

CMS42

Specification (Version 1.0)



Preface

● **About the Specification**

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The data in this document are theoretical values based on testing in Streamax Technology's internal lab. Actual performance may vary due to factors like product differences, software versions, usage conditions, and environment.

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Symbol Explanation

The following symbols are used to categorize and explain potential hazards that may arise from improper operation

Symbol	Explanation
	Warning: Conditions that could jeopardize the safety of the user or cause injury
	Important: Conditions that may lead to data corruption or damage to the device's firmware or hardware
	Note: Additional information, explanations of terms, and other relevant details

Product Introduction

The CMS42 is a 7-inch high-definition quad-split in-vehicle wireless display with 4 channel wireless cameras designed to meet the monitoring needs of various commercial vehicles, including DP7WQ-RT and 972C42 :

1. Supports 4-channel wireless camera input with transmission security.
2. Features both touchscreen and physical button controls for convenient operation.
3. Offers image adjustment functions such as mirroring, flipping, rotation, brightness, saturation, contrast, and hue tuning. Additionally, it supports 5 trigger line inputs with configurable priority and display modes to accommodate diverse user scenarios.
4. Provides up to 7 split-screen display modes with freely combination camera channels, ensuring adaptability to various application scenarios.
5. Equipped with a 7-inch IPS screen featuring wide viewing angles for flexible installation positions.
6. With a high brightness level of 800 cd/m², the screen remains clearly visible even under strong light. Automatic day/night backlight adjustment for all-weather applications.
7. Wireless camera designed to be IP69K dustproof and waterproof with high reliability.

8. Wireless camera Supporting infrared lighting, the infrared light can reach up to 10m.
9. Wireless vehicle transmission distance up to 120 meters (open distance design up to 300 meters).
10. With its comprehensive feature set and high degree of user customization, the DP7WQ-RT is well-suited for a wide range of applications, including commercial vehicles, agricultural machinery, and construction equipment.

Features



- 7-inch high-definition quad-split display and single channel display ;
- Supports 4-channel wireless high definition camera input;
- Supports network transmission and local storage
- supports wireless automatic frequency hopping function
- Supports touchscreen and button operation;
- Image mirroring, flipping, and rotation functions;
- Supports multiple country languages;
- Supports trigger priority and trigger display mode settings;
- Supports auto-scan function, with configurable display modes and switching time;
- Supports LCD auto backlight adjustment;
- Supports 9-36V wide voltage input, compatible with 12V and 24V vehicle power;
- Supports up to 4-channel 720p wireless video recording.
- Wireless vehicle transmission distance up to 120 meters (open distance design up to 300 meters).

Specifications

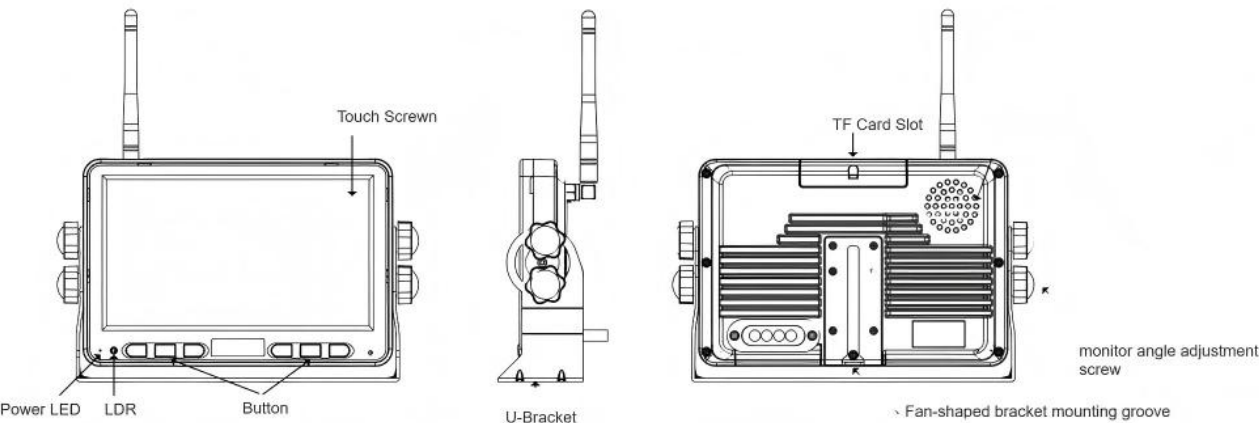
Product display model: DP7WQ-RT	
Language	Options: Chinese, English Default: English
Screen size	7Inch IPS
Resolution	1024*600*3(RGB)
Contrast	1000:1
Brightness	800cd/m2
Viewing Angle	U:85°/ D:85°/ R:85°/ L:85°
Touch	7inch capacitive touchscreen
Button	Power,Mode,Menu,Plus,Select,Minus
Video support	
Video channels	4 channel wireless camera input
Input format	720P30 / 720P25
Video Input	Wireless digital video
Interface	
IO Interface	5 trigger inputs, support 36V withstand voltage, 3.9V threshold voltage
RS232	1 Channel
USB2.0 Host	1 Channel
Ethernet	1 Channel
Driving recorder	
Video recording	4-channel video recording Encoding mode: VBR/CBR
Maximum capability	4-channel 720P 25/30 frame recording
Storage	
Micro SD Card	Micro SD Card, Max 512G
Power	

Power supply	9-36V
Power consumption	Full:approximately 8W
Environment	
Operating temperature	-20°C~+70°C (-4°F~+158°F)
Storage temperature	-30°C~+80°C (-22°F~+176°F)
humidity	15% - 90%
Protection level	IP30
Vibration level	2.17G
General Specifications	
Device size	With sunshade W182.00 mm x D64.50 mm x H122.00 mm (7.17" x 2.54" x 4.80")
	Without sunshade W182.00mm x D27.50mm x H122.00mm (7.17" x 1.08" x 4.80")
Product Net Weight	1090g (2.40 lb)
Product camera model: 972C42	
Language	Options: Chinese, English Default: English
Image device	1/2.9 " 2M pixel CMOS
Resolution	1920*1080
minimal illumination	0.0lux (IR on)/0.1lux (colour)
Lens/FOV	2.1mm/HFOV: 140° VFOV: 75° ±5° error
Infrared distance	Infrared light can reach up to 10m
Shutter Speed	1/60s to 1/50,000s (automatic shutter)
noise-signal ratio	≥ 42dB
Day and night mode	ICR filter
Scanning system	line by line scan

White balance	Automatic tracking of white balance
Automatic gain	Support
3D noise reduction	Support
Backlight compensation	Support
Digital wide dynamic	Support
Wireless transmission specification	
Wireless operating frequency	802.11b:2412-2462MHz, 802.11g:2412-2462MHz 802.11n HT20:2412-2462MHz, 802.11n HT40:2422-2452MHz
wireless protocol	IEEE802.ax (Pwifi)
Transmission distance	300m (open field)
Output power	26dbm±1
Accept sensitivity	-98DB
RF ratio (bandwidth)	HT20/HT40
Spread-spectrum	Pwifi OFDM
Video delay	Within 200ms
Power	
Power supply	9-36V
Power consumption	IR ON: Typical approximately 5W
	IR OFF: approximately 1.8 W
Environment	
Operating temperature	-30°C~+70°C (-4°F~+158°F)
Storage temperature	-30°C~+80°C (-22°F~+176°F)
humidity	15% - 90%
Protection level	IP69K

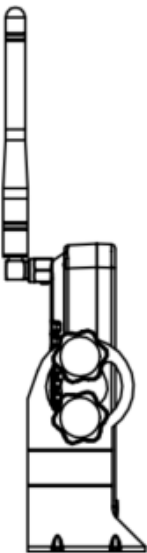
Vibration level	5.79G
General Specifications	
Device size	With sunshade L126.50 mm x W92.50 mm x H78.50 mm (4.15" × 3.03" × 2.58")
Product Net Weight	460g*4 (1.01*4 lb)
Product Gross Weight	3580g (7.89 lb)
Packing box size	L350mm*W285mm*H240mm (11.48" × 9.35" × 7.87")
Packing List	
DP7WQ-RT*1、 972C42*4、 U-shaped mounting bracket*1、 monitor mounting screw package*1, monitor angle adjustment screw package*1、 Box-end wrench *1	
 Because the configurations in different regions vary, the final result is subject to the unpacking result	

Product Appearance and Component Names

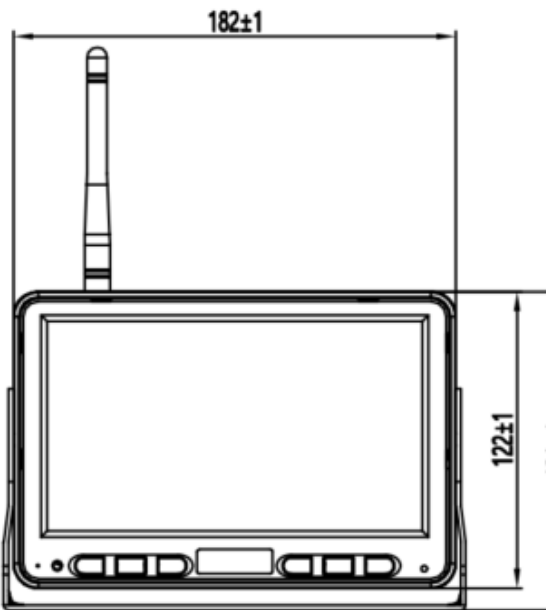


Dimension Diagram

DP7WQ-RT (Unit mm)

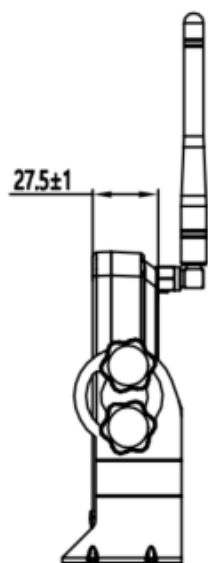


Left View



Main View

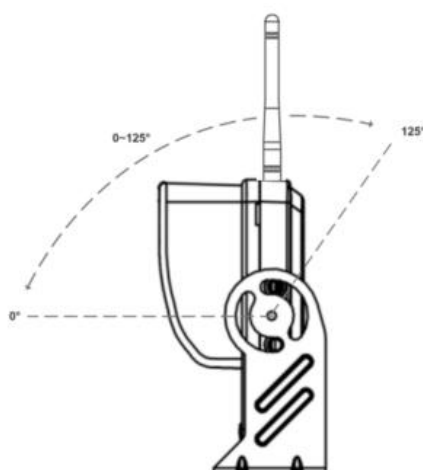




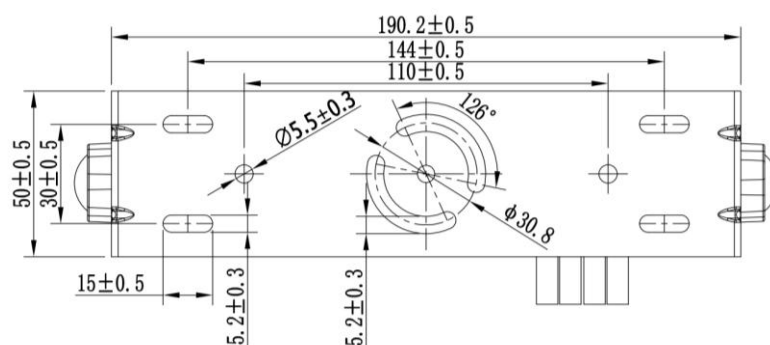
Right View



Back View

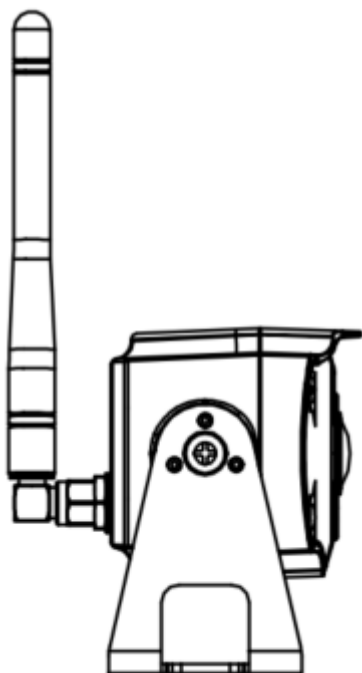


Adjustable angle

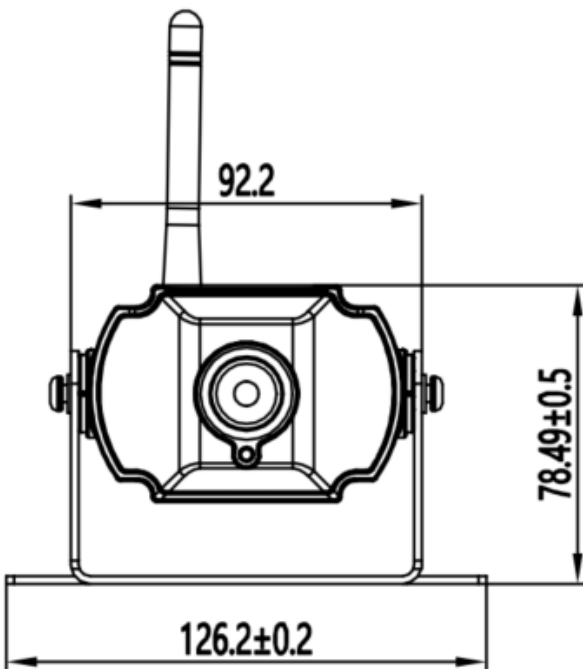


Bracket mounting hole position

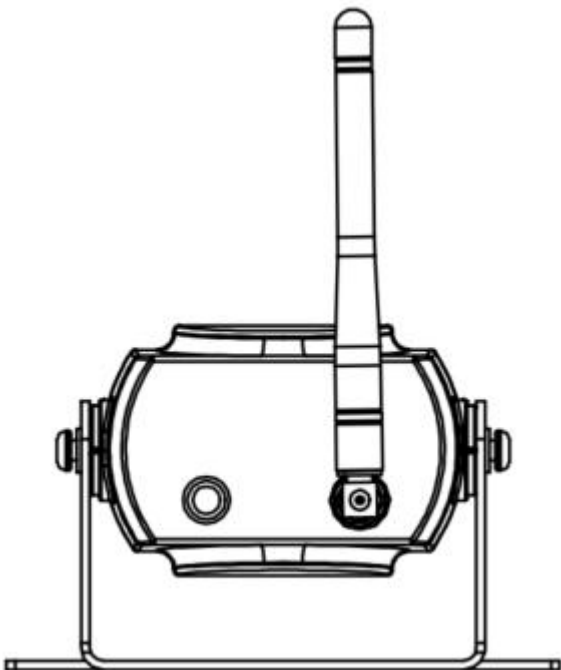
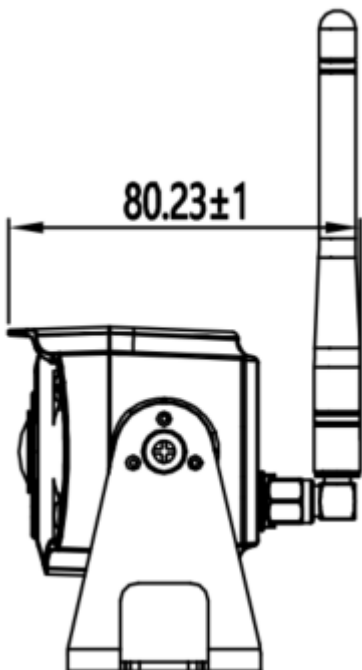
972C42 (Unit mm)



Left View

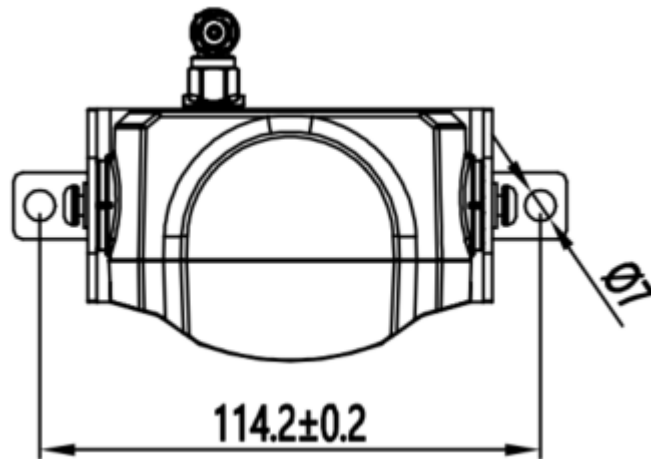


Main View



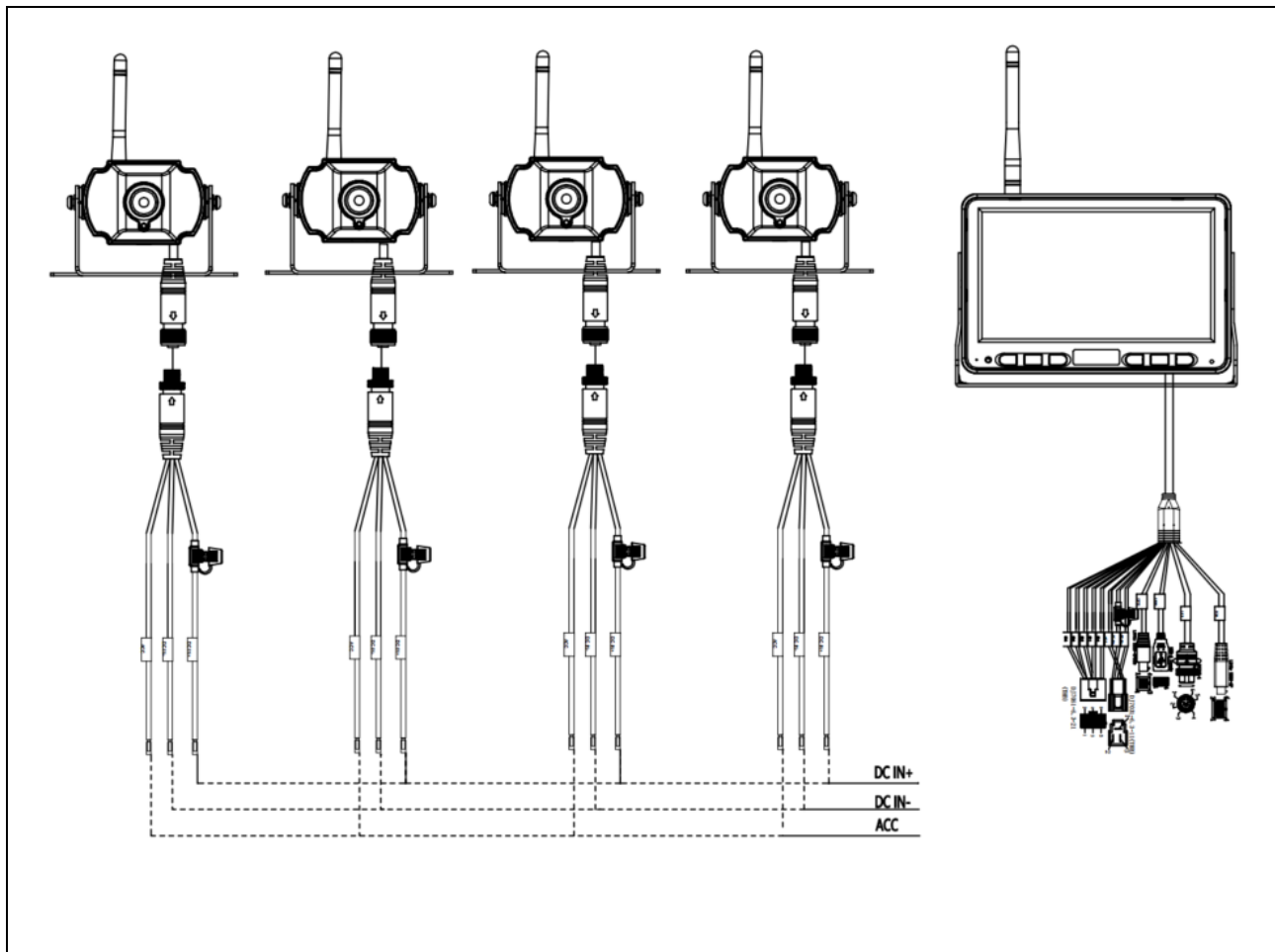
Right View

Back View

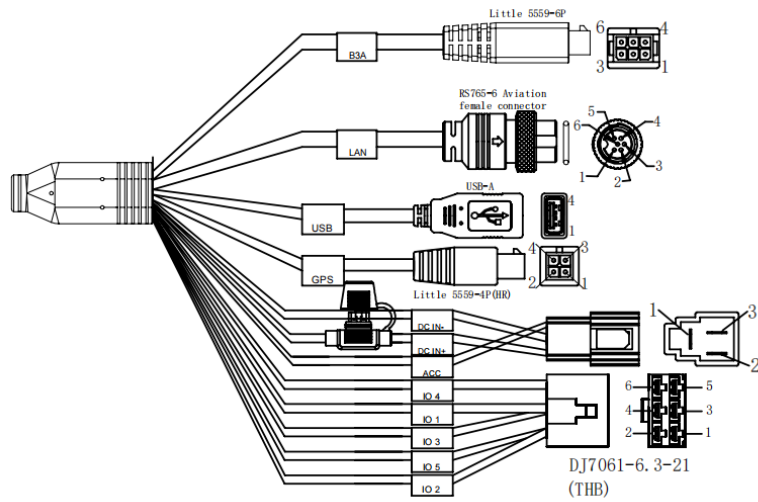


Bracket mounting hole position

System Connection Diagram



Cable Details



Wire list

TJC3-22P-P2.0 Locked RS765-6

18	1	TX-	Orange
17	2	TX+	White
20	4	RX-	Green
19	5	RX+	Yellow

TJC3-22P-P2.0 Locked 小5559-6P

7	4	485A	Brown white
8	5	485B	Gray
6	6	+5V	
11	3	GND	

TJC3-22P-P2.0 Locked USB-A

Red yellow 6	1	+5V	
22	2	D-	Blue
21	3	D+	Purple
Brown 11	4	GND	
Shield 11		Shell	Coil shielding

TJC3-22P-P2.0 Locked 小5559-4P

6	4	+5V	Red yellow
11	2	GND-G	Brown
TX 9	1	GPS-RX	Purple white
RX 10	3	GPS-TX	Gray white

TJC3-22P-P2.0 Locked DJ7061-6.3-21

Green white IO1	12	4	IO 1	Green
Blue white IO2	13	1	IO 2	Brown
Pinky white IO3	14	3	IO 3	White
IO4	15	5	IO 4	Gray
Pink Yellow white IO5	16	2	IO 5	Yellow

TJC3-22P-P2.0 Locked DJ7031-6.3-11

Red+red white 1+2	2	DC IN+	Red
Black+black white 3+4	1	DC IN-	Black
Orange white 5	3	ACC	Orange

Special Notes

- This product needs to be installed by professionals to prevent the risk of it falling off.
- When this product is in direct sunlight, the surface temperature will exceed 60 degrees . Please do not touch it to prevent burns.
- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) this device may not cause harmful interference
 - (2) this device must accept any interference received, including interference that may cause undesired operation.

15.21

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

More than 20cm

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled

environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.