

Rayfin-Micro-HDE-500-DBH13-LO

Small form factor, Ethernet HD video & comms, Digital Stills, HD and 4K recording, Data logging

Mechanical: BL
PM: CC

Updated:
2023-05-10

Sensor & Lens	
Sensor	Type 1/2.3" CMOS 12-bit
Image Size	12.3MP - 4056 x 3040
Max. Exposure Settings	Shutter Speed 1/65000, ISO 3200
Lens	4.52mm f/2.0
Zoom	12.3MP sensor zoom (5x optical equivalent)
Focus Range	15cm to infinity
Internal Recording System	
Image Format	JPEG and RAW
Still Rate	2Hz (JPEG) / 0.5Hz (RAW)
Recording Resolution	HD and 4K UHD
Recording Capacity	40hr (HD) / 10.5hr (4K) - 512GB
Recording Format	H.264 and H.265 - MP4
Media Transfer	Live SAMBA and NAS
Clock Sources	Internal and NTP Server
Data Logging	NMEA 0183/2000 format @ 1Hz
Integrated Sensors	Tilt and Roll
LiquidOptics	
Diagonal FOV	81° min.
Horizontal FOV	71° min.
Vertical FOV	57° min.
Distortion	Less than 3.4%

Live Video	
Live Video Standards	Ethernet - RTSP H.264
Live Video Resolution	4K, 1080p, 720p
Live Video Latency	180 - 225ms (HD)
Electrical	
Voltage	16.5 - 32.5 Vdc
Power (W)	7.5 (idle) - 8 (recording) - 13.5 (peak)
Control	Ethernet, Serial RS-485
Transmission	No LED: 60m (GigE), 80m (10/100) 2x LED: 20m (GigE), 40m (10/100)
Protection	Short circuit, under/over voltage, ESD, over-temperature
Mechanical	
Materials	Sapphire, Anodized 6061-T6 Aluminium
Weight	0.46kg in water, 1.07kg in air
Temperature	-20°C to +30°C (In Water)
Depth Rating	500m

MCBH5F (Ti) [AUX0 Port]	MCBH5F (Ti) [AUX1 Port]	DBH13M + DLSA-M (Ti) [IP video, control and download]	#
GND	GND	GND	1
PWR	PWR	Iso GND (Shield) (NC on system end)	2
AUX0 Out	AUX1 Out	PWR	3
AUX0 RS-485 B(-)	AUX1 RS-485 B(-)	(Brown) DD- [GigE]	4
AUX0 RS-485 A(+)	AUX1 RS-485 A(+)	(White/Brown) DD+ [GigE]	5
Cabling notes: - SubC bulkheads are wired to Ethernet B standard. - 13 pin bulkhead is limited to 4A per pin. - In-line cable part number for Ethernet bulkhead: DIL13F + DLSA-F		(Blue) DC+ [GigE]	6
		(White/Blue) DC- [GigE]	7
		(Orange) DA- [10/100]	8
		(White/Orange) DA+ [10/100]	9
		(Green) DB- [10/100]	10
		(White/Green) DB+ [10/100]	11
			12
			13

