
N504D-3V3-5V Vehicle Module Manual

1. Scope of application

The information contained in this manual applies to the N504D-3V3-5V on-board module, including module specifications, appearance dimensions, operation instructions and other key information.

2. Overview

The N504D-3V3-5V module features a 1/3.06-inch, 4-megapixel wide dynamic color image CMOS sensor and a wide dynamic range ISP image processing chip, capable of producing 1440P analog HD images. The ISP offers a variety of features, including a color matrix, sharpness enhancement, gamma correction, automatic electronic shutter, automatic white balance, automatic gain control, adaptive backlight compensation, 2D noise reduction, 3D noise reduction, and reverse parking assist lines.

3. Technical parameters

order number	Parameter name	Parameter specifications
1	Sensor type:	CMOS
2	Sensitization size:	1/3.06 "
3	Effective pixels:	2560(H)x1440(V)
4	CRA:	15 °
5	white balance :	voluntarily
6	Automatic Gain Control (AGC):	voluntarily
7	Backlight compensation:	have
8	dynamic range :	81 dB
9	denoise :	2D DNR、 3D DNR
10	noise-signal ratio :	>52dB(AGC OFF)
11	Video format:	AHD 1440P@25FPS; AHD 1440P@30FPS
12	video monitor 525 vidicon video out :	1.0 Vp-p / 75 ohms
13	Gamma correction:	0.45
13	working voltage :	DC3.3V-5V
14	working current :	150mA
15	power :	0.5W (U=3.3V)
16	working temperature :	-30℃~+85℃
17	External dimensions:	16mm octagonal

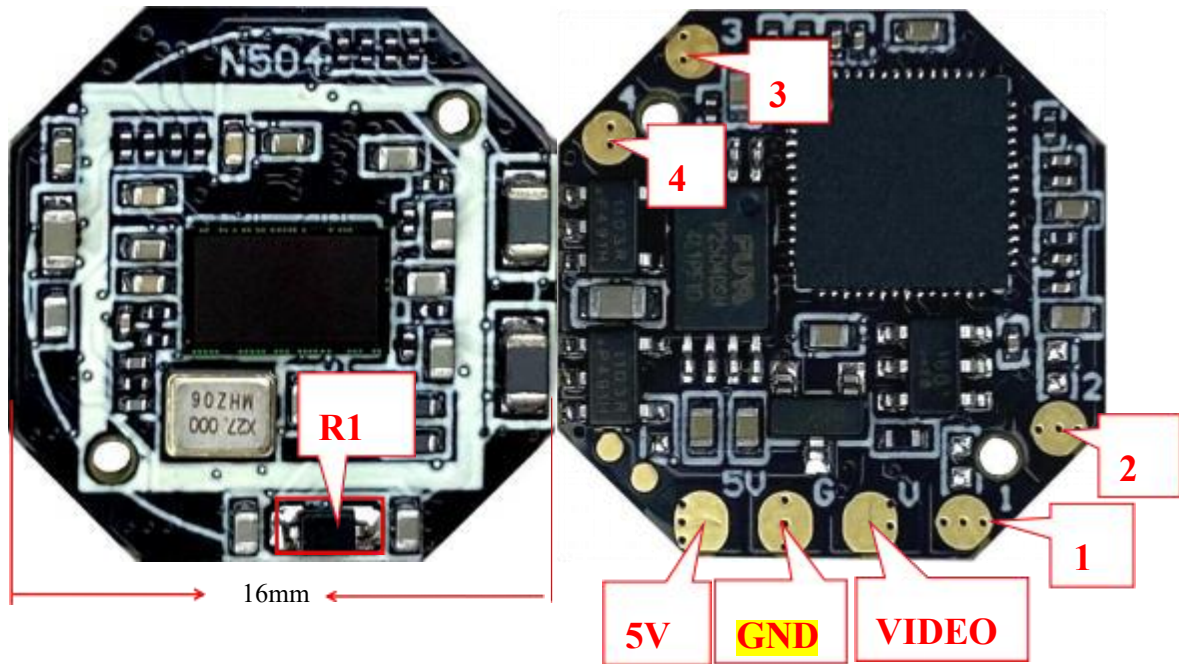
4. Storage method

A. Good storage conditions: the temperature is less than 25 degrees, the relative humidity is less than 65%, with temperature control, no corrosive gas in the indoor environment, and stored in electrostatic bag packaging.

B. General storage conditions: the temperature is not higher than 35 degrees, the relative humidity is less than 75%, the indoor environment is free of corrosive gas, and the storage is packaged in electrostatic bags.

C. Long-term storage: If you need to use it, avoid the risk of moisture and high temperature 80 degrees for 4 hours. It must be retested.

5. Appearance and interface



5V	Power input: R1 is attached to a 0 ohm resistor for power supply DC3.3V-5V (for reversing); Power input: R1, power supply DC3.6V-5V (for pullback and 360) when attaching diode.
GND	Ground: Power ground and video ground.
VIDEO	Video output: See "6. Video Output Mode".
1	Ground switching mode: You can choose any video mode in the table (6. Video output mode).
2	Ground switching mark: You can choose any video system in the table (6. Video output system).
3	Ground switching mirror: positive or mirror is optional
4	Ground switching line: optional with or without marking

6. Video output mode

order number	Video format	explain
1	AHD1080P@25FPS	1. When only the "1" control point is used to control the mode switching, You can select any two video formats from 1 to 8 in the left table to switch output. 2. Simultaneous use of "1" and "2" control points During mode switching, you can select any four video mode switching outputs from 1 to 8 in the left table to combine into four states: (1): "1" is not grounded, "2" is not grounded;
2	AHD1080P@30FPS	
3	AHD1440P@25FPS	
4	AHD1440P@30FPS	
5	TVI1080P@25FPS	
6	TVI1080P@30FPS	
7	TVI1440P@25FPS	

8	TVI1440P@30FPS	(2): "1" is not grounded, "2" is the grounding line; (3): "1" is grounded, "2" is not grounded; (4): "1" grounding wire, "2" grounding wire.
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