

Calibration Method  
Kalibrieranweisung

RPG-PAQA-TN-2014-002

Relative Humidity 20 % - 80 %  
Relative Luftfeuchte

Ambient Temperature  
Umgebungstemperatur

(23<sup>+7</sup><sub>-3</sub>) °C

| Working standards used (having a significant effect on the accuracy)<br>Verwendete Gebrauchsnormale (mit signifikantem Einfluss auf die Genauigkeit) |              |                               |                                                         |                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------|---------------------------------------------------------|-------------------------|
| Item<br>Gegenstand                                                                                                                                   | Type<br>Typ  | Serial Number<br>Seriennummer | Calibration Certificate Number<br>Kalibrierscheinnummer | Cal. Due<br>Kalibr. bis |
| Vector Network Analyzer<br><br>Powersensor                                                                                                           | R&S® ZVA40   | 100103                        | 582870_D-K-15195-01-00_2021-01                          | 2024-01-04              |
|                                                                                                                                                      | R&S® NRP-Z55 | 140093                        | 601310_D-K-15195-01-00_2021-05                          | 2023-05-28              |

|                                                                                       |                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UGB1                                                                                  | A compliance statement may be possible where a confidence level of less than 95 % is acceptable.<br>Die Bestätigung der Konformität ist möglich, sofern ein Grad des Vertrauens von weniger als 95 % akzeptabel ist.           |
| UGB2                                                                                  | A non-compliance statement may be possible where a confidence level of less than 95 % is acceptable.<br>Die Bestätigung der Nicht-Konformität ist möglich, sofern ein Grad des Vertrauens von weniger als 95 % akzeptabel ist. |
| Ref.: ILAC-G8:03/2009 'Guidelines on the Reporting of Compliance with Specification'. |                                                                                                                                                                                                                                |

Notes  
Anmerkungen

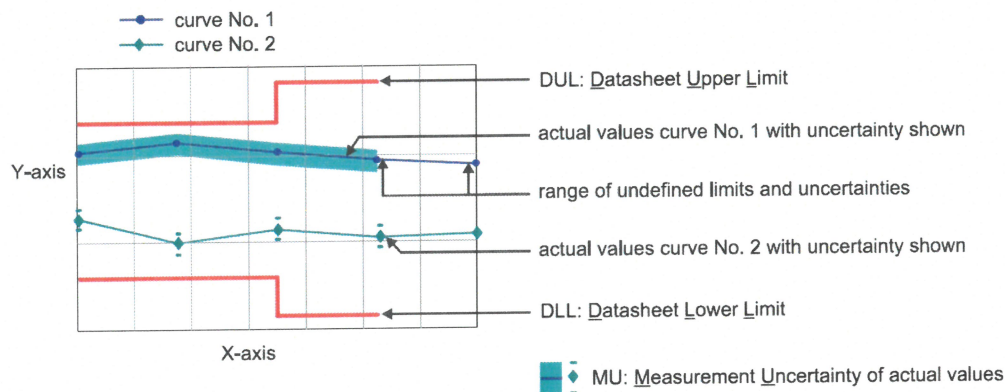
If the new product is stored under the climate conditions as specified in the data sheet upon delivery, the product's accuracy is not significantly affected within 12 month after its calibration in our factory. In this case, the recommended calibration interval starts on the date when the product is actually put into operation.

## Outgoing Results

The following abbreviations may be used in this document

|            |                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| {a}        | No measurement uncertainty stated because the errors always add together.<br>So it is sure that a measurement result evaluated as "PASS" is pass.                                                                                                                          |
| {b}        | The measurement uncertainty depends on the measurement result. The stated measurement uncertainty is valid for the close area around the specification. Measurement results outside the close area have a higher measurement uncertainty but are within the specification. |
| {c}        | Functional test, therefore no measurement uncertainty is stated.                                                                                                                                                                                                           |
| {d}        | Typical value, refer to performance test.                                                                                                                                                                                                                                  |
| {e}        | The measurement uncertainty is taken into account when setting the measuring system.                                                                                                                                                                                       |
| DL or DT   | Data Limit for symmetrical tolerance limits                                                                                                                                                                                                                                |
| DLL        | Datasheet Lower Limit                                                                                                                                                                                                                                                      |
| DUL        | Datasheet Upper Limit                                                                                                                                                                                                                                                      |
| MU         | Measurement Uncertainty                                                                                                                                                                                                                                                    |
| MLL or MLV | Measurement Uncertainty Lower Value                                                                                                                                                                                                                                        |
| MUL or MUV | Measurement Uncertainty Upper Value                                                                                                                                                                                                                                        |
| Nom.       | Nominal Value                                                                                                                                                                                                                                                              |
| Dev.       | Deviation                                                                                                                                                                                                                                                                  |
| MErr.      | Measurement Error                                                                                                                                                                                                                                                          |
| Act.       | Actual Value                                                                                                                                                                                                                                                               |
| UGB        | Uncertainty Guard Band: Measuring uncertainty violates the data (spec.) limit.                                                                                                                                                                                             |
| UGB1       | Measurement results marked as UGB1 show conformity with a probability of >50 % and <95 %.                                                                                                                                                                                  |
| UGB2       | Measurement results marked as UGB2 show non-conformity with a probability of >50 % and <95 %.                                                                                                                                                                              |
| DU         | Datasheet Uncertainty                                                                                                                                                                                                                                                      |

### Explanation of charts



**Software used for measurement****Item Type**

Measurement Studio Professional Edition  
MixerCertification

**Version**

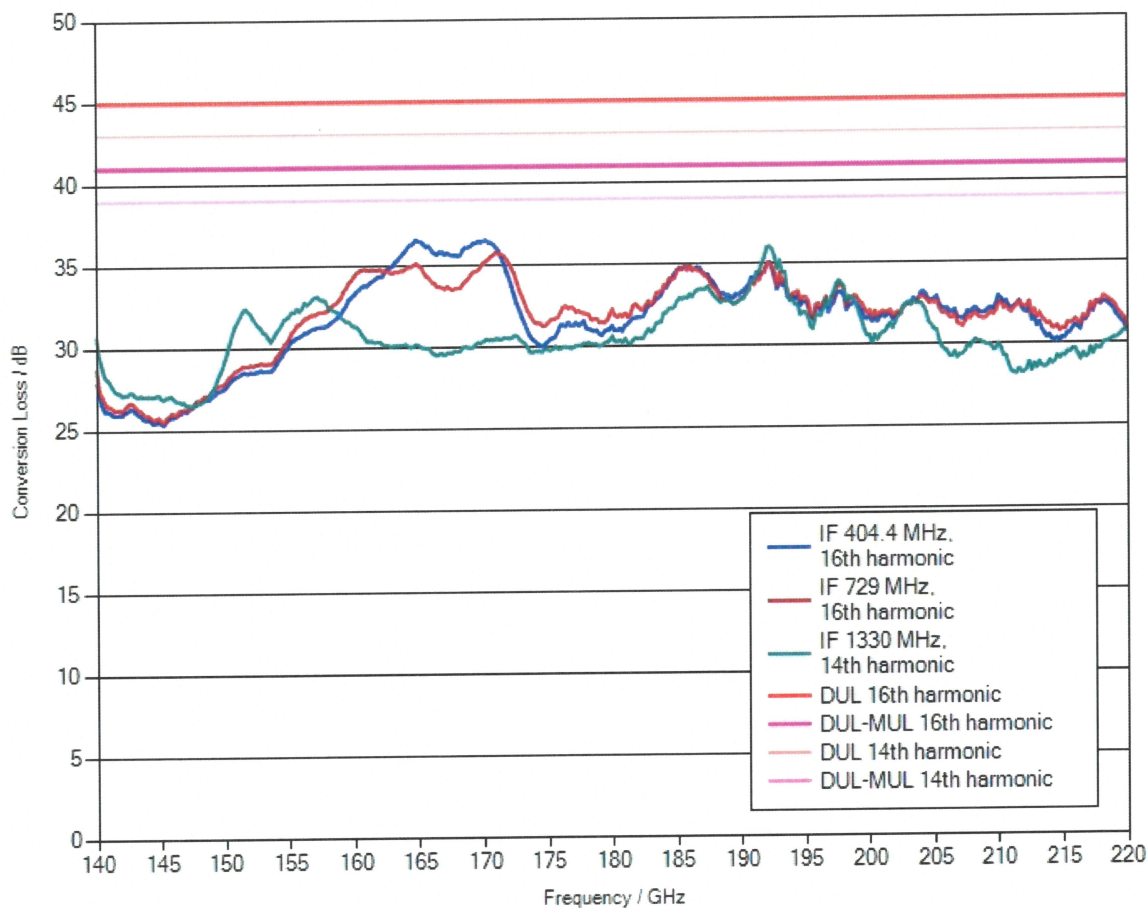
2013  
7\_15

**Remark**

## 1.1 Conversion loss

LO level +13 dBm nominal  
Bias 0 A

Measurement uncertainty: 4 dB



**Note:** Numeric calibration data can be found attached to the PDF file of the calibration certificate. Click the “paper clip” symbol to display the file.

The file has been renamed for safety reasons.  
When downloading the file onto your PC, please delete the “.file” extension and unzip the data.

## 1.2 Frequency response within 1 GHz

|                                  | DUL  | Actual<br>(worst case) | Evaluation |
|----------------------------------|------|------------------------|------------|
| IF = 404.4 MHz,<br>16th harmonic | 6 dB | 2.44 dB                | PASS       |
| IF = 729 MHz,<br>16th harmonic   | 6 dB | 2.25 dB                | PASS       |
| IF = 1330 MHz,<br>14th harmonic  | 6 dB | 2.72 dB                | PASS       |