


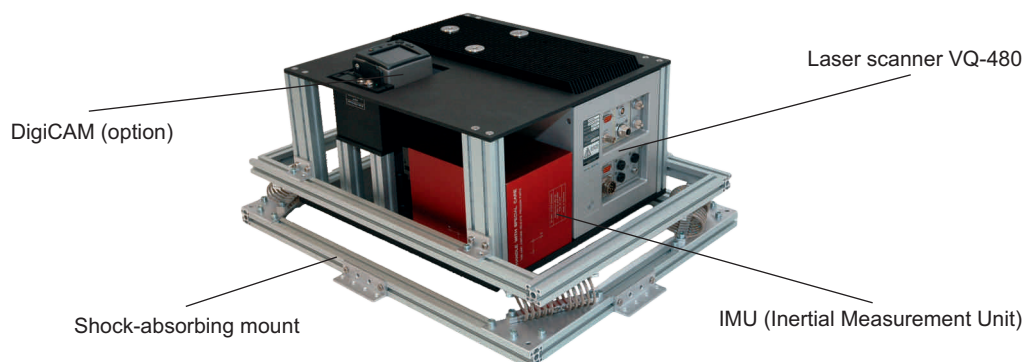
LiteMapper[®] 4800 specifications:

SYSTEM PARAMETER	CONDITIONS	LiteMapper 4800	
Range Measurement Performance			
	@ laser PRR	natural target, $\rho \geq 20\%$	natural targets, $\rho \geq 60\%$
Max. measurement range	50 kHz	550 m	900 m
	100 kHz	500 m	850 m
	150 kHz	400 m	650 m
	200 kHz	350 m	600 m
	PRR = 50 kHz	450 m (1500 ft)	
Typ. operating flight altitude AGL @ 45 deg	PRR = 100 kHz	400 m (1300 ft)	
	PRR = 150 kHz	320 m (1000 ft)	
	PRR = 200 kHz	280 m (900 ft)	
Accuracy	flat surface, normal to beam	25 mm	
Precision		25 mm	
Pulse repetition rate (PRR)		up to 200 000 Hz	
Max. # of recorded echoes		unlimited	
Laser wavelength		near infrared	
Effective measurement rate	PRR = 50 kHz	25 000 meas./s	
	PRR = 100 kHz	50 000 meas./s	
	PRR = 150 kHz	75 000 meas./s	
	PRR = 200 kHz	100 000 meas./s	
Laser beam divergence		0.3 mrad	
Laser beam footprint @ 100 m		31 mm	
Laser beam footprint @ 250 m		75 mm	
Laser beam footprint @ 500 m		150 mm	
Scanner Performance			
Scanning mechanism		rotating multi-facet mirror	
Scan angle range (user selectable)		60 deg (+30 deg / -30 deg)	
Angle readout resolution		0.001 deg	
Angle step width		0.006 deg	
Scan speed		10 - 100 scans/s	
Operational Parameters			
Intensity (return amplitude) detection		16 bit per return	
Special features		online waveform analysis: unlimited number of returns, 16 bit dynamic range	
Eye-safety class		Class 1 (eye-safe)	
Power supply (polarity safe)		18 - 32 V DC	
Temperature range		-10°C to +40°C (operation) / -20°C to +50°C (storage)	
Humidity		0% - 80% non-condensing @ +31°C	
Protection class		IP 64, dust and splash-proof	
Data Recorder Performance			
Model		Riegl DR560 / DR560RD	
Storage capacity		2x 500 GByte single hard disk RAID 0 or RAID 1	

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Computer Systems			
Flight Management System		CCNS4 + IGPlan mission planning software	
Precise Positioning System		AEROcontrol + AEROoffice post-processing software	
Inertial Measurement Unit (IMU)		IMU IId	
IMU sampling rate		256 Hz	
IMU accuracy (roll/pitch/heading)		0.004 deg / 0.004 deg / 0.01 deg	
GPS		dual frequency, 2 Hz	
Sensor Control System		LMcontrol + Riegl post-processing software	
Digital Camera System (option)			
Model		DigiCAM	
Sensor size		39 Megapixel, 7216 x 5412 pixel	
Sensor dimensions		36.80 x 49.07 mm	
Pixel size		6.8 µm	
Analog to digital conversion		16 bits	
Max. operating altitude		3000 m; no limit using solid state storage units	
Data storage with HDD		External storage units for 6400 images (2 x 3200)	
Data storage with SSD		External storage units for 2000 images (2 x 1000)	
Max. exposure rate		1.9 sec	
Shutter		electronically controlled leaf shutter	
Shutter speed options		1/800 to 1/125 sec	
Lenses		28, 35, 50, 80, 100, 150, 210, 300 mm	
Filter array		Color (RGB) or Color-Infrared (CIR)	
Image data formats		TIFF, JPEG, DNG (optionally 8 or 16 bit)	
Modular replaceability		shutter integrated in lens for easy change; interchangeable digital back	
Calibration		calibration with full report	
Weight and dimension		Dimensions	Weight
Laser scanner		180 x 345 mm	11,5 kg
Data recorder DR 560		337 x 178 x 197 mm	7,0 kg
LMcontrol unit		270 x 162 x 62 mm	2,2 kg
CCNS4 computer		250 x 209 x 132 mm	4,9 kg
AEROcontrol computer		250 x 209 x 132 mm	4,4 kg
IMU		133 x 138 x 185 mm	3,3 kg
8" TFT monitor		212 x 162 x 36 mm	0,9 kg
5" TFT display		159 x 105 x 35 mm	0,6 kg
Aircraft Connector Box		208 x 85 x 94 mm	0,8 kg
Mounting, cables, antenna			3,7 kg
		total:	~ 40 kg
Optional uninterruptable power supply		210 x 162 x 190 mm	8,5 kg



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