

I Imaging Mode

Frame Rate Table - 12-bit (16-bit)^{*7}

Array Size (W x H)	Zyla 5.5 USB 3.0		Zyla 5.5 10-tap		Zyla 4.2 PLUS 10-tap	Zyla 4.2 PLUS USB 3.0
	Rolling Shutter	Global Shutter	Rolling Shutter	Global Shutter	Rolling Shutter	Rolling Shutter
2560 x 2160	40 (30)	40 (30)	100 (75)	49 (49)	-	-
2048 x 2048	53 (40)	52 (39)	105 (98)	52 (52)	101 (101)	53 (40)
1920 x 1080	107 (80)	98 (80)	200 (200)	97 (97)	192 (192)	107 (80)
512 x 512	422 (422)	201 (201)	422 (422)	201 (201)	406 (406)	406 (406)
128 x 128	1691 (1691)	716 (716)	1691 (1691)	716 (716)	1627 (1627)	1627 (1627)
2048 x 8 (FCS mode)	13020 (10250)	4008 (4008)	27057 (27057)	4008 (4008)	26041 (26041)	13020 (10250)
1024 x 8 (FCS mode)	27057 (27057)	4008 (4008)	27057 (27057)	4008 (4008)	26041 (26041)	26041 (26041)

S Spectroscopy Mode

Vertically binned tracks 12-bit & 16-bit^{*7}

Array Size (W x H)	Zyla 5.5 10 tap / USB 3.0		Zyla 4.2 PLUS 10 tap / USB 3.0
	Rolling Shutter*	Global Shutter**	Rolling Shutter*
any x 8	27,057	4,008	26,041
any x 12	18,038	3,491	17,361
any x 16	13,528	3,092	13,020
any x 31	6,764	2,122	6,510
any x 77	2,705	1,093	2,604
any x 100	2,164	909	2,083
any x 128	1,691	736	1,627
any x 154	1,387	618	1,335
any x 462	466	224	448
any x 512	422	203	406
any x 1040	208	102	200
any x 1080	200	98	192
any x 2048	105	52	101

M Multi-track Mode

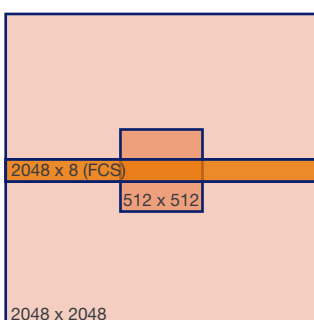
Vertically binned tracks 12-bit & 16-bit^{*7}

Number of tracks (centred vertically)	Track height (h, pixels)	Tracks separation (d, pixels)	Zyla 5.5 10-tap / USB 3.0		Zyla 4.2 PLUS 10-tap / USB 3.0
			Rolling Shutter*	Global Shutter**	Rolling Shutter*
2	12	12	6,012	1,967	5,787
2	20	20	3,607	1,370	3,472
2	154	77	557	265	536
20	12	12	462	222	445
20	20	20	277	135	267
50	12	12	182	89	175
50	20	20	109	54	105
256	8	0	105	52	101

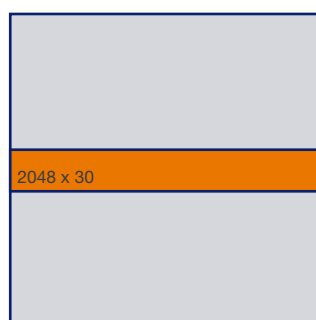
* Overlap ON
** Overlap OFF

How the sCMOS sensor is used in the different modes

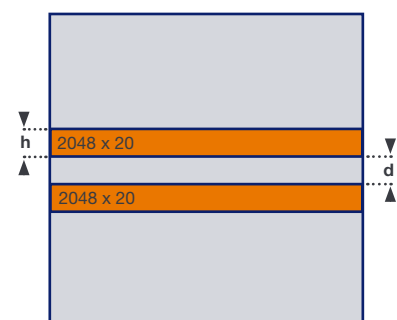
The diagrams below illustrate how the sCMOS sensor array is used for the different modes (in this example for the Zyla 4.2 PLUS).



I Imaging Mode
The array size may be defined (includes FCS modes) for either resolution or maximum speed.



S Spectroscopy Mode
A vertically binned track is centred on the sensor enabling the maximum spectral rate to capture dynamic events.



M Multi-track Mode
Up to 256 vertically binned tracks can be used for multi-track analysis without sacrificing speed.