <sup>8</sup> | JD78050507              |
| Dual-port DIN(m) 6 GHz calibration kit <sup>9</sup>    | JD78050508              |
| Electronic calibration kit (EZ-Cal)                    | JD70050509              |

| RF Cables  |            |
|--|------------|
| RF cable DC to 8 GHz Type-N(m) to Type-N(m), 1.0 m                         | G700050530 |
| RF cable DC to 8 GHz Type-N(m) to Type-N(f ), 1.5 m                        | G700050531 |
| RF cable DC to 8 GHz Type-N(m) to Type-N(f ), 3.0 m                        | G700050532 |
| RF cable DC to 6 GHz Type-N(m) to DIN(f ), 1.5 m                           | G710050536 |
| Phase-stable RF cable with grip DC to 6 GHz Type-N(m) to Type-N(f ), 1.5 m | G700050540 |
| Phase-stable RF cable with grip DC to 6 GHz Type-N(m) to DIN(f ), 1.5 m    | G700050541 |

| RF Power Sensors  |        |
|---|--------|
| Directional power sensor (peak and average), 300 MHz to 3.8 GHz, average 0.15 to 150 W, peak 4 to 400 W | JD731B |
| Directional power sensor (peak and average), 150 MHz to 3.5 GHz, average/peak 0.1 to 50 W               | JD733A |
| Terminating power sensor (average), 20 MHz to 3.8 GHz, -30 to +20 dBm                                   | JD732B |
| Terminating power sensor (peak), 20 MHz to 3.8 GHz, -30 to +20 dBm                                      | JD734B |
| Terminating power sensor (peak and average), 20 MHz to 3.8 GHz, -30 to +20 dBm                          | JD736B |

| Optional RF Adapters  |            |
|---|------------|
| Adapter Type-N(m) to DIN(f ), DC to 7.5 GHz, 50 $\Omega$      | G700050571 |
| Adapter DIN(m) to DIN(m), DC to 7.5 GHz, 50 $\Omega$          | G700050572 |
| Adapter Type-N(m) to SMA(f) DC to 18 GHz, 50 $\Omega$         | G700050573 |
| Adapter Type-N(m) to BNC(f ), DC to 4 GHz, 50 $\Omega$        | G700050574 |
| Adapter Type-N(f ) to Type-N(f ), DC to 18 GHz 50 $\Omega$    | G700050575 |
| Adapter Type-N(m) to DIN(m), DC to 7.5 GHz, 50 $\Omega$       | G700050576 |
| Adapter Type-N(f) to DIN(f ), DC to 7.5 GHz, 50 $\Omega$      | G700050577 |
| Adapter Type-N(f) to DIN(m), DC to 7.5 GHz, 50 $\Omega$       | G700050578 |
| Adapter DIN(f ) to DIN(f ), DC to 7.5 GHz, 50 $\Omega$        | G700050579 |
| Adapter Type-N(m) to Type-N(m), DC to 11 GHz, 50 $\Omega$     | G700050580 |
| Adapter N(m) to QMA(f), DC to 6 GHz, 50 $\Omega$              | G700050581 |
| Adapter N(m) to QMA(m), DC to 6 GHz, 50 $\Omega$              | G700050582 |
| Adapter N(m) to 41/9.5 MINI DIN (f), DC to 6 GHz, 50 $\Omega$ | G700050583 |
| Adapter N(m) to 41/9.5 MINI DIN (m), DC to 6 GHz, 50 $\Omega$ | G700050584 |
| Adapter N(m) to 4.3-10 (f), DC to 6.0 GHz, 50 $\Omega$        | G700050585 |
| Adapter N(m) to 4.3-10 (m), DC to 6.0 GHz, 50 $\Omega$        | G700050586 |



## Optional Accessories

| Optical Power Meters and Fiber Microscope Kits   |  | Part Number |
|--|--|-------------|
| USB optical power meter with software, 2.5 and 1.25 mm interfaces, 30-inch USB extender, and carrying pouch                |  | MP-60A      |
| USB optical power meter — high power, with software, 2.5 and 1.25 mm interfaces, 30-inch USB extender, and carrying pouch  |  | MP-80A      |
| KIT: FBP-P5000i digital probe, FiberChekPRO software, case, and four tips  |  | FBP-SD101   |
| KIT: FBP-P5000i digital probe, FiberChekPRO software, case, and seven tips   |  | FBP-MTS-101 |
| KIT: FBP-P5000i digital probe, MP-60A USB power meter, FiberChekPRO software, case, tips, and adapters                     |  | FIT-SD103   |
| KIT: FBP-P5000i digital probe, MP-60A USB power meter, FiberChekPRO software, case, tips, adapters, and cleaning materials |  | FIT-SD103-C |
| KIT: FBP-P5000i digital probe, MP-80A USB power meter, FiberChekPRO software, case, tips, and adapters                     |  | FIT-SD113   |
| Others   |  |             |
| Attenuator 40 dB, 100 W, DC to 4 GHz (unidirectional)  |  | G710050581  |
| AC/DC power adapter for JD723C and JD724C only   |  | GC72450522  |
| JD720C AC/DC adapter for JD725C and JD726C   |  | JD72050522  |
| Cross LAN cable (1.83 m [6Ft])   |  | G700550335  |
| USB A to Mini B cable (1.0 m)  |  | JD70050536  |
| >1 GB USB memory   |  | GC72450518  |
| Automotive cigarette lighter/12 V DC adapter   |  | GC72450523  |
| Rechargeable LiON battery  |  | G710550325  |
| Stylus pen   |  | G710550316  |
| JD720C soft carrying case  |  | JD72050541  |
| JD720 hard carrying case with wheels   |  | JD70050542  |
| CellAdvisor backpack carrying case   |  | JD70050343  |
| External battery charger   |  | G710550324  |
| USB Bluetooth dongle and dipole antenna 5 dBi  |  | JD70050006  |
| USB WiFi dongle  |  | JD70050008  |
| USB GPS receiver   |  | JD72050005  |
| JD720C series user's manual, printed version   |  | JD720C362   |

| Warranty and Calibration                                     |               |
|--|---------------|
| JD723C/724C warranty extension 1 year                        | JD723C/24C-EW |
| 1 Calibration over 2 year period for JD723C or JD724C        | JD723/24-CP2  |
| Certified Calibration for JD723/724                          | JD723/4-CAL   |
| JD725C/726C warranty extension 1 year                        | JD725/6-EW    |
| 1 Calibration over 1 year period for JD725                   | JD725-CP      |
| Certified calibration for JD725/726                          | JD725/726-CAL |
| Certificate of calibration with test data for new instrument | JD720C100     |

1. Requires a calibration kit.
2. For only JD725C/JD726C. Requires 2-port transmission (option 002) for JD726C.
3. Requires 2-port calibration kit. This option 002 is standard for JD725C.
4. Includes a USB Bluetooth dongle and dipole antenna (JD70050006).
5. Includes a USB GPS receiver (JD70050005).
6. Includes a WiFi dongle (JD70050008).
7. Not available in the EU market effective July 1, 2017
8. Includes 1x JD78050509 Y- calibration kit, 2x G700050530 RF Cable, and 2x G700050575 RF Adapter Type-N(f) to Type-N(f)
9. Includes 1x JD78050510 DIN Y- calibration kit, 2x G710050536 RF Cable, and 2x G700050572 RF Adapter DIN(m) to DIN(m)