

# Test Certificate

Model: **RIEGL VQ – 580**

Serial No: 59997784

Manufacturing date: 25.04.2012

## Range Measurement Performance:

Laser Pulse Repetition Rate PRR (rounded values)	Mean Amplitude [dB] MeasDist $\approx$ 620m diffuse reflectance $\rho_{\text{target}} \approx 100\%$	Specified Maximum Distance		Calculate Maximum Distance without attenuation *)		OK
		$\rho = 60\%$	$\rho = 20\%$	$\rho = 60\%$	$\rho = 20\%$	
50 kHz	19,5	2350 m	1500 m	2375m	1654m	<input checked="" type="checkbox"/>
100 kHz	16,4	1750 m	1100 m	1900m	1286m	<input checked="" type="checkbox"/>
150 kHz	14,7	1500 m	900 m	1654m	1102m	<input checked="" type="checkbox"/>
200 kHz	13,4	1300 m	800 m	1493m	984m	<input checked="" type="checkbox"/>
300 kHz	11,7	1100 m	650 m	1287m	835m	<input checked="" type="checkbox"/>
380 kHz	10,6	1000 m	600 m	1176m	757m	<input checked="" type="checkbox"/>

\*) Taking into account the atmospheric attenuation for visibility approx. 10 km.

## Measurement Accuracy and Precision:

Target Plate	Nominal Value	Measured Value	Specified Accuracy	1 $\sigma$ Standard Deviation	Specified Precision	OK
$\rho \geq 80\%$	129,261 m	129,262m	+/- 25 mm	4 mm	+/- 25 mm	<input checked="" type="checkbox"/>
$\rho \approx 10\%$	131,332 m	131,330m	+/- 25 mm	9 mm	+/- 25 mm	<input checked="" type="checkbox"/>

## Measurement Rate:

Maximum effective measurement rate	OK
up to 190 000 meas/sec.	<input checked="" type="checkbox"/>

## Scan Speed:

Specified scan speed	OK
10 scans/sec.	<input checked="" type="checkbox"/>
150 scans/sec.	<input checked="" type="checkbox"/>