

**DATA SHEET**

1B10318001

**PRODUCT**

Motorised beam expander  
Version 2.1  
Expansion: 1.0x - 3.0x

Input CA 8mm  
Output CA 22mm  
Pointing stability <0.2mrad

**TEST RESULTS**

**Lenses movement**

Tested overall lenses positions = 60 000

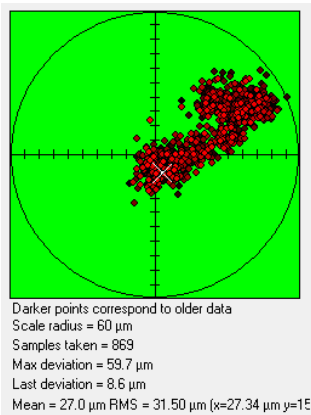
Divergence lens standard deviation\* = 0,01413 mm  
Magnification lens standard deviation\* = 0,03269 mm  
\*standard deviation calculated for differences between lens actual positions and it's theoretical targets

**Pointing stability**

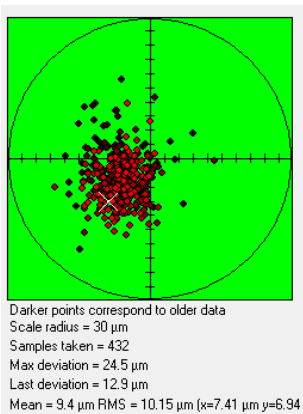
Measured laser pointing stability  
Measured MEX pointing stability

0.04mrad  
0.1mrad

**Pointing stability\*\***



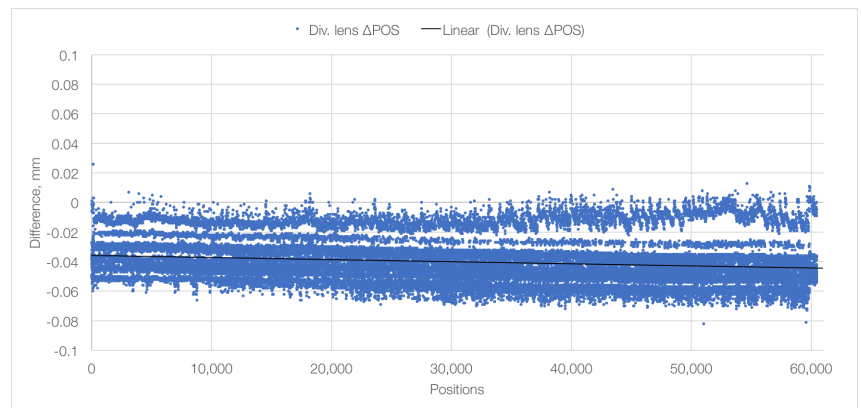
**Fig. 1.** MEX beam wonder after 0.6 meters. Measured during lens movement with 0.25 magnification step for at least 20 cycles



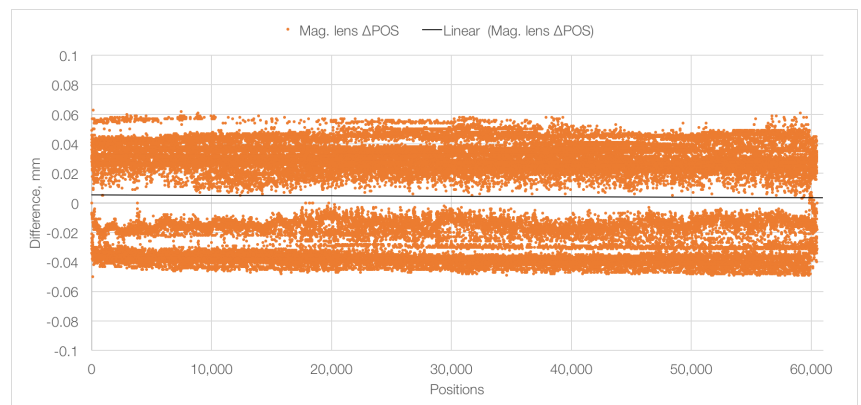
**Fig. 2.** Laser beam wonder after 0.6 meters

\*\*measured with Dataray CCD camera

**Lenses movement\*\*\***



**Fig. 3.** Trend of differences between divergence lens actual positions and it's theoretical targets during a period of time. Nominal value = 0



**Fig. 4.** Trend of differences between magnification lens actual positions and it's theoretical targets during a period of time. Nominal value = 0

\*\*\*measured with BDS testing software