

COMPREHENSIVE SERVICES

We offer competitive repair and calibration services, as well as easily accessible documentation and free downloadable resources.

SELL YOUR SURPLUS

We buy new, used, decommissioned, and surplus parts from every NI series. We work out the best solution to suit your individual needs.

 Sell For Cash  Get Credit  Receive a Trade-In Deal

OBSOLETE NI HARDWARE IN STOCK & READY TO SHIP

We stock **New**, **New Surplus**, **Refurbished**, and **Reconditioned** NI Hardware.



Bridging the gap between the manufacturer and your legacy test system.

 1-800-915-6216

 www.apexwaves.com

 sales@apexwaves.com

All trademarks, brands, and brand names are the property of their respective owners.

Request a Quote

 **CLICK HERE**

PXIe-5663E

NI FM-RDS Toolkit Specifications

Version 1.0

This document lists specifications for the NI FM-RDS Toolkit.

Maximum specifications are derived under the following conditions:

- Switched off for at least 2 hours before switching on
- 30 minutes warm-up time
- Synchronize the analyzer clock to the generator clock
- Calibration cycle maintained
- Chassis fan speed set to High
- Slot blockers on all unused slots
- NI-RFSA version 2.4 or later used
- NI-RFSA instrument driver self-calibration performed after instrument temperature is stable
- NI 5601 module revision G or later

Maximum specifications describe the warranted, traceable product performance over ambient temperature ranges of 0 °C to 55 °C, unless otherwise noted.

Typical values describe useful product performance beyond specifications that are not covered by warranty and do not include guard bands for measurement uncertainty or drift. Typical values may not be verified on all units shipped from the factory. Unless otherwise noted, typical values cover the expected performance of units over ambient temperature ranges of 23 °C \pm 5 °C with a 90% confidence level, based on measurements taken during development or production.

All the specifications listed in this document indicate maximum specifications.

These specifications are representative and cannot be guaranteed for different frame configurations. In addition, these specifications cannot be guaranteed on all units shipped from the factory.

Specifications are subject to change without notice. For the most recent toolkit specifications, visit ni.com/manuals.

Generation

Frequency range (NI PXIe-5673E).....	10 MHz to 6.6 GHz
Absolute amplitude accuracy.....	Refer to the <i>NI PXIe-5673E Specifications</i>
Amplitude resolution	Refer to the <i>NI PXIe-5673E Specifications</i>

The generation specifications for the NI FM-RDS Toolkit were derived using the following configuration:

- Power level: 0 to -60 dBm
- Carrier frequency: 88 MHz to 108 MHz
- RDS group type: 0B and 2A
- RDS oversampling factor: 336
- Bit rate: 1187.5 bps
- Modulation: BPSK
- Baseband filter: $BT = 1$
- Message frequency: 1 kHz
- Channel deviation: 75 kHz
- Stereo mode: L = R

Specifications for the FM-RDS mono signal using the above configuration:

Modulated frequency accuracy.....	0.1%
Channel deviation accuracy.....	0.10%
Total harmonic distortion.....	0.0001%
SINAD	86 dB

Specifications for the FM-RDS stereo signal using the above configuration:

Modulated frequency accuracy.....	0.1%
Channel deviation accuracy.....	0.10%
Total harmonic distortion.....	0.002%
SINAD	55 dB
RMS EVM.....	0.2

Analysis

Hardware specifications Refer to the *NI PXIe-5663E Specifications*

The analysis specifications for the NI FM-RDS Toolkit were derived using the following configuration:

- Power level: 0 to -30 dBm
- Carrier frequency: 88 MHz to 108 MHz
- RDS group type: 0B and 2A
- RDS oversampling factor: 336
- Bit rate: 1187.5 bps
- Modulation: BPSK
- Baseband filter: BT = 1
- Message frequency: 1 kHz
- Channel deviation: 75 kHz
- Stereo mode: L = R

Specifications for the FM-RDS mono signal using the above configuration:

Modulated frequency accuracy.....	0.1%
Channel deviation accuracy.....	0.10%
Total harmonic distortion.....	0.0001%
SINAD.....	86 dB

Specifications for the FM-RDS stereo signal using the above configuration:

Modulated frequency accuracy.....	0.1%
Channel deviation accuracy.....	0.10%
Total harmonic distortion.....	0.002%
SINAD.....	55 dB
RMS EVM.....	0.2

Amplitude and Frequency Measurement Characteristics

Refer to the *NI PXIe-5663E Specifications*.

LabVIEW, National Instruments, NI, ni.com, the National Instruments corporate logo, and the Eagle logo are trademarks of National Instruments Corporation. Refer to the *Trademark Information* at ni.com/trademarks for other National Instruments trademarks. Other product and company names mentioned herein are trademarks or trade names of their respective companies. For patents covering National Instruments products/technology, refer to the appropriate location: **Help»Patents** in your software, the `patents.txt` file on your media, or the *National Instruments Patents Notice* at ni.com/patents. Refer to the *Export Compliance Information* at ni.com/legal/export-compliance for the National Instruments global trade compliance policy and how to obtain relevant HTS codes, ECCNs, and other import/export data.

© 2011 National Instruments Corporation. All rights reserved.