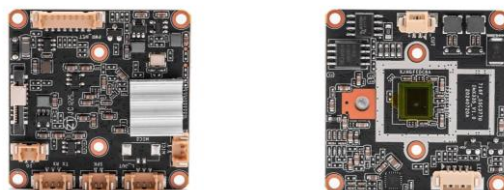


# N601

## IP Camera Module — Product Specification

5MP normal output • Up to 6MP maximum output



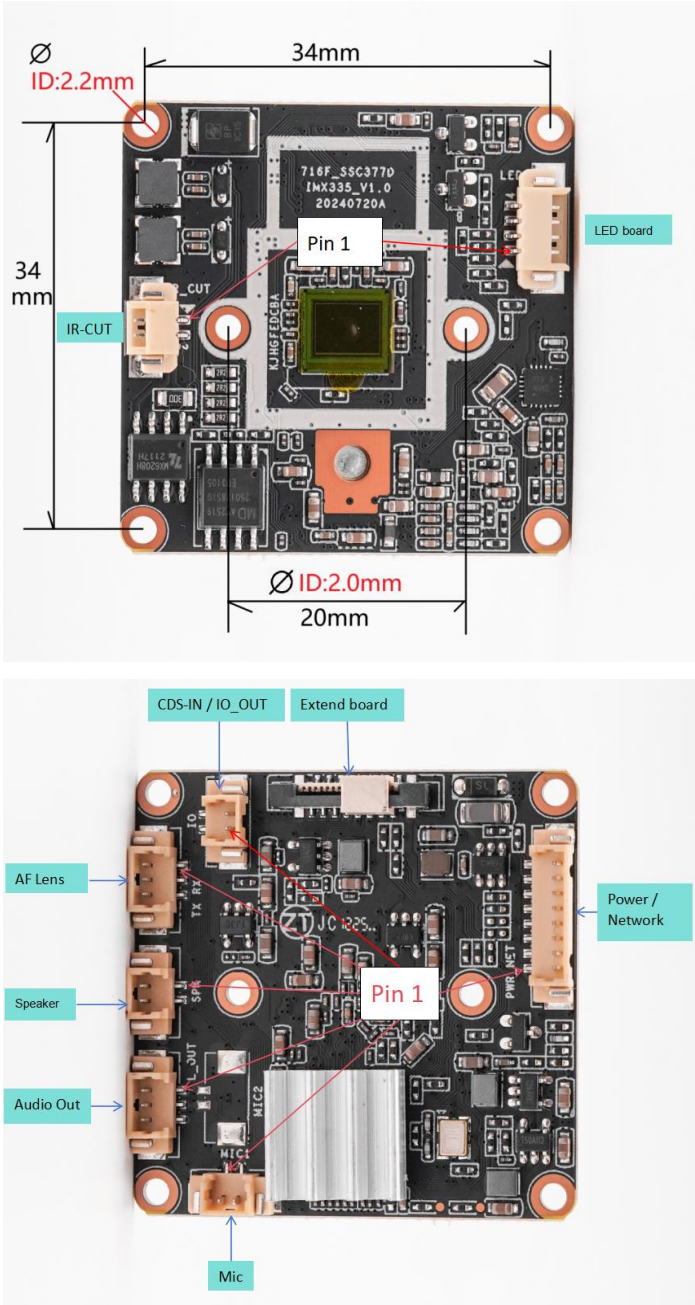
## Specifications

|                           |                                                                                                                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                     | N601                                                                                                                                                                                            |
| Camera                    |                                                                                                                                                                                                 |
| Image Sensor              | 1/2.8" 5MP Sony IMX335 CMOS                                                                                                                                                                     |
| Soc Chip                  | SigmaStar SSC377D                                                                                                                                                                               |
| Maximum Output Resolution | 3072(H)×2048 (V)                                                                                                                                                                                |
| Exposure Shutter          | AUTO/Manual: 1/10s ~ 1/8000s, Max Shutter speed adjustable                                                                                                                                      |
| Day/Night                 | Auto(Active/passive/schedule)/Day/Night, switch threshold, sensitivity, anti-flicker(Auto/50Hz/60Hz)                                                                                            |
| Image Adjust              | Brightness,Saturation,Sharpness,Contrast,Denoise (0-100%) adjustable                                                                                                                            |
| White Balance             | AWB/MWB                                                                                                                                                                                         |
| WDR                       | Yes                                                                                                                                                                                             |
| Light Mode                | Smart(dual-light) / IR / White light, adjustable                                                                                                                                                |
| Light Control             | Auto/Manual, Brightness level (0-100%) adjustable                                                                                                                                               |
| DNR                       | 2D/3D DNR                                                                                                                                                                                       |
| Encode                    |                                                                                                                                                                                                 |
| Video Standard            | H.264/H.265                                                                                                                                                                                     |
| Video Resolution          | Main Stream:<br>25fps@6MP(3072x2048)(default),30fps@5MP(2592x1944)/4MP(2560x1440)/3MP(2304x1296)/1080P/720P Sub stream:<br>10fps@720P,30fps@D1(704x576)(default)/(720x480)/VGA(640x480)/640x360 |
| Video Bitrates            | Main stream: 64kbps-8Mbps Sub stream: 64kbps-2048kbps VBR/CBR , quality(1-9), GOP(1-128)                                                                                                        |
| Snapshot                  | Sub Stream(SD) snapshot                                                                                                                                                                         |
| Image Rotation            | 0 / 90 / 180 / 270 degree adjustable                                                                                                                                                            |
| Border Crop               | X crop, Y crop                                                                                                                                                                                  |
| Image Mirror              | horizontal / vertical / horizontal & vertical adjustable                                                                                                                                        |
| OSD Overlay               | Font size(1-4), position,Time, Title, AM/PM, Color, User OSD, Alarm OSD                                                                                                                         |

|                                                                                                                                                  |                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Privacy Mask</b>                                                                                                                              | 4 areas                                                                                                                     |
| <b>Region of Interest</b>                                                                                                                        | ROI: Each stream support 8 areas                                                                                            |
| <b>Audio Standard</b>                                                                                                                            | G.711-u/G.711-a/AAC, AEC                                                                                                    |
| <b>Led</b>                                                                                                                                       |                                                                                                                             |
| <b>IR Led</b>                                                                                                                                    | External light board supported (not included)                                                                               |
| <b>White Led</b>                                                                                                                                 | External light board supported (not included)                                                                               |
| <b>Smart Control</b>                                                                                                                             | Yes                                                                                                                         |
| <b>Lens</b>                                                                                                                                      |                                                                                                                             |
| <b>Focal length</b>                                                                                                                              | fixed Lens/AF Lens                                                                                                          |
| <b>IR-CUT fixed position</b>                                                                                                                     | L= 20mm, ID=2.0mm                                                                                                           |
| <b>Language</b>                                                                                                                                  |                                                                                                                             |
| <b>Languages</b><br>English, simplified Chinese, Chinese Traditional, Japanese, Korean, German, Polish, Italian, Turkish, Ukraine, Russian, etc. |                                                                                                                             |
| <b>Smart Detection</b>                                                                                                                           |                                                                                                                             |
| <b>Motion Detection</b>                                                                                                                          | Yes                                                                                                                         |
| <b>Digital IO Alarm</b>                                                                                                                          | 1 pair Alarm-in/Alarm-out, normally open/normally close (optional)                                                          |
| <b>Human Vehicle Detection</b>                                                                                                                   | Yes, (2-20 meters)                                                                                                          |
| <b>Cross Line Detection</b>                                                                                                                      | Yes, 4 lines                                                                                                                |
| <b>Perimeter protection</b>                                                                                                                      | Yes, 4 areas                                                                                                                |
| <b>Face Detection</b>                                                                                                                            | Yes, (1-5 meters)                                                                                                           |
| <b>Target Detection Type</b>                                                                                                                     | Human shape, vehicle, non-motor vehicle, pet, face (12–1000 px)                                                             |
| <b>Trigger Action Linkage</b>                                                                                                                    | Snapshot, Record, Relay(Red-blue Led flash) optional, White LED Flash, Voice siren, Micro-SD, Email, FTP, NAS storage (NFS) |
| <b>Simultaneous Detection</b>                                                                                                                    | Maximum 16 targets simultaneous detection                                                                                   |
| <b>Storage Type</b>                                                                                                                              | Schedule/Trigger: Micro-SD(512G) , Email, FTP, NAS(NFS)                                                                     |
| <b>Reset Button</b>                                                                                                                              | Yes (with reset voice)                                                                                                      |
| <b>Network Services</b>                                                                                                                          |                                                                                                                             |
| <b>Protocol</b>                                                                                                                                  | HTTP(s)/RTSP/FTP/SMTP/DHCP/NTP/DST/RTP/RTMP/P2P/HiK/IPv4/IPv6/NFS/DDNS                                                      |
| <b>IP Address Filtering</b>                                                                                                                      | Yes (Allow list, Deny list)                                                                                                 |
| <b>P2P Mobile APP</b>                                                                                                                            | Android, IOS                                                                                                                |
| <b>Web Access</b>                                                                                                                                | IE, Firefox, Chrome, Edge, Safari, etc. (Windows/Linux/Mac/Chromebook/Tablet/Mobile phone)                                  |
| <b>PC Tool</b>                                                                                                                                   | Windows, Mac                                                                                                                |
| <b>ONVIF</b>                                                                                                                                     | 23.12 compatible (profile S G T M)                                                                                          |
| <b>General</b>                                                                                                                                   |                                                                                                                             |
| <b>Network Port</b>                                                                                                                              | 100 Mbps Ethernet via external cable; PoE requires an external PoE board                                                    |
| <b>Power Supply</b>                                                                                                                              | 12 VDC $\pm$ 10%                                                                                                            |
| <b>Power Consumption</b>                                                                                                                         | < 2 W                                                                                                                       |
| <b>Operating Temp.</b>                                                                                                                           | -20°C-(+60)°C, 10%-90%RH                                                                                                    |

|                                      |                                                                                                                     |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Suggest users</b>                 | 5                                                                                                                   |
| <b>Optional Peripheral Equipment</b> |                                                                                                                     |
| <b>IR-CUT</b>                        | 5-12V, 25-60Ω, ID:2.0mm                                                                                             |
| <b>Condenser Mic</b>                 | 28 - 30 dB                                                                                                          |
| <b>Fill-in Led</b>                   | IR/White , pwm control                                                                                              |
| <b>Red&amp;blue Alarm light</b>      | IO-out control                                                                                                      |
| <b>Reset button</b>                  | Yes (Active Low)                                                                                                    |
| <b>AF Lens Control</b>               | Yes                                                                                                                 |
| <b>Extend Board</b>                  | Alarm-in/Alarm-out/Memory card/Reset                                                                                |
| <b>Output Resolution</b>             | 5MP normal; up to 6MP                                                                                               |
| <b>Face Comparison</b>               | Supported when used with compatible IQ-series NVRs; the module provides face detection                              |
| <b>Microphone Interface</b>          | Supports an external microphone (not included)                                                                      |
| <b>Speaker Interface</b>             | External speaker connection supported; speaker not included                                                         |
| <b>External Accessories</b>          | Network cable, PoE board, microphone and speaker are external accessories and are not included with the bare module |

Connection Diagrams & Pin Definitions



Connector pin pitch: 1.25 mm

| Functions       | Index | Pin definition | Description                     |
|-----------------|-------|----------------|---------------------------------|
| CDS-IN / IO_OUT | 1     | IR_DET         | CDS in (passive mode, 1.5V-12V) |
| CDS-IN / IO_OUT | 2     | IO_OUT         | Red&Blue Led (3.3V)             |
| Power/Network   | 1     | DC 12V+        | DC 12V+ (9.5V-15V)              |
| Power/Network   | 2     | GND            | GND                             |
| Power/Network   | 3     | RJ45_6         | Network_RJ6                     |
| Power/Network   | 4     | RJ45_3         | Network_RJ3                     |
| Power/Network   | 5     | RJ45_2         | Network_RJ2                     |
| Power/Network   | 6     | RJ45_1         | Network_RJ1                     |
| Power/Network   | 7     | Reset          | Reset (Active Low)              |

|               |    |         |                            |
|---------------|----|---------|----------------------------|
| Power/Network | 8  | LED1    | Link active (3.3V)         |
| Mic           | 1  | MIC+    | Mic (Condenser Mic)        |
| Mic           | 2  | MIC-    | Mic (Condenser Mic)        |
| IR-CUT        | 1  | AOUT    | IR-CUT+ (5-12V,25-60Ω)     |
| IR-CUT        | 2  | BOUT    | IR-CUT- (5-12V,25-60Ω)     |
| Speaker       | 1  | SPK+    | Speaker+ (Max:2W)          |
| Speaker       | 2  | SPK-    | Speaker- (Max:2W)          |
| LED board     | 1  | +12V    | 12Vout                     |
| LED board     | 2  | GND     | GND                        |
| LED board     | 3  | PWM1    | IR led control (0-3.3V)    |
| LED board     | 4  | PWM0    | White led control (0-3.3V) |
| Audio out     | 1  | GND     | GND                        |
| Audio out     | 2  | L_OUT   | Audio out                  |
| Audio out     | 3  | SPK_EN  | Amplifier IO (3.3V)        |
| AF Lens       | 1  | GND     | GND                        |
| AF Lens       | 2  | UART_TX | UART_TX                    |
| AF Lens       | 3  | UART_RX | UART_RX                    |
| Extend Board  | 1  | IOOUT   | IO Output                  |
| Extend Board  | 2  | IOINPUT | IO Input                   |
| Extend Board  | 3  | SD_DET  | SD detect                  |
| Extend Board  | 4  | SD_D1   |                            |
| Extend Board  | 5  | SD_D0   |                            |
| Extend Board  | 6  | GND     |                            |
| Extend Board  | 7  | SD_CLK  |                            |
| Extend Board  | 8  | GND     | GND                        |
| Extend Board  | 9  | SD_CMD  |                            |
| Extend Board  | 10 | SD_D3   |                            |
| Extend Board  | 11 | SD_D2   |                            |
| Extend Board  | 12 | VDD     | 3.3V                       |
| Extend Board  | 13 | RESET   | Reset                      |
| Extend Board  | 14 | V3.3    | V3.3                       |
| Extend Board  | 15 | V3.3    | V3.3                       |
| Extend Board  | 16 | V3.3    | V3.3                       |