

This document provides additional assistance with wiring your Extron IPL PRO enabled product to your device. Different components may require a different wiring scheme than those listed below.

For complete operating instruction, refer to the user's manual for the specific Extron IPL PRO enabled product or the controlled device manufacturer supplied documentation.

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**Device Specifications:**

Device Type: Display  
Manufacturer: Samsung  
Firmware Version: N/A  
Model(s): QM55F, QM49F, QM65F, QM75F, QM98F

**Tested on the Following Software and Firmware Versions:**

IP Link Pro Control Processor Firmware	MediaLink Plus Controller Firmware	GC (Plus, Pro) Version
2.04.0000-b007	2.02.0000-b003	2.4.0.334

**Version History**

Driver Version	Date	Notes
1_1_2	4/3/2017	Fixed Input status.
1_1_1	3/29/2017	Fixed status of Video Wall Size command and Pin Diagram.
1_1_0	3/14/2017	Added inputs DisplayPort 2, HDMI 3 and HDMI 4. Removed Component input. Added models QM75F and QM98F.
1_0_0	2/16/2017	Initial Version

**Driver Notes:**

- User Defined command takes a string parameter and sends the string out of the port.
- Only Power Command will be sent to the device when it is Off.
- Device ID needs to match the ID on the Display.
- Device ID is set to default value 0.
- When Device ID is set to 'Broadcast', status is unavailable as the driver becomes unidirectional.

**Driver Timings:**

- Recommended repeat rate for this driver is .1 seconds.

**Video Wall Commands:****10x10 Video Wall Model**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>Off</b>	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
<b>1</b>	0x11	0x12	0x13	0x14	0x15	0x16	0x17	0x18	0x19	0x1A	0x1B	0x1C	0x1D	0x1E	0x1F
<b>2</b>	0x21	0x22	0x23	0x24	0x25	0x26	0x27	0x28	0x29	0x2A	0x2B	0x2C	0x2D	0x2E	0x2F
<b>3</b>	0x31	0x32	0x33	0x34	0x35	0x36	0x37	0x38	0x39	0x3A	0x3B	0x3C	0x3D	0x3E	0x3F
<b>4</b>	0x41	0x42	0x43	0x44	0x45	0x46	0x47	0x48	0x49	0x4A	0x4B	0x4C	0x4D	0x4E	0x4F
<b>5</b>	0x51	0x52	0x53	0x54	0x55	0x56	0x57	0x58	0x59	0x5A	0x5B	0x5C	0x5D	0x5E	0x5F
<b>6</b>	0x61	0x62	0x63	0x64	0x65	0x66	0x67	0x68	0x69	0x6A	0x6B	0x6C	0x6D	0x6E	0x6F
<b>7</b>	0x71	0x72	0x73	0x74	0x75	0x76	0x77	0x78	0x79	0x7A	0x7B	0x7C	0x7D	0x7E	N/A
<b>8</b>	0x81	0x82	0x83	0x84	0x85	0x86	0x87	0x88	0x89	0x8A	0x8B	0x8C	N/A	N/A	N/A
<b>9</b>	0x91	0x92	0x93	0x94	0x95	0x96	0x97	0x98	0x99	0x9A	0x9B	N/A	N/A	N/A	N/A
<b>10</b>	0xA1	0xA2	0xA3	0xA4	0xA5	0xA6	0xA7	0xA8	0xA9	0xAA	N/A	N/A	N/A	N/A	N/A
<b>11</b>	0xB1	0xB2	0xB3	0xB4	0xB5	0xB6	0xB7	0xB8	0xB9	N/A	N/A	N/A	N/A	N/A	N/A
<b>12</b>	0xC1	0xC2	0xC3	0xC4	0xC5	0xC6	0xC7	0xC8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>13</b>	0xD1	0xD2	0xD3	0xD4	0xD5	0xD6	0xD7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>14</b>	0xE1	0xE2	0xE3	0xE4	0xE5	0xE6	0xE7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>15</b>	0xF1	0xF2	0xF3	0xF4	0xF5	0xF6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**Example:**

10 x10 can control Display Number 1 – 100, 8 x 12 can control Display Number 1 – 96

Invalid Configuration:

10 x 12

8 x 13

8 x 12 Display number 97 (range is only 1 - 96)

Command will not be sent out if the selected qualifiers are invalid to this chart.

**Control Commands & States:**

<b>Aspect Ratio</b> <sup>1</sup>	16:9 4:3	Zoom	Wide Zoom
<b>Auto Image</b> <sup>2</sup>	None		
<b>Executive Mode</b>	On	Off	
<b>Input</b>	PC RF(TV) HDMI 2 HDMI 3	DVI DTV DisplayPort 1 HDMI 4	MagicInfo HDMI 1 Input Source DisplayPort 2
<b>PIP Mode</b> <sup>1,3</sup>	On	Off	
<b>Power</b>	On	Off	
<b>User Defined Command</b>	None		
<b>User Defined String</b>	String		
<b>Video Wall</b>	On	Off	
<b>Video Wall Mode</b> <sup>4</sup>	Full	Natural	
<b>Video Wall Size</b> <sup>5</sup>	1 – 100		
<b>Volume</b>	0 to 100 in steps of 1		

<sup>1</sup> This function cannot be controlled when the Video Wall function is enabled.

<sup>2</sup> Only available with PC and Component input.

<sup>3</sup> This function is not available in MagicInfo.

<sup>4</sup> This control is only available on a product whose Video Wall is enabled

<sup>5</sup> Video Wall size has two qualifiers that must be configured: Row and Column. See chart on page 2 for Video Wall Control.

# IPL PRO Device Interface Communication Sheet

## Status Available:

<b>Aspect Ratio</b>	16:9 4:3	Zoom	Wide Zoom
<b>Connection Status <sup>RP</sup></b>	Connected	Disconnected	
<b>Executive Mode</b>	On	Off	
<b>Input</b>	PC DVI Video HDMI 1 HDMI 2 PC HDMI 3	DVI RF(TV) HDMI 1 PC DisplayPort 1 HDMI 4	MagicInfo DTV HDMI 2 Input Source DisplayPort 2
<b>PIP Mode</b>	On	Off	
<b>Power</b>	On	Off	
<b>User Defined String</b>	String		
<b>Video Wall</b>	On	Off	
<b>Video Wall Mode</b>	Full	Natural	
<b>Video Wall Size <sup>1</sup></b>	1 – 100		
<b>Volume</b>	0 to 100 in steps of 1		

<sup>1</sup> Video Wall size has two qualifiers that must be configured: Row and Column. See chart on page 2 for Video Wall Control.

<sup>RP</sup> Connection Status is based off the following string: \xAA\x11\xZZ\x00\xYY where \xZZ is Device ID and \xYY is the checksum (Changes as ID changes).

***Cable and Adapter Requirements:***

Captive Screw to Stereo Cable

***Notes for the Device:***

***Serial communication:***

**Port Type:** RS-232

**Baud Rate:** 9600

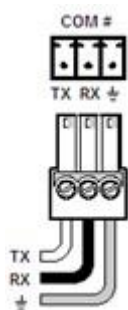
**Data Bits:** 8

**Parity:** None

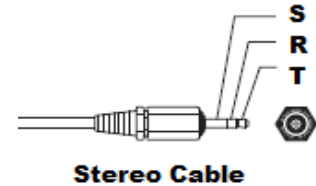
**Stop Bits:** One

**Flow Control:** None

***Pin Assignments Diagram***



Signal	Main Cable	Pin	Signal
TxD	→	T	RxD
RxD	←	R	TxD
GND	→	S	GND



***General Notes:***

***Network communication:***

When configuring the Ethernet driver, be sure device settings match that of the GCP configuration.

<b>Port Type:</b>	Ethernet
<b>Default Port:</b>	1515
<b>Logon Credentials Supported:</b>	No
<b>Multi-Connection Capabilities:</b>	Undetermined
<b>Port Changeability:</b>	Yes

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***Ethernet Driver Configuration Description:***

Please refer to user manual for settings and changes to the network communication

***Notes for the Device:***