



# NWPL-4PL500

4MP Payload Multi-Spectrum PTZ Camera



## Key Features:

- 4MP Full HD Optical Sensor
- 2592x1520 and 1280x1024 Infrared Sensors
- 1570nm Laser Rangefinder/Tracker
- 62x Optical Zoom (Visible) 5x and 5x Optical Zoom (IR)
- Multi-Axis gimbal
- MIL-STD 810 certified
- GPS, INS, Geo-pointing, Controllable, Radar integration via I/O

## Product Overview

Infinity Payload cameras are unique multi-sensor, multi-gimbal turret style cameras that can be affixed to aircraft for high speed and high altitude applications.

## Features

### Multiple Sensors

Offering visible imagery at 4MP but also providing multi wavelength Infrared (IR) and multiple Laser imagery and pointing functionalities.

# Technical Specification

Visual Camera	
Wavelength	0.4 $\mu$ m ~ 0.75 $\mu$ m visible spectrum
Effective Pixels	2592(H) $\times$ 1520(V)
Focal Length	8 ~500mm, 62x optical zoom
Short Wave IR (SWIR)	
Wavelength	0.8 $\mu$ m ~ 0.95 $\mu$ m
Effective Pixels	1280(H) $\times$ 1024(V)
Focal Length	21 ~105mm, 5x optical zoom
Medium Wave IR (MWIR)	
Wavelength	8 $\mu$ m ~ 14 $\mu$ m
Effective Pixels	1280(H) $\times$ 1024(V)
Focal Length	21 ~105mm, 5x optical zoom
NETD	40mK
Video	
Compression and Resolution	H.265,H.265,MJPEG
Max. Resolution	1520P(2592 $\times$ 1520)
Streaming Capability	3 Streams
Main Stream / Frame Rate	<b>Optical:</b> 2592 $\times$ 1520/1920 $\times$ 1080, 1280 $\times$ 720 @25/30fps <b>Thermal:</b> 1920 $\times$ 1080 @ 25/30fps
Sub Stream / Frame Rate	VGA, 640 $\times$ 360, CIF, QVGA @25/30fps
Bit Rate Control	CBR/VBR
Image Enhancement	HLC / Defog / WDR
White Balance	Auto/Tungsten/Fluorescent/Daylight/Shadow/Manual
Features	AGC, WDR, Image Stabilizer, 2D/3D DNR
Electrical	
Power Supply and Consumption	48V DC // 300W ~ 600W Max
Operating Conditions	-40 $^{\circ}$ C ~ 65 $^{\circ}$ C
Certifications	CE / FCC // Metal Casing // MIL STD 810G
Dimensions, Weight	$\leq$ $\phi$ 480mm x 825mm; 85Kg

Laser Rangefinder	
Type	ANSI Class I, ANSI Class 4
Wavelength	1570nm
Compatibility	US & NATO Laser Guided
Ranging Distance	Greater than 2km
Ranging Accuracy	Greater than 3m
Laser Designator/Tracker	
Type	Diode
Wavelength	1570nm
Beam Divergence	$\leq$ 4 $\mu$ m
Mode	Continuous, Pulse
Network	
Protocols:	IPv4/IPv6, 802.1x, HTTP, HTTPS, TCP/IP, UDP/IP, RTSP, DHCP, NTP, RTP/RTCP, PPPoE, SMTP, DNS, UPnP, FTP, ARP, SNMP
Interoperability	ONVIF, CGI, SDK
Web Viewer	<IE11, Chrome, Firefox, Safari, Edge
Physical	
Pan/Tilt Range	Pan: 0 $^{\circ}$ ~ 360 $^{\circ}$ endless, Tilt: +20 $^{\circ}$ ~ -120 $^{\circ}$
Functions	
Angular Speed	Greater than 60 $^{\circ}$ /s
Angular Acceleration	Greater than 60 $^{\circ}$ /s
Accuracy for Target	Less than 0.1 $^{\circ}$ /s
Tracking	Support, without slip and without loss
Interface	
Ethernet	1 Ethernet (10/100 Base-T) RJ-45 Connector
I/Os	1x 28V output
Features	2x RS485, GNSS
Detections	
Detection Distance (Fire: 1m x 1m)	Up to 2km
Detection Distance (Fire: 2m x 2m)	Up to 6km
Detection Distance (Humans: 1.8m x 0.5m)	Up to 4km
Detection Distance (Vehicles: 2.3m x 2.3m)	Up to 10km
Identify Distance (Humans: 1.8m x 0.5m)	Up to 1.5km
Identify Distance (Vehicles: 2.3m x 2.3m)	Up to 3km

## Connections

### J29A-9ZKP Rectangular Connection

Serial number	Signal definition	Socket core number	Signal direction	Remark
1	P24V	1, 2, 3, 4	Aerial carrier→payload	Power supply input
2	PGND	6, 7, 8, 9	Aerial carrier→payload	
3	Empty	5		

### J30J-15ZKP Rectangular Connection

Serial number	Signal definition	Socket core number	Signal direction	Remark
1	RS422RX+	1	Aerial carrier→payload	Main: 422
2	RS422RX-	2	Aerial carrier→payload	
3	RS422TX+	3	Payload→ Aerial carrier	
4	RS422TX-	4	Payload→ Aerial carrier	
5	DGND	5		
6	Ethernet RX+	9	Aerial carrier→payload	100mb Ethernet
7	Ethernet RX-	10	Aerial carrier→payload	
8	Ethernet TX+	11	Payload→ Aerial carrier	
9	Ethernet TX-	12	Payload→ Aerial carrier	
10	Empty	remain		