

MWIR HD Continuous zoom

LRC³Z-HD-Series

HD MWIR Continuous zoom Long range
Cooled Thermal imaging camera

Technical Specification

LRC³Z-HD is a High Definition continuous zoom, high performance thermal camera designed for long range surveillance and tracking in mobile systems or field installations, delivered in a ruggedized package and it is equipped with a high resolution, InSb, 1,280 x 1,024 pixels, 15µm pitch focal plane array operating in the 3-5µm waveband

The camera provides few **HD continuous zoom** lenses alternative both for F/4 as well as F/4.7 detector:

- F/4 alternatives: 30 – 400mm / 60 – 800mm / 75 - 1000mm
- F/4.7 alternatives: 20 – 490mm / 40 – 980 mm / 50 – 1,200mm

The rugged enclosure is backfilled with dry nitrogen and environmentally sealed, eliminating the need for additional enclosures.

The RS-232/422 remote control capability permits ease of integration into any client-based security system.

RP Optical Lab provides leading-edge IR equipment to the security and surveillance sector. RP's proprietary optical designs, state-of-the-art laboratories, ensure maximum performance and dependability.

SYSTEM MAIN FEATUTES:

- Motorized focus/zoom
- Continuous zoom, focus maintained while zooming
- Auto Focus
- Unique zoom module with zero optical artifacts
- Optical NUC & 1 command "1 point NUC Calibration"
- Image enhancement including local DRC
- Remote control Capability
- Dry Nitrogen Backfilled
- Ruggedized construction
- Digital output option – Camera link



LRC3Z-HD – Series: SYSTEM SPECIFICATIONS

PARAMETER	VALUE	NOTES
SYSTEM		
Video Format	720P / 1080i	HD digital camera link output
Communication Protocol	RS-232/RS-422 Full Duplex	Baud rate 115,200 (other rates available)
Power Requirements	14 – 32VDC, 35W	Average nominal power
Controls	Fully Remote controlled	
Electronic Zoom	X4	
Focus control	Manual / Automatic	
Total Weight	D1200, C1000 : ~16 Kg / C800, D960: ~14 Kg C400, D490: ~11Kg	
External Dimensions (Ø x L)	D1200, C1000: ø320x470 mm / C800, D960,: ø230x460 mm C400, D490: ø220x430 mm	
Mount / Mechanical Interface	Please refer to Mechanical ICD	Customized interfacing - available
Operating / Storage Temp	-32°C to +65°C / -40°C to +71°C	
Shock and Vibrations	Per MIL-STD-810E	
Sealing	As per IP65	IP66/IP67 available on request

SENSOR		
Detector FPA	InSb, 1280x1024 pixels, 15µ pitch	See ordering information below
Sensitivity	< 25mK	Please consult for better sensitivity

OPTICAL			ORDERING INFORMATION	
F#	F/4 or F/4.7		LRC3Z-HD-Y	
Spectral Range	3 – 5 µm			
FOV (Deg.)	25 – 400 mm lens	Wide FOV: 35.4°(H) x 28.7° (V) Narrow FOV: 2.75° (H) x 2.20° (V)	“Y” - Optics	
	55 – 800 mm lens	Wide FOV: 18.2°(H) x 14.6° (V) Narrow FOV: 1.38° (H) x 1.1° (V)		
	75 – 1000 mm lens	Wide FOV: 14.6°(H) x 11.6° (V) Narrow FOV: 1.1° (H) x 0.88° (V)		
GARNET F/4 (base lens)	22 – 490 mm lens	Wide FOV: 51°(H) x 42° (V) Narrow FOV: 2.3° (H) x 1.8° (V)	C400	Continuous 25 - 400 F/4
	44 – 980 mm lens	Wide FOV: 27°(H) x 22.0° (V) Narrow FOV: 1.12° (H) x 0.9° (V)	D490	Continuous 22 - 490 F/4.7
	54 – 1,200 mm lens	Wide FOV: 22.0°(H) x 17.5.0° (V) Narrow FOV: 0.9° (H) x 0.7° (V)	C800	Continuous 55 – 800 F/4
PARAGON F/4.7 (base lens)			D980	Continuous 44 - 980 F/4.7
			C1000	Continuous 75 – 1,000 F/4
			D1200	Continuous 54 -1200 F/4.7
Focus / Zoom mechanism	Motorized, remotely controlled			

Lens Model	HD – C400		HD – D490		HD – C800		HD – D980		HD - C1000		HD - D1200	
	Range (Km)		Range (Km)		Range (Km)		Range (Km)		Range (Km)		Range (Km)	
Target	Human	NATO	Human	NATO	Human	NATO	Human	NATO	Human	NATO	Human	NATO
Detection	11.5	19.1	12.9	25	19.5	40	26.3	47	26.3	47	31	51
Recognition	4.2	9.0	5.1	10.4	6.3	15.3	7.2	19.2	7.2	19.2	8.6	23
Identification	2.1	5.1	2.6	6.2	4.2	10.2	5.3	12.8	5.3	12.8	6.3	15.3

* All listed values are correct to within 5% accuracy

