

Stereoscopic Camera Module

GENERAL DESCRIPTION

The camera module is a depth camera based on active stereoscopic structured light for 3D imaging. It consists of 2 IR image sensors, 1 RGB image sensor, 1 infrared speckle projector, and 1 IMU. It is suitable for applications such as obstacle avoidance, navigation for robots/AGVs/AMRs/drones.



KEY PARAMETERS

Depth	Technology	Active stereo, also capable of functioning as passive stereo.
	Baseline	54.5mm
	Ideal Range	0.25m-5m
	Max Range	25m (support depth calculation)
	Blind Spot	0.25m
	Depth Accuracy	≤2% @2m
	Fov	H84°*V59°±3°
	Resolution	1280x800p15/30;1280x720p15/30;640x480p15/30;640x400p15/30;320x200p15/30
IR	Fov	H84°xV59° ±3°
	Resolution	1280x800p15/30;1280x720p15/30;640x480p15/30;640x400p15/30;320x200p15/30
	Shutter	Global Shutter
RGB	Fov	H94°xV66° ±3°
	Resolution	1280x800p15/30 1280x720p15/30 640x480p15/30 640x400p15/30 320x200p15/30
	Shutter	Global Shutter
Emitter	Spectrum	850nm Speckle
IMU	Type	3-axis accelerometer, 3-axis gyroscope
Sync	Frame Sync	Support
Hardware	Interface	USB3.0 Type-C
	Size	90.75*25*30
	Power	<3.2W@640x400p30
Reliability	Work Temp	-20-50°C
	Storage Temp	-30-70°C
	Protection	IP54



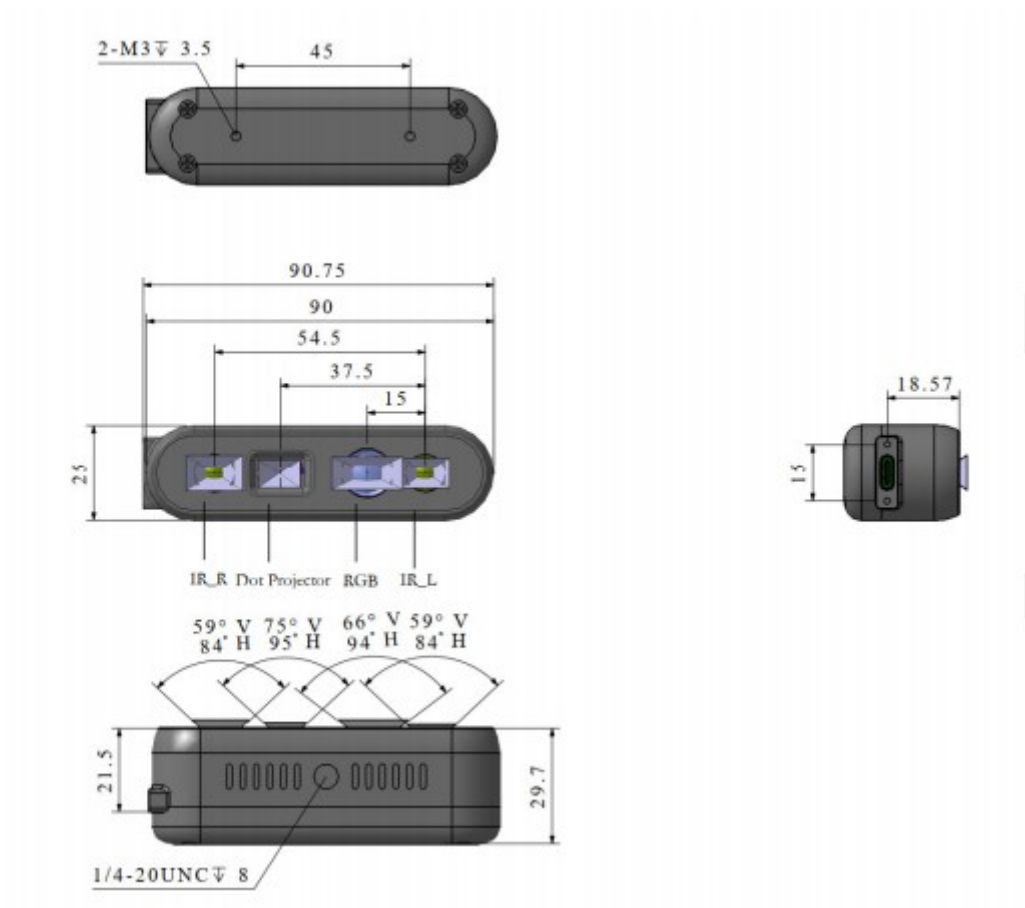


Data Format

Depth	IR	RGB	IMU
Z(16bit)	Y(8bit)	NV12	X[16 bits] Y[16 bits] Z[16 bits]



DIMENSIONS





Revision History

Version	Description	Release Date
Rev1	First Release	2024.4
Rev2	Add IMU and Emitter information	2024.5



