



# SightLine

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APPLICATIONS

## **EAN-Camera Compatibility**

PN: EAN-Camera-Compatibility

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**Alerts**

The following notifications are used throughout the document to help identify important safety and setup information to the user:

**⚠ CAUTION:** Alerts to a potential hazard that may result in personal injury, or an unsafe practice that causes damage to the equipment if not avoided.

**ⓘ IMPORTANT:** Identifies crucial information that is important to setup and configuration procedures.

**📄** *Used to emphasize points or reminds the user of something. Supplementary information that aids in the use or understanding of the equipment or subject that is not critical to system use.*



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## 1 Overview

Defines all third-party cameras and lens options currently supported by SightLine products. Included are configuration and setting support guidance. Additionally, it lists the camera adapter board kits for the 1500-OEM and 3000-OEM video processors. This document is updated as new camera support is established.

### 1.1 Associated Documents

[EAN-Startup Guide 1500-OEM](#): Describes steps for connecting, configuring, and testing the 1500-OEM video processing board on the 1500-AB accessory board.

[EAN-Startup Guide 3000-OEM](#): Describes steps for connecting, configuring, and testing the 3000-OEM video processing board on the 3000-IO interface board.

[EAN-Digital-Video-Configuration](#): Describes how to configure the SightLine hardware for digital video input. Tables for basic acquisitions settings are included for the 1500-OEM and 3000-OEM video processing boards.

[ICD-1500 Adapter Boards](#): Describes interface specifications, and connector pin-outs for the 1500-OEM associated camera interface boards.

[ICD-3000 Adapter Boards](#): Describes interface specifications, and connector pin-outs for the 3000-OEM associated camera interface boards.

[Interface Command and Control \(IDD\)](#): Describes the native communications protocol used by the SightLine Applications product line.

Panel Plus User Guide: Provides descriptions of all the settings in the Panel Plus application. (Located in the Panel Plus application in the *Help* menu.)

For a complete list of all the camera support EANs, go to the [Documentation](#) download page » Camera Configuration and Digital Video Input Support.

### 1.2 SightLine Software Requirements

**ⓘ IMPORTANT:** The Panel Plus software version should match the firmware version running on the board.

 For 1500-OEM FPGA version information see [1500-OEM FPGA Support](#).



## 2 Supported Cameras and Drivers

### 2.1 Camera Support Update

The most recent camera support updates are shown in [Table 1](#). The complete supported camera list is shown in [Table 2](#).

**Table 1: New and Updated Camera Support**

Date	Camera	Change	Description	1500	3000
12/19/18	Tamron MP2030M-GS	New	1080P Global Shutter 30x optical	✓	✓
12/14/18	Sony FCB-EV7520A	New	Sony replacement for all FCB EH/EV camera line	✓	✓
12/14/18	FLIR Tau SWIR	New	SWIR version of Tau. CMOS and Camera Link IF	✓	✓
12/14/18	Intertest XBC-KZ33G	New	Global shutter replacement for Hitachi SC120R (See also KT&C ATC-HZ5533M-LP) Sony LVDS compatible	✓	✓
12/14/18	Sony FCB-EH/EV	Updated	Sony has announced the end-of-life (EOL) for this camera.	✓	✓

[Table 1](#) lists specific cameras and drivers that have been developed for cameras supported by SightLine. If a specific camera driver is not available, support may be possible using SightLine's Generic Digital driver. Contact [Support](#) for more information.

**Table 2: Camera Compatibility Table**

Camera or Type	Panel Plus Settings	Interface	Definition and Support	1500	3000
<b>Analog (SD) Cameras Supported</b>					
<b>Generic Models</b>					
	NTSC	Composite, Coax	480i/30 - NTSC analog is 29.97 fps	✓	✓
	PAL	Composite, Coax	480i/25 - PAL analog is 25 fps	✓	✓
	BT656 NTSC	Digital	Requires Custom Interface Board	✓	✓
	BT656 PAL	Digital	Requires Custom Interface Board	✓	✓
<b>EO Digital Cameras Supported</b>					
<b>Airborne Innovations</b>					
<b>AGS720P</b>	Generic Digital	FPC ribbon	720p30 Global Shutter	✓	✓
<b>DRS</b>					
<b>Tamarisk 320</b>	DRS Tam 320 8-bit	Parallel dig, FPC	LWIR 320x240 sensor array	✓	✓
	DRS Tam 320 14-bit	Parallel dig, FPC	LWIR 320x240 sensor array	✓	✓
<b>Tamarisk 640</b>	DRS Tam 640 8-bit	Parallel dig, FPC	LWIR 640x480 sensor array	✓	✓
	DRS Tam 640 14-bit	Parallel dig, FPC	LWIR 640x480 sensor array	✓	✓
<b>Zafiro 640</b>	Generic Digital	Camera Link	MWIR cooled. Both 8 and 14-bit support	✓	✓
<b>FLIR</b>					
<b>Tau 320</b>	Tau 320 8-bit	Parallel dig, FFC	LWIR 320x240 8-bit support	✓	✓
<b>Tau 320</b>	Tau 320 14-bit	Parallel dig, FFC	LWIR 320x240 14-bit support	✓	✓
<b>Tau 336</b>	Generic Digital	Parallel dig, FFC	LWIR 336x256 or 320x256 (8 and 14-bit)	✓	✓
<b>Tau 640</b>	FLIR Tau 640 8-bit	Parallel dig, FFC	LWIR 640x480 8-bit support	✓	✓
<b>Tau 640</b>	FLIR Tau 640 14-bit	Parallel dig, FFC	LWIR 640x480 14-bit support	✓	✓
<b>Quark 336*</b>	Generic Digital	Parallel dig, FFC	LWIR 336x256 or 320x256 (8 and 14-bit)	✓	✓
<b>Quark 640*</b>	Generic Digital	Parallel dig, FFC	LWIR 640x480 8-bit 14-bit support	✓	✓
<b>Photon HRC*</b>	Generic Digital	Parallel dig, FFC	MWIR cooled 640x480 8-bit and 14-bit	✓	
<b>Neutrino</b>	Generic Digital	Parallel dig, FFC	MWIR cooled. 8 Bit or 14-bit digital data via: Camera Link, CMOS, BT-656. Interface same as Tau but with separate 12V cooler power connection.	✓	✓



Camera or Type	Panel Plus Settings	Interface	Definition and Support	1500	3000
<b>Boson</b>	Generic Digital	Parallel dig, FPC	LWIR 256x320 8-bit or 16-bit support	✓	✓
<b>Tau SWIR 640</b>	Generic Digital	Parallel dig, FFC	LWIR. 640x512 8-bit or 14-bit support	✓	✓
<b>Hitachi</b>					
<b>DI-SC120R*</b>	Hitachi 720p	Parallel dig, Ribbon	720P30	✓	✓
<b>DI-SC110R*</b>	Hitachi 720p	Parallel dig, Ribbon	720P30	✓	✓
<b>Interrest (Sony FCB compatible)</b>					
<b>XBC-KZ10</b>	Generic Digital	KEL LVDS	720P/1080P	✓	✓
<b>XBC-KZ33G</b>	Generic Digital	KEL LVDS	720P Global Shutter	✓	✓
<b>KT&amp;C (Sony FCB compatible)</b>					
<b>ATC-HZ7810LC</b>	Generic Digital	KEL LVDS	720P/1080P	✓	✓
<b>ATC-HZ5533M-LP</b>	Generic Digital	KEL LVDS	720P Global Shutter	✓	✓
<b>Sony</b>					
<b>EH3150*</b>	Sony FCB-EH	KEL LVDS	EH3150 - 720p30	✓	✓
<b>EH6300*</b>	Sony FCB-EH	KEL LVDS	EH6300 - 720p30, 1080p30	✓	✓
<b>EH6500*</b>	Sony FCB-EH	KEL LVDS	EH6500 - 720p, 1080p30	✓	✓
<b>EV7500*</b>	Sony FCB-EV	KEL LVDS	EV7500 - 720p30, 1080p30	✓	✓
<b>EV7100*</b>	Sony FCB-EV	KEL LVDS	EV7100 - 720p30, 1080p30	✓	✓
<b>EV7520A</b>	Sony FCB-EV	KEL LVDS	EV7520A - 720p30, 1080p30	✓	✓
<b>EX1010</b>	Analog	Coax	720(640)x480 @ 29.97 fps	✓	✓
<b>Compatibility notes:</b> All Sony FCB-EH cameras will work with the FCB-EH settings. All FCB-EV cameras will work with the FCB-EV settings. Some cameras only support 720P mode. Sony FCB-ER cameras are not compatible.					
<b>Tamron</b>					
<b>MP1010M-VC</b>	Generic Digital	KEL LVDS	Compact block, supports 720p and 1080p	✓	✓
<b>MP1110M-VC</b>	Generic Digital	KEL LVDS	Compact block, supports 720p and 1080p	✓	✓
<b>MP2030M-GS</b>	Generic Digital	KEL LVDS	MP2030M-GS (Global Shutter)	✓	✓
<b>Xenics</b>					
<b>XTM-640</b>	BT-656 NTSC/PAL	Parallel Digital	Requires Custom I/F Board	✓	✓
<b>HDMI</b>					
<b>GoPro</b>					
<b>Hero 3+ Black</b>	Generic Digital	HDMI	720p30, 720p60	✓	✓
<b>Hero 3 White</b>	Generic Digital	HDMI	720p30, 1080p30	✓	✓
<b>HD-SDI</b>					
<b>Sentech</b>					
<b>STC-HD233</b>	Generic Digital	HDSDI	720p60, 1080p30/60	✓	✓
<b>Camera Link</b>					
<b>Imperx Bobcat</b>					
<b>B1921Color</b>	Bayer	Camera Link	1080P		✓
<b>JAI Go Series</b>					
<b>GO-2400Mono</b>	G8 16-bit input	Camera Link	1080P (2 tap 8-bit monochrome)		✓
<b>GO-5000Color</b>	Bayer	Camera Link	1080P (2 tap 8-bit Bayer)		✓
<b>GO-5101Color</b>	Bayer	Camera Link	1080P (2 tap 8-bit Bayer)		✓
<b>L3 Communications</b>					
<b>NightWarrior</b>	Generic Digital	Camera Link	MWIR cooled. 640x480	✓	
<b>Sofradir</b>					
<b>LEO MW640</b>	Generic Digital	Camera Link	MWIR cooled. 640x512	✓	✓

\*Manufacturers have announced the end-of-life (EOL) notice for these cameras. Commercial availability may be limited.

The 1500-OEM does not support 1080P.



## 2.2 Customer Recommended Cameras

SightLine invites customers to recommend cameras for their particular application that can lead to new camera support. Contact Support with the following information:

- The camera name and model number
- A datasheet and ICD for the camera (if possible)
- The camera resolution, interlace mode, and frame rate, e.g., 1080P30
- The interface type (Camera Link, HDMI, parallel digital, HDSDI)
- Video processing board type (1500-OEM or 3000-OEM)
- Time frame to complete testing

## 3 1500-OEM FPGA Support

The 1500-OEM has a separate FPGA that is not part of the System-On-Module (SOM) board. It is programmed at build time with version 5 or 12 to supply standard camera support. FPGA versions suggested for supported cameras are shown in [Table 4](#).

For in-system updates on the 1500-OEM Rev E boards, firmware 2.22.18 or higher is required. For more information see [EAN-FPGA Firmware Update 1500-OEM](#).

**Table 3: 1500-OEM Board Revision FPGA Programming Methods**

1500-OEM Revision	FPGA Programming Methods
Revision C [LEGACY]	External FPGA programming required. Contact SightLine support.
Revision E	Supports on system (on board) FPGA updates as well as external FPGA programming.

**Table 4: 1500-OEM FPGA Versions**

Camera	FPGA Version	Camera	FPGA Version
Analog (NTSC and PAL)	Any	L3 Night Warrior	6
Hitachi SC120R	5 or 12	Tamron MP1010M	7
Sony EH and EV Series	12 (or 5 on Revision C)	Airborne Innovations AGS720P	10
HDMI	5 or 12	FLIR Boson	11
FLIR Tau2, Quark and Neutrino	5 or 12	CameraLink 16-bit	12
DRS Tamarisk	5 or 12	Quantum Imaging QI-SCD15-M1	12
FLIR Photon	6		

*FPGA version 8 (not shown) supports some GPIO functionality. For FPGA version support for the 1550-EAB contact [Support](#).*



## 4 Adapter Board Kits

The following tables list camera adapter board kits for the 1500-OEM and 3000-OEM video processing boards. See the [ICD-1500 Adapter Boards](#) and [ICD-3000 Adapter Boards](#) for interface specifications, and connector pin-outs for the associated camera interface boards.

**Table 5: 1500-OEM Adapter Board Kits**

1500-OEM Adapter Board Kits	Description	Serial Passthrough Support	External Power Required
SLA-KIT-1500-CL	Camera Link® interface board with 1500-OEM mounting hardware.	Yes	Yes
SLA-KIT-1500-FFC-DRS	*DRS camera interface board and SLA-FFC board with cable and mounting hardware.	Yes	No
SLA-KIT-1500-FFC-TAU	*TAU camera interface board and SLA-FFC board with cable. The 1500-OEM can connect directly to the Tau camera. See EAN-FLIR-Cameras.	Yes	No
SLA-KIT-1500-FFC-QUARK	*Quark camera interface board and SLA-FFC board with cable.	Yes	No
SLA-KIT-1500-HIT	Hitachi camera interface board, camera interface cable and mounting hardware with 12v power adaptor and extension.	Yes	Yes
SLA-KIT-1500-SONY	Sony camera interface board, camera interface cable, and 12v Power adaptor and extension.	Yes	Yes
SLA-KIT-1500-HDMI	HDMI interface board with 1500-OEM mounting hardware.	Yes (separate onboard connector)	Yes
SLA-KIT-1500-FPC-BOSON	*Boson camera interface kit for 1500-OEM video processor and FLIR camera.	Yes	No
SLA-KIT-1500-FPC-DRS	*DRS camera interface kit for 1500-OEM video processor and DRS camera.	YES	No
SLA-KIT-1500-FPC-AGS	Airborne Innovations camera interface kit for 1500-OEM video processor and AGS-270P.	Yes	No

\*Kit includes an OEM connection board and camera connection board.

**Table 6: 3000-OEM Adapter Board Kits**

3000-OEM Adapter Board Kits	Description	Serial Passthrough Supported	External Power Required
SLA-KIT-3000-AB	Analog input board with two SMA connectors, and mounting hardware.	No	No
SLA-KIT-3000-CL	Camera Link interface board with SDR connector, and mounting hardware.	Yes	No
SLA-KIT-3000-HDSI-IN	HDSI input board with MCX connector, MCX-BNC cable, and mounting hardware.	Yes (separate onboard connector)	No
SLA-KIT-3000-HDMI	HDMI interface board with mounting hardware.	Yes (separate onboard connector)	No





3000-OEM Adapter Board Kits	Description	Serial Passthrough Supported	External Power Required
SLA-KIT-3000-HIT	Hitachi camera interface board, camera interface cable and mounting hardware.	Yes	No
SLA-KIT-3000-SONY	SONY camera interface board, camera interface cable and mounting hardware.	Yes	No
SLA-KIT-3000-FFC-DRS	*DRS camera interface board and SLA-FFC board with cable, and mounting hardware.	Yes	No
SLA-KIT-3000-FFC-TAU	*TAU camera interface board and SLA-FFC board with cable, and mounting hardware.	Yes	No
SLA-KIT-3000-FFC-QUARK	*Quark camera interface board and SLA-FFC board with cable, and mounting hardware.	Yes	No
SLA-KIT-3000-FPC-BOSON	*BOSON camera interface kit for 3000-OEM video processor.	Yes	No
SLA-KIT-3000-FPC-AGS	Airborne Innovations camera interface kit for SLA/SLE-3000-OEM video processor and AGS-270P.	Yes	No

*\*Kit includes an OEM connection board and camera connection board.*

## 5 Questions and Additional Support

For questions and additional support, please contact [Technical Support](#). Additional support documentation and Engineering Application Notes (EANs) can be found on the Support pages of the SightLine Applications [website](#).