

Product Specification

Product Name: IoT Gateway
Model Name: CDGW-006-NA

Revision History

Specification		Sect.	Update Description	By
Rev	Date			
1.0	2022-05-09		New version release	
2.0	2022-06-23		Add CDGW-006-Global, CDGW-006-EU, CDGW-006-US product model and 4G LTE performance description	
3.0	2022-8-1		Adjust Antenna type select one area northAmerica	Li

Approvals

Organization	Name	Title	Date

Model List



Feature Mode	Wi-Fi	LTE CAT1 EC200N-CN	LTE CAT4 EG25-G	LTE CAT4 EC25-EUX	LTE CAT4 EC25-AFX
CDGW-006-NA	●				●

Note: Due to the price of 4G LTE module, CDGW-006-Global is only used for sample delivery. The specific country or region adopts the model corresponding to EC25. The CN version adopt the EC200N-CN 4G LTE module.

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1. Introduction

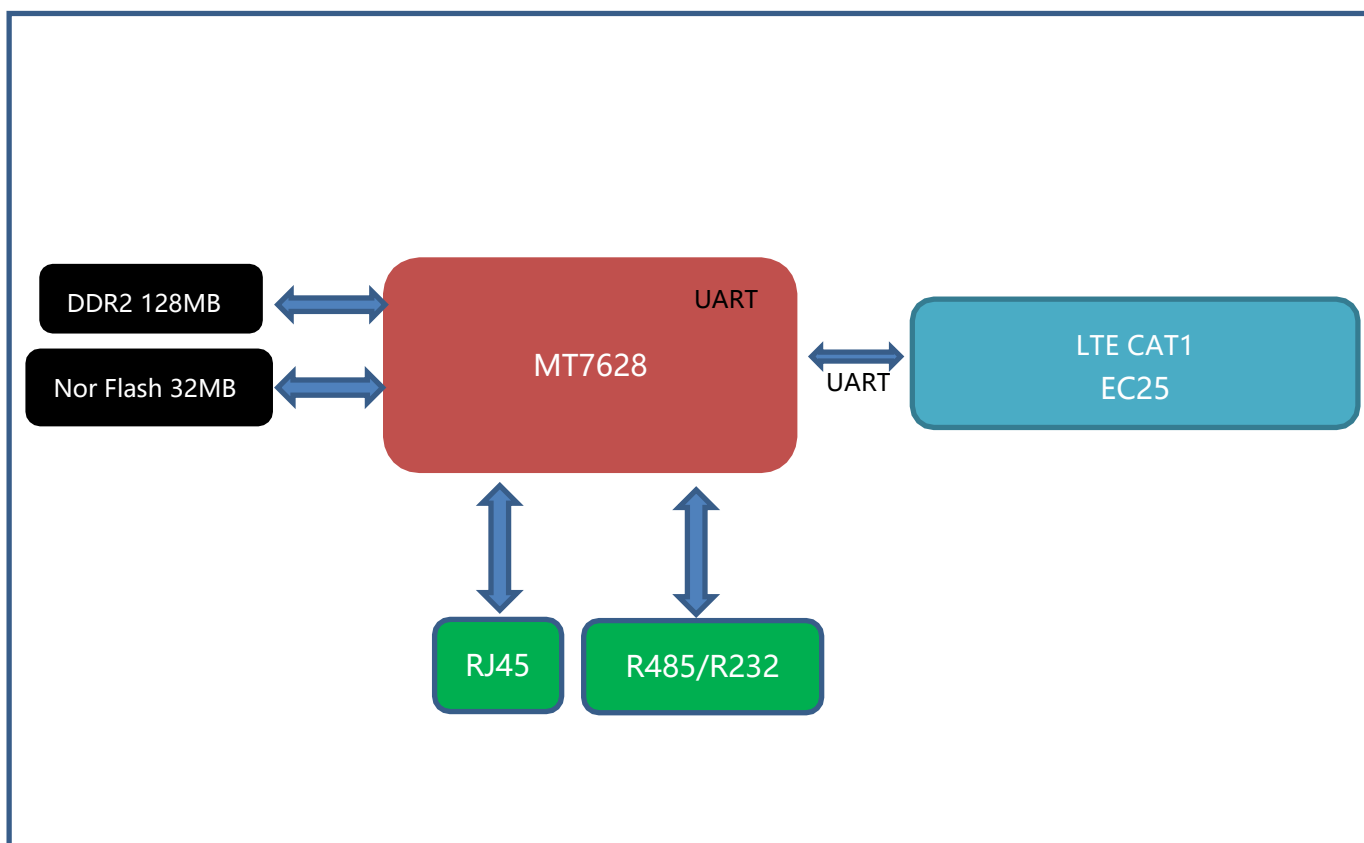
1.1 Purpose& Description

CDGW-006 produced by Dusun Electronics is an IoT gateway based on MediaTek MT7628 as the core. The gateway adopts MT7628 processor, integrates one WAN network port and two LAN network ports, two COM R232/485 variable ports, USB2.0 interface, SIM card and other interfaces, supports Wi-Fi and LTE, which can be flexibly applied to various scenarios and provide reliable connections for various wireless IoT devices.

1.2 Product Feature Summary

- Support 24V DC supply
- Support IEEE802.11n, IEEE802.11g, IEEE 802.11b Protocol
- Support 4G LTE CAT1
- Support WAN/LAN network port
- Support R485/R232 COM port
- Support USB2.0

1.3 Hardware block diagram



2. Mechanical Requirement

2.1 Drawings



2.2 Interface



3. Specifications

3.1 Technical Specification

Category	Specifications
Power Supply	DC 24V, 2-Pins Cresnet interface
Reset button	The reset button is hole button, after pressing the reset button for more than 5 seconds, the Locator will be restored to the factory settings.
Network Interface	WAN/LAN *2
USB	USB2.0
SIM card	Micro SIM card
Indicator LEDs	Power LED normally on when powered on Network LED normally on when connected 1*WAN/2*LAN/2*COM LEDs(YG): The yellow light is on [flashing], means it is in use and transmitting data (the Internet is normal). The green light is on, means the connection is normal (physical connection is normal)
Wireless protocol	LTE/ Wi-Fi
Antenna	Wi-Fi FPC Antenna// LTE SMA-Rod Antenna
Installation method	Flat, Ceiling, DIN
Operating Temperature	-10°C~55°C
Storage Temperature	-40°C~70°C
Operating humidity	10%~90%
IP rating	IP22
Cooling	Heat dissipation silicone/aluminum

3.2 Performance Requirement

CPU	<ul style="list-style-type: none"> MIPS24KEc 580MHz
System	<ul style="list-style-type: none"> OpenWRT
RAM	<ul style="list-style-type: none"> 128MB DDR2
eMMC	<ul style="list-style-type: none"> 32MB Nor Flash
Wi-Fi Performance	<ul style="list-style-type: none"> IEEE wireless LAN standard: <ul style="list-style-type: none"> IEEE802.11n; IEEE802.11g; IEEE 802.11b Data Rate: <ul style="list-style-type: none"> IEEE 802.11b Standard Mode:1,2,5.5,11Mbps IEEE 802.11g Standard Mode:6,9,12,18,24,36,48,54 Mbps IEEE 802.11n: MCS0~MCS7 @ HT20/ 2.4GHz band Sensitivity: <ul style="list-style-type: none"> HT40 MCS7: -70dBm@10% PER(MCS7) /2.4GHz band HT20 MCS7: -71dBm@10% PER(MCS7) /2.4GHz band Transmit Power: <ul style="list-style-type: none"> IEEE 802.11n: 16dBm @HT20/40 MCS7 /2.4GHz band

	<ul style="list-style-type: none"> IEEE 802.11g: 16dBm @54MHz • IEEE 802.11b: 18dBm @11MHz • Wireless Security: WPA/WPA2, WEP, TKIP, and AES • Working mode: Bridge, Gateway, AP Client • Range: 50 meters minimum, open field • Transmit Power:17dBm • Highest Transmission Rate: 300Mbps • Frequency offset: +/- 50KHZ • Frequency Range (MHz): 2412.0~2483.5 • Low Frequency (MHz):2400 • High Frequency (MHz):2483.5 • E.i.r.p (Equivalent Isotopically Radiated power) (mW)<100mW • Bandwidth (MHz):20MHz/40MHz • Modulation: BPSK/QPSK, FHSSCCK/DSSS, 64QAM/OFDM
LTE EC25	<ul style="list-style-type: none"> North America: EC25-AFX • LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71 • WCDMA: B2/B4/B5 • GPS/GLONASS/BDS/Galileo/QZSS (Optional)
WAN	<ul style="list-style-type: none"> • 10/100M bps
LAN *2	<ul style="list-style-type: none"> • 10/100M bps
COM *2	<ul style="list-style-type: none"> • R485/R232 (Software control switching)
	<ul style="list-style-type: none"> •
	<ul style="list-style-type: none"> •

4. QA Requirements

4.1 Quality and Testing Information

Information Description	Standard(Yes) custom(No)
ESD Testing	Yes
RF Antenna Analysis	Yes
Environmental Testing	Yes
Reliability Testing	Yes
Certification	FCC, CE

FCC Statement

1. 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.

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

NOTE:

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.

The distance between user and products should be no less than 20cm during normal operations