FSM-IMX577 Datasheet

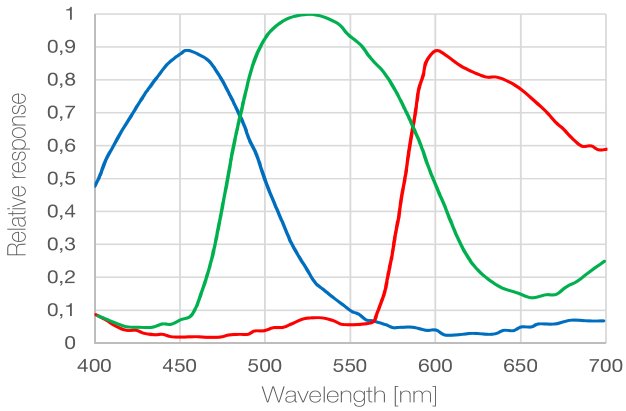
Sony IMX577-AACK Sensor Module

FRAMOS Sensor Module

Key Benefits & Features:

- 12.3 Mpx Sony CMOS Rolling Shutter sensor module, ready to embed!
- All FSMs are part of a rapid prototyping ecosystem, consisting of:
  - ✓ Adapters to various processing boards
  - ✓ Design sources for deep embedding
  - ✓ Various accessories and design in services

FSM-IMX577C (Color):



Specification	
Model Name	**FSM-IMX577C** (V1B)

Image Sensor	
Vendor / Name	Sony IMX577-AACK
Shutter Type	CMOS Rolling Shutter
Technology / Grade	Starvis / Security
Chromaticity	Color
Optical Format	1/2.3“
Pixel Size	1.55 x 1.55 µm
Max. Resolution	12.3 Mpx / 4056 x 3040 px
Framerate (max.)	59.9 FPS (4-Lane) 30 FPS (2-Lane)
Bit Depth(s)	8 / 10 / 12 bit

Interface	
Data Interface	MIPI CSI-2 (2 / 4 Lane)
Communication Interface	I²C (CCI)
Drive Frequency(s)	6 to 27 MHz
Input Voltages	1.05V, 1.8V, 2.8V
Interface Connector	Hirose DF40C-60DP-0.4V(51)
EEPROM (Sensor ID)	Yes

Mechanical	
Dimensions (HxWxD)	26.5 x 26.5

Environmental	
Operating Temperature	-20°C to +75°C (function) -20°C to +60°C (performance)
Storage Temperature	-30°C to +80°C
Ambient Humidity	20% to 95% RH, non condensing

Software Support	
Supported Platforms	NVIDIA Jetson Family: AGX Xavier, Nano, TX2 (NX), Xavier NX, AGX Orin.
Driver	V4L2 Based Device Driver , Libargus / Argus Camera (ISP Tuned), Isaac ROS compliant
Software Version(s)	NVIDIA JP4.6 / L4T32.6.1

Suggested Accessories & Adapters	
Compatible FSA Type	FSA-FT1/A
Recommended Devkit(s)	FSM-IMX577C/TXA_Devkit (TX2, AGX) FSM-IMX577C/NVN_Devkit (Nano, NX)
Lens Mounts	M12 or C/CS-Mount options

A matrix with compatible *Sensor Adapters (FSA)* and *Processor Board Adapters (FPA)* for various setups can be found at the end of this document.

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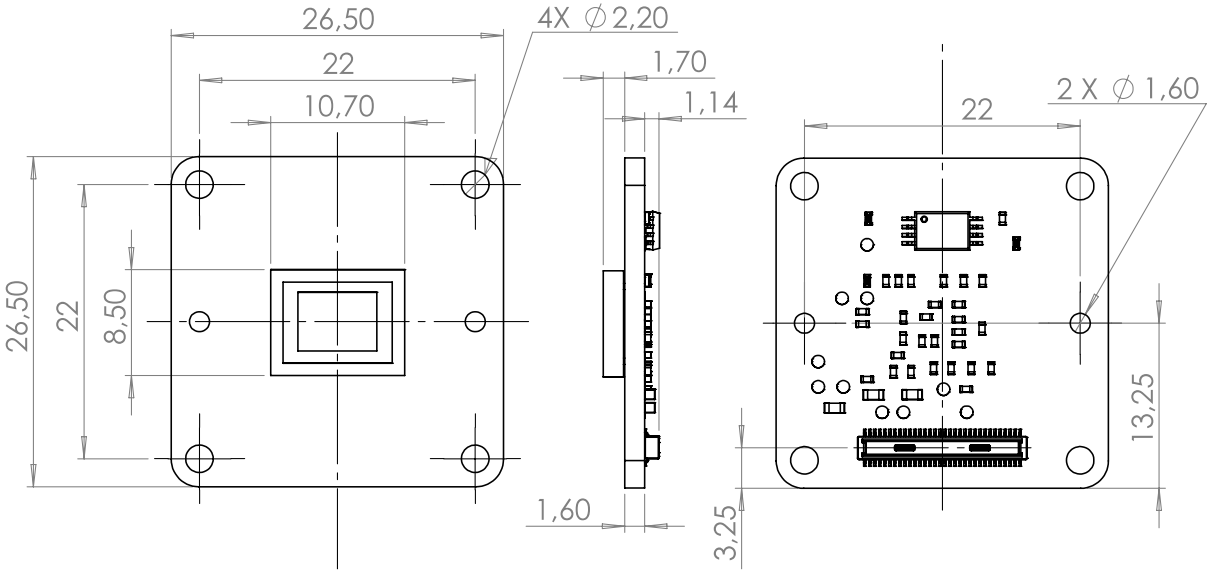
Mechanical Drawing



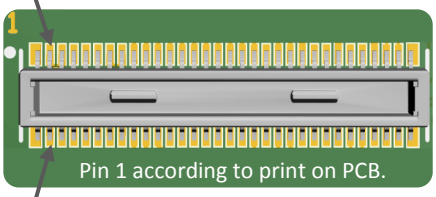
Sensor image optical center is in mechanical board center.

Connector Pinout

Type: Hirose DF40C-60DP-0.4V(51)

Mating Type: Hirose DF40HC(4.0)-60DS-0.4V(51)

Name	NC	NC	2V75_A	2V75_A	1V8_IO	GND	GND	XCLR	NC	NC	SCL	NC	XVS	SDA	GPO	NC	NC	SLASEL	GND	INCK	NC	GND	NC	NC	GND	CSI_D0_N	CSI_D0_P	GND	CSI_D2_P	CSI_D2_N
Pin	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59



Pin	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
Name	NC	NC	1V05_A	1V05_A	NC	GND	GND	NC	NC	NC	NC	NC	NC	NC	NC	FSTROBE	NC	NC	GND	NC	NC	GND	CSI_D3_P	CSI_D3_N	GND	CSI_D1_N	CSI_D1_P	GND	CSI_CLK_P	CSI_CLK_N

Signals are routed directly from image sensor to connector. Details on specific signals are described in the respective image sensor datasheet.

Version v1.2d from 2022-12-16

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