

## LINEAR CCD UP TO 12000

A number of linear CCD with 4K, 6K, and 12K pixels for perspective (long-range) surveillance systems of space base, enable to realize the best parameters of space resolution at small size object detection. The product may also serve as a basic part at (?) system of high resolution creation in wide range of wave lengths  $0,3 - 0,9 \mu$ m. CCD may also be effectively applied in facsimile systems of high resolution and long-range surveillance systems. Such CCD application in systems provides higher resolution at small size object detection including at spectrozone shooting.

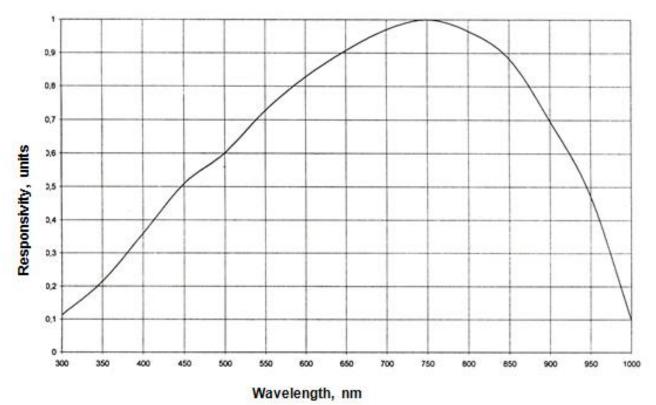
The products under development include CCD of three types – with 4K, 6K, and 12K pixels.

CCDs have crystals (chips) of big size (~10cm) and high parameters. This requires the development of modern high effective CCD transfer registers, providing charge transfer for distance ~ 5 cm with transfer inefficiency not worse than 0,999998.

	CCD- 4K	CCD-6K	CCD-12K
Number of pixels	4096	6000	12000
Pixel size, μm	6.5x6.5	6.5x6.5	6.5x6.5
Pixel pitch, μm	6.5	6.5	6.5
Number of output registers	2	4	4
Number of output units	2	4	4
Data output rate along the register, MHz	5	5	5
Electronic shutter, antiblooming	+	+	+
Saturation voltage, V	≥2	≥2	≥2
Spectral sensitivity, V·cm <sup>2</sup> /µJ	≥2.5	≥2.5	≥2.5
Dynamic range	≥4000	≥3000	≥3000

## SPECIFICATIONS

Modulation transfer factor at space frequency $f_N/2$ across horizontal, %	≥50	≥50	≥50
Dark signal mean square nonuniformity, %	≤2	≤2	≤2
Relative luminous nonuniformity, %	≤ ±10	≤ ±10	≤ ±10
Spectral response, nm	400-900	400-900	400-900



## SPECTRAL RESPONSE

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