



Attachment no 1
for the inquiry no 3/QUANTERA01/2024
Technical parameters

Subject of the contract:

Delivery of 4 Back Side Illuminated (BSI) image sensors made in sCMOS technology.

CPV code: 35125100-7 - Sensors

Brief description of the subject of the contract:

The subject of the purchase is to provide 4 Back Side Illuminated (BSI) image sensors made in sCMOS technology.

I. The tenderer's proposal shall meet requirements listed below for BSI:

- Monochrome sensor
- Resolution: 4MPix – 2048 x 2048 pixels
- Pixel size: 6,5µm x 6,5µm
- Active area: 13,312mm x 13,312mm
- Maximum frequency at full resolution: at least 74 frames/s with at least 11-bit signal processing, 43 frames/s with at least 12-bit signal processing
- Built-in shutter: electronic, "rolling shutter"
- The ability to read image data using 8 or 16 pairs of LVDS lines with a total throughput of 4.8/9.6gbps (depending on the number of pairs) - 600mbps per pair
- Support for 2x CMS (Correlated Multiple Sampling) mode
- Full Well Capacity: 55ke- for the mode with highest capacity
- Read noise: no more than 1,6e-
- Quantum efficiency: better than 94% for 550nm, better than 83% for 450nm wavelength
- Dark current: less than 20 e-/pix/s at 20 degrees Celsius and less than 0.1 e-/pix/s at -35 degrees Celsius
- The package allows it to be used both at room temperature (approx. 25 degrees Celsius) and deeply cooled (approx. -30 degrees Celsius)
- The cosmetics/blemish corresponding to at least "grade 1": sensor fully operational but may have the following defects: max. 0 damaged columns/rows, of which max. 0 adjacent columns/rows may be damaged, max. 60 pixels may be damaged, of which no more than 1 pixel group should be present.