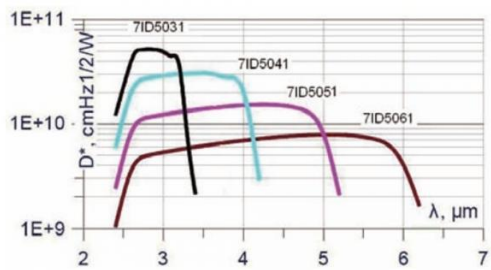


## 7ID5 Series Mercury Cadmium Telluride Detectors (MCT)



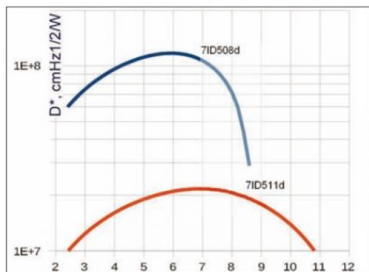
### Constant temperature type

Model	The maximum response wavelength $\lambda_{op} (\mu m)$	Specific detectivity $D^*$ ( $cmHz^{1/2}/W$ )	Response time (ns)
7ID5031	3	$5 \times 10^{10}$	15
7ID5041	4	$2 \times 10^{10}$	15
7ID5051	5	$5 \times 10^9$	15
7ID5061	6	$4 \times 10^9$	12
7ID5081	8	$6 \times 10^7$	12
7ID5082			
7ID5083			
7ID5084			
7ID5111	10.6	$1 \times 10^7$	1
7ID5112			
7ID5113			
7ID5114			
7ID5111-PC	11	$\geq 3 \times 10^6$	1
7ID5112-PC		(@1.06 $\mu m$ & 10.6 $\mu m$ )	



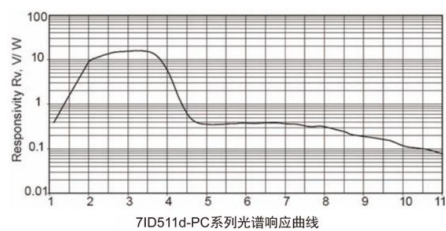
7ID5031~7ID5061光谱响应图

7ID5031~7ID5061 diagram of spectral responses



7ID508d / 7ID511d光谱响应图

7ID508d / 7ID511d diagram of spectral responses



7ID511d-PC系列光谱响应曲线

7ID511d-PC Series spectral response curve

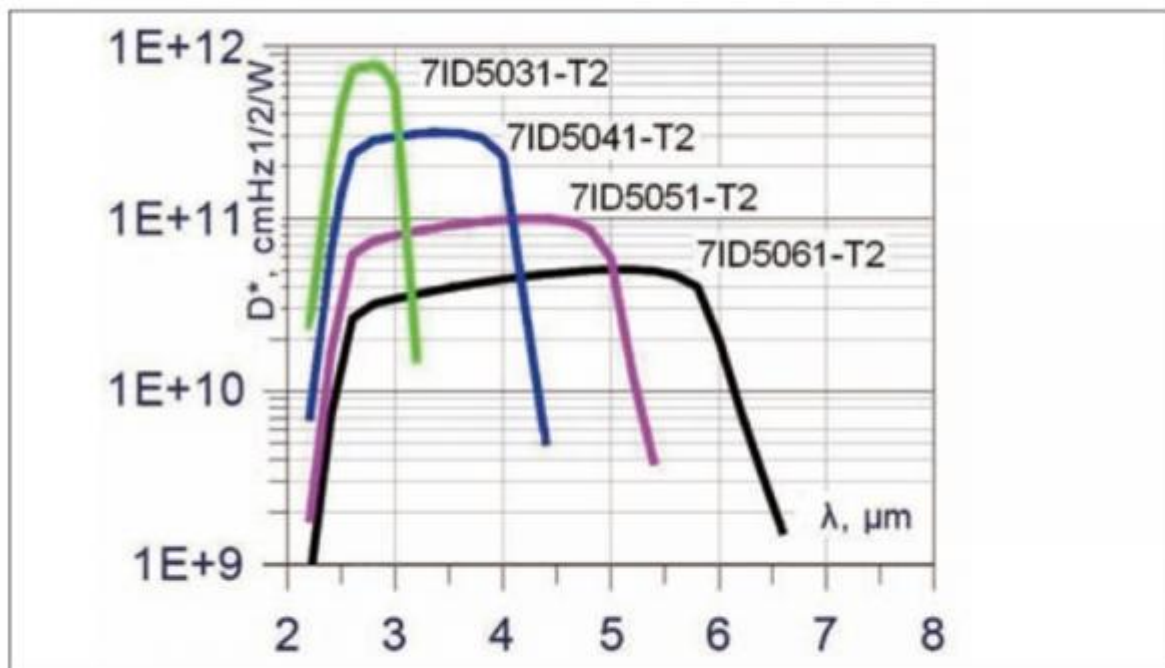
Laser power threshold of 7ID511d-PC series detectors:

1MW/cm<sup>2</sup> (short pulse laser of pulse width not more than 1μs)

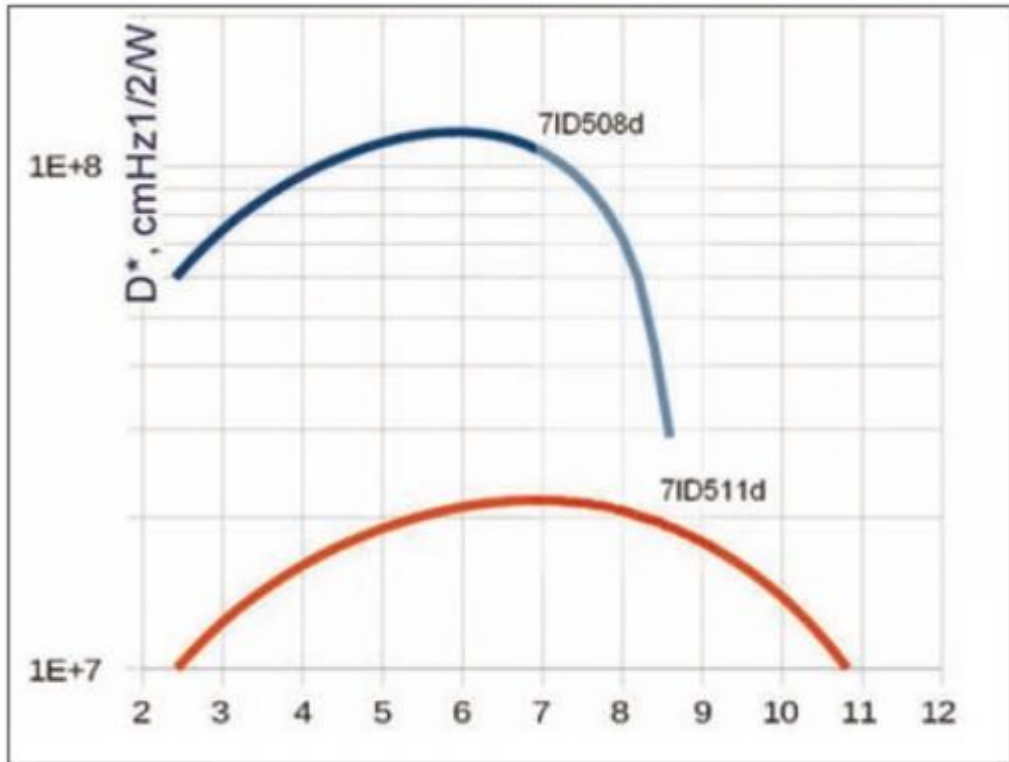
100W/cm<sup>2</sup> (continuous or quasi continuous laser)

MCT Detector-Semiconductor refrigeration (02-grade refrigeration)

Model	The maximum response wavelength $\lambda_{op}$ (μm)	Specific detectivity $D^*$ (cmHz <sup>1/2</sup> /W)	Response time t (ns)
7ID5031-T2	3	$5.5 \times 10^{11}$	15
7ID5041-T2	4	$2 \times 10^{11}$	20
7ID5051-T2	5	$6 \times 10^{10}$	20
7ID5061-T2	6	$2 \times 10^{10}$	10
7ID5081-T2	8	$3 \times 10^8$	7
7ID5082-T2			
7ID5083-T2			
7ID5111-T2	10.6	$1 \times 10^8$	3
7ID5112-T2			
7ID5113-T2			



7ID5031-T2~7ID5061-T2光谱响应图

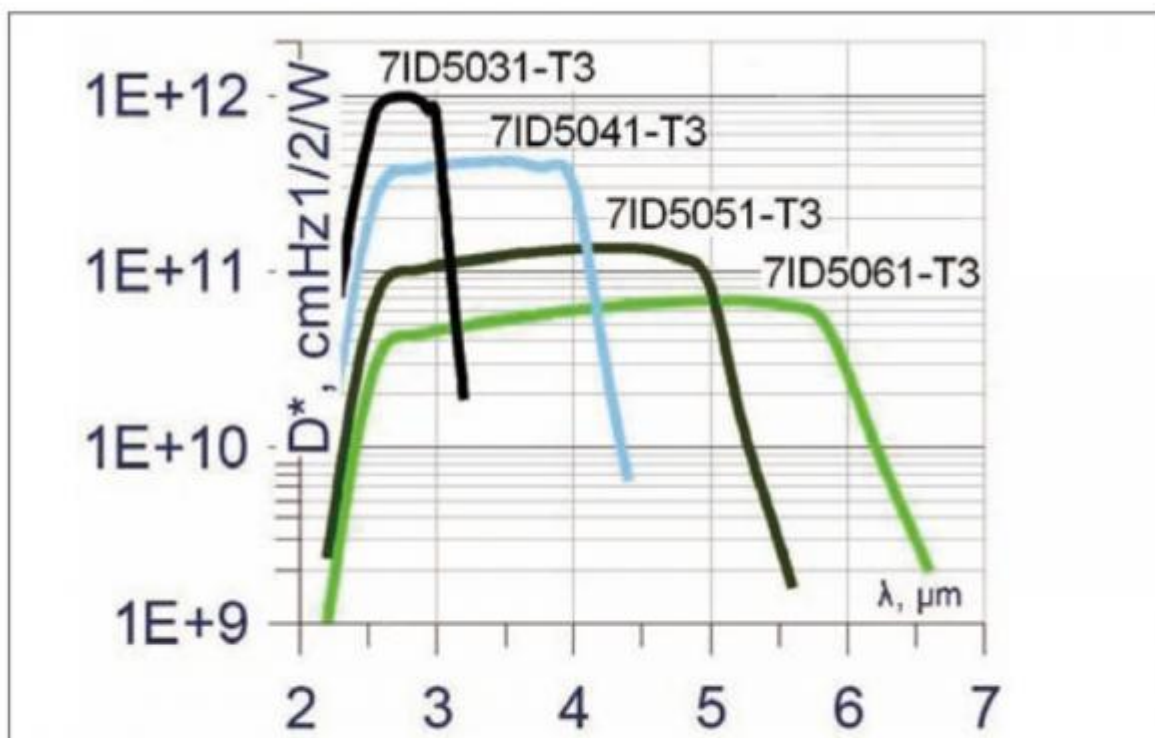


7ID508d-T2 / 7ID511d-T2光谱响应图

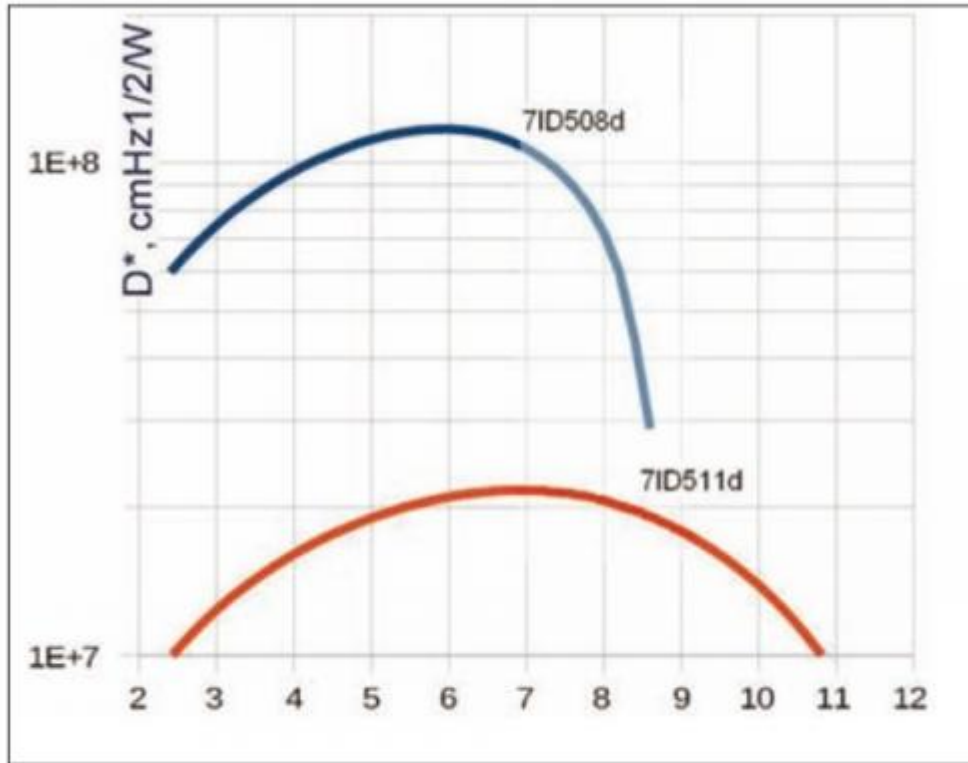
7ID5031-T2~7ID5061-T2 diagram of spectral responses      7ID508d-T2 / 7ID511d-T2 diagram of spectral responses

03-grade Refrigeration:

Model	The maximum response wavelength $\lambda_{op} (\mu m)$	Specific detectivity $D^* (cmHz^{1/2}/W)$	Responses time t (ns)
7ID5031-T3	3	$7 \times 10^{11}$	15
7ID5041-T3	4	$4 \times 10^{11}$	20
7ID5051-T3	5	$8 \times 10^{10}$	20
7ID5061-T3	6	$3 \times 10^{10}$	10
7ID5081-T3	8	$3 \times 10^9$	7
7ID5082-T3			
7ID5111-T3	10.6	$2.5 \times 10^9$	7
7ID5112-T3			



7ID5031-T3~7ID5061-T3光谱响应图



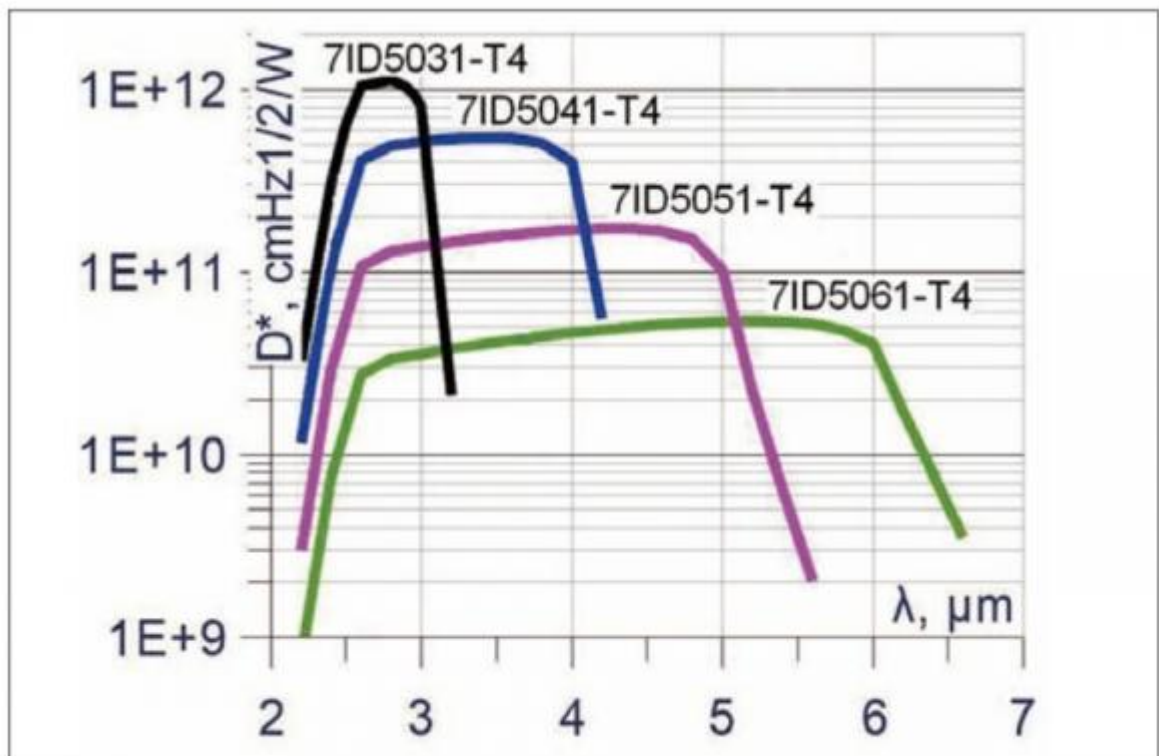
7ID508d-T3 / 7ID511d-T3光谱响应图

7ID5031-T3~7ID5061-T3 diagram of spectral responses  
of spectral responses

7ID508d-T3 / 7ID511d-T3 diagram

04-grade Refrigeration:

Model	The maximum response wavelength $\lambda_{op} (\mu m)$	Specific detectivity $D^*$ (cmHz <sup>1/2</sup> /W)	Responses time t (ns)
7ID5031-T4	3	$8 \times 10^{11}$	15
7ID5041-T4	4	$4 \times 10^{11}$	20
7ID5051-T4	5	$1 \times 10^{11}$	20
7ID5061-T4	6	$4 \times 10^{10}$	10



7ID5031-T4~7ID5061-T4光谱响应图

7ID5031-T4~7ID5061-T4 diagram of spectral responses

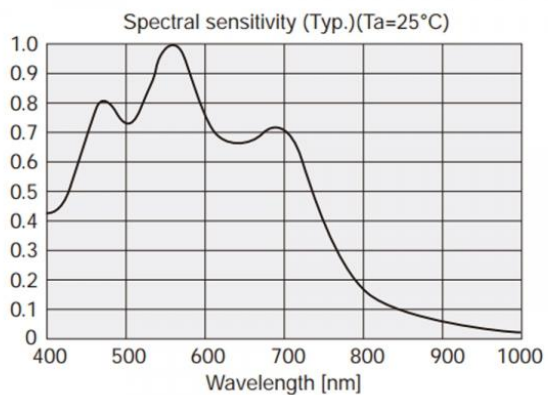
7ID001 non refrigeration type linear array CCD

Specifications :

Pixel Size	14 $\mu\text{m}$ $\times$ 56 $\mu\text{m}$
Pixel elements	2048
Ratio of signal and noise (SNR)	$\geq 60\text{dB}$
A/D	16Bit
Exposing Time	1ms—7s
PC Interface	USB2.0



Size	Ø123 x 46
Weight	0.6Kg



7ID001非制冷型线阵CCD光谱响应图

Diagram of spectral responses for 7ID001 non refrigeration type linear array CCD