

Imaging quality of MS5204i



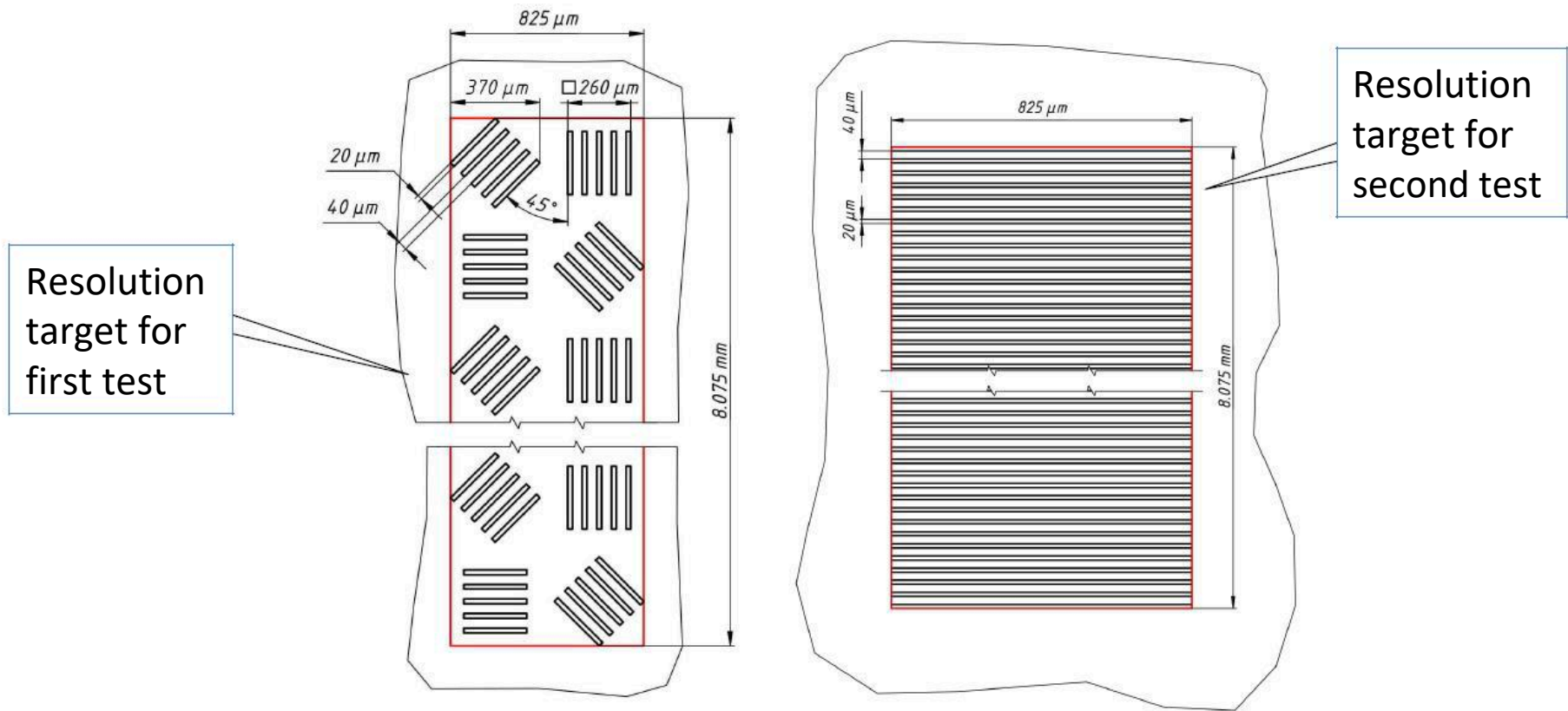
MS 5204i Imaging Quality

Measurement conditions:

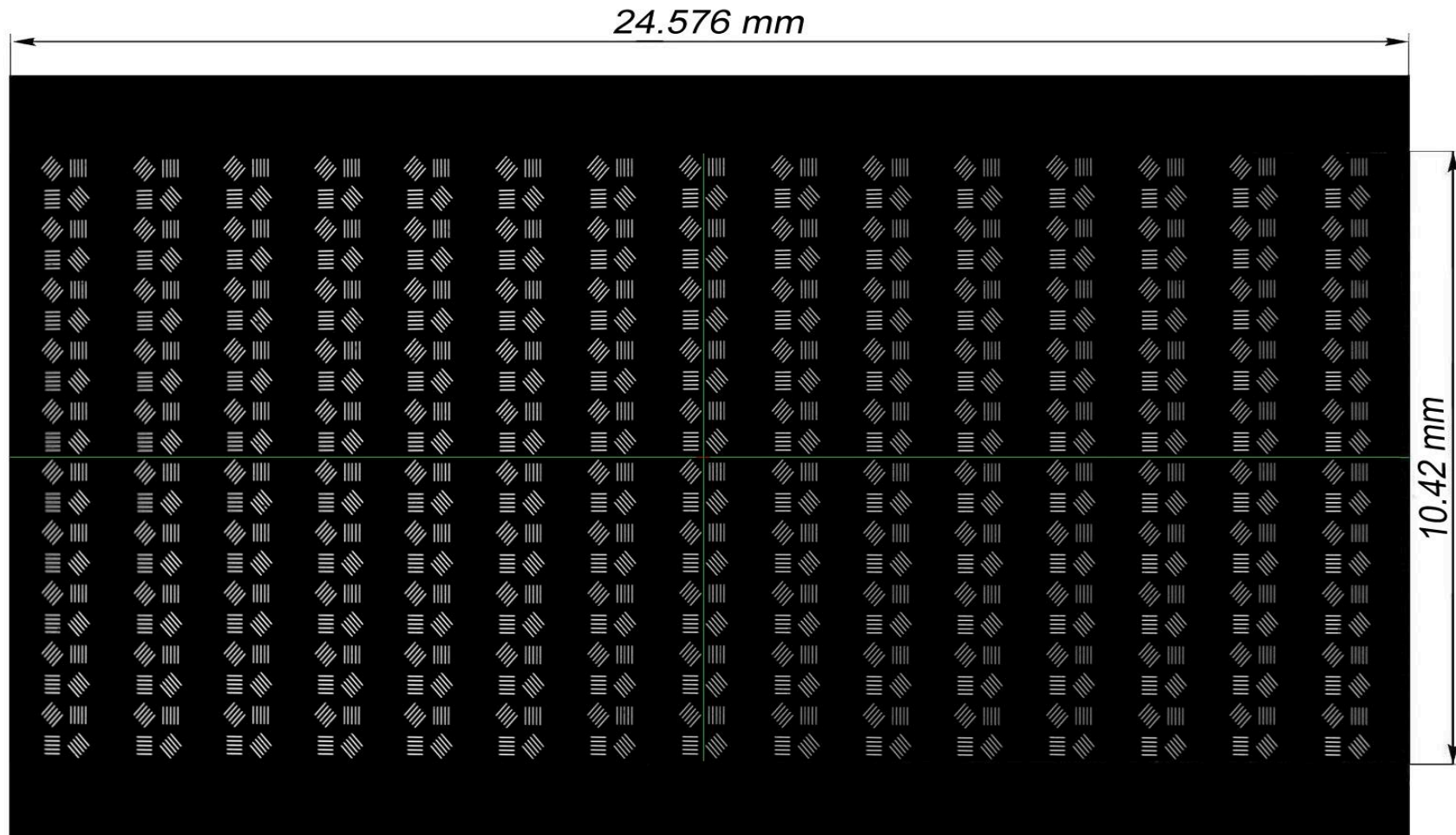
- Monochromator: SOL instruments MS 5204i
 - Grating: 1200 g/mm, blaze 500 nm
 - Wavelengths: 435.8335 nm; 550 nm
 - Light sources: HgHe lamp; Halogen lamp
- CCD: 2048 x 2048 pixels, pixel size 12 x 12 μm
 - Exposure time: 350 ms

Imaging quality of MS5204i

Used resolution test targets



Imaging quality of MS5204i

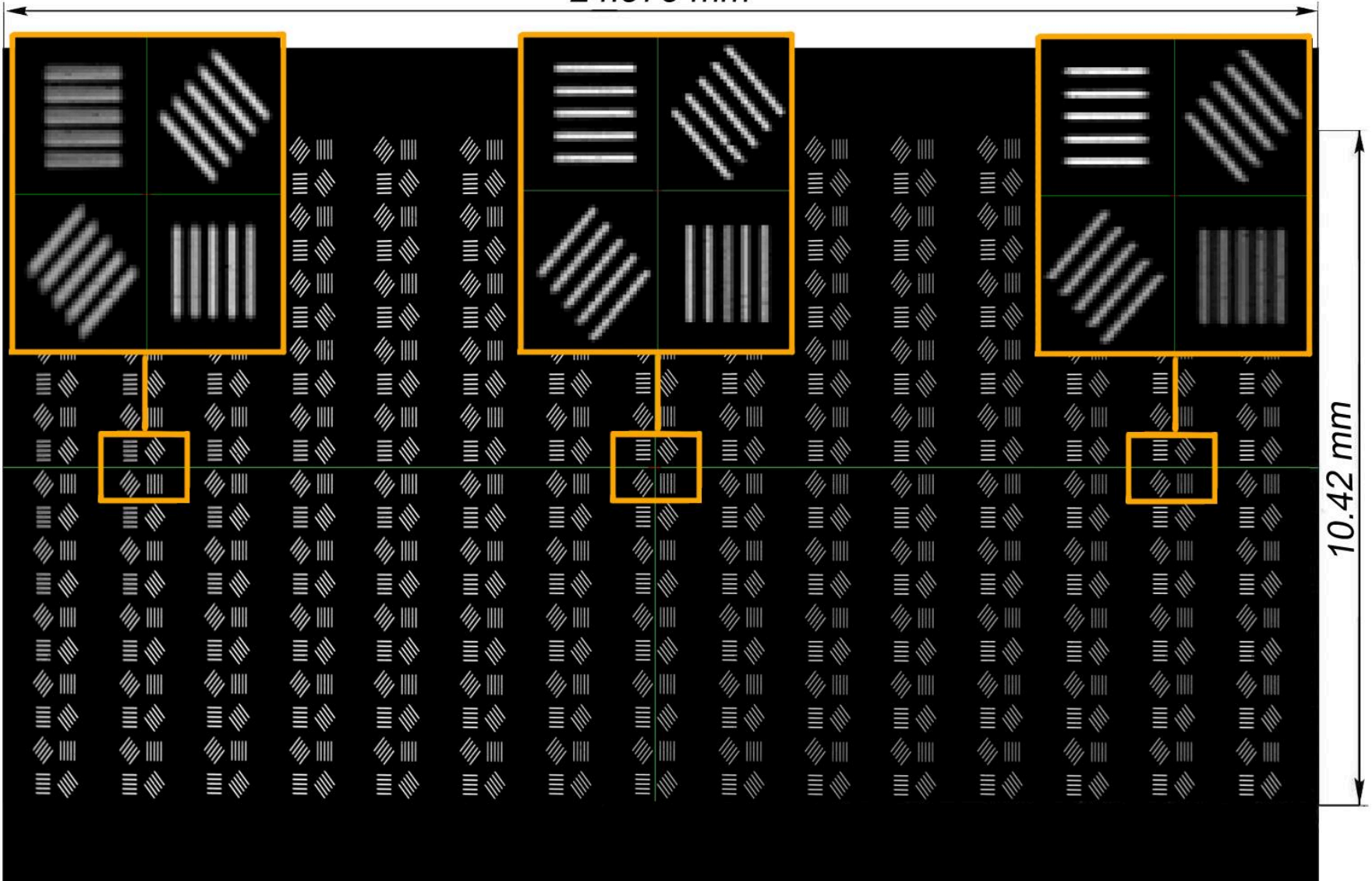


Comments:

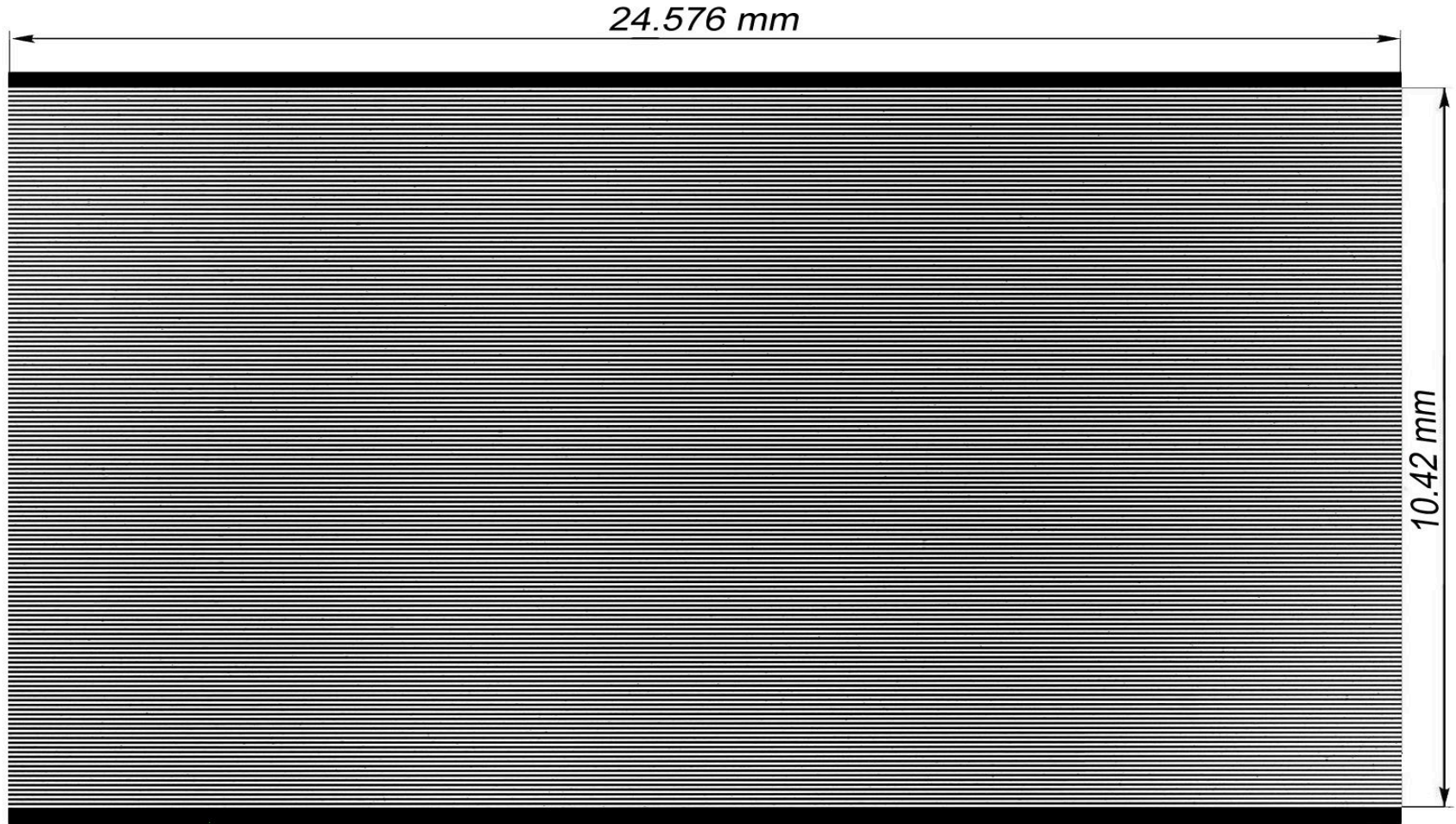
The test target 1 was installed in the position of the spectrometer entrance slit. Slit was opened to 900 μm (corresponds to 2 central columns shown in the red rectangle of previous slide). Light source: HgHe lamp, wavelength 435.8335 nm. The test target height was 8.075 mm, with spectrometer magnification of 1.29 the CCD image height is 10.42 mm. All images were obtained on the same wavelength 435.8335 nm with the grating scan step of 2.57nm.

Imaging quality of MS5204i

24.576 mm



Imaging quality of MS5204i

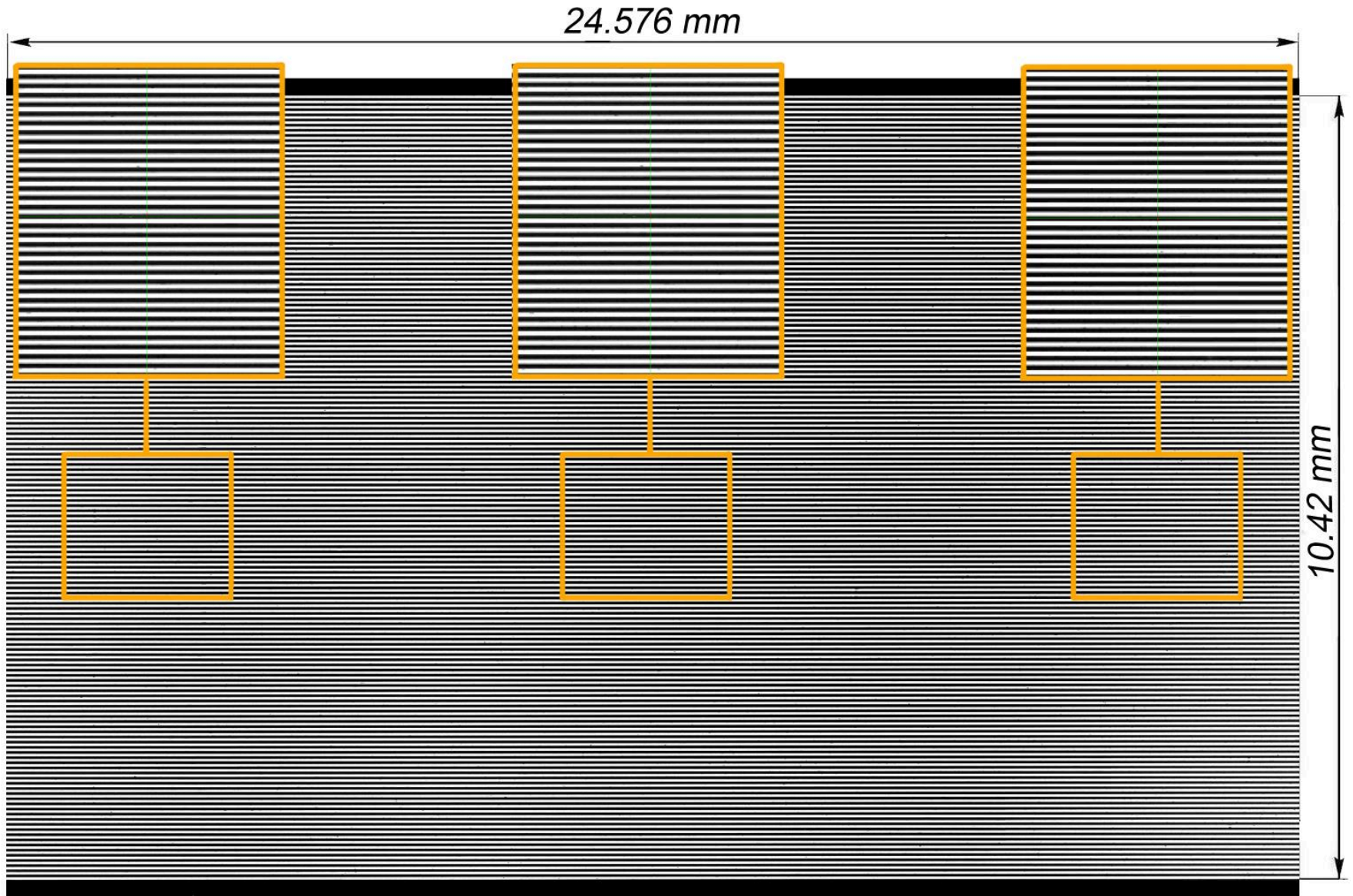


Comments:

The test target 2 was installed in the position of the spectrometer entrance slit. Slit was opened to 900 μm . Light source: Halogen lamp at around 550 nm. The test target height was 8.075 mm, with spectrometer magnification of 1.29 the CCD image height is 10.42 mm.

With line width of 20 μm and separation between lines of 40 μm (60 μm period) the penetration of neighbouring signal channel is below 10% over the all detector area.

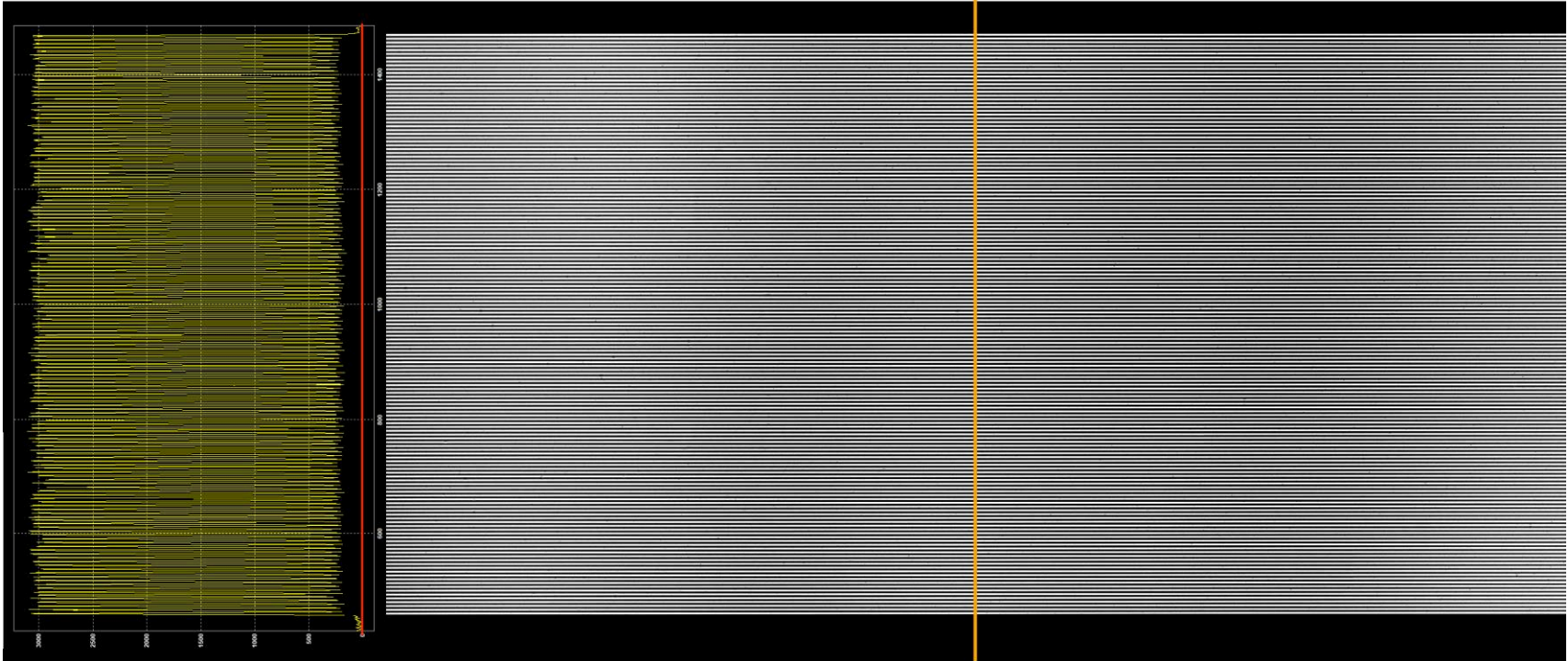
Imaging quality of MS5204i



Imaging quality of MS5204i

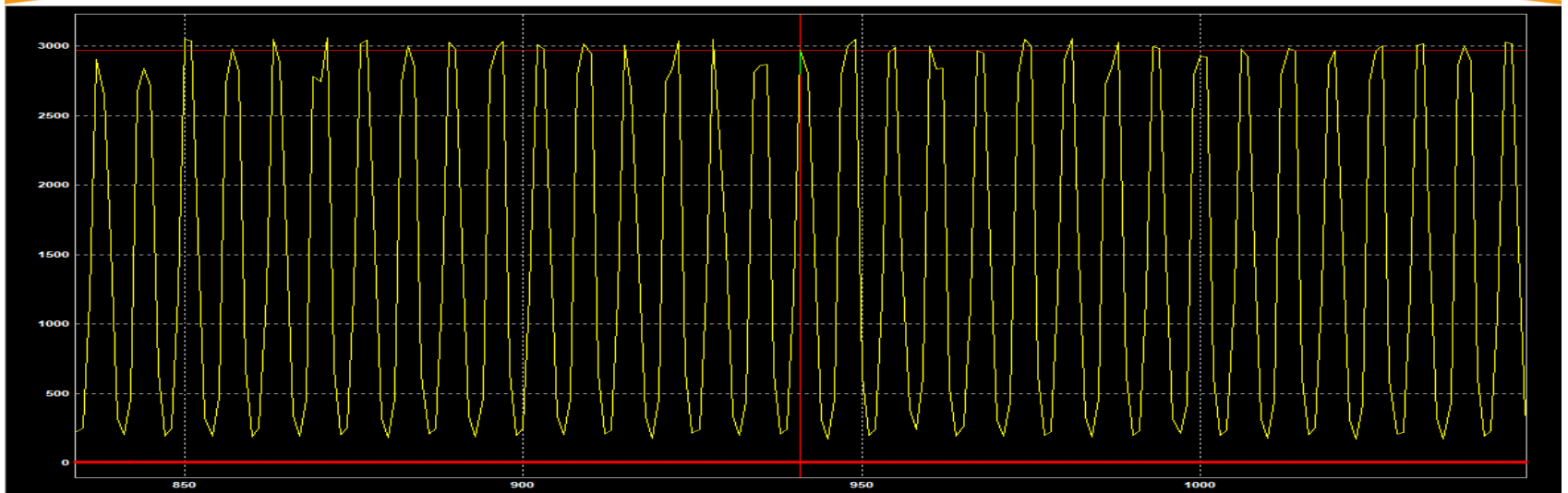
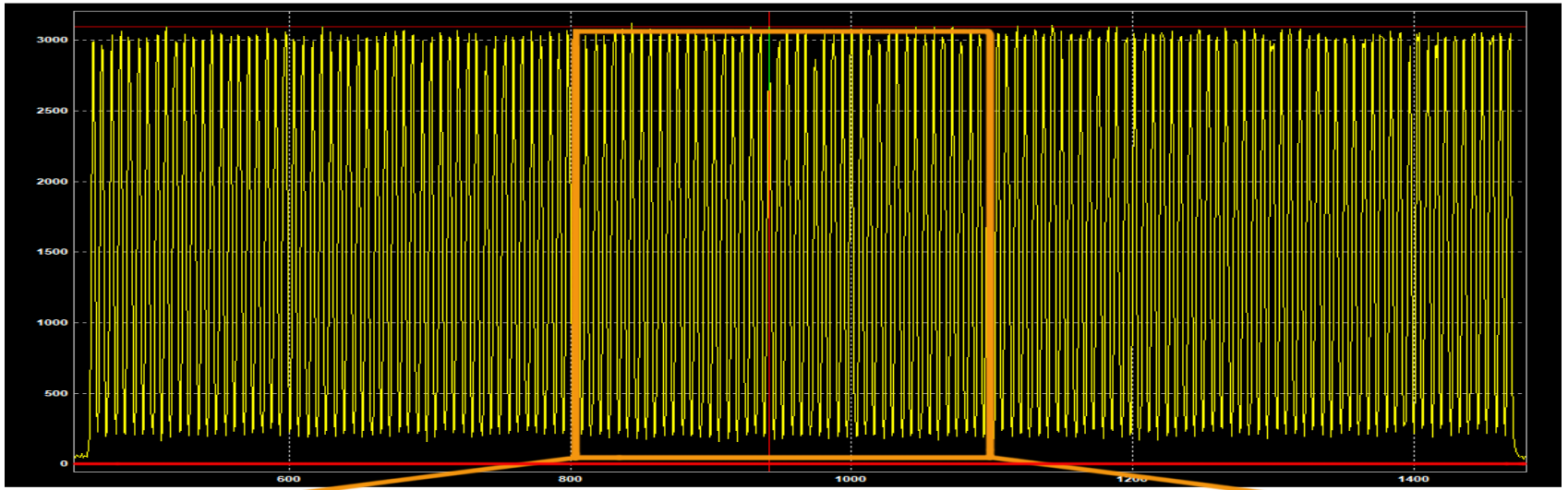
Central vertical cross-sections of data for test target 2

Cross section



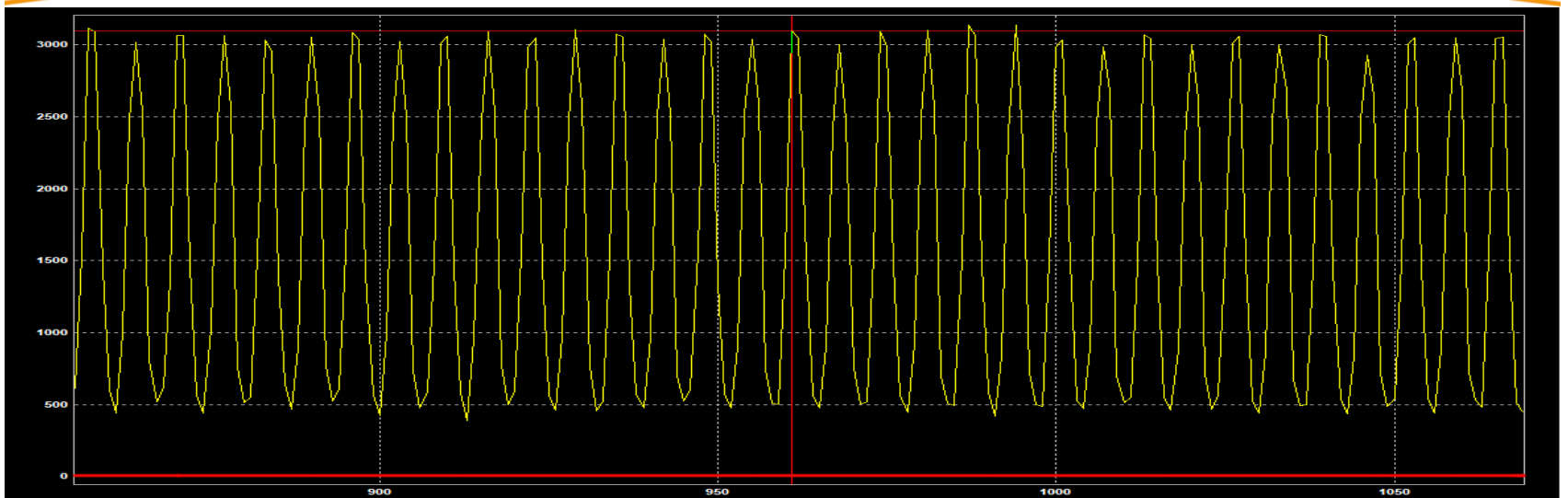
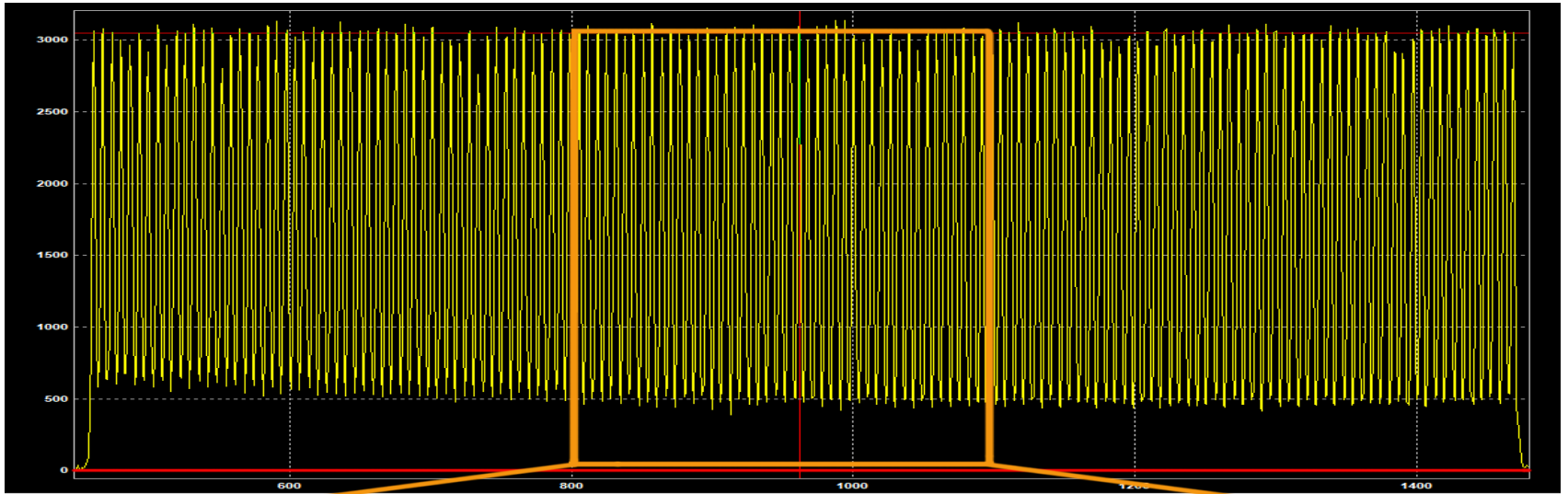
Imaging quality of MS5204i

Central vertical cross-sections of data for test target 2



Imaging quality of MS5204i

Left edge vertical cross-sections of data for test target 2



Imaging quality of MS5204i

Right edge vertical cross-sections of data for test target 2

