



Genie Nano 相机作为触发源

如何触发 Nano 相机?

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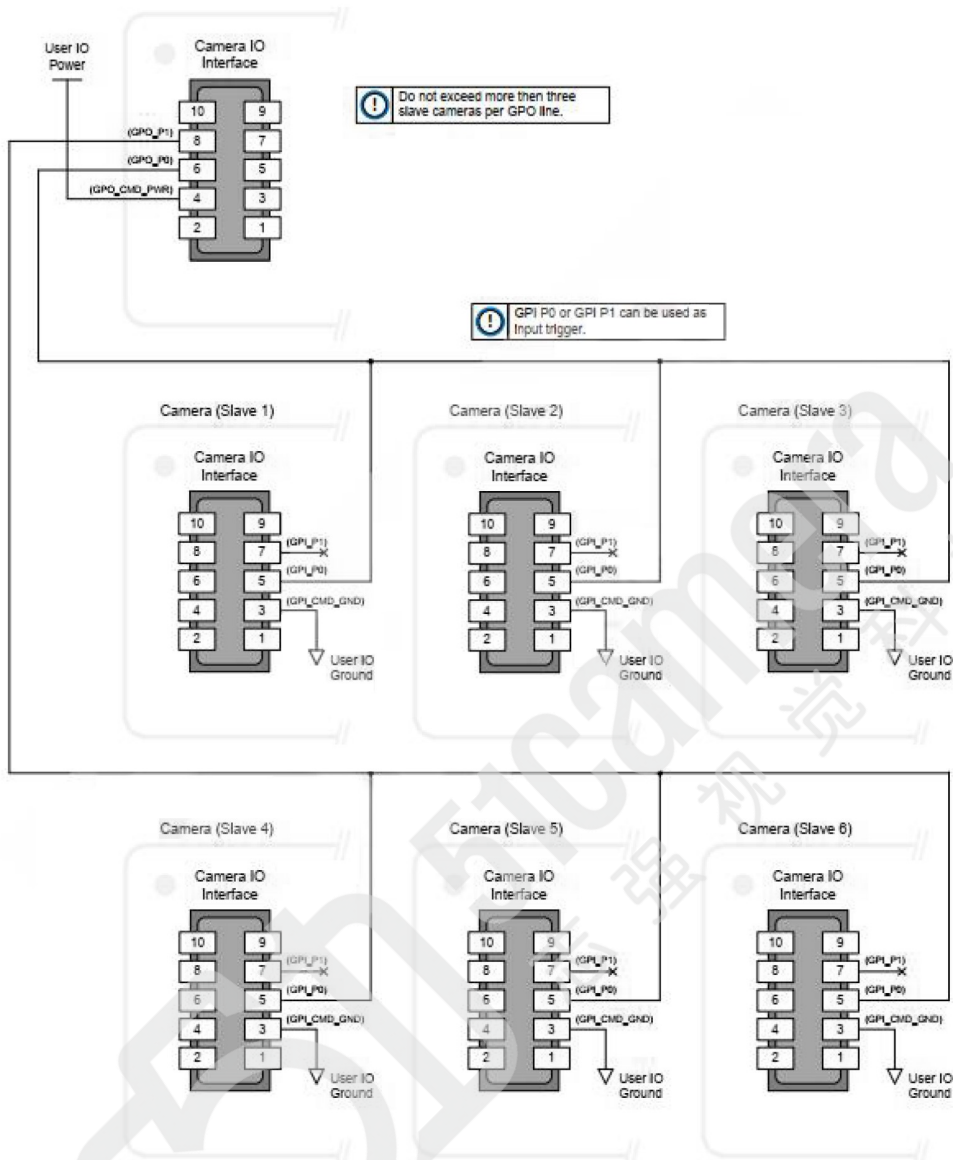
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1、Nano 相机接线定义

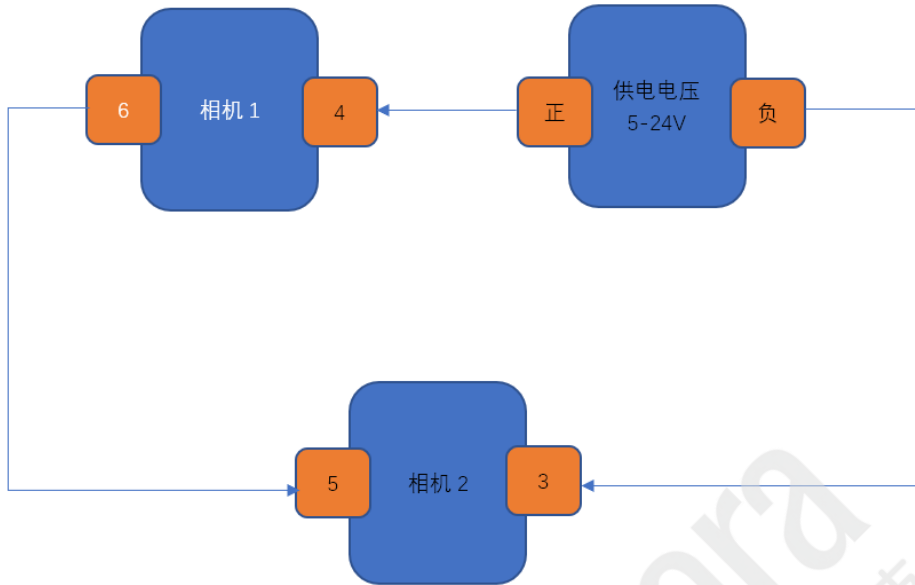
51Camera 提供的 Genie Nano GigE 相机的电源线各管脚及线序定义如下:

| 管脚序号 | 接线颜色 | 功能 |
|------|------|-------------------------|
| 1 | 白绿 | 相机电源地 |
| 2 | 绿 | 相机电源正 |
| 3 | 蓝 | 输入信号地 |
| 4 | 灰 | User IO Power 输出参考供电 |
| 5 | 紫 | 输入 1 |
| 6 | 橙 | Output 1 输出 1 |
| 7 | 粉 | 输入 2 |
| 8 | 白蓝 | Output 2 输出 2 |
| 10 | 屏蔽 | GND |

2、接线示意图



以两台相机为例具体接线如下：相机 1 做触发源，相机 2 是被触发相机，相机 1 输出端可以接 Pin8，也可以接 Pin6；



3、相机参数栏设置

1) 相机 1 参数设置当相机 1 输出接线为 Pin6 时 Line Selector = Line3,输出 1 接线为 Pin8 时 Line Selector = Line4:

| Category | Parameter | Value |
|------------------------------|---------------------------------|-----------------------------|
| Camera Information | Trigger Selector | Single Frame Trigger(Start) |
| ☑ Sensor Control | Trigger Mode | Off |
| I/O Controls | Trigger Frames Count | Not Enabled |
| Counter And Timer Control | Software Trigger | Not Enabled |
| ☑ Advanced Processing | Trigger Source | Not Enabled |
| Cycling Preset | Trigger Input Line Activation | Not Enabled |
| Image Format Controls | Trigger Overlap | Not Enabled |
| Metadata Controls | Trigger Delay (in us) | Not Enabled |
| Acquisition and Transfer ... | Line Selector | Line 3 设置输出口 |
| Action Control | Line Name | Output 1 |
| ☑ Event Control | Line Format | Opto-Coupled |
| GigE Vision Transport Layer | Line Mode | Output |
| File Access Control | Line Status | False |
| GigE Vision Host Controls | Line Inverter | False |
| | Input Line Detection Level | Not Enabled |
| | Input Line Debouncing Per... | Not Enabled |
| | Output Line Source | Pulse on: Start of Exposure |
| | Output Line Pulse Signal A... | Not Enabled |
| | Output Line Pulse Delay | 0 设置输出响应事件 |
| | Output Line Pulse Duration | 1 |
| | Output Line Value | Not Enabled |
| | Output Line Software Latch C... | Off |
| | Line Status All | 0x0000000000000000 |
| | Output Line Software Comm... | 0 |

2) 设置输出信号响应事件:

| 选择项 | 含义 |
|-------------------------------------|---|
| Off | 不输出信号 |
| Software Controlled | 用户在软件编程中自定义信号输出 设置成此项时, Output Line Value 参数项将被激活, 通过设置 Output Line Value 来控制输出电平的极性, Inactive 表示输出低电平, Active 表示输出高电平 |
| Pulse on: Start of Frame | 一张图像开始时激发一个输出信号 |
| Pulse on: Start of Exposure | 曝光开始时激发一个输出信号 |
| Pulse on: End of Exposure | 曝光结束时激发一个输出信号 |
| Pulse on: Start of Readout | 图像数据开始读出时激发一个输出信号 |
| Pulse on: End of Readout | 图像数据读出结束时激发一个输出信号 |
| Pulse on: Valid Frame Trigger | 每接收一个有效的触发信号激发一个输出信号 |
| Pulse on: Rejected Frame(s) Trigger | 每拒绝一个触发信号激发一个输出信号 |
| Pulse on: Start of Acquisition | 启动一次采集时激发一个输出信号 |
| Pulse on: End of Acquisition | 结束一次采集时激发一个输出信号 |
| Pulse on: End of Timer1 | Timer1 结束时激发一个输出信号 |
| Pulse on: End of Counter1 | Counter1 结束时激发一个输出信号 |
| Pulse on: Input Event | Input 每接收到一个信号激发一个输出信号 |
| Pulse on: Action | 每收到一个 Action Command 时激发一个输出信号 |
| Pulse on: Software Command | 每收到一个 Software 命令时激发一个输出信号 |
| Exposure Active | 执行曝光时激发一个输出信号 |

3) 相机 2 参数设置如下, 当输入接线为 Pin5 时 Trigger Source = Line1, Line Selector =Line1, 当输入接线为 Pin7 时 Trigger Source = Line2, Line Selector = Line2:

| Parameters - Visibility: Guru | | |
|-------------------------------|---------------------------------|-----------------------------|
| Category | Parameter | Value |
| Camera Information | Trigger Selector | Single Frame Trigger(Start) |
| ☑ Sensor Control | Trigger Mode | On 打开触发模式 |
| | Trigger Frames Count | Not Enabled |
| I/O Controls | Software Trigger | Press... |
| Counter And Timer Control | Trigger Source | Line 1 选择触发源 |
| ☑ Advanced Processing | Trigger Input Line Activation | Rising Edge |
| Cycling Preset | Trigger Overlap | Readout |
| Image Format Controls | Trigger Delay (in us) | 0.0 |
| Metadata Controls | Line Selector | Line 1 |
| Acquisition and Transfer ... | Line Name | Input 1 |
| Action Control | Line Format | Opto-Coupled |
| ☑ Event Control | Line Mode | Input |
| GigE Vision Transport Layer | Line Status | False |
| File Access Control | Line Inverter | False |
| GigE Vision Host Controls | Input Line Detection Level | Threshold for TTL |
| | Input Line Debouncing Per... | 0 |
| | Output Line Source | Not Enabled |
| | Output Line Pulse Signal A... | Not Enabled |
| | Output Line Pulse Delay | Not Enabled |
| | Output Line Pulse Duration | Not Enabled |
| | Output Line Value | Not Enabled |
| | Output Line Software Latch C... | Off |
| | Line Status All | 0x0000000000000000 |
| | Output Line Software Comm... | 0 |
| | << Less | |

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