SightLine APPLICATIONS

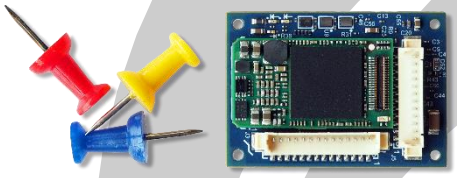
HW Options Comparison

Onboard Video Processors

SightLine video processors provide powerful edge processing for any real-time application. Operating at the source, SightLine processors deliver low-latency performance and exceptional video quality.

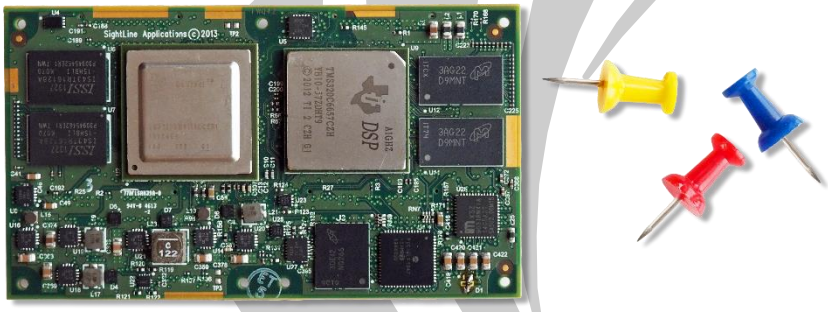
1500-OEM

- Multiple video inputs – switching for single channel processing
- Multiple video outputs – single-stream H.264 IP video, analog
- Processing and streaming to 720p25
- Tiny size for use in the smallest camera systems
- OEM and SOM integration options



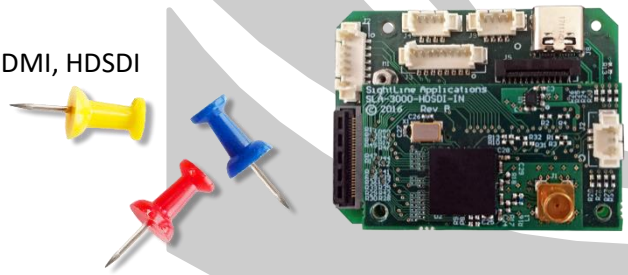
3000-OEM

- Multiple video inputs – dual channel processing
- Multiple video outputs – dual-stream H.264 IP video, analog, HDMI, HDSDI
- Processing and streaming to 1080p30
- Small size (business card footprint)
- SOM style, board-to-board Interface



4000-OEM

- Multiple video inputs – single or dual channel processing
- Multiple video outputs – dual-stream H.264/H.265 IP video, HDMI, HDSDI
- Most powerful option – processing and streaming to 4Kp30
- Smaller and lower power than 3000-OEM
- OEM and SOM integration options



Video Processing Software

SightLine **Video Processing Software** delivers essential functionality for a wide range of ISR applications. SightLine provides tailorable, powerful solutions.

See the Video Processing Software brochure for more information about image processing functions.

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Specifications

Criteria	1500-OEM	3000-OEM	4000-OEM
Processor	Texas Instruments DM3730	Texas Instruments DM8148 and Texas Instruments C6657	Qualcomm Snapdragon 820
Multi-camera	Switching between inputs	Dual Processing with multi-camera display options: picture in picture, 2-up, blending, and switching	Dual Processing optional with multi-camera display options: picture in picture, blending, and switching
Digital Video Inputs Camera Compatibility	1	2	3
Analog Inputs (NTSC/PAL)	2	3 (using dual analog adapter boards)	2 (Using two 3000-AB adaptors, one each installed on OEM and on MIPI adapter)
Frame size and Rate out	SD @ 30fps 720p @ 15-30 fps dependent on SW configuration	720p @60 fps single channel 1080p @30 fps + SD @ 30 fps 2 x 720p @ 30 fps	2x 1080p @30 fps with full SW 4K @30 fps with encoding only 4K @ 15-30 fps other SW functions
Serial Ports Available	3 (@3.3V)	5 (@3.3V)	4 (@3.3V) + 4 with MIPI-Input adapter
Additional IO	I^2C (1), GPIO (3+)	I^2C (3), GPIO (4+)	I^2C, GPIO (3) + 3 with MIPI-Input adapter
Ethernet Interface	10/100 BASE-T Ethernet PHY. UDP, TCP, and RTSP connectivity, unicast, multicast. 1500-OEM and 3000-OEM with capacitive coupling		Same Ethernet interfaces as 1500 and 3000, but with magnetic coupling
Encoded Video Output	H.264/MPEG4/M-JPEG encoding, MPEG2 TS/RTP encapsulation	H.264 encoding, MPEG2 TS/RTP encapsulation	H.264 and H.265 encoding, MPEG2 TS/RTP encapsulation
KLV / Metadata	System metadata can be inserted into KLV IP stream, used in OSD, with JPEG EXIF headers, full pixel snapshots, and KML or NITF files. KLV metadata is generated in accordance with MISB standards.		
HDMI Output HDSDI Output Analog Output	No No Yes	Yes Yes – with HDSDI-output board Yes	Yes Yes – with HDMI-HDSDI-output board No
Recording	Micro SD. Class 10 SDHC cards up to 400 GB	Interface for external Micro SD card Class 10 SDHC cards up to 400 GB	Micro SD. Class 10 SDHC cards up to 400 GB
Voltage In / Power Consumption	4.5 - 6.5 VDC OEM (5 VDC nom) Some adapter boards = 6.0 V max 3 W (max) 2.5W (typical)	8 - 15 VDC (12 VDC nom) 10 W (typical)	8 - 15 VDC (12 VDC nom) 5 W avg (startup current 3A per Smart Wireless Computing)
Size	1.04 x 1.48 inches (26.5 x 37.7 mm) 0.27 ounces (7.6 grams)	3.47 x 1.97 inches (88 x 50 mm) 1.4 ounces (39 grams)	2.0 x 1.5 inches (50.5 x 38mm) 0.45 ounces (13 grams)
Environment - Temperature	Temp: Demonstrated with basic delivered heatsink: -40°C to + 55°C Temp Components: -40°C to + 85°C		Screened: -20°C to + 55°C ambient with delivered passive heatsink. -40°C start-up with heater circuit
Environment – EMI	MIL-STD-461 and CE confirmed as part of customer assembly		SightLine support of Customer Tests is TBD
Environment – Shock Vibe	MIL-STD-810 qualification confirmed as part of customer assembly		SightLine support of Customer Tests is TBD
Fabrication Quality Assurance	Boards are assembled to IPC-A-610 Class2 specifications by a facility certified to ISO 9001 and AS 9100 standards and using ROHS Directive 2011/65/EU compliant materials and processes		