


LiteMapper® 2400 specifications:



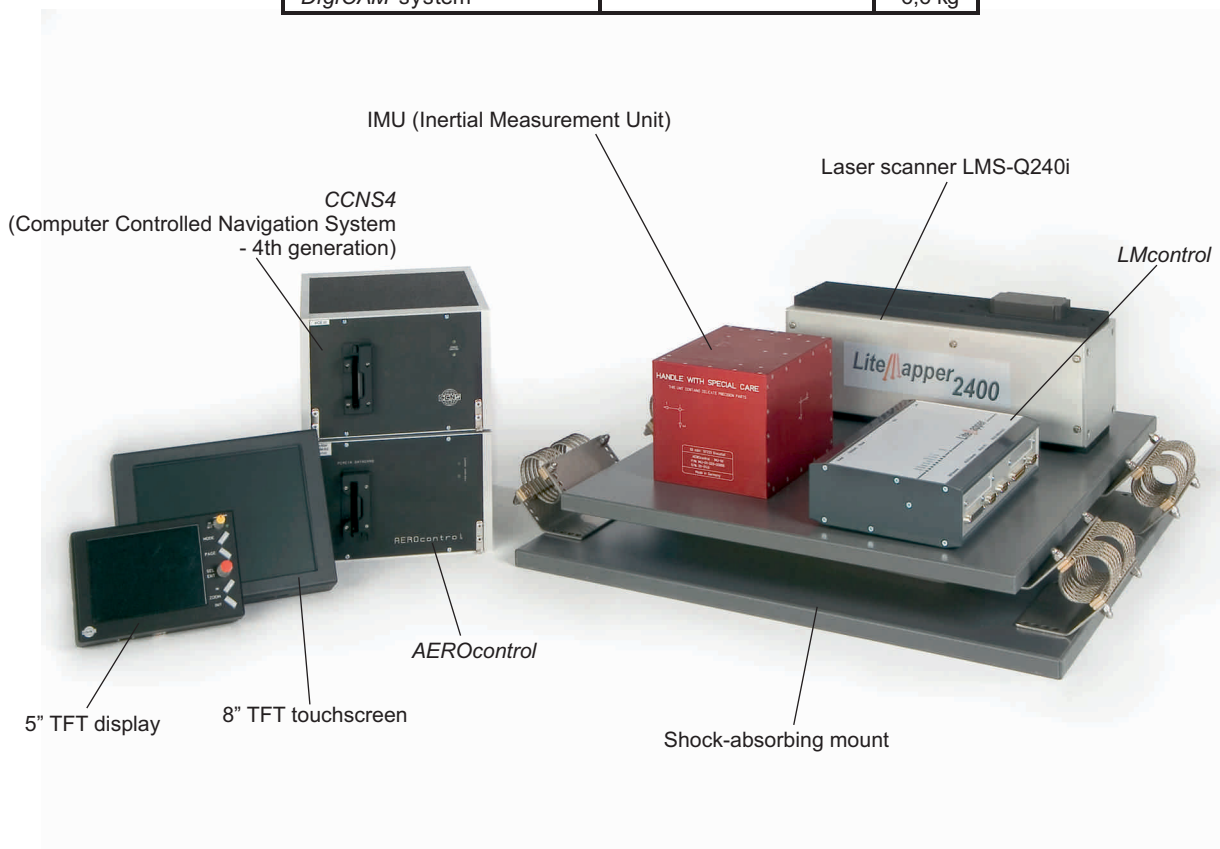
SYSTEM PARAMETER	CONDITIONS	LiteMapper 2400 -60	LiteMapper 2400 -80
Range Measurement Performance			
Maximum range	flat surface, $\rho \geq 80\%$ flat surface, $\rho \geq 20\%$		650 m 320 m
Range resolution			5 mm
Range accuracy	flat surface, normal to beam		20 mm (1s) \pm 20 ppm
Target detection modes			first return, last return or alternating
Laser wavelength			905 nm
Pulse Repetition Frequency (PRF)			30 kHz
Beam divergence			≤ 2.7 mrad
Scanner Performance			
Scanner			rotating polygon mirror
Number of facets		4	3
Scan pattern			parallel scan lines
Scan angle		$\pm 30^\circ$ (60° total)	$\pm 40^\circ$ (80° total)
Scan frequency		6 - 80 scans/s	5 - 60 scans/s
Max. effective measurement rate			10 000 meas/s
Operational Parameters			
Altitude of operation	flat surface, $r = 20\%$	10 - 200 m AGL	10 - 180 m AGL
Ground sample spot diameter		0.6 m (@ 200 m AGL)	0.5 m (@ 180 m AGL)
Surface point accuracy (horizontal / vertical) excluding GPS errors		0.04 m / 0.02 m (1s) (@ 200 m AGL)	0.05 m / 0.02 m (1s) (@ 180 m AGL)
Swath width		1.15 x altitude	1.68 x altitude
NIR intensity (return amplitude) detection			8 bit per return
Supply Voltage			28 VDC
Eye-safety	scanning operation	class 1 (eye-safe)	
Computer Systems			
Flight Management System		CCNS4 + IGIPlan 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° / 0.004° / 0.01°	
GPS		dual frequency, 2 Hz	
Sensor Control System		LMcontrol + RiegI 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 μ m	
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	

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COMPONENTS	DIMENSIONS	WEIGHT
Laser scanner	374 x 180 mm diameter	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:		~28 kg

OPTIONAL		
Uninterruptable power supply	210 x 162 x 190 mm	8,5 kg
Shock-absorbing platform	customized	
DigiCAM system		6,6 kg



IGI mbH
 Langenauer Str. 46
 57223 Kreuztal
 Germany

P: +49 (0)2732 5525-0
F: +49 (0)2732 5525-25
E: info@igi-systems.com
W: www.igi-systems.com
 www.litemapper.eu
 www.streetmapper.eu