

MP7

Mobile Panoramic Acquisition System



Panoramic Acquisition

Compatible with C4800 and C7200 Cameras



Centimeter-Level Positioning

GNSS and high-precision IMU integration for centimeter-level post-processed accuracy



Flexible Triggering

Supports time trigger, GNSS distance trigger, and DMI distance trigger modes

► Highlight

The MP7 is a mobile panoramic acquisition system that integrates 360° imaging with high-precision positioning and orientation. Compatible with CHCNAV C4800 and C7200 panoramic cameras. With an integrated high-precision INS, the MP7 delivers centimeter-level post-processed positioning accuracy. Its companion software provides a complete workflow from field acquisition to panoramic image viewing.



SPECIFICATIONS

► General system performance

Multi-platform	Supports vehicle-mounted	
Camera Support	C4800 and C7200	
Dimensions	268 mm × 184 mm × 572 mm (with C4800)	291 mm × 264 mm × 651 mm (with C7200)
Weight	8.3 kg (with C4800)	10.5 kg (with C7200)
Data storage	1 TB SD card (with C4800)	2 TB SSD drive (with C7200)
Trigger modes	Time trigger, GNSS distance trigger, DMI distance trigger	

► Imaging system

Camera Model	C4800	C7200
Panoramic Resolution	32 MP (8192 × 4096), 5 fps	72 MP (12288 × 6144), 10 fps
FOV	360° × 175°	360° × 154°
Lens	4.8 mm	6.5 mm
Dimensions/Mass	157 mm × 157 mm × 125 mm	280 mm × 240 mm × 200 mm
Mass	1.8 kg	4 kg
Sensor Resolution (single sensor)	4096 × 3072	
High Dynamic Range (HDR)	Digital HDR, Equivalent to 90dB	

► Positioning and orientation system

GNSS system	GPS:L1,L2,L5	GLONASS:L1,L2	BEIDOU:B1,B2,B3	GALILEO:E1,E5a,E5b
IMU update rate	500 Hz			
Attitude accuracy after post-processing *	0.01° RMSE pitch/roll, 0.02° RMSE heading			
Position accuracy after post-processing *	0.010 m RMSE horizontal, 0.020 m RMSE vertical			

► Environmental

Operating temperature	-20 °C to +50 °C		
IP rating	IP64		
Humidity	Operating: 20%~80% (non-condensing)	Storage: 20%~95% (non-condensing)	

► Electrical

Input voltage	DC: 12 V ~ 24 V		
Power consumption	< 24 W (with C4800)	< 40 W (with C7200)	

► Software

SmartGo	Real-time trajectory, photo preview		
CoPre	Image processing, panoramic stitching, panoramic viewing, POS processing		

*Tested under unobstructed conditions, obtained by comparison with a higher-precision IMU under identical conditions.

Disclaimer
The specifications are either theoretical values or measurements obtained by CHCNAV personnel under specific controlled conditions (see detailed descriptions). Actual results may vary due to individual product differences, firmware versions, use conditions, methods, and environments. CHCNAV strives to provide accurate information but does not guarantee that this document is free from technical, typographical, or display errors. Please refer to the actual product, and we recommend consulting in detail about the specific model and version before purchasing. CHCNAV reserves the right to modify this document without prior notice.

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