Intelligent detection and multi-scenario applications

The N-Driver P series are professional vehicle-mounted infrared sensors developed for the automobile market and customers in the industry. The product is applicable to such markets as special decoration, refitting, low-speed unmanned driving and automatic drive of vehicles, with the lenses covering multiple resolutions and focal lengths, fully meeting the needs of customers for customization and different scene applications.

Full resolution
Multiple resolutions, i.e. 100,000-300,000 pixels,are able to meet the requirements under multiple pixels

Full scene coverage
Applicable to various scenarios, such as special decoration, refitting, automatic drive, and low-speed unmanned driving of vehicles

High cost performance
Obvious superiority of product cost performance

■ Application field

assenger car, commercial vehicle, special vehicle, Advanced aided driving, and automatic drive

Mining truck Freight logistics Special vehicle Engineering machinery

■ Product parameters

Product pixel	100,000 pixels		300,000 pixels	
Product model	N-Driver P101B	N-Driver P102	N-Driver P301	N-Driver P302B
Product appearance				
Infrared detector	Uncooled infrared focal plane detector of oxidizing machine			
Operating waveband	8-14um			
Focal length	9.1mm			9.1mm/13.5mm
Field of view	28° X 21°	42°x 32°	48.3°× 38.6°	45°x 37°/ 32°x 24°
Frame rate	≥25FPS			
Output resolution	384 x 288@12μm	384 x 288@17μm	640X512@12μm	
Starting time	≤8.5s (ambient temperature)	≤3.5s (ambient temperature)		≤8.5s (ambient temperature)
Compensation algorithm	Automatic shutter compensation			
Image algorithms	Automatic brightness, contrast/image enhancement, 3D noise reduction, RAW, and NUC			
Recognition algorithm	Combined with the algorithm box to achieve the pedestrian, vehicle and animal recognition and collision warning (sound and image processing)	/		Combined with the algorithm box to achieve the pedestrian, vehicle and animal recognition and collision warning (sound and image processing)
Power interface	DC 9-16V (P0C power supply)	DC9-32V (P0C power supply)		DC 9-16V (P0C power supply)
Communication interface	U5B (Type C)	RS232		U5B (Type C)
Video interface	CVB5 (RCA)			
Audio interface	Support PWM output. The drive is equipped with an external buzzer	/		Support PWM output. The drive is equipped with an external buzzer
Rated voltage	DC 9-16V	TYP 12V (DC 9V -32V)		DC 9-16V
Power consumption	≤2W (@12Vno starting of window heating) ≤6W (@12V starting of window heating)	≤1W@(@12V no starting of window heating) ≤5W@(@12V starting of window heating)		≤2W (@12Vno starting of window heating) ≤6W (@12V starting of window heating)
Operating temperature	-40℃～+85 ℃	-20℃~+70℃		-40℃～+85 ℃
Storage temperature	-40℃～+95℃	-40℃～+80℃		-40℃～+95℃
Automatic heater	The heating function is enabled when the window temperature is below 2℃+2℃	The heating function is disabled when the window temperature is higher than 7℃+2℃		
Salt mist	GB/T 28046, GB/T 43249-2023, and standards of auto factory			
Sand and				
Impact				
Vibration				
Packaging	Sealed case 1P67&1P69K			
Detection distance	Person (1.75mX0.5m) ≥150m	Vehicle (1.75mX1.75m) ≥350m	Person (1.75mX0.5m) ≥200m	Vehicle (1.75mX1.75m) ≥400m
Detection distance	Person (1.75mX0.5m) ≥80m Vehicle (1.75mX1.75m) ≥100m	/		Person (1.75mX0.5m) ≥90m Vehicle (1.75mX1.75m) ≥120m
Size	≤36mm×36mm×46.5mm	≤28mm×28mm×50mm	≤28mm×28mm×60mm	≤36mm×36mm×46.5mm
Weight	≤120g			
EMC	Certified in EMC test together with the algorithm box (15010605, 15011452-4, 15011452-2, and 1507637-2)	CE certified		Certified in EMC test together with the algorithm box (15010605, 15011452-4, 15011452-2, and 1507637-2)