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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. Properly servicing and installing cell sites requires suitable test equipment. JDSU 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 JDSU application software allows for easier measurement analysis and report generation.

In addition, JD720 analyzers are capable of fiber inspection using the JDSU fiber microscope and optical power measurement using JDSU 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\*

#### **Key Benefits**

- · RF and fiber testing in a single solution
- Manage assets and reduce costs with cloudenabled StrataSync™
- Detect signal degradation over time with Trace Overlay
- Reduce test time by making two measurements simultaneously on one display
- Instant problem notification with simple pass/fail indications
- Enable faster and easier calibration with EZ-Cal™

#### **Key Features**

- 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)

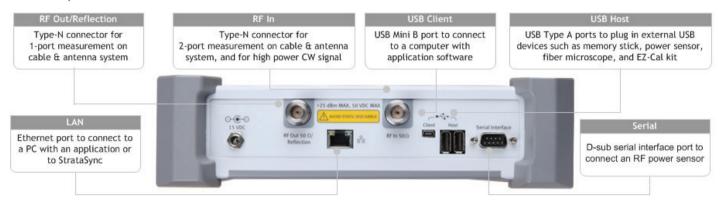
#### **Applications**

- 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)

www.jdsu.com/nse **▶ Data Sheet** 

<sup>\*</sup>Available only for JD725C/726C

## JD725CTop View



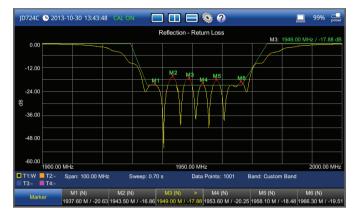
#### JD725C Front View



#### **Key Measurements**

**Reflection** measures the cell-site transmission line impedance performance across the selected frequency range in VSWR or Return Loss.

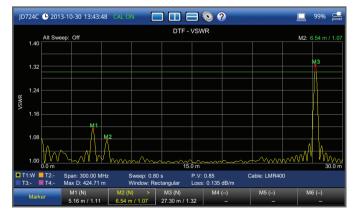
- The instrument's database includes over 80 wireless frequency bands with the ability to add more.
- A user-definable limit line automatically indicates pass/fail status.
- Users can set up to six markers for trace analysis.



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<sub>11</sub> phase to tune antennas and to phase-match cables.

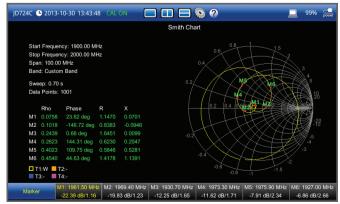
• Users can set up to six markers for trace analysis.



1-Port Phase

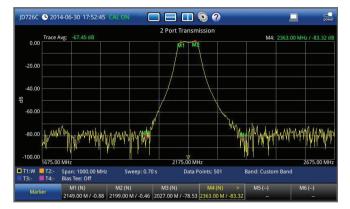
**Smith Chart** displays impedance matching characteristics in cable and antenna systems as well RF devices.

• 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<sub>21</sub> 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



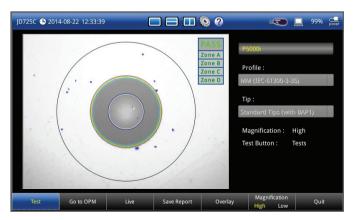
The power meter displays either the RF/optical power level in two formats: as a real-time power level value in an analog meter and as a power level trend through time in a histogram chart. Its configurable settings include display range, maximum and minimum limits, and power units in dBm or watts.

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



Power Meter

Fiber Inspection eliminates the most common fiber link problems by verifying that connectors are not contaminated. Interfacing with a JDSU fiber microscope, fiber connectors can be quickly inspected with a clear pass/fail indication. The FiberChekPRO™ application can be used on a PC/laptop with the fiber 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 with the optical power meter's results.



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 testing.

\*Available only for JD725C/726C

#### **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 (LiON) battery that lasts more than 7.5 hours.

Its transflective 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  $+55^{\circ}$ C temperatures; and its rugged bumper design protects it for filed use, such as drop and vibration, complying with MIL-PRF-28800F class 2 specification.



 ${\it Outdoor\, Display\, mode\, provides\, easier\, reading\, in\, direct\, sunlight}$ 

# **Quickly Sweeps**

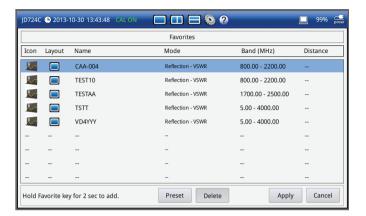
It can perform measurements in less than 0.8 ms/point, making these the fastest cable and antenna analyzers on the market with uncompromising fast sweep speed in Dual Display mode.

#### Multilanguage User Interface

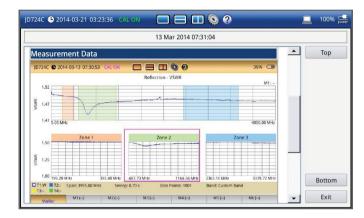
The instruments' architecture can incorporate different languages into the menu structure.

## 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.

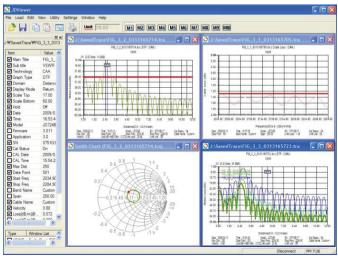


Bluetooth connectivity

#### **JDViewer Application Software**

The JDV iewer 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 makers 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 with pass/fail indication (P5000i fiber microscope)



MP-60/MP-80

P5000i fiber microscope

#### StrataSync Cloud Services

JD720C analyzers are compatible with the JDSU 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**

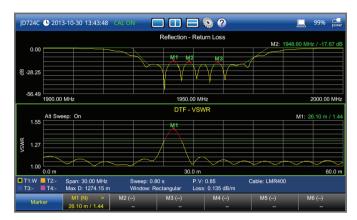
User-definable frequency zones can be set to visually identify sub-band regions such as uplink and downlink frequencies to verify compliance within a single measurement and independent view for closer analysis of each zone.



Zoom zones

## Alternate Sweep in DTF

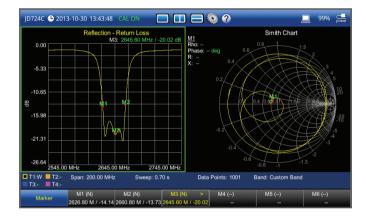
Allows users to perform two independent sweeps and to display the measurements, such as a reflection and a DTF, in the same window.



Alternate sweep

## **Dual Display**

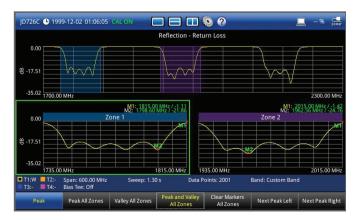
Provides the ability to display two measurements simultaneously, reducing test time.



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

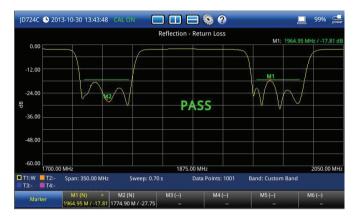
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#### **Limit Lines**

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

#### Standard Limit Line

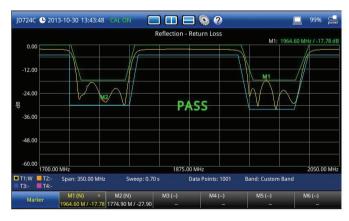
The standard limit line extends over the full measurement frequency range and can be configured to indicate a fail when measurements exceed it. Users can also set a limit line for only specific sections.



Straight line with gap

## Multisegment Limit Line(MSL)

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



Multisegment 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

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

# Specifications<sup>1</sup>

|                          | JD723C                       | JD724C         | JD725C       | JD726C    |
|--------------------------|------------------------------|----------------|--------------|-----------|
| Frequency                |                              |                |              |           |
| Range                    | 100 MHz-                     | 5 MHz –        | 5 MHz –      | 5 MHz-    |
|                          | 2.7 GHz                      | 4 GHz          | 4 GHz        | 6 GHz     |
| Resolution               |                              | 10 k           | Hz           |           |
| Accuracy                 |                              | ±25 ppm        | nat 25°C     |           |
| Aging                    |                              | ±5p            | pm           |           |
| Data Points              |                              |                |              |           |
|                          |                              | 126, 251, 501  | ,1001,2001   |           |
| Measurement Speed        |                              |                |              |           |
| Reflection               | < 0.7 ms/point               |                |              |           |
| DTF                      |                              | < 0.8 ms       | s/point      |           |
| Measurement Accuracy     |                              |                |              |           |
| Corrected directivity    | 42 dB (typical) <sup>2</sup> |                |              |           |
| Reflection uncertainty   |                              | 20log (1 + 1   |              |           |
|                          | EP=di                        | rectivity – me | easured retu | rn loss   |
| Output Power             |                              |                |              |           |
| High                     | 0 dBm (r                     | nominal)       | 0 dBm (r     | nominal)  |
| Low                      |                              |                | -30 dBm      | (nominal) |
| Maximum Input Level      |                              |                |              |           |
| Average continuous power | +25 dBm (nominal)            |                |              |           |
| DC voltage               | ±50VDC                       |                |              |           |
| Interference Immunity    | •                            |                |              |           |
| On channel               | +15 dBm (n                   | ominal)        | +17 dBm (r   | nominal)  |
| On frequency             | +5 dBm (no                   | minal)         | +10 dBm (r   | nominal)  |

|                            | JD723C          | JD724C                        | JD725C                  | JD726C             |
|----------------------------|-----------------|-------------------------------|-------------------------|--------------------|
| Measurements               |                 |                               |                         |                    |
| Reflection (VSWR)          |                 |                               |                         |                    |
| VSWR range                 |                 | 1 to                          | 65                      |                    |
| Return loss range          |                 | 0 to 6                        | 0 dB                    |                    |
| Resolution                 |                 | 0.0                           | 1                       |                    |
| Distance to Fault (DTF)    |                 |                               |                         |                    |
| Vertical VSWR range        |                 | 1 to 65                       |                         |                    |
| Vertical return loss range |                 | 0 to 6                        | 0 dB                    |                    |
| Vertical resolution        |                 | 0.0                           | 1                       |                    |
| Horizontal range           |                 | ta points – 1)<br>aximum = 15 |                         |                    |
| Horizontal resolution      |                 | (1.5 x 108) x                 | (V <sub>p</sub> )/delta |                    |
|                            |                 | / <sub>p</sub> = propaga      |                         |                    |
|                            | delta = sto     | p frequency                   | – start frequ           | iency (Hz)         |
| 1-Port Cable Loss          |                 |                               |                         |                    |
| Range                      |                 | 0 to -3                       |                         |                    |
| Resolution                 |                 | 0.01                          | dB                      |                    |
| 1-Port Phase               |                 |                               |                         |                    |
| Resolution                 |                 | -180 to                       | +180°                   |                    |
| Smith Chart                |                 |                               |                         |                    |
| Resolution                 |                 | 0.0                           | 1                       |                    |
|                            | JD7             | 25C                           | JD7                     | 26C                |
| 2-Port Transmission        |                 |                               |                         |                    |
| Output Power               |                 |                               |                         |                    |
| High                       |                 | 0 dBm (t                      | ypical)                 |                    |
| Low                        |                 | -30 dBm (typical)             |                         |                    |
| Measurement Speed          |                 |                               |                         |                    |
| Vector                     |                 | < 1.3 ms                      | /point                  |                    |
| Dynamic Range              |                 |                               |                         |                    |
| Vector                     | 5 MH            | z to 3 GHz: 80                | dB at avera             | ge 5               |
|                            | 3 GH            | z to 6 GHz: 75                | dB at avera             | ge 5               |
| Measurements               |                 |                               |                         |                    |
| Insertion Loss/Gain        |                 |                               |                         |                    |
| Range                      |                 | -120 to -                     | -100 dB                 |                    |
| Resolution                 |                 | 0.01                          | dB                      |                    |
| 2-Port Phase               |                 |                               |                         |                    |
| Range                      |                 | −180° tc                      | +180°                   |                    |
| Resolution                 |                 | 0.0                           | 1°                      |                    |
| BiasTee                    |                 |                               |                         |                    |
| Voltage                    |                 |                               |                         |                    |
| Voltage range              |                 | +12 to                        | +32V                    |                    |
| Voltage resolution         |                 | 1 V                           |                         |                    |
| Current                    | 250 mA at +32 V |                               |                         |                    |
|                            | 500 mA at +12 V |                               |                         |                    |
| High-Power CW Signal Ge    | nerator         |                               |                         |                    |
| Output Power               |                 |                               |                         |                    |
| Range                      |                 | o 4 GHz,                      |                         | o 4 GHz,           |
|                            | -30 to +        | -10 dBm                       |                         | -10 dBm            |
|                            |                 |                               |                         | o 6 GHz,<br>+5 dBm |
| Cton                       |                 | 1 -                           | l                       | ווטט כד            |
| Step                       |                 | 1 dp (2)                      |                         |                    |
| Accuracy                   |                 | ±1.5 dB (20 to 30°C)          |                         |                    |

Footnotes for all Specifications appear at the end of the section.

## **Specifications**

|                            | JD723C                      | JD724C   | JD72           | 5C                | JD726C          |
|----------------------------|-----------------------------|--|----------------|-------------------|-----------------|
| Bluetooth® Connectivity    |                             |  | 1              | · ·               |                 |
|                            | Personal area network (PAN) |  |                |                   |                 |
|                            | Filet                       | ransfer profi  | le (FTP) i     | nterfa            | асе             |
| USB GPS Connectivity       |                             |  |                |                   |                 |
| GPS location               | Latitu                      | ude and long   | gitude or      | n disp            | olay            |
| Indicator                  | Latitude                    | and longitud   | de with t      | races             | storage         |
| Interface                  |                             | USB  | 2.0            |                   |                 |
| RF Power Meter (Standard)  |                             |  |                |                   |                 |
| Display range              |                             | -80 to +   | 20 dBm         | 1                 |                 |
| Offset range               |                             | 0 to 6   | 0 dB           |                   |                 |
| Resolution                 | 0.0                         | )1 dB or 0.1 x   | W(x = m)       | n, u, p           | )               |
| External RF Power Sensors  |                             |  |                |                   |                 |
| Directional Power Sensor   | JD7                         | 31B  |                | JD73              | 3A              |
|                            | 300 MHz                     | – 3.8 GHz  | 150 N          | MHz-              | - 3.5 GHz       |
| Dynamic range              |                             | 0.15 to 150W (average) 4 to 400 W (peak<br>0.1 to 50 W (average) 0.1 to 50 W (peak |                |                   |                 |
| Connector type             | Ту                          | pe-N female  | on both        | n end             | ŝ               |
| Measurement type           | Forward/re                  | Forward/reverse average power, forward peak power, VSWR                            |                |                   |                 |
| Accuracy                   | ±(                          | 4% of readir   | ng + 0.05      | W) <sup>3,2</sup> | 1               |
| Terminating Power Sensor   | JD732B                      | JD7  | 34B            | J                 | D736B           |
|                            |                             | 20 MHz -   | - 3.8 GHz      | 7                 |                 |
| Dynamic range              |                             | -30 to +   | 20 dBm         |                   |                 |
| Connector type             |                             | Type-N   | l male         |                   |                 |
| Measurement type           | Average                     | Pe   | ak             | A٧                | erage &<br>Peak |
| Accuracy                   |                             | ±7   | % <sup>3</sup> |                   |                 |
| Optical Power Meter (stand | ard)                        |  |                |                   |                 |
| Display range              |                             | -100 to +  | 100 dBm        | n                 |                 |
| Offset range               | 0 to 60 dB                  |  |                |                   |                 |
| Resolution                 | 0.01 dB or 0.1 mW           |  |                |                   |                 |
| External Optical Power Met | ers                         |  |                |                   |                 |
|                            | 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%                         |  |                |                   |                 |

- $1. \ \ Specifications for JD720C series analyzers apply under these conditions:$ 
  - 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.

- 2. Using recommended calibration kits. Available only for serial number KR31659001 and later.
- 3. CW condition at 25°C  $\pm 10$ °C.
- 4. Forward power.

#### **General Information**

|                                  | JD723C                              | JD724C                                    | JD725C        | JD726C     |  |
|----------------------------------|-------------------------------------|---|---------------|------------|--|
| RFIn                             |                                     |   | 1             | ı          |  |
| Connector                        | N.                                  | N/A Type-N, fema                          |               |            |  |
| Impedance                        | N,                                  | /A  | 50Ω (nominal) |            |  |
| Damage level                     | N,                                  | /A  | >+25 dBm      | ,>±50VDC   |  |
| Reflection/RF Out                |                                     |   |               |            |  |
| Connector                        |                                     | Type-N,                                   | female        |            |  |
| Impedance                        |                                     | 50Ω(no                                    |               |            |  |
| Damage level                     | >+4                                 | 0 dBm, > ±5                               | OVDC (nomi    | inal)      |  |
| Connectivity                     |                                     | ·   |               |            |  |
| USB host <sup>1</sup>            |                                     | Type A,                                   | 2 ports       |            |  |
| USB client <sup>2</sup>          |                                     | Mini B,                                   |               |            |  |
| LAN                              |                                     | RJ45, 10/1                                |               |            |  |
| Serial                           |                                     | 9-pin D-S                                 |               |            |  |
| Display                          |                                     |   |               |            |  |
| Type                             |                                     | Resistive to                              | uch screen    |            |  |
| Size                             | 7-inch.                             | LED backligh                              |               | velCD      |  |
| Resolution                       |                                     | 800 x                                     |               |            |  |
| Speaker                          |                                     |   | . 100         |            |  |
| - peane.                         |                                     | Built-in speaker                          |               |            |  |
| Power                            |                                     | Dane III.                                 | peaner        |            |  |
| External DC input                |                                     | 12 to 1                                   | 5 VDC         |            |  |
| Power consumption                | 12                                  | .W  | 1             | 15 W       |  |
| 1 ower consumption               |                                     | naximum                                   | 1             | naximum    |  |
|                                  |                                     | harging                                   |               | harging    |  |
|                                  | batt                                | ery)                                      | battery)      |            |  |
| External AC Power Adapte         | r                                   |   |               |            |  |
| Input                            | 100                                 | to 250 V (50                              | to 60 Hz, 1.2 | A)         |  |
| Output                           |                                     | 15 V D                                    | C, 4 A        |            |  |
| Battery                          |                                     |   |               |            |  |
| Туре                             |                                     | 0.8 V, 7800 n                             | nA/hr (LiON)  |            |  |
| Operation time                   | >7.5 hr                             | (typical)                                 | >5.5 hr       | (typical)  |  |
|                                  |                                     |   |               | ff, > 3 hr |  |
|                                  |                                     |   |               | n (Max)    |  |
| Charge time                      |                                     | 3 hr (80%), 5                             | 5 hr (100%)   |            |  |
| Charging temperature             |                                     | 45°C (32 to 1                             |               |            |  |
| Discharging temperature          | -20 t                               | o +55°C (4 to                             |               | % RH       |  |
| Storage temperature <sup>4</sup> |                                     | 0 to 25°C (3                              |               |            |  |
|                                  | ≤                                   | 95% RH (nor                               | condensing    | 1)         |  |
| Data Storage                     |                                     |   |               |            |  |
| Internal <sup>5</sup>            | Minimur                             | n 130 MB                                  | Minimur       | n 500 MB   |  |
| External <sup>6</sup>            | Lim                                 | ted by size o                             | f USB flash d | rive       |  |
| Environmental                    |                                     |   |               |            |  |
| AC power                         |                                     | C (32 to 104°                             |               |            |  |
| Battery                          | 0 to 40°C (32 to 104°F) at charging |   |               |            |  |
|                                  |                                     | −10 to +55°C (14 to 131°F) at discharging |               |            |  |
| Maximum humidity                 |                                     | 95% RH (noncondensing)                    |               |            |  |
| Storage temperature <sup>7</sup> | -40 to +80°C (−40 to +176°F)        |   |               |            |  |
| Shock and vibration              | MIL-PRF-28800F Class 2              |   |               |            |  |

- 1. Connects flash drive, power sensor, P5000i, Bluetooth or GPS receiver.
- 2. Connects to PC/laptop for data transfer.
- 3. For JD72450551/JD72450552.
- 4. 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.
- 5. UP to 3,800 traces (JD723C/JD724C) and 21,000 traces (JD725C/JD726C).
- 6. Supports USB 2.0-compatible memory devices.
- 7. With the battery pack removed.

# **General Information**

|  | JD723C                                  | JD724C    | JD725C            | JD726C |  |
|--|---|-----------|-------------------|--------|--|
| EMC (complies with European EMC)             |   |           |                   |        |  |
|  | EN 6132                                 | 6-1:2006  | EN 61326-1:2013   |        |  |
|  |   |           | EN 61326-2-3:2013 |        |  |
| ESD  |   |           |                   |        |  |
|  |   | IEC/EN 61 | 000-4-2           |        |  |
| Safety (complies with European LVD TUV NRTL) |   |           |                   |        |  |
|  | EN 61010-1:201                          |           | 0-1:2010          |        |  |
|  | UL 61010-1:2012                         |           | 0-1:2012          |        |  |
| Size and Weight (with battery)               |   |           |                   |        |  |
| Size $(W \times H \times D)$                 | 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)     |           | (5.51 lb)         |        |  |
| Warranty                                     |   |           |                   |        |  |
|  | 2 years                                 |           |                   |        |  |
| 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      |  |  |
| Options   |             |  |  |
| Bias tee <sup>3</sup>   | JD720C001   |  |  |
| 2-port transmission <sup>2,3</sup>  | JD720C002   |  |  |
| Bluetooth connectivity <sup>4</sup>   | JD720C003   |  |  |
| USB GPS connectivity⁵   | JD720C004   |  |  |
| High-power CW signal generator  | JD720C005   |  |  |
| NOTE: Upgrade options for the JD720C use the designation JD720CU before the respective last |             |  |  |

 $NOTE: Upgrade\ options\ for\ the\ JD720C\ use\ the\ designation\ JD720CU\ before\ the\ respective\ last three-digit\ option\ number.$ 

| Standard Accessories                                      |            |
|---|------------|
| JD720C soft carrying case <sup>6</sup>                    | JD72050541 |
| AC/DC power adapter <sup>6</sup>                          | GC72450522 |
| JD720C AC/DC adapter <sup>6,7</sup>                       | JD72050522 |
| Cross LAN cable (1.5 m) <sup>6</sup>                      | G710550335 |
| USB A to Mini B cable (1.8 m) <sup>6</sup>                | GC72450536 |
| >1 GB USB memory <sup>6</sup>                             | GC72450518 |
| Automotive cigarette lighter/12 V DC adapter <sup>6</sup> | GC72450523 |
| Rechargeable LiON battery <sup>6</sup>                    | G710550325 |
| Stylus pen <sup>6</sup>                                   | G710550316 |
| JD720C series user's manual and application software CD   | JD72050561 |

# **Optional Accessories**

| Calibration Kits   |            |
|--|------------|
| 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 Ω load, DC to 4 GHz, 1 W  | GC72550511 |
| Dual-port Type-N(m) 6 GHz calibration kit                                | JD78050507 |
| Dual-port DIN(m) 6 GHz calibration kit                                   | JD78050508 |
| Electronic calibration kit (EZ-Cal)                                      | JD70050509 |
| RF Cables  |            |
| RF cable DC to 8 GHzType-N(m) to Type-N(m), 1.0 m                        | G700050530 |
| RF cable DC to 8 GHzType-N(m) to Type-N(f), 1.5 m                        | G700050531 |
| RF cable DC to 8 GHzType-N(m) to Type-N(f), 3.0 m                        | G700050532 |
| RF cable DC to 6 GHzType-N(m) to DIN(f), 1.5 m                           | G710050536 |
| Phase-stable RF cable with grip DC to 6 GHzType-N(m) to Type-N(f), 1.5 m | G700050540 |
| Phase-stable RF cable with grip DC to 6 GHzType-N(m) to DIN(f), 1.5 m $$ | G700050541 |

Footnotes for all Ordering Information appear at the end of the section.

## **Optional Accessories**

| RF Power Sensors  | Part Number |
|---|-------------|
| 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      |
| Terminating power sensor (average), 40 MHz to 3 GHz, -30 to 0 dBm   | JD72450551  |
| Terminating power sensor (peak), 40 MHz to 4 GHz,<br>–40 to 0 dBm   | JD72450552  |
| 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  |
| Optical Power Meters and Fiber Microscope Kits  | ,           |
| 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,<br>2.5 and 1.25 mm interfaces, 30-inch USB extender, and<br>carrying pouch | MP-80A      |
| $\label{eq:KIT:FBP-P5000} \textbf{KIT:} FBP-P5000 i \ digital \ probe, FiberChekPRO \ software, case, \\ and \ tips$            | FBP-SD101   |
| KIT: FBP-P5000i digital probe, FiberChekPRO software, case, and 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-60A USB power meter, FiberChekPRO software, case, tips, and adapters                          | FIT-SD113   |

| Others   | Part Number          |
|--|----------------------|
| Attenuator 40 dB, 100 W, DC to 4 GHz (unidirectional)                                | G710050581           |
| JD720 hard carrying case   | JD72350542           |
| Hard carrying case with wheels   | JD70050342           |
| CellAdvisor backpack carrying case   | JD70050343           |
| External battery charger   | G710550324           |
| USB Bluetooth dongle and dipole antenna 5 dBi  | JD70050006           |
| USB GPS receiver   | JD72050005           |
| JD720C series user's manual, printed version   | JD720C362            |
| StrataSync   |                      |
| StrataSync asset management 1-year subscription for CellAdvisor CAA                  | SS-CA-<br>CAA-AM-01  |
| StrataSync test data management 1-year subscription for CellAdvisor CAA <sup>8</sup> | SS-CA-CAA-<br>TDM-01 |
| Warranty and Calibration   |                      |
| JD723C/724C 1-year warranty extension for Asia and<br>North America                  | JD720C200            |
| JD723C/724C 1-year warranty extension for Latin America and EMEA                     | JD720C201            |
| JD723C/724C calibration service for Asia and North America                           | JD720C250            |
| JD723C/724C calibration service for Latin America and EMEA                           | JD720C251            |
| JD725C/726C 1-year warranty extension for Asia and North America                     | JD725C200            |
| JD725C/726C 1-year warranty extension for Latin America and EMEA                     | JD725C201            |
| JD725C/726C calibration service for Asia and North America                           | JD725C250            |
| JD725C/726C calibration service for Latin America and EMEA                           | JD725C251            |

- 1. Requires a calibration kit.
- 2. Requires 2-port calibration kit.
- 3. JD726C 2-port requires option 002.
- 4. Includes a pair of Bluetooth USB dongles with 5 dBi dipole antenna (JD70050006).
- 5. Includes a USB GPS receiver (JD70050005).
- 6. Standard accessories can be purchased separately.
- 7. For only JD725C/JD726C.
- 8. Requires SS-CA-CAA-AM-01.

