



## Teledyne Dalsa 相机

### 如何设置 Multi-ROI 功能

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#### 设置步骤

1、打开 Spera CamExpert 软件，将相机属性 Image Format Controls 栏中的 Multi ROI Mode 设置为 Active 状态：

Category	Parameter	Value
Camera Information	Data Stream Selector	Stream1
▣ Sensor Control	Data Stream Type	Image
Auto-Brightness	Pixel Format	Monochrome 8-Bit
I/O Controls	Pixel Size	8
Counter And Timer Control	Horizontal Offset	0
Advanced Processing	Vertical Offset	0
Cycling Preset	Width	728
Image Format Controls	Height	544
▣ Metadata Controls	Horizontal Flip	False
Chunk Parser	Vertical Flip	False
Acquisition and Transfer ...	Multiple ROI Mode	Off
Action Control	ROI Count Horizontal	Off
▣ Event Control	ROI Count Vertical	Active
GigE Vision Transport Layer	ROI Count	Not Enabled
File Access Control	ROI Selector	Not Enabled
GigE Vision Host Controls	ROI Offset X	Not Enabled
	ROI Offset Y	Not Enabled
	ROI Width	Not Enabled
	ROI Height	Not Enabled
	Binning Selector	In Digital Domain
	Binning Mode	Sum
	Binning Horizontal	1
	Binning Vertical	1
	Test Image Selector	Off

2、根据需求设置水平分割数 ROI Count Horizontal（此处以 2 为例）和垂直分割数 ROI Count Vertical（此处以 2 为例），即设置  $2 \times 2 = 4$  个区域（可以设置的最大区域个数视相机型号而定）。

Parameter	Value
Data Stream Selector	Stream1
Data Stream Type	Image
Pixel Format	Monochrome 8-Bit
Pixel Size	8
Horizontal Offset	0
Vertical Offset	0
Width	528
Height	272
Horizontal Flip	False
Vertical Flip	False
Multiple ROI Mode	Active
ROI Count Horizontal	2
ROI Count Vertical	2
ROI Count	4
ROI Selector	ROI (x1, y1)
ROI Offset X	0
ROI Offset Y	0
ROI Width	264
ROI Height	136
Binning Selector	In Digital Domain
Binning Mode	Sum
Binning Horizontal	1
Binning Vertical	1
Test Image Selector	Off

### 3、设置单个区域的尺寸。

根据具体需求设置，手动设置每个区域的横纵坐标值，以矩形区域的左上角坐标为原点。

不同列可以设置不同的宽度。如第一列 ROI Width = 416，第二列 ROI Width = 264。

不同行可以设置不同的高度。如第一行 ROI Height = 256，第二行 ROI Height = 272。

（此处使用的是 Genie Nano M700 相机，相机的分辨率为 728\*544）。如下图组：

Parameter	Value
Data Stream Selector	Stream1
Data Stream Type	Image
Pixel Format	Monochrome 8-Bit
Pixel Size	8
Horizontal Offset	0
Vertical Offset	0
Width	680
Height	528
Horizontal Flip	False
Vertical Flip	False
Multiple ROI Mode	Active
ROI Count Horizontal	2
ROI Count Vertical	2
ROI Count	4
ROI Selector	ROI (x1, y1)
ROI Offset X	0
ROI Offset Y	0
ROI Width	416
ROI Height	256
Binning Selector	In Digital Domain
Binning Mode	Sum
Binning Horizontal	1
Binning Vertical	1
Test Image Selector	Off

(x1, y1)

Parameter	Value
Data Stream Selector	Stream1
Data Stream Type	Image
Pixel Format	Monochrome 8-Bit
Pixel Size	8
Horizontal Offset	0
Vertical Offset	0
Width	680
Height	528
Horizontal Flip	False
Vertical Flip	False
Multiple ROI Mode	Active
ROI Count Horizontal	2
ROI Count Vertical	2
ROI Count	4
ROI Selector	ROI (x2, y1)
ROI Offset X	464
ROI Offset Y	0
ROI Width	264
ROI Height	256
Binning Selector	In Digital Domain
Binning Mode	Sum
Binning Horizontal	1
Binning Vertical	1
Test Image Selector	Off

(x2, y1)

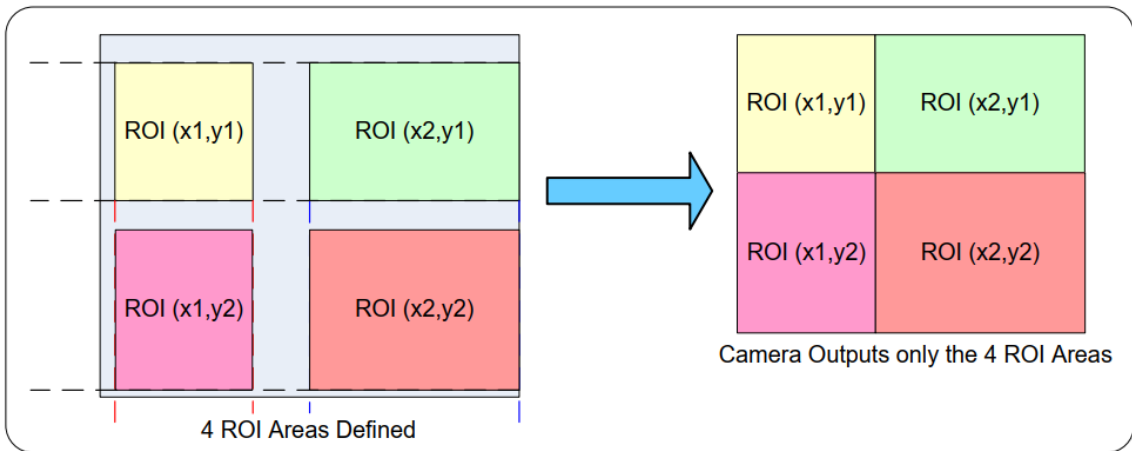
Parameter	Value
Data Stream Selector	Stream1
Data Stream Type	Image
Pixel Format	Monochrome 8-Bit
Pixel Size	8
Horizontal Offset	0
Vertical Offset	0
Width	680
Height	528
Horizontal Flip	False
Vertical Flip	False
Multiple ROI Mode	Active
ROI Count Horizontal	2
ROI Count Vertical	2
ROI Count	4
ROI Selector	ROI (x1, y2)
ROI Offset X	0
ROI Offset Y	272
ROI Width	416
ROI Height	272
Binning Selector	In Digital Domain
Binning Mode	Sum
Binning Horizontal	1
Binning Vertical	1
Test Image Selector	Off

Parameter	Value
Data Stream Selector	Stream1
Data Stream Type	Image
Pixel Format	Monochrome 8-Bit
Pixel Size	8
Horizontal Offset	0
Vertical Offset	0
Width	680
Height	528
Horizontal Flip	False
Vertical Flip	False
Multiple ROI Mode	Active
ROI Count Horizontal	2
ROI Count Vertical	2
ROI Count	4
ROI Selector	ROI (x2, y2)
ROI Offset X	464
ROI Offset Y	272
ROI Width	264
ROI Height	272
Binning Selector	In Digital Domain
Binning Mode	Sum
Binning Horizontal	1
Binning Vertical	1
Test Image Selector	Off

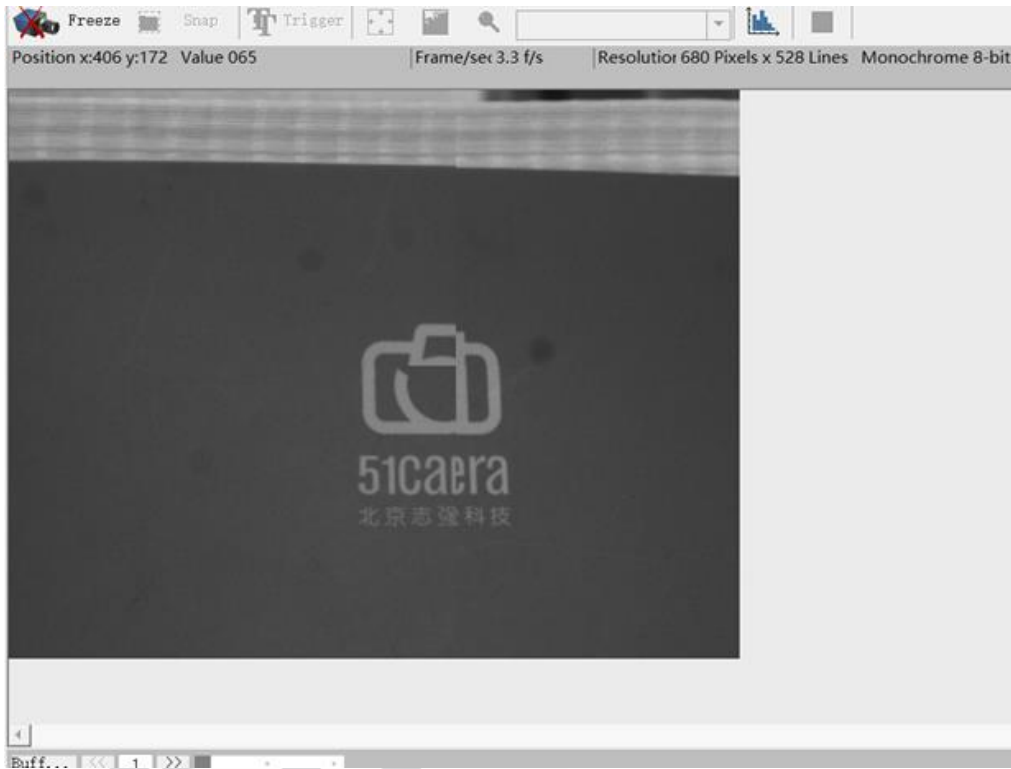
(x1, y2)

(x2, y2)

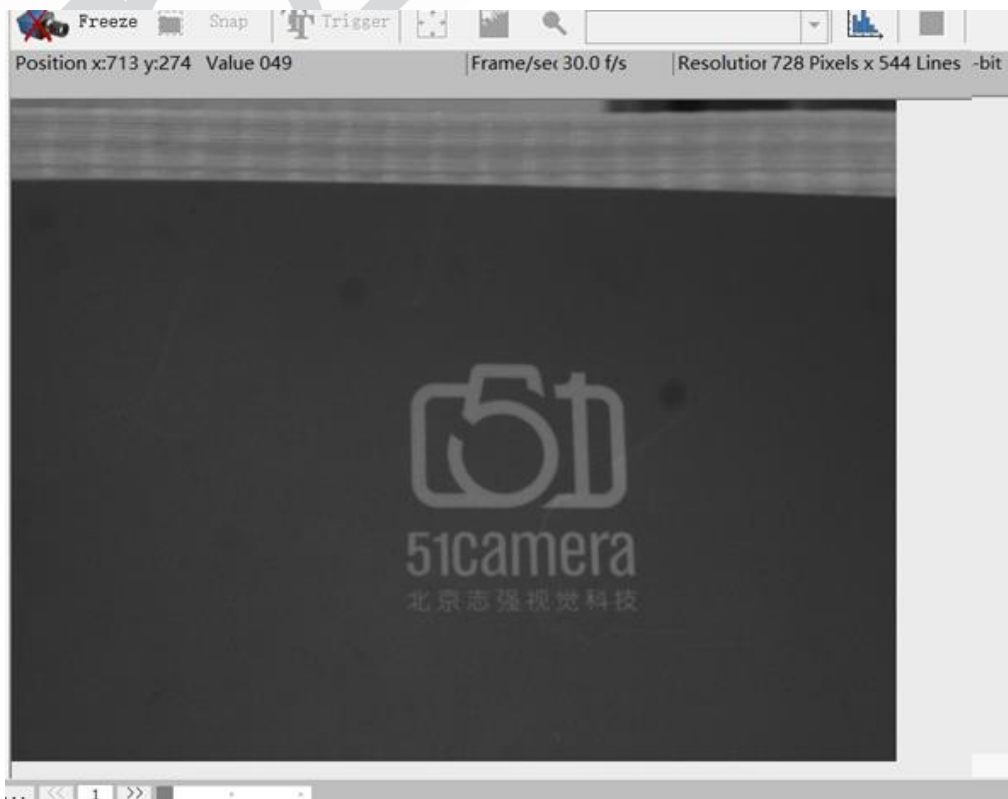
4、按照上述步骤设置了 Multi-ROI 后，采集到的图像组成原理图如下图所示：



实际成像图为:

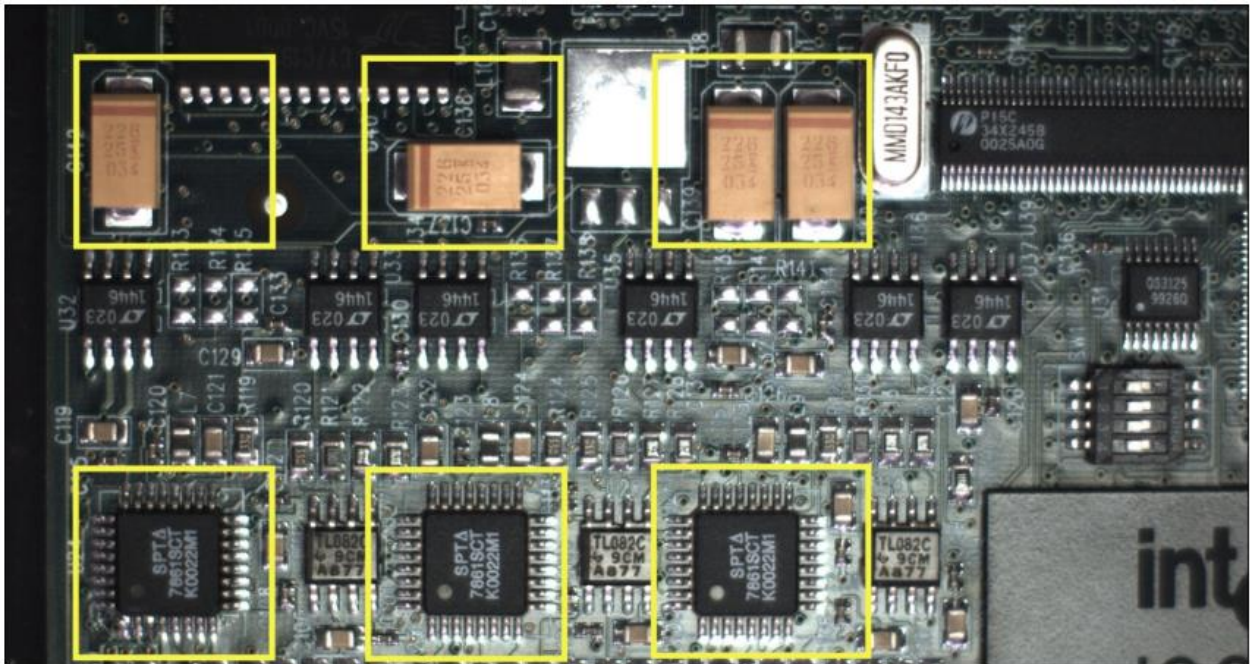


关闭 Multi-ROI 的原图为:



**实例**

下图为  $3 \times 2 = 6$  的 ROI 区域示例:



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