



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. The **Video Processing Software** provides a suite of functions that are available with each option and are key in a wide variety of ISR applications.

Ease of Integration



Architecture Flexibility



Option	Advantages	Size and Power
<b>OEM</b>	<p>COTS solutions provide fastest integration path. Existing system and camera interfaces support. Enclosure option for 1500-OEM.</p> <p><b>Provides: System Interfaces + Analytics + Video Outputs</b></p>	<p>1500-OEM: 27 x 38 mm, 2.5W            3000-OEM: 88 x 50 mm, 9W            4000-OEM: 51 x 38 mm, 5W</p>
<b>SOM</b>	<p>Smallest physical size for adding a dedicated video processor on customer board.</p> <ul style="list-style-type: none"> <li>1500: <a href="#">Beacon EmbeddedWorks SOM DM3730-20-1780</a></li> <li>3000: OEM is a board-board SOM implementation</li> <li>4000: <a href="#">Inforce 6601 SOM</a></li> </ul> <p>Adding to customer board enables consolidation of system functions, ideal connectivity, and form factor.</p> <p>Reference designs available to facilitate PCB design.</p> <p>OEM EVAL system ensures a common baseline system for SightLine support.</p> <p><b>Provides: Analytics + Video Outputs</b></p>	<p>Beacon EmbeddedWorks: 15 x 27 mm, 2.25W            3000-OEM: 88 x 50 mm, 9W            Inforce 6601: 50 x 28 mm, 5W</p>
<b>NEW!</b> <b>SW Licensing</b>	<p>Integration into customer processing architecture</p> <p>With the introduction of the <b>4000-OEM</b>, built with an ARM processor architecture, SightLine is now able to license software functions to run on customer ARM based platforms.</p> <p>Delivered software will be a callable static library that accepts video frames and provide 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><b>Provides: Analytics Only</b></p>	<p>Processors Supported:</p> <p>Qualcomm Snapdragon 820            Nvidia TX2            Nvidia TX1            Xilinx Zynq            Other target HW (as approved)</p>

# Integration Options

## INTEGRATION TRADE-OFFS

	OEM	SOM	Licensable SW
<b>LEVEL OF SYSTEM INTEGRATION SKILLS AND ENGINEERING EFFORT REQUIRED?</b>	Medium	Advanced	Expert
<b>SIGHTLINE RESPONSIBLE FOR ENTIRE VIDEO PATH</b>	Yes – done on SL board	Partial Implemented on SL SOM and customer interface boards	No – customer owns HW and SW designs
<b>CAMERA INTERFACE(S)</b>	Yes – SightLine adaptor boards	Customer design via SL reference designs	No – customer responsible for camera interfaces
<b>SYSTEM INTERFACES ETHERNET, SERIAL PORTS, GPIO, POWER, ETC.</b>	Yes	Customer design via SL reference designs	No – customer responsible for system interfaces
<b>OPPORTUNITY FOR CUSTOMER PROCESSING</b>	Yes – part of processor ARM cores	Yes – part of processor ARM cores	Yes – customer owns complete processor
<b>SOFTWARE – ANALYZE FUNCTIONS</b>			
SCENE REGISTRATION	Yes	Yes	Yes
OBJECT TRACKING	Yes	Yes	Yes
DETECTION ALGORITHMS	Yes	Yes	Yes
PRECISION LANDING	Yes	Yes	Yes
FOCUS TELEMETRY	Yes	Yes	Yes
<b>SOFTWARE – RENDER FUNCTIONS</b>			
DPR, NUC, AND BLENDING	Yes	Yes	No  Future support of render functionality may be possible.
VIDEO STABILIZATION AND ROLL CORRECTION	Yes	Yes	
VIDEO / SNAPSHOT RECORDING	Yes	Yes	
VIDEO ENHANCEMENT	Yes	Yes	
MULTI-CHANNEL DISPLAY	Yes	Yes	
OSD TEXT / SYMBOLOGY	Yes	Yes	
HD VIDEO ENCODING	Yes	Yes	
KLV METADATA	Yes	Yes	
<b>THOROUGH DOCUMENTATION SUPPORT</b>	Yes	Yes	Yes - library function(s)
<b>RMA AND HW WARRANTY</b>	Yes	Yes	No software license only