



Attachment no 1
for the inquiry no 1/QUANTERA01/2025
Technical parameters

Subject of the contract:

Delivery of 1 Back Side Illuminated (BSI) image sensor 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 1 Back Side Illuminated (BSI) image sensor made in sCMOS technology.

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

- Monochrome sensor
- Resolution: 37MPix – 6144 x 6144 pixels
- Pixel size: 10µm x 10µm
- Active area: 61,44mm x 61,44mm
- Maximum frequency at full resolution: at least 26 frames/s with at least 12-bit signal processing, 8 frames/s with at least 14-bit signal processing
- Built-in shutter: electronic, "rolling shutter"
- The ability to read image data using 50 pairs of LVDS lines with the function of multiplexing the outputs for lower pair count.
- Support for 2x CMS (Correlated Multiple Sampling) mode
- Full Well Capacity: 95ke- for the mode with highest capacity
- Read noise: no more than 2,3e- for the lowest noise mode
- Quantum efficiency: better than 94% for 580nm, better than 80% for 700nm wavelength
- Dark current: less than 40 e-/pix/s at 27 degrees Celsius and less than 0.05 e-/pix/s at -40 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 "Engineering Sample" (ES): sensor fully operational but may have any number of cosmetic defects.