

HDMI Transmitters

CORPORATE OFFICE
5400 W ROSECRANS AVENUE
HAWTHORNE, CA 90250
US ONLY: (866) 506-8829/ (310) 536-6190
WWW.SYMMETRYELECTRONICS.COM

| Part Numbers | SiI9022A | SiI9024A | SiI9136 | SiI9136-3 | SiI9334 | SiI1392 |
|------------------------|---|---|---|---|---|---------------|
| Input Interface | 12/24-bit RGB YCbCr 4:4:4 16/20/24-bit YCbCr 4:2:2 8/10/12-bit YCbCr 4:2:2 (ITU-R BT.601 & BT.656) | 12/24-bit RGB YCbCr 4:4:4 16/20/24-bit YCbCr 4:2:2 8/10/12-bit YCbCr 4:2:2 (ITU-R BT.601 & BT.656) | 12/15/18/24/30/36- bit/ YCbCr 4:4:4 16/20/24/30/36-bit/ YCbCr 4:2:2 8/10/12-bit/ YCbCr 4:2:2 (ITU-R BT.601 & BT.656) | 24/30/36/48- bit/YCbCr 4:4:4 16/20/24/30/36- bit/YCbCr 4:2:2 8/10/12-bit YCbCr 4:2:2 (ITU-R BT.601 & BT.656) | 24/30/36/48- bit/YCbCr 4:4:4 16/20/24/30/36- bit/YCbCr 4:2:2 8/10/12-bit/YCbCr 4:2:2 (ITU-R BT.601 & BT.656) | SDVO (200MHz) |
| Bandwidth | 165 MHz | 165 MHz | 225MHz | 300MHz | 225MHz | 165MHz |
| HDCP | No | Ver 1.2 | Ver 1.2 | Ver 1.2 | Ver 1.2 | Ver 1.2 |
| HDMI Version | 1.3 | 1.3 | 1.4 | 1.4a | 1.4 | 1.2 |
| 3D support | No | No | Yes | Yes | Yes | No |
| ARC | No | No | No | No | Yes | No |
| Ethernet | No | No | No | No | Yes | No |
| Package | 81-ball BGA 49-ball BGA 72-pin QFN | 81-ball BGA 49-ball BGA 72-pin QFN | 100TQFP | 100TQFP | 100TQFP | 64-pin QFN |

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HDMI Receivers

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| Part Numbers | SiI9127A | SiI9223A | SiI9233A |
|-----------------------|--|--|--|
| TMDS Input ports | 2 | 4 | 4 |
| Input color depth | 8/10/12-bit | 8/10/12-bit | 8/10/12-bit |
| Video Output | 36-bit RGB / YCbCr 4:4:4 • 16/20/24-bit YCbCr 4:2:2 • 8/10/12-bit YCbCr 4:2:2 (ITU BT.656) | 36-bit RGB / YCbCr 4:4:4 • 16/20/24-bit YCbCr 4:2:2 • 8/10/12-bit YCbCr 4:2:2 (ITU BT.656) | - 24/30/36-bit RGB/YCbCr 4:4:4 - 16/20/24-bit YCbCr 4:2:2 - 8/10/12-bit YCbCr 4:2:2 (ITU-R BT.656) |
| Max TMDS Input clock | 225 MHz | 225 MHz | 225 MHz |
| HDCP | Ver 1.3 | Ver 1.3 | Ver 1.3 |
| HDCP Repeater support | No | No | Yes |
| HDMI Version | 1.3 | 1.3 | 1.4 |
| 3D support | No | No | Yes |
| Package | 128-pin TQFP | 144-pin TQFP | 144-pin TQFP with ePad |

Port Processors

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| Part Numbers | SiI9287B | SiI9381A | SiI9387 | SiI9389 | SiI9489 | SiI9587 | SiI9589 | SiI9573 | SiI9575 |
|--------------------------|----------|----------|---------|---------|---------|-----------------------------------|-----------------------------------|---------|---------|
| # of input ports | 4 | 4 | 5 | 5 | 5 | 4 | 5 | 6 | 6 |
| # of output ports | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 |
| # of MHL supported ports | 4 | 1 | | | 1 | 1 | 1 | 2 | 2 |
| HDMI Version | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4a | 1.4a | 1.4a | 1.4a |
| Bandwidth | 225MHz | 225MHz | 225MHz | 225MHz | 225MHz | 225MHz/ 300MHz (-3 version) | 225MHz/ 300MHz (-3 version) | 300MHz | 300MHz |
| Instaport | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| ARC | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 3D | | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| ViaPort Matrix switch | | | | | | | | | Yes |
| OSD | | | | | | | | Yes | Yes |

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MHL Transmitters

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| | Sii9236/ Sii9232 | Sii9244 | Sii8332 | Sii8334 | Sii8336 | Sii8338 | Sii8352 | Sii8356 |
|------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------|----------|
| Input | 24-bit RGB | HDMI | MIPI DSI | HDMI | MIPI DSI | RGB | RGB | MIPI DSI |
| HDCP | No/ Yes | No | Yes | No | No | No | No | No |
| Resolution | 1080p @ 30Hz | 1080p @ 30Hz | 1080p @ 30Hz | 1080p @ 30Hz | 1080p @ 30Hz | 1080p @ 30Hz | 720p | 720p |
| Scaling | No | No | No | No | No | No | Yes | Yes |

Video Scalers

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| Features | SiI9616 | SiI9612 |
|-------------------------------|----------|----------|
| HDMI/MHL Input Ports | 1 | 1 |
| HDMI Output Port | 1 | 1 |
| VRS ClearView | Yes | Yes |
| 36-bit parallel input/overlay | Yes | No |
| 36-bit parallel output | Yes | No |
| OSD | Yes | Yes |
| Audio Insertion/Extraction | Yes | Yes |
| ARC RX | Yes | Yes |
| Pin-count | 176TQFP | 76SQFN |
| Release to Production | Dec 2012 | Jan 2013 |

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Video Scalers - VRS ClearView

- ◆ Collection of VRS video technologies
- ◆ Enhance video quality of streaming/downloaded video
- ◆ Upscale to 4K

VIDEO INPUT



VIDEO OUTPUT