

# **Product Data Sheet**

**ZC170** 

## **ZC170 Millimeter-Wave Converters**

Part-No.: 1323.7630.02

### **Product Description**

#### **Key Features:**

- variable output power
- wide dynamic range
- wide frequency range
- highly stable measurement
- convenient handling



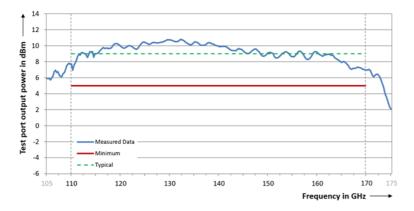
Technical Specifications	
Test Port	
Frequency Range [GHz]	110 to 170
Port Type	WM-1651 (UG387/U flange compatible)
Output Power [dBm (typ.)]	>+5 dBm (n. trc.), +9 dBm
Output Power Attenuation [dB]	0 to 40
Input Power Damage Level [dBm]	+20
Stability (Magnitude [dB] / Phase [°] (typ.)	typ. <0.3 and typ. <4°
Source Input (RF IN)	
Frequency Range [GHz]	9.16 to 14.16
Port Type	2.92 mm, female
Input Power Range [dBm]	-15 to +10
Local Oscillator Input (LO IN)	
Frequency Range [GHz]	10.97 to 16.97
Port Type	SMA, female
Input Power Range [dBm]	+5 to +10
Measurement Output (MEAS OUT)	
Frequency Range [MHz]	5 to 2000
Port Type	SMA, female
Reference Output (REF OUT)	
Frequency Range [MHz]	5 to 2000
Port Type	SMA, female
System Characteristics	
Source match (without system error correction)	> 25 dB (n.trc.) <sup>1</sup>
Directivity (without system error correction)	> 25 dB (n.trc.) <sup>1</sup>
Dynamic Range [dB]	> 90, typ. 105

Dynamic range is defined as the difference between the data trace of the transmission magnitude with maximum test port output power and both test ports through-connected on the one hand and the RMS value of the data trace of the transmission magnitude produced by noise and crosstalk with test ports short-circuited on the other. The specification is valid without system error correction and at 10Hz measurement bandwidth. The dynamic range can be increased by using a measurement bandwidth of 1Hz.

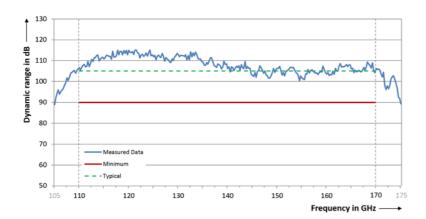
<sup>&</sup>lt;sup>1</sup> Without consideration of measurement uncertainty.



# Typical Performance



Test port output power versus frequency of the R&S®ZC170.



Dynamic range versus frequency of the R&S®ZC170.