# **Installation Note**

Agilent Technologies ESA-E Series Spectrum Analyzers Narrow Resolution Bandwidths (Option 1DR) Retrofit Kit

#### Notice.

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## **Narrow Resolution Bandwidths (Option 1DR)**

Estimated Installation Time:	0.5 Hours
	(X) Customer
	(X) Personnel Qualified by Agilent
To Be Performed By:	(X) Agilent Service Center
Options:	1DR
Serial Numbers:	US0000000/US99999999
Products Affected:	ESA E4401B ESA E4402B ESA E4404B ESA E4405B ESA E4407B

#### Introduction

This kit contains the parts and instructions to install the Option 1DR. No tools are required.

#### **Installation Kit Parts List**

Item	Description	Part Number
1	Narrow Resolution Bandwidths Installation Note	this note
2	License Key Certificate	5964-5136 <sup>a</sup>
3	Letter	5964-5139 <sup>a</sup>
4	Firmware Upgrade Kit	Option UE2

a. This part cannot be ordered. The part number is given only to identify the item in this kit.

#### **Procedure**

#### **CAUTION**

Electrostatic discharge (ESD) can damage or destroy electronic components. All work on electronic assemblies should be performed at a static-safe workstation. Refer to the documentation that pertains to your instrument for information about static-safe workstations and ordering static-safe accessories.

### Load New Firmware, if Required

- 1. Turn on the analyzer and press **System**, **More**, **Show System**. Note the firmware revision. If the firmware revision is the same as that supplied on the firmware upgrade diskettes in this kit, activate the license key in the next process without loading any firmware.
- 2. If your firmware revision is before the revision supplied on the firmware diskettes in this kit, then you must upgrade your instrument firmware. Refer to the installation note supplied with the firmware upgrade kit included in this kit.

#### Activate the Option 1DR License Key

The license key supplied in this kit allows you to activate Narrow Resolution Bandwidths (Option 1DR).

- 1. Press System, More, More, Licensing, Option.
  - When you press **Option**, the alpha editor will be activated. For instructions on using the alpha editor, refer to the *ESA Spectrum Analyzers User's Guide*.
- 2. Use the alpha editor and the numeric keypad to enter the three letter designation for the option (that is: "1DR") that you wish to install in the instrument.
- 3. Press **Done** on the alpha editor menu.
- 4. Press License Key.
  - When you press **License Key** the alpha editor will be activated.
- 5. Use the alpha editor and the numeric keypad to enter the 12 character license key number (for example: D7C374DABD5B) for the option that you wish to install in the instrument.
- 6. Press **Done** on the alpha editor menu.
- 7. Press **Activate** to turn on the option.

## **Functional Testing**

- 1. Press System, More, Show System to verify existence of Option 1DR.
- 2. Press Span, 1 kHz, BW/Avg. Verify the Resolution Bandwidth can be set to 10 Hz.
- 3. To test the functionality and performance of this option, execute the following performance verification tests located in the *Agilent Technologies ESA Spectrum Analyzers Calibration Guide*.
  - "Resolution Bandwidth Switching Uncertainty"
  - · "Resolution Bandwidth Accuracy"
  - "Displayed Average Noise Level"
- 4. If you have problems performing any of these tests, contact the nearest Agilent Technologies sales and service office listed in the troubleshooting chapter of the *Agilent Technologies ESA Spectrum Analyzers User's Guide*.