# IPG-80X20PTA-WPNG
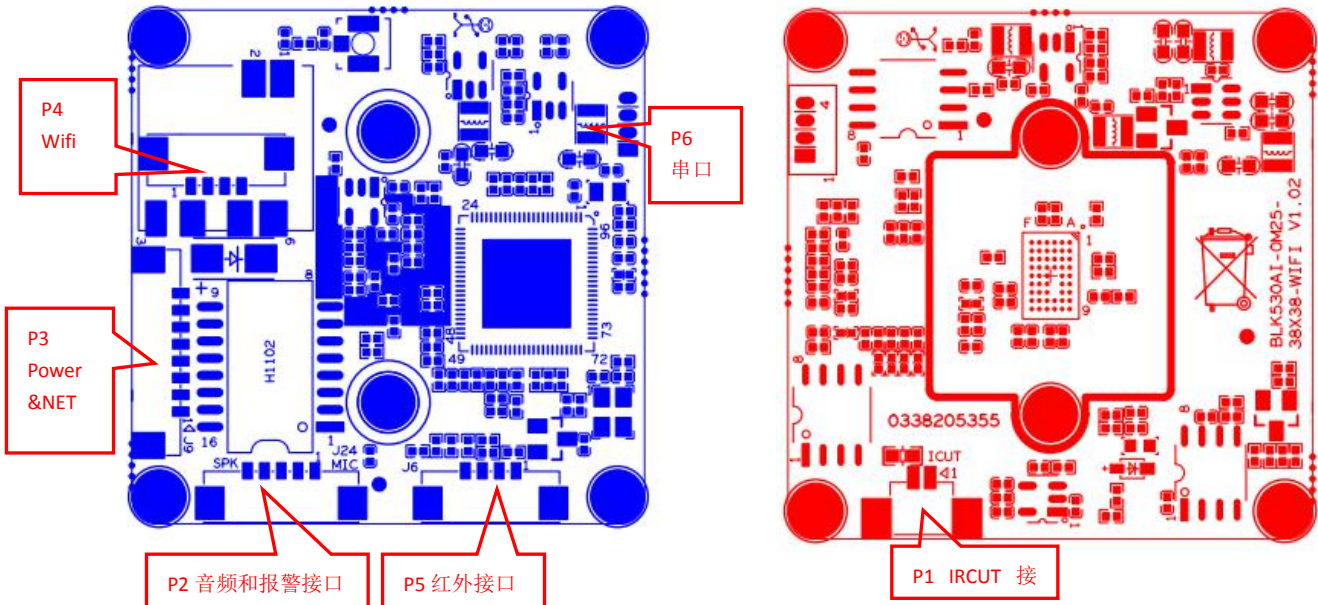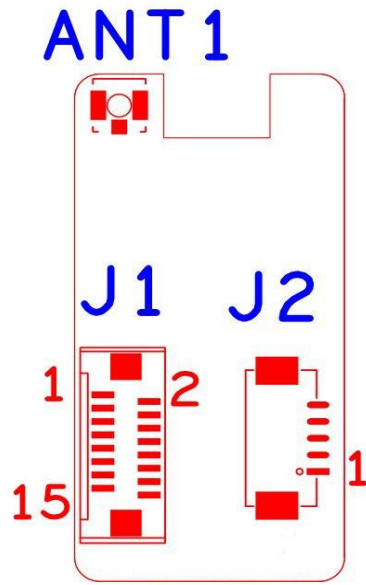## 2.0M Wireline-WiFi IP camera Module

### Features:

➢ Support 450m signal stable connection in open environment, excellent through wall performance WiFi chip, strong anti-interference
➢ Supporting human detection and face detection,support to customize intelligent functions
➢ 2.0M resolution,clear and fine images;
➢ Support for wired and wireless connections
➢ Support 2D/3D noise reduction,digital wide dynamic;
➢ Advanced H.265+ video compression,Super low rate,high definition quality of image;
➢ Professional anti-lightning,conform to GB/T17626.5 and IEC61000-4-5。
➢ Support matching WIFI NVR board, recommend to cooperate with NBD8004RA-UWG NVR board to achieve 450m;

### Parameters：

| Model | IPG-80X20PTA-WPNG |
|---|---|
| System structure | Embedded RTOS, dual-core 32-bit DSP (XM530AI),pure hard compression ,watch dog |
| Sensor | 2.0M 1/3"F37H CMOS sensor,color 0.1Lux@F1.2,black/white 0.01Lux@F1.2 |
| Video compression | H.265+ coding,support dual stream,AVI;0.1M~6Mpbs variable |
| Image output | Main stream: 1920*1080@15fps; sub-stream: 640*360@15fps |
| Shutter | 1/50(1/60)s to 1/10,000s |
| Lens | N/A |
| Day and night | Support IR-CUT,IR-CUT coil has an internal resistance of 20 ohms, the power-on time is less than 200ma, and the voltage is 3.5V-6V |
| Noise reduction | Support 2D/3D |
| Wide dynamic | Support |
| Auto iris | N/A |
| Audio compression | G.711 standard compression,support two-way Bidrectional Talk,support for audio and video synchronization |
| Audio interface | 1ch input,level:2Vp-p,impedance:1kΩ,support sound pick-up input;1ch output,impedance:16Ω,30mw,support microphone; |
| Network interface | 1 RJ45 Ethernet interface, 10/100M adaptive |
| Extension interface | N/A |
| Singal interface | one IR-CUT interface |
| PTZ | N/A |
| Motor interface | N/A |
| Alarm I/O | N/A |
| WIFI interface | Supports 450 meters wireless connections |
| Reset interface | N/A |
| SD Card | N/A |
| Reliability | Comprehensive lightning protection, 7 * 24 hours 65 ℃ high temperature stable and reliable testing |
| Intelligence analysis | Supporting human detection and face detection，support to customizing other intelligent functions |
| Other function | Support IO alarm,front-end storage/playback/download, and center reminder and image linkage,support JPEG capture;perfect SDK; |
| ONVIF | Unsupport |
| Mobile monitoring | Unsupport |
| Power | DC5V-12V |
| Dimension | 38mm*38mm+38mm*19mm |
| Other | The drive voltage of the light board is at 3.3V |

P4 Wifi

P6 串口

P3 Power &NET

P2 音频和报警接口　　　P5 红外接口

P1　IRCUT 接

| Socket | | Specific No | Interface Description | |
|---|---|---|---|---|
| P1 | J5 | 1 | IR-CUT | IR-CUT A OUT |
| | | 2 | IR-CUT | IR-CUT B OUT |
| P6 | J4 | 1 | GND | GND |
| | | 2 | UATRO_TXD | UATRO_TXD |
| | | 3 | UATRO_RXD | UATRO_RXD |
| | | 4 | BOOTSEL_0 | BOOTSEL_0 |
| P5 | J6 | 1 | PWM | PWM-OUT |
| | | 2 | LED_CTRL | Infrared lamp control signal |
| | | 3 | ADC1_IN | Infrared light signal control |
| | | 4 | GND | GND |
| P3 | J9 | 1 | KEY_SET | KEY_SET |
| | | 2 | LED/PHY_AD1 | LED/PHY_AD1 |
| | | 3 | ETHTX+ | ETHTX+ |
| | | 4 | ETHTX- | ETHTX- |
| | | 5 | ETHRX+ | ETHRX+ |
| | | 6 | ETHRX- | ETHRX- |
| | | 7 | GND | GND |
| | | 8 | 12V 输入 | 12V INPUT |
| P2 | J24 | 1 | MICN | MIC |
| | | 2 | MICP | MIC |
| | | 3 | GND | GND |
| | | 4 | SPKP | loudspeaker |
| | | 5 | SPKN | loudspeaker |
| P4 | J25 | 1 | 3V3 | 3V3 |
| | | 2 | WIFI_DN | WIFI DATA |
| | | 3 | WIFI_DP | WIFI DATA |
| | | 4 | GND | GND |

ANT1

J1  J2

1  2
15  1

| Socket | Specific No | Interface Description | Function |
|--------|-------------|----------------------|----------|
| J2 | 1 | GND | 5P1.25mm WIFI Expansion seat |
|    | 2 | USB_DP |  |
|    | 3 | USB_DM |  |
|    | 4 | +5V |  |
|    | 5 | USB_CTRL |  |
| ANT1 | 1 |  | IPEXAntenna interface |

PS: USB_CTRL is the power supply control pin of the WIFI module. Low level enables power supply.