



SightLine provides several options for implementing real-time video analytics into customer camera systems. These tailorable solutions include trade-offs between architecture flexibility and ease of integration.

Integrating SightLine video processors requires advanced customer skills in complex software and system engineering, especially for customers using telemetry data to steer gimbals.

	Option	Advantages	Size and Power
Ease of Integration ↑	OEM	<p>COTS solutions provide fastest integration path. Existing system and camera interfaces support.</p> <p>Provides: System Interfaces + Analytics + Video Outputs</p>	<p>4000-OEM: 51 x 38 mm, 5W 3000-OEM: 88 x 50 mm, 9W 1500-OEM: 27 x 38 mm, 2.5W</p>
	SOM	<p>Smallest physical size for adding a dedicated video processor on customer board.</p> <ul style="list-style-type: none"> 1500: Beacon EmbeddedWorks SOM DM3730-20-1780 3000: OEM is a board-board SOM implementation 4000: Penguin Edge IFC6601 SOM <p>Adding to customer board enables consolidation of system functions, ideal connectivity, and form factor.</p> <p>SightLine OEM Reference designs available to facilitate PCB design.</p> <p>OEM EVAL system ensures a common baseline system for SightLine support.</p> <p>Provides: Analytics + Video Outputs</p>	<p>Beacon EmbeddedWorks: 15 x 27 mm, 2.25W Penguin Solutions IFC6601: 50 x 28 mm, 5W</p>
Architecture Flexibility ↓	ARM SW Licensing	<p>Integration into customer processing architecture</p> <p>Delivered software is a callable static library that accepts video frames and provides telemetry out. It does not include any of the render functions that output updated video frames or do encoding.</p> <p>Target processor must be 64-bit ARM (ARM-v8) running Linux.</p> <p>Provides: Analytics Only Future support of render functionality planned for 2023 for select COTS processors</p>	<p>Processors Supported:</p> <p>Qualcomm Snapdragon 820 Nvidia TX2 Nvidia TX1 Xilinx Zynq NXP IMX8 PLUS Other target HW (as approved)</p>

INTEGRATION TRADE-OFFS

	OEM	SOM	ARM SW License
LEVEL OF SYSTEM INTEGRATION SKILLS AND ENGINEERING EFFORT REQUIRED	Medium	Advanced	Expert
EVALUATION KIT PURCHASE REQUIRED	Highly Recommended	Required	Required
MINIMUM ORDER QUANTITY	None	None	Yes - Customer required to purchase licenses to cover SL startup engineering support (to be defined by sales/engineering)
HARDWARE DESIGN AGREEMENT REQUIRED	No	Yes	Yes
CUSTOMER SOFTWARE/PROCESSING VIDEO PATH	No	Minimal – post SL processing	Yes – customer owns video path
NON-VIDEO PATH	Yes – ARM available	Yes – ARM available	Yes – customer owns all SW
CAMERA AND SYSTEM INTERFACE(S) ETHERNET, SERIAL PORTS, GPIO, POWER, ETC.	Yes – Via SL adaptor boards	Customer design via SL reference designs	Customer responsible for camera and system interfaces
SOFTWARE – ANALYZE FUNCTIONS SCENE REGISTRATION OBJECT TRACKING DETECTION ALGORITHMS AI/ML CLASSIFIER PRECISION LANDING FOCUS TELEMETRY	Yes	Yes	Yes
SOFTWARE – RENDER FUNCTIONS DPR, NUC BLENDING VIDEO STABILIZATION AND ROLL CORRECTION VIDEO RECORDING / SNAPSHOT VIDEO ENHANCEMENT MULTI-CHANNEL DISPLAY OSD TEXT / SYMBOLOGY HD VIDEO ENCODING KLV METADATA	Yes	Yes	No <i>Future support of render functionality planned for 2023 for select COTS processors</i>
THOROUGH DOCUMENTATION SUPPORT	Yes	Yes	Yes - library function(s)
RMA AND HW WARRANTY	Yes	Yes (SOM only)	N/A software license only