



Professional **DMS** Camera

C29N

Specification(V1.0)



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Preface

- **About This Product Specification Manual**

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Product Name Explanation

Symbol Explanation

The following symbols are used to categorize and explain potential hazards that may arise from improper operation.

Symbol	Explanation
	Warning: Conditions that could jeopardize the safety of the user or cause injury
	Important: Conditions that may lead to data corruption or damage to the device's firmware or hardware
	Note: Additional information, explanations of terms, and other relevant details

Abbreviation Explanation

Abbreviation	Full Name
DMS	Driver Monitoring System

Product Overview

Product Introduction

The C29N is a camera equipped with 0.7T of intelligent computing power and professional-grade DSM capabilities. It features a built-in face-centered exposure function, which can handle various complex lighting conditions, including slanting sunlight, reflective clothing, and light-absorbing clothing. The camera is equipped with a G-Sensor, supports A-pillar and dashboard mounting, and can automatically adjust the image to fit different installation positions. It is designed to capture clear images at distances of 50 - 100 cm from the driver's face, meeting installation requirements across a wide range of vehicle models. Additionally, the camera utilizes industry-leading infrared flash frequency technology, which significantly reduces power consumption and extends the device's lifespan.

Product Features



- Supports local operation of DMS intelligent algorithm
- Supports face-centered exposure function
- Supports the strobe function of infrared lamp power adjustment
- Equipped with a built-in G-sensor for automatic horizontal and vertical image

adjustment based on installation position

- Supports standard 3mm wide-angle lens, effectively solving the problem of driver out of frame
- Resolution: 1280 * 800 @ 30FPS
- Supports N9M 2.0 protocol
- Built-in audio capabilities
- Adjustable installation Angle (A-pillar): Vertical direction: 0~360°; horizontal direction: 0~180°
- Typical application: A-pillar side mounting, windshield installation, and vertical table mounting

AI Features

The C29N utilizes advanced video analysis technology and machine vision to automatically detect driver facial expression and unsafe driver behaviors. The system continuously monitors and issues both visual and audible alerts to enhance safety. Additionally, relevant alarm footage is automatically uploaded to the cloud for real-time monitoring and review through the DVR.

			
Lens Covering	Yawning	Phone	Smoking

			
Distraction	No Driver	Seat belt	Fatigue Driving

Product Specification

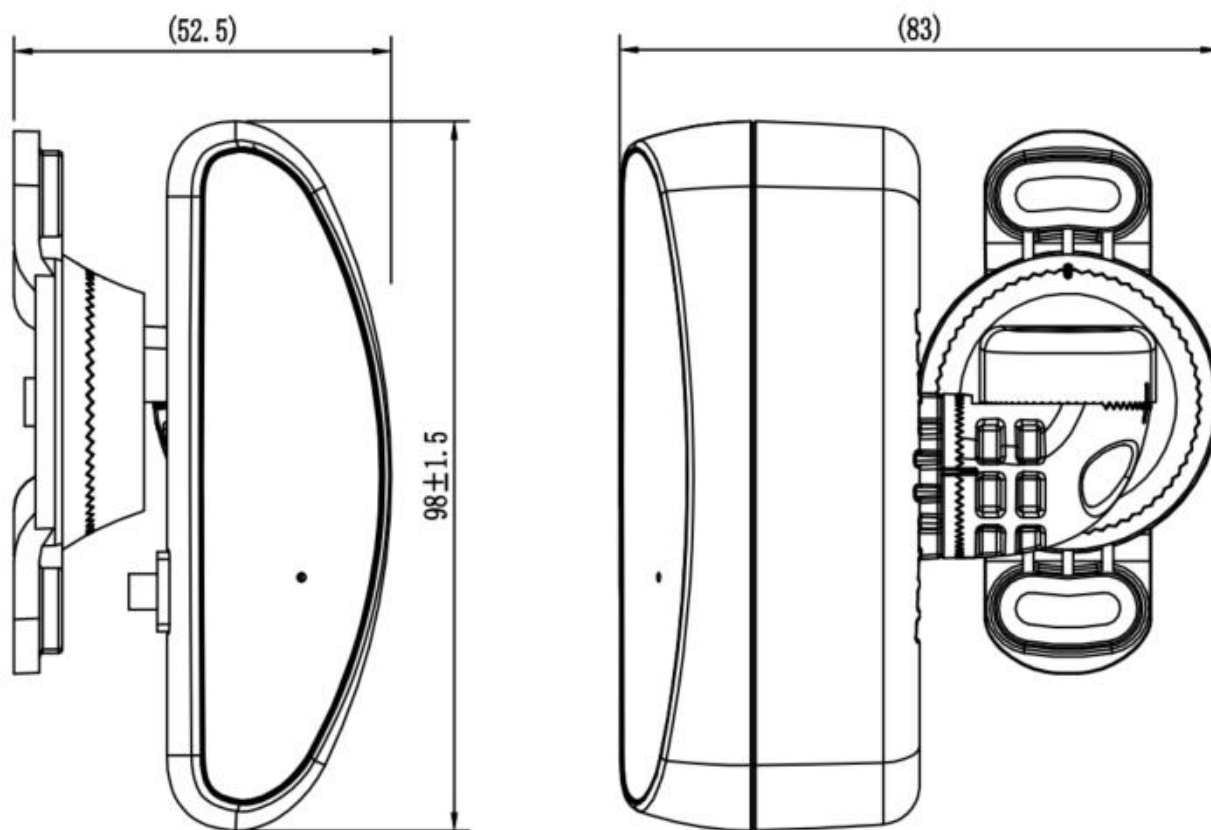
Product Model	C29N
System	Embedded Linux
Language	Options: Chinese and English Default: English
Video	
Video Channel	1-channel
Video Resolution / Frame Rate	Main stream: 1280*800 @ 20FPS Default: 1280*800 @ 20FPS
	Sub stream: VGA/D1/CIF@20FPS Default: VGA @ 20FPS
	Network transmission stream: VGA/D1/CIF@20FPS Default: VGA @ 20FPS
Encoding Mode	VBR/CBR optional, default VBR
Image Settings	Brightness, contrast, sharpness are all adjustable
Camera Parameters	
Sensor Type	1/4" 1MP CMOS Sensor
Shutter Speed	1/30s-1/50000s
Lens/FOV	3 mm/ HFOV: 70° VFOV: 42° ±5° error
IR Detection Range	Maximum distance up to 1m
Lens Interface Type	M12

Backlight Compensation	Support
Signal-to-Noise Ratio S/N	≥48dB
Sensor	
Six-axis Sensor	Supports horizontal and vertical status detection
Port (Peripheral Version)	
IPC interface	RS765-6 aviation female connector
Protocol	
Network Protocol	HTTP, TCP, ARP, UDP, FTP, DHCP, DNS, IPV4, NTP
Power	
Power Source	9-16V
Power Consumption	approx. 2.4W @12V
Environment Parameters	
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F)
Operating Humidity	15~90%
Protection Rating	IP53
Dimension and Weight	
Product dimension	L93mm × W80mm × H43mm (L3.66" × W3.15" × H1.69")

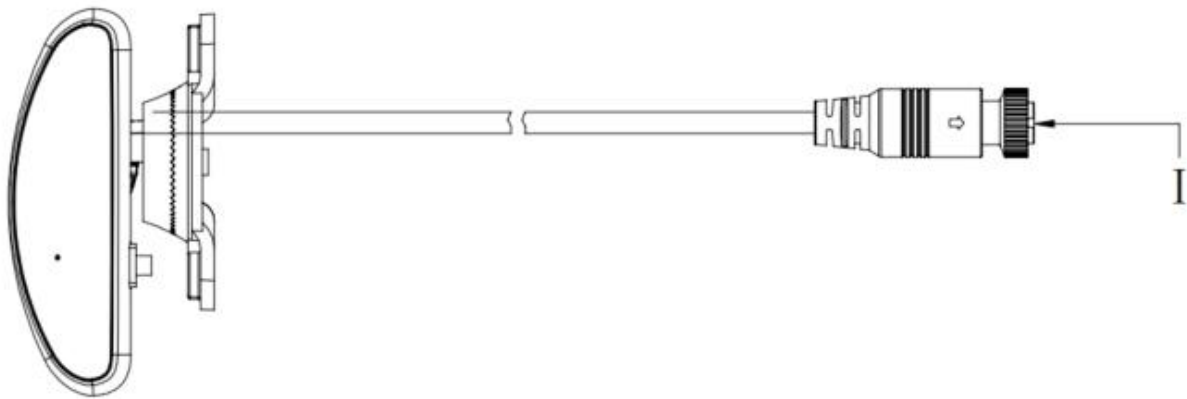
Package dimension	L135mm × W101mm × H110mm (L5.31" × W3.98" × H4.33")
Net weight	228 g(0.50 lb)
Gross weight	286 g (0.63 lb)
*The actual dimension and weight may vary depending on different configuration	
Packaging List (Peripheral Version)	
C29N*1, Accessories package *1	
*Contents may vary depending on the region and specific requirements	

Dimension Diagram

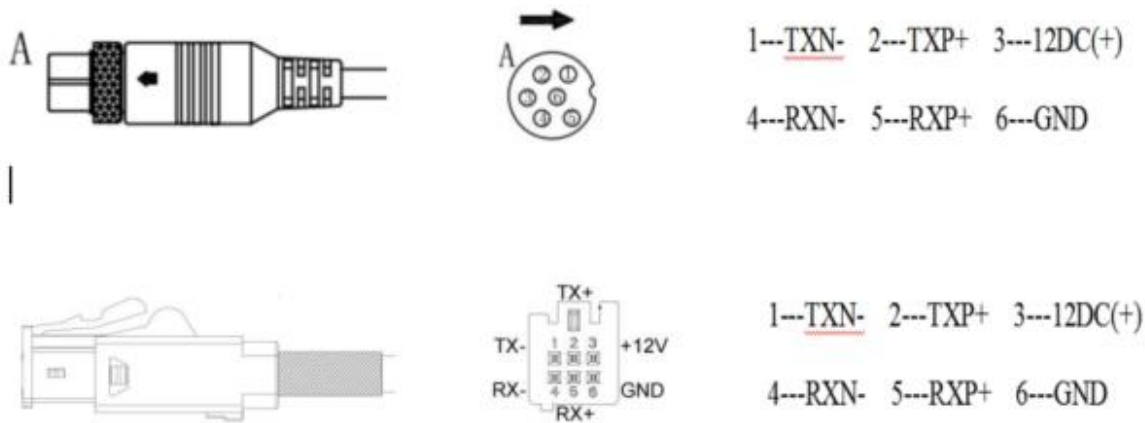
(Unit: mm)



Cable Details



PON 标准6 芯航头——默认2米（尾线长度）



C29N PON 6-core aviation connector and PON video connection head

Output interface