DSM Camera Manual

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Product Specification

Technical data	Description		
Supported by	FMC650,		
DSM functions	Drowsiness, Distraction, Yawning, Phone use, Smoking, Driver ID, Seatbelt		
Ethernet	GMAC/EMAC, RGMII PHY Interface		
GNSS	GPS, GLONASS, QZSS, -165dBm tracking sensitivity, Built-in Cradle		
G-Sensor	Digital tri-axial acceleration sensor		
Storage	Up to 128GB micro SD card, Supported format-free $$		
Indicator (LED)	Red/Green dual LED, Operating status		
Microphone	MEMS microphone, -42dB, SNR: 59dBA		
Speaker	Nom.1W / Max.1.5W, 8Ω, 90dB SPL		
Dimensions	Camera: $48.7mm \times 56.18mm \times 78.52mm$ / Main: $172mm \times 84.65mm \times 27mm$		
Weight	Camera(w. cable): 235g, Main: 125g		
Materials	PC, PMMA		
Features	Supported FMS, CAN, Video output (CVBS), Ethernet, GPIO (Vibrator)		
What's in the package?	DSM, Main cable, Power cable (B+, ACC, GND), Wrench, Manual		
Installation	Camera: A-piller mount, Main: In dash board		
Reliability testing	Electronic / Environmental test (ISO Standard)		
Certifications	FCC, E-mark, UKCA, KC		

Electrical parameters

Description

Input voltage range $12 \sim 24 \text{ V}$

Working temperature and humidity -20°C to 70°C (-4°F to 158°F)

Humidity: <90%

Power consumption Max 8.4W (350-700 mAh)

Function parameters	Description		
Real time clock (RTC) synchronization	Available over FM (via NTP, NITZ or GNSS)		
Picture resolution	784x441 event/784x441 request (50KB transfer period 18 sec),		
IR type, distance	2x IR LED, 850nm, IR Pass Filter		
Cable length	RS232 (3.5 m)		
Application Processor	ARM Quad Cortex-A7@1GHz		
Memory	512MB NAND Flash, 1GB DDR3		
ISP & Sensor	1/2.8 inch CMOS Image Sensor, 1080p@30fps, HDR		
Lens	F/NO=2.1, FOV=88.2°		

DSM data transfer timing

 ${f *}$ **NOTE:** This approximate time which we receive during testing in real cases can be different.

Image resolution	Size of image FMC640	Time interval (s) from trigger to files received on server FMC640	Photo examples
	In	nage	
784x441	17,4KB	6s	