



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
OEM	<p>COTS solutions provide fastest integration path. Existing system and camera interfaces support. Enclosure option for 1500-OEM.</p> <p>Provides: System Interfaces + Analytics + Video Outputs</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>
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: Inforce 6601 SOM <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>Provides: Analytics + Video Outputs</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>
NEW! SW Licensing	<p>Integration into customer processing architecture</p> <p>With the introduction of the 4000-OEM, 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>Provides: Analytics Only</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
LEVEL OF SYSTEM INTEGRATION SKILLS AND ENGINEERING EFFORT REQUIRED?	Medium	Advanced	Expert
SIGHTLINE RESPONSIBLE FOR ENTIRE VIDEO PATH	Yes – done on SL board	Partial Implemented on SL SOM and customer interface boards	No – customer owns HW and SW designs
CAMERA INTERFACE(S)	Yes – SightLine adaptor boards	Customer design via SL reference designs	No – customer responsible for camera interfaces
SYSTEM INTERFACES ETHERNET, SERIAL PORTS, GPIO, POWER, ETC.	Yes	Customer design via SL reference designs	No – customer responsible for system interfaces
OPPORTUNITY FOR CUSTOMER PROCESSING	Yes – part of processor ARM cores	Yes – part of processor ARM cores	Yes – customer owns complete processor
SOFTWARE – ANALYZE FUNCTIONS			
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
SOFTWARE – RENDER FUNCTIONS			
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	
THOROUGH DOCUMENTATION SUPPORT	Yes	Yes	Yes - library function(s)
RMA AND HW WARRANTY	Yes	Yes	No software license only