



# ROHDE & SCHWARZ

ROHDE & SCHWARZ USA, INC.  
6821 Benjamin Franklin Drive  
Columbia, MD 21046  
Tel: 888-837-8772  
Fax: 410-910-7931

ROHDE & SCHWARZ USA, INC. 6821 Benjamin Franklin Drive Columbia, MD 21046

University of California Santa Barbara  
Department of Electrical &  
Computer Engineering  
Mr Daryl Spencer  
Harold Frank Hall, Rm 1160  
SANTA BARBARA CA 93106-9560

Service reference  
**309019956**

Your order / Date  
**UC-102913163351**

Columbia, Dec 3, 2013

<b>Service Report</b> Service reference no. (RMA) <b>309019956</b>		
Type <b>FSU50 SPECTRUM ANALYZER</b>	Material no. <b>1166.1660K50</b>	Serial no. <b>200061</b>

### Work performed:

- |   |   |
|---|---|
| <input type="checkbox"/> Check  | <input checked="" type="checkbox"/> Cleaning                                    |
| <input checked="" type="checkbox"/> Repair                            | <input checked="" type="checkbox"/> Electrical Safety Test                      |
| <input checked="" type="checkbox"/> Adjustment                        | Virus and Malware Check   |
| <input checked="" type="checkbox"/> Factory Standard Calibration      | <input checked="" type="checkbox"/> Performed, no Virus-/Malware found          |
| <input type="checkbox"/> Accredited Calibration                       | <input type="checkbox"/> Performed, Virus-/Malware found!<br>See details below! |
| <input type="checkbox"/> Special Calibration                          | <input type="checkbox"/> Not applicable   |
| <input type="checkbox"/> Replacement                                  |   |
| <input checked="" type="checkbox"/> Firmware update                   |   |
| <input type="checkbox"/> Relevant modifications checked and performed |   |

### Report:

Service requested:  
Standard calibration.

### Service Performed:

Updated firmware to version 4.71 SP5. The firmware updated has changed the log-in password to "894129". Incoming calibration failed for the Second Order Intercept and Frequency Response > 8 GHz. Replaced the Preamplifier unit and Microwave Converter assemblies to repair. Performed frequency response corrections to optimize the RF path. Reference oscillator adjusted to optimize frequency accuracy during calibration period. Calibrated, cleaned, completed electrical safety test, and sealed.



# ROHDE & SCHWARZ

ROHDE & SCHWARZ USA, Inc. 6821 Benjamin Franklin Drive Columbia, MD 21046  
Phone: 410-910-7800 Fax: 410-910-7825 www.rsa.rohde-schwarz.com

**Ship to:**

University of California Santa Barbara  
Department of Electrical &  
Computer Engineering  
Mr Daryl Spencer  
Harold Frank Hall, Rm 1160  
SANTA BARBARA CA 93106-9560

**Bill to:**

University of California Santa Barbara  
Department of Electrical &  
Computer Engineering  
Harold Frank Hall, Rm 1160  
SANTA BARBARA CA 93106-9560

## Delivery Note

Number / Date

**8500017176 / 12/03/2013**

Customer reference no./ Date: **UC-102913163351**

Our reference / Date: **3500021726 / 12/03/2013**

For further inquiries please contact:

**Jessica Watson**

Telephone: 410-910-7972

Fax: 410-910-7931

e-mail: [Jessica.Watson@rsa.rohde-schwarz.com](mailto:Jessica.Watson@rsa.rohde-schwarz.com)

Shipping terms: FOB Destination  
Appointed forwarder: FedEx 2-Day  
Nr. of boxes / number: 0  
Gross weight: 25.0 KG  
314-401-3239

Item.	Material Description	Quantity Shipped
100	FSU50 1166.1660K50 Spectrum analyzer 20 Hz - 50 GHz -145 - 30 dBm, 10 Hz - 50 MHz TFT color display ID: 1166.1660K50-200061-hN Ser.: 200061	1 PC
110	BLUE SHIPPING CASE, FRONT CONNECTOR	

**Remarks:**

Attention: Receiving Department: FOR IMMEDIATE CONCERNS WITH THIS SHIPMENT CALL  
1-888-TEST-RSA AND ASK FOR THE SHIPPING DEPARTMENT.