

CAM1-MT1080/720-IP7

IP67 Rating MIPI VBO SerDes miniCAM



- Integrated, cost-effective MIPI VBO (Thin V-by-One® HS) CAM for NVIDIA® Xavier™ NX
- Transmit uncompressed video streaming, up to 15/25 meters extended
- IP67-rating enclosure for AG, CON, ambulance, law-enforcement and ADAS applications
- Custom-made variant of sensor modules (i.e. the view angle, EFL, DoF etc.)
- IP67-rating design, wide range operating temperature of -20°C~70°C
- Military standard of anti-vibration/shock for OHV applications
- CE/FCC, UKCA, Emark Certified

Product Overview

With increasing popularity of ADAS, industrial-grade cameras become significantly important. NEXCOM's CAM1-MT1080/MT720-IP7, and the MIPI SerDes camera are the best choices to integrate applications (in-vehicle/OHV ADAS, ANPR in law enforcement, AI traffic system, automation and auto-inspection, etc.) onto the ATC3530/3200.

Designed by MIPI VBO (Thin V-by-One® HS) SerDes technologies, the CAM1-MT1080/MT720-IP7 is able to transmit video stream resolutions of 2.3MP/1MP 1080p60 by up to 15 meters. Moreover, the power over cable (PoC) reduces wiring, lowering the TCO. It's IP67 design fulfills the waterproof, dustproof, and military standard of anti-vibration/shock. Able to function normally at -40°C~70°C operating temperature, it is able to work in the harshest environments.

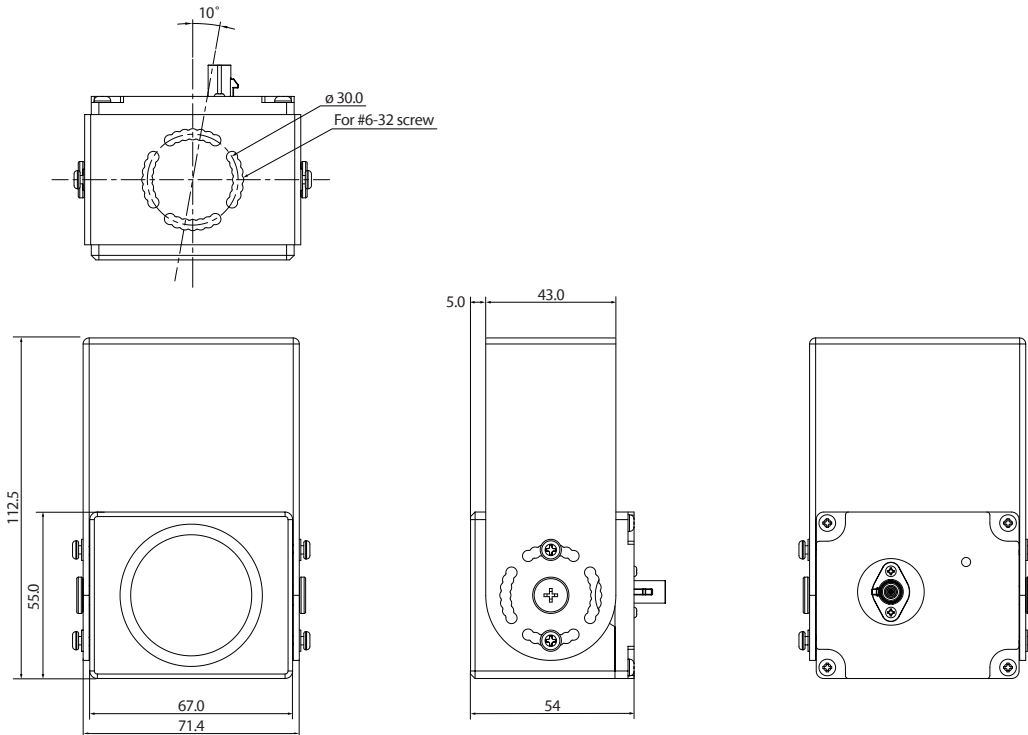
By pairing with excellent ONSEMI sensors, the CAM1-MT1080/MT720-IP7 supports HDR/WDR, global shutter, low light sensitivity and low latency characteristics suitable for ADAS applications. As an option, NEXCOM is also able to provide, customized view angle (H)/focus length and a higher 4MP resolution.

Specifications

Model Name	CAM1-MT1080-IP7-15m	CAM1-MT720-IP7-15m
Module Dimension	67.0mm(W) x 55.0mm(H) x 54.0mm(D) (not including cable)	
Cooling system	Fanless	
Cable Type/Length	IP67 rating Fakra cable, 15 meters	
Sensor/Module Interface	MIPI/SerDes	
Control Interface	I ² C over SerDes	
Output Format	YCbCr (external ISP)	
Output Format (frame rate)	1920 x 1200 x 30fps	1280 x 800 x 60fps
	1920 x 1080 x 60fps	1280 x 720 x 60fps
	1920 x 1080 x 30fps	1280 x 720 x 30fps
Chipset/Platform	Jetson NX/NANO/XAIVER/TX2	
Anti-vibration	MIL-STD-810G, 514.6C Procedure 3, Category 4	

Anti-shock	MIL-STD-810G, 516.6 Procedure I, trucks and semi-trailers=40g	
Operation Temperature	-20°C~65 °C	-20°C~70 °C
Storage Temperature	-40°C~85°C	
Relative Humidity	10%~95% (non-condensing)	
Sensor	ONSEMI AR0234	ONSEMI AR0144
Shutter	Global shutter	
Sensor Type	CMOS	
Mono/Color	Color	
Sensor Size	1/2.6"	1/4"
Unit Cell Size	3 μm(H) x 3 μm(W)	
Active Pixel	1920px(H) x 1200px(V) 2.3M	1280px(H) x 800px(V) 1.0M
Pixel Bit Depth	10 bits	12 bits

Dimension Drawing



Lens Mount	M12	
View Angle	113.4°(D) x 95.8°(H) x 59.6°(V)	110.8°(D) x 93.4°(H) x 57.8°(V)
F-number	1.8	2.2
Construction	7G+IR	6G+IR
Max Image Circle	Ø7.62mm	Ø6.80mm
EFL	3.48mm	2.40mm
BFL	5.71mm	4.38mm
TTL	23.8±0.2% (@Infinity)	15.25mm
Cut Frequency at 50%	635±10nm	650-670nm
Depth of View	Focus@1.2m from 0.581m to infinity	Focus@0.45m from 0.223m to infinity
	Focus@0.5m from 0.347m to 0.895m	Focus@0.1m from 0.082m to 0.129m

Ordering Information

- ♦ **CAM1-MT1080-IP7-15m (P/N: 10AT0108001X0)**
IP67 rating MIPI VBO SerDes CAM, 1080p60, AP-AR0234GSC-ISP-SerDes, 15m
- ♦ **CAM1-MT720-IP7-15m (P/N: 10AT0072001X0)**
IP67 rating MIPI VBO SerDes CAM, 720p30, AP-AR0144GSC-ISP-SerDes, 15m