

Certificate M

Producer Inspection Certificate M

in accordance with DIN 55350-18-4.2.2

Product:
Article no.:
Serial no.:

Inspection date:

Ordered by:

Your order number:

Customer:

1. Specifications:	Differential phase in post-processing Static Mode Horizontal RMS Vertical RMS	 mm + ppm mm + ppm
2. Test results:	Zero Baseline, Static Mode Deviation from nominal horizontal distance (L1/L2) Deviation from nominal vertical distance (L1/L2) 3D-distance RMS (L1/L2)	 0 mm / 0 mm 0 mm / 0mm 0 mm / 0 mm
	Short Baselines, Static Mode Deviation from nominal horizontal distance (L1/L2) Deviation from nominal vertical distance (L1/L2) 3D-distance RMS (L1/L2)	 mm / mm mm / mm mm / mm

3. Certificate: We hereby certify that the product described has been tested (Lab Method) and complies with the specifications and test results as stated above. The test equipment used is traceable to our working standards or to our working procedures. The working standards and the working procedures are traceable to national standards or to recognized procedures. This is established by our Quality Management System, audited to ISO 9001:2000 by an independent national accredited body.

Leica Geosystems



Service Engineer

Lab Method

Essentially, the Lab Method comprises of a **Zero Baseline Test** and a **Short Baseline Test**. In a Zero Baseline Test, two receivers are connected to the same antenna and low noise amplifier with the help of a signal splitter. With this test, possible biases may be detected and an indication is gained of the observations noise characteristics, since all common errors, like those due to multipath, atmosphere, satellite orbits and clocks are eliminated in the GPS baseline processing.

In the Short Baseline Test, the receivers are operated with individual antennas like in a typical high accuracy GPS survey application, but with a baseline that is only about 1meter long. Because the baseline distance is extremely short, the atmospheric and orbit effects will cancel when processing the baseline data. Due to the fact that multipath decorrelates very fast, multipath effects will not be eliminated. This test addresses the performance of the full system, antennas and receivers. It gives an indication of the overall system performance including observation noise plus mitigation of multipath effects.

Measurement Report

GPS Measurement

Product :
Serial no. :
Inspection date :
Inspected by :

Differential phase in post-processing

Zero Baseline, Static:

	L1	L2
Horizontal nominal distance	0 mm	0 mm
Horizontal measured distance	0.0 mm	0.0 mm
Deviation from horizontal nominal distance ¹⁾	0.0 mm	0.0 mm
Vertical nominal distance	0 mm	0 mm
Vertical measured distance	0 mm	0 mm
Deviation from vertical nominal distance ¹⁾	0 mm	0 mm
RMS of 3D-distance ²⁾	0.00 mm	0.01 mm

¹⁾ Threshold for deviation from horizontal and vertical nominal distance = 1 mm

²⁾ Threshold for RMS value of 3D-distance (function of horizontal and vertical RMS) = 1.5 mm

Short Baseline, Static:

	L1	L2
Horizontal nominal distance	0 mm	0 mm
Horizontal measured distance	0 mm	0 mm
Deviation from horizontal nominal distance ³⁾	0 mm	0 mm
Vertical nominal distance	0 mm	0 mm
Vertical measured distance	0 mm	0 mm
Deviation from vertical nominal distance ³⁾	0 mm	0 mm
RMS of 3D-distance ⁴⁾	0 mm	0 mm

³⁾ Threshold for deviation from horizontal and vertical nominal distance = absolute value of specified RMS values

⁴⁾ Threshold for RMS value of horizontal and vertical distance = 3 mm

Additional Information: Number of satellite observations for 1m Baseline Test

