

CellAdvisor[™] JD740A Series Release Notes for Version 1.116.007

Welcome to release 1.116.007 of CellAdvisor JD740A series. This document provides version numbers, a description of new features, and a list of unresolved issues associated with this release.



Software Version Number

JD740A LKI_FW_1.116.007.FW

Revision History

Unless otherwise specified, this document is applicable for JD740A series including JD745A, JD746A, and JD748A.

Version 1.040.086

Date: January 31, 2011

New Features

- Auto Measure functionality in GSM and LTE
- Interference ID
- Supportability in LTE full bands including 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, and 20 MHz
- Capability of LTE OTA measurement
- Preset
- Zoom functionality in WCDMA RCSI mode
- Recovery functionality

Improvements and Bug Fixes

- Fixed the error that displayed wrong symbols in WiMAX Measure Setup after changing system configuration.
- Fixed an error in Channel Scanner mode
- Fixed the RF source control error.
- Improved measurement speed in WCDMA OTA.
- Improved internal clock accuracy using GPS locking information.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.8
Main Board: 2.0
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.407 / 2.420, 3.040 / 4.403, 5.402 / 6.400, NA / 8.001



Recommended Application Software

JDViewer 4.04 or higher

Version 1.050.028

This version is applicable for JD746A only.

Date: February 25, 2011

New Features

Spectrum logging

Improvements and Bug Fixes

- Fixed the PREV key error in Save/Load mode.
- Improved Marker movement in Channel Scanner mode.

Compatible Hardware Configuration

Boot loader: 1.0.3
Kernel: 2.6.18.8
Main Board: 2.0
RF Module: 1.000
Keypad Module: 1.000

DSP Module: DSA 1.407 / CAA 8.001

Recommended Application Software

JDViewer 4.07 or higher

Version 1.055.066

Date: March 22, 2011

New Features

- Optical Power Meter functionality (MP-60 & MP-80)
- Auto Measure functionality for CDMA, EV-DO, WCDMA, TD-SCDMA, and WiMAX
- Spectrum logging functionality in Interference Analyzer mode
- Interference Finder functionality

Improvements and Bug Fixes

Improved sweep time.



- Fixed the bug that displayed incorrect CAL status after power recycling.
- Fixed the Trigger mode setting error in Auto Measure for CDMA and WCDMA.
- Fixed the bug that displayed incorrect Pass/Fail status in TD-SCDMA Constellation mode.
- Corrected the typo from PN Offset to Scramble in WCDMA Auto Measure mode.

Boot Loader: 1.0.3
Kernel: 2.6.18.8
Main Board: 2.1/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.407 / 8.001 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.20 or higher

Version 1.056.005

Date: February 25, 2011

Improvements and Bug Fixes

- Improved PLL Lock speed
- Fixed the error of Time Cursor settable range.
- Fixed the error that displayed CPICH Dominance in WCDMA OTA Code Domain mode.
- Updated Chinese menu.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.8
Main Board: 2.1/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.407 / 8.001 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.20 or higher

Version 1.060.099

Date: June 21, 2011



New Features

- Multi-Segment Limit Line functionality
- Preset functionality
- Online Help functionality
- Ethernet Test functionality
- Attenuation soft key in Spurious mode
- RBW soft key in Internal Power Meter mode

Improvements and Bug Fixes

- Corrected incorrect soft key name in the File Manager.
- Improved response time in Multi-Segment Limit Line mode.
- Fixed the Preset error in LTE mode.
- Fixed the bug that displayed incorrect S-CCPCH and PICH level in CDP table.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.8
Main Board: 2.1/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.410 / 8.001 / 6.400 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.20 or higher

Version 1.066.041

Date: July 26, 2011

New Features

- LTE Constellation
- LTE Datagram

Improvements and Bug Fixes

- Fixed the error that had different gain in EVM calculation for LTE PDCCH.
- Improved phase compensation for PSS and SSS in LTE OTA mode under MIMO configuration.

Compatible Hardware Configuration

Boot Loader: 1.0.3



Kernel: 2.6.18.8
Main Board: 2.1/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.410 / 8.001 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.20 or higher

Version 1.068.003

Date: August 31, 2011

Improvements and Bug Fixes

- Added the constellation diagram to the Code Error and Code Power measurement screens in TD-SCDMA.
- Fixed the bug that resulted in the intermittent locking failure in Spectrum Analyzer mode.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.8
Main Board: 2.1/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.410 / 8.001 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.30 or higher

Version 1.070.091

Date: October 19, 2011

New Features

- Touch screen feature (Kernel upgrade required)
- Remote control
- Spectrum replay
- LTE Data Allocation Map
- Stand-alone spectrum replaying without application software



Improvements and Bug Fixes

- Changed P-SCH to P-SS and S-SCH to S-SS in LTE demodulation screens.
- Improved key response speed.
- Improved mode change speed.
- Changed OTA license policy to allow users to select an OTA option without a demodulation option.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.10
Main Board: 2.1/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.410 / 8.001 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

 JDViewer 4.30 or higher (Spectrum replay in application SW is not available temporarily due to file format change. It will be available with a newer version of application SW JDViewer 4.40 or higher.)

Version 1.081.024

Date: February 23, 2012

New Features

- Capability of indoor mapping (Kernel 2.6.18.12 and LCD with touch screen required)
- Two-port transmission measurement (Scalar) that supports wider dynamic range than Vector transmission measurement
- Capability of LTE Conformance Test in LTE Auto Measure
- Data Allocation Map for LTE TDD
- Capability of Local Maintenance Facility (LMF) interface with Motorola CDMA/EV-DO
- High power protection in spectrum measurement
 - ✓ IF overload message
 - ✓ Automatic Preamp off for protection

Improvements and Bug Fixes

- Improved Gated Sweep to support Video Trigger.
- Improved mask type and edit method in SEM and ACP measurements.
 - ✓ Vertical line, horizontal line, and sloping line are available.
 - ✓ Limit line can be set as Abs (dBm) or Rel (dB).
- Improved Channel Scanner
 - ✓ All of the wireless channel standards are configurable.



- ✓ Test limit can be set respectively.
- Test limits are available for more items in LTE modulation analysis.
- Improved LTE OTA ID Scanner functionality by adding RSRP, RSRQ, and SINR.
- Save/Recall menu enables users to save and recall not only configuration of settings but also measurement screens.
- Simplified and re-arranged Measure Setup menu for entire signal analyzer modes.
- Fixed the error in Cable and Antenna Analyzer that made the instrument unable to measure VSWR until power recycling.

Boot Loader: 1.0.3
Kernel: 2.6.18.12
Main Board: 2.3/8
RF Module: 1.000
Kevpad Module: 1.000

DSP Module: 1.412 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.3.28 or higher that supports Spectrum Replay

Known Issues

 Due to file format change, all the previous setup files will not be compatible in LTE signal analyzer mode once the firmware is upgraded to this version.

Version 1.085.043

Date: April 2, 2012

New Features

- LTE Signal Performance measurement functionality
- LTE Data Channel Event Hold functionality
- Event driven Spectrum saving functionality
- New FWD/REV toggle key for channel setting
- Additional GPS information including FS and C/N on System screen

Improvements and Bug Fixes

- Enhanced GPS data parsing algorithm for fast GPS locking.
- Auto diagnostics on and deletion of corrupted setting files to prevent initialization failure.
- Improved settings and graphic user interface for LTE Auto Measure Maintenance Test.



Boot Loader: 1.0.3
Kernel: 2.6.18.12
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.412 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.3.30 or higher

Version 1.090.090

Date: August 8, 2012

New Features

- Indoor/Outdoor mapping
- Interference Analyzer with Gated Sweep
- LTE Multipath profile based on RS reference (Supporting high precision mode)
- Map on Interference Finder
- Auto switching to GPS Trigger in cdma/EV-DO (GPS signal required)
- Capability of supporting Internal/External Power Meter in LMF mode
- Capability of supporting JD731B RF Power Sensor
- Spurious Emission measurement added in Auto Measure
- Capability of exporting Auto Measure results in CSV file format
- Display of accumulated operating time on the System screen
- Capability of supporting China Railway

Improvements and Bug Fixes

- Faster sweep in Spectrum Analyzer
- Fixed PN offset error with GPS Time driven PP2S
- Tailored Online Help files
- Added frequency bands for WCDMA, LTE-FDD, and LTE-TDD

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.15
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.413 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420



Recommended Application Software

JDViewer 4.4.05 or higher

Version 1.091.024

Date: September 17, 2012

Improvements and Bug Fixes

- Fixed the error on Route Map relating to wrong positioning and color indexing.
- Fixed the error on Spectrum Sweep relating to sweep speed
- Fixed the error on GPS Locking in Spectrum Analyzer Mode
- Fixed the error when saving screen

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.15
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.417 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.5 or higher

Remarks

- Use application software, Map Creator 0.4, to generate a map for Route Map function.
- This version includes DSP source that has longer upgrade time.

Version 1.092.042

Date: December 17, 2012

New Features

Capability of supporting USB TMC

Improvements and Bug Fixes

Fixed the error on CDMA OTA



Boot Loader: 1.0.3
Kernel: 2.6.18.15
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.417 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.5 or higher

Map Creator 1.0

JDRemote 1.0

Version 1.095.052

Date: March 29, 2013

New Features

- LTE MBMS (Multimedia Broadcast and Multicast System)
 - ✓ Auto detection of MBSFN
 - ✓ Multicast channel demodulation: PMCH
 - ✓ QPSK/16 QAM/64 QAM and EVM, Power, RB
 - ✓ New Manual Detection mode and re-arrangement of information data
- Passive Inter-Modulation (PIM) Analysis
 - ✓ Product adaptation and customization based on the request of major account Verizon Wireless
 - ✓ New Interactive Test Scenario and enhancement of the preview information
- Display of both of uplink and downlink activities in Dual Spectrum and Spectrogram
- New conformance test item named RCDE (Relative Code Domain Error) in WCDMA/HSPA+

Improvements and Bug Fixes

- Improved the stability of firmware upgrade.
- Improved the display screen for the outdoor display mode by changing the screen to B&W with thick traces and bold characters.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.15
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000



DSP Module: 1.417 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3

Version 1.096.001

Date: March 29, 2013

Improvements and Bug Fixes

• Fixed the error in recognizing a USB memory stick. It was also related to file saving error in to the USB memory stick.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.15
Main Board: 2.3/8
RF Module: 1.000

Keypad Module: 1.000

DSP Module: 1.417 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3

Version 1.101.002

Date: September 10, 2013

New Features

- Capability of LTE Advanced including MIMO 4x4 measurement and carrier aggregation.
- Channel scanner functionality added to LTE FDD/TDD OTA
- Capability of LTE maintenance test results comparison.
- Capability of Bluetooth connectivity (optional Bluetooth device package required; Kernel 2.6.18.16 required)
- Single carrier PIM detection added to Passive Inter-Modulation (PIM) analysis
- New booting image with CellAdvisor logo



Improvements and Bug Fixes

- Fixed the bug that caused the intermittent system shutdown while moving to the System menu.
- Fixed the bug that caused the intermittent system freeze in CAA's 2-port vector measurement when entering 0.5 for the top scale after calibration and auto scale.
- Changed the 3rd Mask RBW specification for SEM and ACPR menu from 30 kHz to 1 MHz in cdma and EV-DO.
- Fixed the error that displayed the marker table on the calibration screen if used the rotary knob in CAA mode.
- Fixed the error that gave the incorrect Pass/Fail result for the EVM TM3.3 measurement in LTE Conformance Test mode.
- Corrected incorrect display of the unit for the total power dynamic range in LTE Conformance Test mode.
- Fixed the error that the first and second pages of the Dual Spectrogram file saved with Save Logging were displayed overlapped if viewed in JDViewer using the page up and down.
- Improved the display of the OTA Datagram in LTE FDD/TDD mode by changing the chart scale from 100 dB to 50 dB dynamic in order to show activities better for every resource block data channel.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3 or higher

Note: Booting right after upgrade takes approximately 40 seconds longer temporarily that is resulted from installing a Bluetooth device. It returns to its usual booting time after file upgrade.

Note: DSP upgrading takes approximately 40 minutes. Do not remove your USB drive from the instrument while upgrade in progress.



Version 1.102.000

Date: September 17, 2013

New Features

None

Improvements and Bug Fixes

Improved license code security.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3 or higher

Version 1.103.000

Date: October 07, 2013

New Features

None

Improvements and Bug Fixes

- Fixed the bug that caused an intermittent system shutdown while changing to the Interference Analyzer mode.
- Fixed the error that the instrument displayed 0.0 dBm as measurement value all the time in the WCDMA OTA Route mode.

Compatible Hardware Configuration



Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3 or higher

Version 1.104.000

Date: October 25, 2013

New Features

None

Improvements and Bug Fixes

• Fixed the bug that caused an intermittent system shutdown while using to the AM/FM mode.

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Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3 or higher



Version 1.105.001

Date: November 12, 2013

New Features

None

Improvements and Bug Fixes

- Fixed the bug that caused an intermittent IP addressing error when DHCP was enabled via Bluetooth connection.
- Fixed the bug that caused an error when last status.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3 or higher

Version 1.110.032

Date: February 26, 2014

New Features

- Capability of DAS testing in the LTE Auto Measure mode
- eMBMS testing in the LTE OTA Control Channel mode
- Capability of automatic saving of logging data in the Channel Scanner mode
- Supportability of JDMapCreator for a direct file transfer (JDMapCreator1.1 and after)

Improvements and Bug Fixes

Improved the look of the screen by changing GUI font colors



- Improved the Auto Scale function
 - The Auto Scale function in the previous release adjusted the Y-axis scale based on a current trace only no matter what, resulting in not displaying a limit line depending on the limit setting.
 - In this release, if the Limit Line is enabled, it optimizes the scale in a way to display both of the entire trace and the limit line.
- Improved the Dual Spectrogram in the Interference Analyzer mode to have manually set reference level applied to both of the active and inactive windows.
- Made it easier for touch-screen users to plot a point exactly where they desire on a map loaded in the Route Map mode by allowing them to use the rotary knob or arrow keys when the Plot Point option is set to Position.
- Fixed the bug that displayed incorrect Hz unit information of a marker depending on the Span setting.

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.5 or higher

JDMapCreator 1.0 or higher

JDRemote 1.3 or higher

Version 1.111.002

Date: April 18, 2014

New Features

None

Improvements and Bug Fixes

• Fixed the error that caused a USB memory stick failed to be recognized. The failure was resulted from the USB chipset change.

Compatible Hardware Configuration

Boot Loader: 1.0.3



Kernel: 2.6.18.16
Main Board: 2.3/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.5 or higher

JDMapCreator 1.0 or higher

JDRemote 1.3 or higher

Version 1.112.012

Date: July 02, 2014

New Features

- Capability of cable delay measurement in DTF mode
- Display of RS Power in green color if a MBSFN RS signal is detected in LTE Subframe measurement mode
- Display of MBSFN RS Power on the history diagram in LTE OTA Control Channel measurement mode
- Capability of MBMS measurement in LTE Combine mode
- Data type options selectable for the Data Allocation Map

Improvements and Bug Fixes

- Enhanced the Limit Line function in the CAA mode, separating the single limit line feature from the multi-segment limit menu.
- Corrected the incorrect antenna factor that produced incorrect measurement values in the Field Strength mode.
- Fixed the harmonic spurious issue on the LCD clock signal frequency at 34.66 MHz.
- Fixed the error in the Carrier Aggregation mode that caused the mismatch of channel numbers set in the setup and displayed on the result screen.
- Changed the Optical Power Meter from optional to standard feature.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.8/8
RF Module: 1.000



Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- JDMapCreator 1.0 or higher
- JDRemote 1.3 or higher

Version 1.113.003

Date: August 19, 2014

New Features

None

Improvements and Bug Fixes

Improved license code security.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.8/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3 or higher

Version 1.115.044

Date: November 19, 2014

New Features



None

Improvements and Bug Fixes

- Improvement of Bluetooth connection and user interface.
- Eliminated internally generated spurious signals by applying new frequency plan to avoid multiplying frequencies.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.8/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

- JDViewer 4.5 or higher
- Map Creator 1.0
- JDRemote 1.3 or higher

Version 1.116.007

Date: February 12, 2015

New Features

None

Improvements and Bug Fixes

- Improved to keep the last setting for App Interface always no matter how the Power On option is set to Factory or Last.
- Improved to display RSSI values in the Channel Scanner table in LTE-FDD and LTE-TDD Signal Analyzers.
- Eliminated internally generated spurious signals at the frequency 2130 MHz by applying new frequency plan to avoid multiplying frequencies.
- Fixed the error in Interference Analyzer that sweeping was stopped after 30 minutes with Alarm On for Sound Indicator.



• Fixed the error in Optical Power Meter that the wavelength was not automatically detected even though the Wavelength detection was set to Auto.

Compatible Hardware Configuration

Boot Loader: 1.0.3
Kernel: 2.6.18.16
Main Board: 2.8/8
RF Module: 1.000
Keypad Module: 1.000

DSP Module: 1.418 / 8.005 / 3.404 / 4.403 / 5.402 / 6.400 / NA / 2.420

Recommended Application Software

JDViewer 4.5 or higher

JDMapCreator 1.0

JDRemote 1.3 or higher