

Filter Code	Lower	Upper
ARTCAM_FILTERTYPE_BRIGHTNESS	-255	255
ARTCAM_FILTERTYPE_CONTRAST	-127	127
ARTCAM_FILTERTYPE_HUE	-360	360
ARTCAM_FILTERTYPE_SATURATION	-255	255
ARTCAM_FILTERTYPE_SHARPNESS	0	30
ARTCAM_FILTERTYPE_BAYER_GAIN_RGB	0	200
ARTCAM_FILTERTYPE_BAYER_GAIN_R	0	200
ARTCAM_FILTERTYPE_BAYER_GAIN_G	0	200
ARTCAM_FILTERTYPE_BAYER_GAIN_B	0	200
ARTCAM_FILTERTYPE_GAMMA	0	200
ARTCAM_FILTERTYPE_GLOBAL_GAIN	0	63
ARTCAM_FILTERTYPE_COLOR_GAIN_R	0	63
ARTCAM_FILTERTYPE_COLOR_GAIN_G1	0	63
ARTCAM_FILTERTYPE_COLOR_GAIN_G2	0	63
ARTCAM_FILTERTYPE_COLOR_GAIN_B	0	63
ARTCAM_FILTERTYPE_EXPOSURETIME	1	16383

Filter Code	Effective Value
ARTCAM_FILTERTYPE_BAYER_GAIN_AUTO	TRUE FALSE
ARTCAM_FILTERTYPE_BAYERMODE	0 1 2 3

Compatible with camera clock 24MHz

Remarks

Not compatible with half-clock, model changed in clock and subsampling mode.

<< In case of changing size >>

Remarks

Reg0x09 used below stands for the shutter value of our SDK.

Calculation for the exposure time is as below:

$t_{INT} = \text{Reg0x09} \times \text{row time} - \text{overhead time} - \text{reset delay}$, where:

Row time = $((\text{Reg0x04} + 1) + 322 + \text{Reg0x05} - 17)$ pixel clock periods

Overhead time = 180 pixel clock periods

Reset Delay = $4 \times \text{Reg0x0C}$ pixel clock periods

Reg0x09	=	1460	< = Shutter value
Reg0x04	=	1599	< = Value: horizontal size - 1
Reg0x05	=	53	< = Fixed value 53
Reg0x0C	=	0	< = Fixed value 0

$1 \text{ pcp}(\text{pixel clock periods}) = 1 / 24\text{MHz} = 1/24 \text{ us}$

$$\begin{aligned} t_{INT} &= \text{Reg0x09} \times \text{row time} - \text{overhead time} - \text{reset delay} \quad \text{pixel clock periods} \\ &= (\text{Reg0x09} \times ((\text{Reg0x04} + 1) + 322 + \text{Reg0x05} - 17) - 180 - 4 \times \text{Reg0x0C}) \times \text{pcp} \\ &= (1460 \times ((1599 + 1) + 322 + 53 - 17) - 180 - 4 \times 0) \times (1/24\text{us}) \\ &= (1460 \times (1600 + 322 + 53 - 17) - 180) \times (1/24 \text{ us}) \\ &= (1460 \times 1958 - 180) \times (1/24 \text{ us}) \\ &= 119.1 \text{ ms} \end{aligned}$$

For example: 964×964 Exposure time is 50 msec Shutter value X is

$$\begin{aligned} X &= (24\text{MHz} \times 50\text{msec} + 180) / (\text{Horizontal size value} + 358) \\ &= 908 \end{aligned}$$