

# MERGER LRF & MERGER DUO BINOCULARS

## FEATURES AND SPECIFICATIONS

2023-05-31



### KEY ADVANTAGES

#### Merger LRF XP50

Thermal imaging binoculars

- High thermal sensor sensitivity (NETD < 25 mK)
- High sensor resolution 640x480 pixel @ 17  $\mu\text{m}$
- 1800m detection range
- Laser ranging up to 1000m
- Combined battery system (internal & changeable batteries)
- Magnesium alloy housing

#### Merger LRF XL50

Thermal imaging binoculars

- High definition 1024x768 pixel @ 12  $\mu\text{m}$  thermal sensor
- High image detail across the whole magnification range 2.5-20x
- Wide FOV (14x10.5°)
- Extra-long 2300m detection range
- Laser ranging up to 1000m
- Combined battery system (internal & changeable batteries)
- Magnesium alloy housing

#### Merger DUO NXP50

Multispectral binoculars

- Extreme thermal sensor sensitivity (NETD < 18 mK)
- High sensor resolution 640x480 pixel @ 17  $\mu\text{m}$
- Extra low-light Full-HD digital night vision
- Thermal, digital and combined viewing modes
- Combined battery system (internal & changeable batteries)
- Magnesium alloy housing

### TECH SPECS

Model	Merger LRF XP50	Merger LRF XL50	Merger DUO NXP50
SKU #	77465	77481	77455
Market release	2022	2023	2023
	<b>THERMAL CHANNEL</b>		
Sensor type	Microbolometer, uncooled, $\alpha$ -Si		
Sensor resolution, pixel	640 x 480	HD 1024 x 768	640 x 480
Pixel pitch, $\mu\text{m}$	17	12	17
Sensor NETD, mK	< 25	< 40	< 18
Lens	Germanium, F50 / 1.0		
Magnification, x	2.5 – 20	2.5 – 20 (High image detail across the whole magnification range)	2.5 – 20
Field of view, °	12.4 x 9.3	14 x 10.5	12.4 x 9.3

Model	Merger LRF XP50	Merger LRF XL50	Merger DUO NXP50
SKU #	77465	77481	77455
Detection range, m	1800	2300	1800
<b>DIGITAL NIGHT VISION CHANNEL</b>			
Sensor type	Not available		CMOS FHD
Sensor resolution, pixel			1920 x 1200
Lens			F50 / 1.4
Magnification, x			1.5 – 12
Field of view, °			21.7
Detection range, m, with IR on			500
<b>INFRARED ILLUMINATOR</b>			
Emitter	Not available		LED
IR Wavelength, nm			940 (invisible)
IR Optical Power, levels, mW			125 / 250 / 500
Beam divergence, °			20 (corresponds with digital channel FOV)
<b>RANGEFINDER</b>			
Rangefinder	Laser, built-in		Not available
Measurement range, m	up to 1000		
<b>DISPLAYS</b>			
Display type	AMOLED		
Display resolution, pixel	1024 x 768	1024 x 768	1280 x 960
<b>VIDEO RECORDING</b>			
Built-in videorecorder	Yes, .mp4 (with sound recording) / .jpeg		
Video / photo resolution, pixel	1024 x 768		1280 x 960
Built-in memory, Gb	16	64	64
<b>POWER SUPPLY</b>			
Battery type	Dual Li-Ion Power System: 3.2 A·h Changeable Battery (external) / 4.0 A·h Battery (internal)		
Max. operation time, h	8.5	7	7
External power supply	USB Type-C (quick-charge supported)		
<b>OPERATING AND PHYSICAL PARAMETERS</b>			
Body material	Magnesium alloy		
Operating temperature, °C	-25 ÷ +50		
IP rating (IEC 60529)	IPX7 (waterproof)		
Dimensions, mm	196 x 143 x 76	197 x 140 x 72	207 x 140 x 73
Weight (with batteries), kg	0.95	0.95	1.2
<b>ADDITIONAL FUNCTIONALITY</b>			
Colour palettes (thermal)	8 (White Hot, Black Hot, Red Hot, Red Monochrome, Rainbow, Ultramarine, Violet, Sepia)		
Observation modes	Sensor sensitivity amplification adjustment (Normal, High, Ultra) / Smoothing filter / User mode		
Wi-Fi	Yes, 2.5 / 5 GHz		
Supported mobile app	Stream Vision 2		
Language selection	English, German, Spanish, French, Russian, Italian, Portuguese, Dutch, Danish, Norwegian, Swedish, Polish, Czech, Hungarian		
Proximity sensor	yes		
Defective pixel repair option	yes		
"Picture in picture" function	yes		

###