Camera Manual

Contents

Package contents

There are several components included in the DualCam package box. These components are necessary to set up the camera and make it functional part of the vehicle.

1. Teltonika DualCam - the main camera unit used to record video/pictures. This unit has cable attached to it for connection purposes e.g. powering up and data transmission.
2. Sticky Tape 3M - option no. 1, a double sided sticky tape that can be used to stick the camera unit to the windscreen, this will allow it to be taken off later on without traces.
3. Screws - option no. 2, screws which can be used to screw the camera unit into the designated place just above the windscreen (should not be used on windows).

Important Set-up links

1. **First Start** - in this section it is described how to set up the camera before first use. It is essential to know the process as without certain set-up processes the camera will not start or certain functions will not be accessible.

2. **DualCam Configuration** - this section describes the navigational way inside of the configurator which will be the main tool to set up the camera with the tracking device and make it functional.

3. **DualCam Communication Protocol** - is used when setting up file upload to servers for quick downloading of data. It is essential part and functionality of the FMX tracking devices family which allows the users to upload data and files from the device effortlessly.

4. **DualCam SMS commands** - in this section there are SMS sending commands which will help the user by providing easier access to command the device, or request information from it.

5. **DualCam Firmware errata** - every once in a while an update comes out which improves the functionalities of the DualCam systems and even introduces new ones. It is important to keep track of what is released in order to receive the most out of your DualCam solution.

6. **DualCam FAQ** - sometimes there will be rising questions to which the answers can not always be found. So a FAQ page has been released in order to collect non-standard information and potentially solve issues that the client might be facing.

Product Specification

Technical data	Description
Supported by	FMC125, FMB125, FMB225, FMC225
Day & Night Vision Effect	Day (Color), Night (Black & White)
Angle of View	Horizontal 120°, Vertical 70°
Dual Camera	Front and Rear (equal characteristics)
Camera casing dimensions	126.2 x 36.6 x 36.6 mm
Camera mounting	Sticky tape (3M) or screws
Supported microSD card sizes	16 GB, 32 GB, 64 GB
Microphone	Voice recording (Not installed in standard modification. Can be added on demand)

Electrical parameters	Description
Input voltage range	9 ~ 36 V
Working temperature and humidity	Temperature: -30 °C ~ 85 °C Humidity: <90%
Power consumption	220 mA

Function parameters	Description
Real time clock (RTC) synchronization	Available over FM (via NTP, NITZ or GNSS)

Picture resolution	1280 x 720 (default) Configurable: 160 x 120; 320 x 240; 640 x 480; 1920 x 1080
IR Distance	2 Meters
Cable length	RS232 (3.5 m)
Video compression	H.265
Video resolution	720P
Video storage	2psc. MicroSD card (Max 64GB up to 40 hours of video)

DualCam data transfer timing

Image resolution	Image compression (%)*	Video duration (s)	Size of image	Size of video FMC125 4G / FMB125 2G	Time interval (s) from trigger to files received on server FMC125 4G / FMB125 2G	Photo examples
			Image			
640x480	0	-	136KB	-	21s / 48s	
640x480	50	-	23KB	-	5s / 24s	
640x480	100	-	7KB	-	3s / 16s	
1280x720	0	-	350KB	-	53s / 90s	
1280x720	50	-	53KB	-	10s / 33s	
1280x720	100	-	17KB	-	5s/ 17s	
1920x1080	0	-	764KB	-	121s / 179s	
1920x1080	50	-	100KB	-	17s / 39s	
1920x1080	100	-	37KB	-	7s / 28s	
			Video			
1280x720	-	5 (front or rear)	-	Front mp4 - 570KB, h265-495KB / Front mp4 - 531KB, h265-417KB	76s / 102s	https://wiki.teltonika-gps.com/view/File:480865_Dualcam_apkirptas.mp4
1280x720	-	5+5 (front or rear)	-	Rear mp4 - 540KB, h265-222KB Front mp4 - 516KB, h265 - 390KB / Rear mp4 - 470KB, h265-356KB Front mp4 - 567KB, h265 - 452KB	122s / 188s	-
1280x720	-	10 (front or rear)	-	Front mp4 - 1140KB, h265-990KB / Front mp4 - 532KB, h265-417KB	151s / 204s	-
1280x720	-	10+10 (both)	-	Rear mp4 - 1092KB, h265-444KB Front mp4 - 1032KB, h265 - 781KB / Rear mp4 - 939KB, h265-711KB Front mp4 - 1134KB, h265 - 904KB	244s / 378s	-
1280x720	-	15 (front or rear)	-	Front mp4 - 1710KB, h265-1485KB / Front mp4 - 1595KB, h265-1250KB	227s / 307s	-
1280x720	-	15+15 (both)	-	Rear mp4 - 1639KB, h265-666KB Front mp4 - 1548KB, h265 - 1171KB / Rear mp4 - 1409KB, h265-1067KB Front mp4 - 1701KB, h265 - 1356KB	367s / 567s	-
1280x720	-	30 (front or rear)	-	Front mp4 - 3420KB, h265-2970KB / Front mp4 - 3190KB, h265-2499KB	453s / 613s	-
1280x720	-	30+30 (both)	-	Rear mp4 - 3277KB, h265-1331KB Front mp4 - 3096KB, h265 - 2342KB / Rear mp4 - 2817KB, h265-2134KB Front mp4 - 3402KB, h265 - 2712KB	733s / 1133s	-

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

* **NOTE** Image compression is a type of data compression applied to digital images, to reduce their cost for storage or transmission. Algorithms may take advantage of visual perception and the statistical properties of image data to provide superior results compared with generic data compression methods which are used for other digital data.