

# IPC525-NL-R

## 2.0MP HD Thermal & Optical Bi-spectrum Laser PTZ Camera



### Features

#### Excellent Image Quality

- 2.0 Megapixel 1/1.9" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@60fps (Optical), 800 x 600@30fps (Thermal)
- H.265 video codec, saves up to 50% bandwidth and storage
- Low illumination, 0.001lux with color picture
- 120dB Ultra WDR
- Laser automatically adjusts
- HLC / 3D noise reduction

#### Thermal Module

- High sensitivity thermal module, 800 x 600@30fps
- Up to 9 palettes of adjustable color

#### Long Operation Lifespan

- Industrial components, withstands operation temperatures of -40°C ~ 60°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
- More than 30,000 hours operational lifespan of the laser illuminator

#### Large Scale

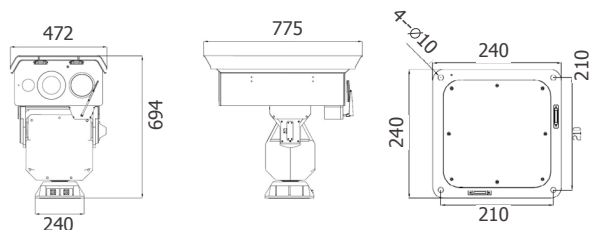
- 62x optical zoom (-F160-NL5)
- Long range night vision up to 5Km (-F160-NL5)

#### Abundant Functions and Features

- Micro SD card slot, supports Automatic Network Replenishment (ANR)
- Strong PT structure has smooth movements even with a 100kg carry-on load
- Optical defog
- Built-in O-sensor
- AR and AF housing glass
- Aviation connector

### Dimensions

Units: mm



### Specifications

IPC525-NL-R	
<b>Thermal Module</b>	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	800 x 600
Lens	-F132-NL3-R75: 75mm
	-F160-NL5-R100: 100mm
Detector Pitch	17µm
NETD	< 40mk (@25°C, F#=1.0)
Response Waveband	8µm ~ 14µm
Color mode	up to 9 modes
<b>Optical Camera</b>	
Image Sensor	1/1.9" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.001Lux @ (F1.2, AGC ON) B/W: 0.0001Lux @ (F1.2, AGC ON); 0Lux with Laser
Shutter Speed	1 ~ 1/30,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Ultra WDR, >=120dB
S/N Ratio	>57dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / WDR / BLC / HLC
<b>Lens</b>	
Focal Length	-F132-NL3-R75: 15.6 ~ 500mm, 32x optical -F160-NL5-R100: 12.5 ~ 775mm, 62x optical
Zoom Speed	Approx 3 ~ 10s (Optical)
Angle of View	-F132-NL3-R75: 26.73° ~ 0.75° (Wide~Tele) -F160-NL5-R100: 28.71° ~ 0.49° (Wide~Tele)
Min. Object Distance	5000mm (Wide)
Max. Aperture Ratio	F3.5 (Wide) / F1.6 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Auto Back Focus	Auto
Optical Defog	Supported
<b>Laser</b>	
Wave Length	808nm
Power Consumption	-F132-NL3-R75: 20W -F160-NL5-R100: 25W
Laser Distance	-F132-NL3-R75: 3Km -F160-NL5-R100: 5Km
Laser Intensity	Automatically adjust according to zoom ratio
Illuminating Angle	0.3° ~ 30° continuous change
<b>Vision</b>	
Day	-F132-NL3-R75: 5Km -F160-NL5-R100: 10Km
Night	-F132-NL3-R75: 3Km -F160-NL5-R100: 5Km
<b>Pan and Tilt</b>	
Pan / Tilt Range	360° Endless / - 60° ~ 60° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.01° ~ 15°/s; Pan preset speed: 15°/s Tilt manual speed: 0.01° ~ 10°/s; Tilt preset speed: 10°/s
Proportional Zoom	Pan / Tilt speed can be adjusted automatically according to zoom multiples
Preset	256
Patrol	8 Patrols scheme, up to 32 presets per patrol
Pattern Scan	4 Scan paths, each path can record 10 minutes of operation path
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Path / Preset / Pan scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Electronic compass	Built-in O-sensor
Location Sensor	GPS
<b>Shield</b>	
Housing Glass	AR & AF glass
<b>Video</b>	
Compression Format	H.265 / H.264 / MJPEG
Image Resolution	Main stream: 1080p
	Secondary stream: D1
Frame Rate	Main stream: 1080p@60fps
	Secondary stream: D1@30fps
Bitrate	32kbps ~ 16Mbps
Bitrate Control	VBR / CBR
Multi-stream	Supported
Caption	Date and time / Alarm / Direction / Customized
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Supported
ROI	Supported
Digital Noise Reduction	3D noise reduction
Digital Defog	Supported
Image Flip	Mirror
<b>Audio</b>	
Compression	G.711a / G.711u / ADPCM / G.722 / AAC-LC / G.722.1c / G.726
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
<b>Network</b>	
Network Protocols	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP, UPnP, 802.1x, NAT, QoS, SMTP, IPv4, IPv6 (optional)
User Interface	IPC Control (IE, Firefox, Chrome)
Max. User Access	Max. 10 Users (include 2 internal)
Application Programming	ONVIF (Profile S, Profile G), GB/T 28181-2011, API, CGI
Automatic Network Replenishment (ANR)	Supported
<b>Alarm</b>	
Alarm Triggers	Network disconnect / Disk full / Disk error
Intelligent	Motion detection / Tampering / Guard line / Enter guard area / Exit guard area / Object left / Object removal / Gathering / Audio surge
Alarm Events	Alarm report / Recording / Text overlay / Snapshot / External output / Email notice / Acoustic alarm
<b>Interfaces</b>	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line In / 1 x Line out
Alarm	1 x Output
Memory Slot	Micro SD card slot, supports up to 256GB
<b>Environmental</b>	
Operating Temperature	-40°C ~ 60°C / -40°F ~ 140°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
<b>Electrical</b>	
Power	48V DC ± 25% (Power adapter included)
Power Consumption	Max. 160W (Laser on)
<b>Mechanical</b>	
Weight	70kg / 154.3lb (Gross Weight)
Dimensions	775 x 424 x 688.5mm / 30.51" x 16.69" x 27.11"