MPEG4 DVB-C/T Encoder Modulator

KC302WCT

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SAFETY INSTRUCTIONS

⚠ **CONNECTING TO THE MAINS SUPPLY**

This product has to be connected to the mains supply.
Before carrying out maintenance operation or modification of the installation, the device has to be disconnected.

⚠ **OVERVOLTAGE**

An over-voltage cause short-circuits or fire. Never overload the power lines. Always use the power supply provided for single channel series.

⚠ **LIQUIDS**

should be protected from splashes;
Do not place objects filled with liquids on it;
If any liquid should accidentally fall into the cabinet, disconnect the power plug.

⚠ **CLEANING**

Disconnect the module before cleaning. Use only a humid cloth without solvent.

⚠ **VENTILATION**

the ventilation holes should not be obstructed;
not be installed in a hermetically sealed environment;
Other electronic products or heat producing items keep a minimum distance of 15 cm around the apparatus for sufficient ventilation;

⚠ **ACCESSORIES**

Only use the supplied power adaptor;
The use of accessories not manufactured by the manufacturer can cause damage to the module.

⚠ **INSTALLATION OF THE MODULE**

Do not expose the unit to rain or moisture;
Do not installed in direct sunlight or in humid place;
Respect the minimum and maximum temperature specifications

PACKAGE CONTENT

Device	1pc
Power Adapter	1pc

GENERAL DESCRIPTION

The device is designed to make your HD device use more convenient, productive and cost efficient. The Video-Audio devices can be from surveillance cameras, Blue-ray DVD, media -players, satellite and terrestrial receivers or computers.

The device can do digital coding processing for HDMI signal with DTV technology. The product adopts RF modulation technology characteristic to transmit the multiple RF signal through one common coaxial cable for long distance transmission without amplification. The device can distribute your HD source to HD resolution to an unlimited number of displays over almost any distance. By adding DTV network mixer at the RF cable, you can easily achieve a large number of displays or DTVs.

The device offer solution for such as hotels, stadiums, entertainment facilities, or broadcast environments.

FEATURES

- Supports output resolutions up to 1080 60p
- Easy to set up and upgrade via Web NMS
- DVB-C / DVB-T 2 in 1, free selectable at any time
- Small size and Light weight
- Support wall-mount type
- Good ventilation for the device
- Install multiple units onto your TV system

APPEARANCE INTRODUCE
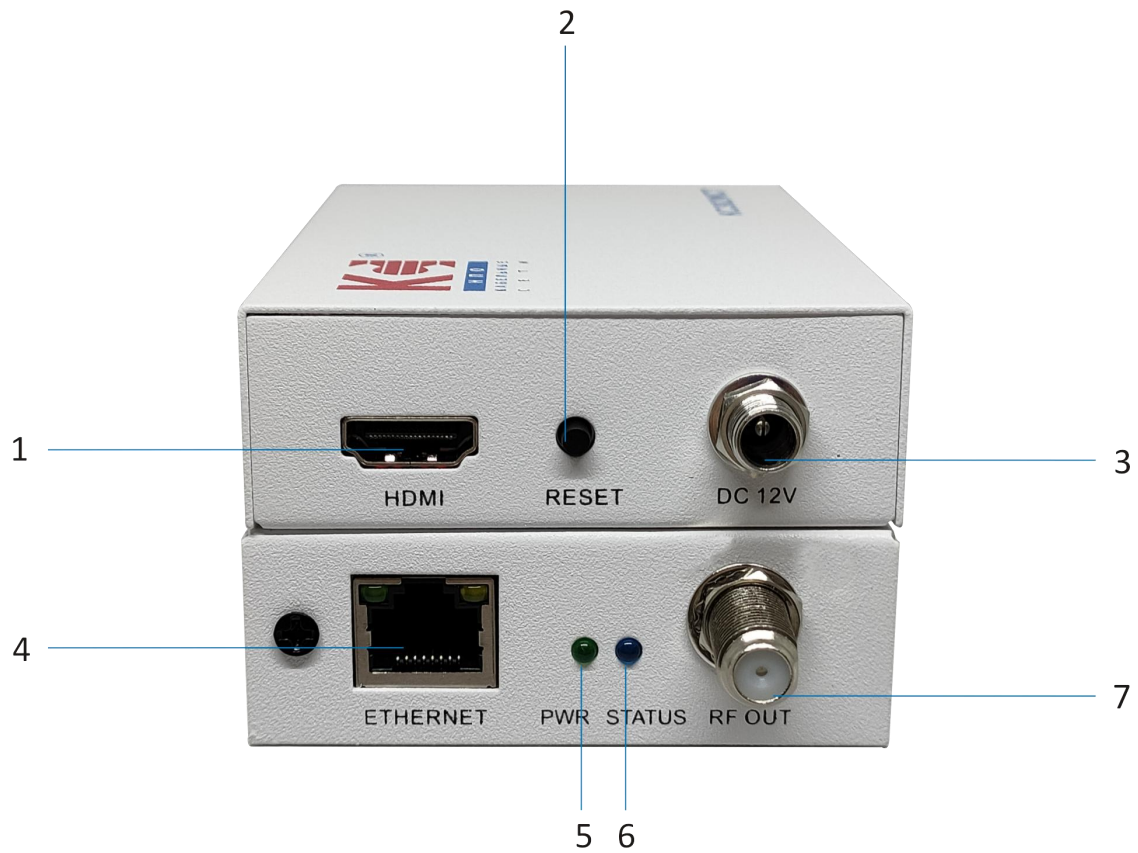
1. HDMI input	5. Power LED
2. Reset Button	6. Status LED
3. Power Input	7. RF Output
4. Ethernet (NMS Control)	

TECHNICAL SPECIFICATIONS

Encoding Section-Video		
Encoding	MPEG4 AVC / H.264	
Interface	HDMI*1	
Resolution	Input	Output
	720@50p,720@60p 1080@50i/p,1080@60i/p	Max. 1080@30p
Bit rate	Max. 20Mbps	

Encoding Section-Audio	
Encoding	MPEG-1 Layer2, AAC
Sample rate	48KHz

System	
Management	Ethernet
Language	English
Upgrade	Ethernet

Menu Configuration	
General	Frequency/ RF Attenuation/ Service Name/Modulation/LCN
Advanced	PMT PID/VPID/APID/PCR PID/TS ID/Service ID/NetworkID/ ONID/Service provider/Network/Half FPS/FHD Output/Latency
Network	IP Address/Subnet Mask/ Default Gateway/MAC Address
Update	Modulator Firmware/Main MCU

Modulator Section	
MER	Typ. 35dB
RF range	100-950MHz, 1KHz step
RF output level	95dBμV(30dB Attenuation)

Standard	DVB-T	DVB-C	
Bandwidth	6,7, 8M	Constellation	16QAM, 32QAM 64QAM, 128QAM, 256QAM
Constellation	QPSK, 16QAM, 64QAM		
Code Rate	1/2, 3/5, 2/3, 3/4, 5/6, 7/8		
Guard interval	1/4, 1/8, 1/16, 1/32	Symbol rate	5.000-8.000Msps ADJ
FFT	2K, 8K		

General	
Power Supply	DC 12V 1A
Dimension	103x 64 x 24mm
Weight	211g

APPLICATION DIAGRAM

Satellite STB   STB、OTT   DVD   Monitor

NMS-PC Control

1×HDMI Source

Ethernet

KC302WCT

RF

RF Splitter

RF   RF   RF   RF

HD TV   HD TV   HD TV   HD TV
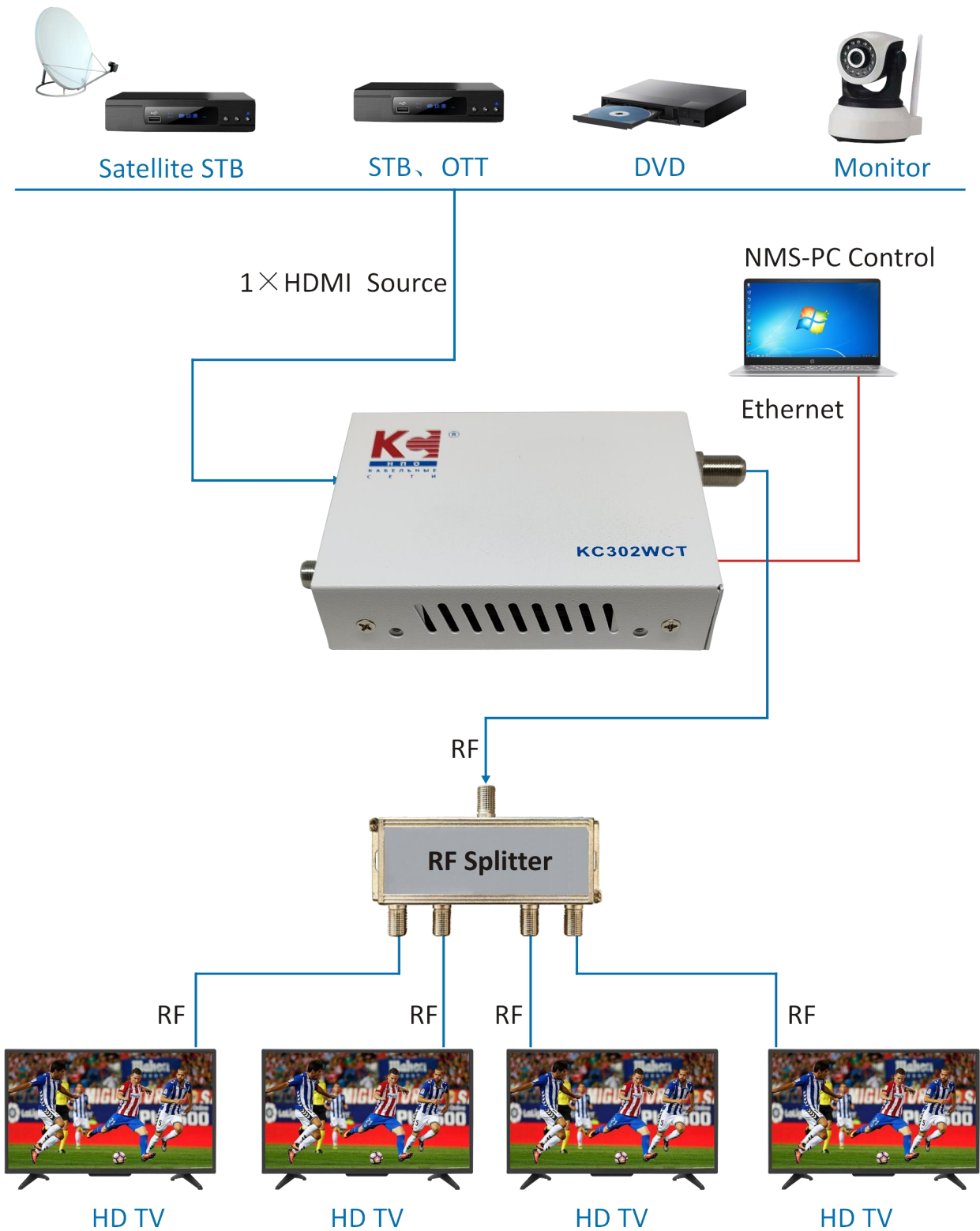
WEB OPERATION INSTRUCTION

For setting configurations, you can use the Web NMS to control and set by connecting the device to a computer's RJ45 Port. The default IP of device is 192.168.0.168. Your computer will require a static IP address in the range 192 . 168 . 0 . xxx except device's ; otherwise, it would cause an IP conflict

1. Computer static IP address Setting

The IP Address of the computer must be in the same participation as device's.
System Control >Network Connections > LAN Connection > Properties >Internet Protocol Version 4 TCP/IPv4 > Properties,as the picture:
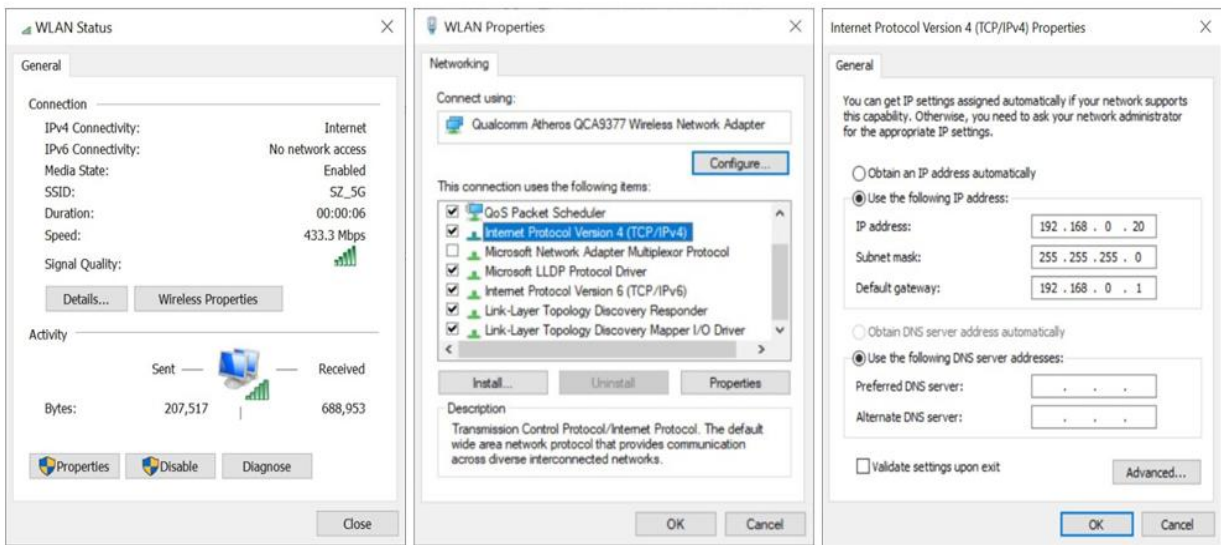
2. Device set up and Log in

1. Connect the PC to the Ethernet port of the Device.
2. Launch the web browser and delete browsing history.
3. When log in to the IP (192.168.0.168), you will see the log in page.
The factory password is "admin". Enter the password and click button "Apply"
Username: admin   Password: admin
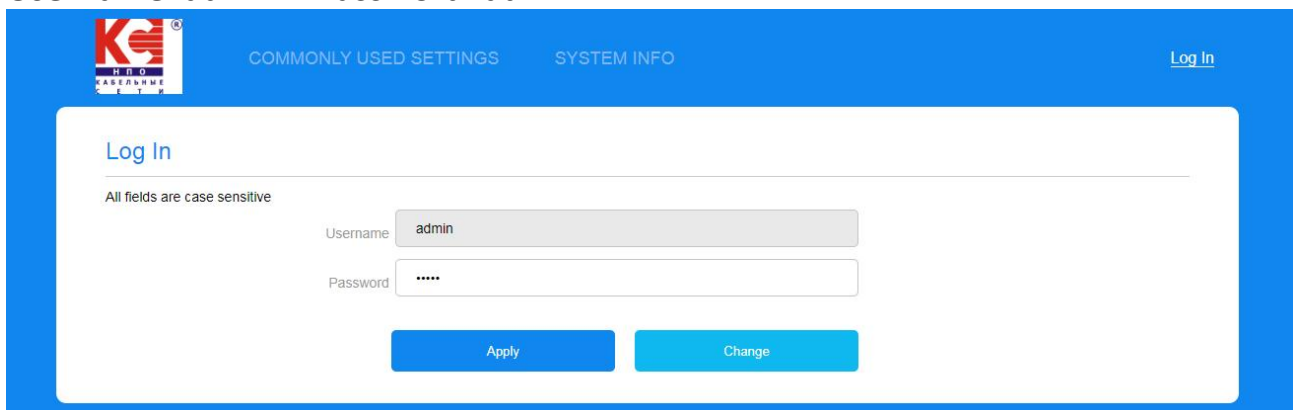
Also, user can changed the Username and Password by click **"Change"**, details display as following page.

3.General Section

In **" General "** section, you can change basic settings as following format description.

3.1 DVB-C Mode

Parameter	Range
Source	HDMI
System	DVB-C
Frequency(MHz)	100000-950000
RF Attenuation(dB)	0-30
Service Name	up to 15 alphanumeric characters
HDCP	On/Off
Modulation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Symbol Rate (K)	5000-8000
LCN	1-1023

3.2 DVB-T Mode

Parameter	Range
Source	HDMI
System	DVB-T
Frequency(MHz)	100000-950000
RF Attenuation(dB)	0-30
Service Name	up to 15 alphanumeric characters
FFT	2K, 8K
Code Rate	1/2, 2/3, 3/4, 5/6, 7/8
HDCP	On/Off
Modulation	QPSK, 16QAM, 64QAM
Bandwidth(MHz)	6, 7, 8
LCN	1-1023
Guard Interval	1/4, 1/8, 1/16, 1/32
LCN	1-1023

4. Stream Section

In **" Stream "** section, you can change detail TS setting as following format description.

Parameter	Range
PMT PID	32-8190
Video PID	32-8190
Audio PID	32-8190
PCR PID	32-8190
TS ID	1-65535
Service ID	1-65535
Network ID	1-65535
ON ID	1-65535
Service Provider	up to 15 alphanumeric characters
Network Name	up to 15 alphanumeric characters
Bitrate	Max.20Mbps
Audio format	AAC, MPEG1
Half FPS	On/Off
FHD Output	Auto, Interlace

5. Network Section

The default IP is 192.168.0.168. Allow user manual change in this page.

6. Update Section

Click **"Update"** on the left side of the homepage to display the following page.


Remark:
1. Make sure the network is stable before operation.
2. Avoid opening two pages with the same URL.
3. Avoid updating the FW & Main MCU through the router, which may cause the update to fail.
4. Ensures the route and power supply are not separated in the update process.
5. After the update, it takes a while for the device to automatically restart. And never turn off the power supply during this period.
6. After the update, if the page does not automatically response, please do not power off, and try to reload page, or use another browser to open again.
7. If the update doesn't work properly, hold the reset button for 5 seconds before reloading the web page.

6.1.Update Section

1. Click **" LCD Module "** button and pop up a dialog box.
2. Choose the file[xxx.bin] to be uploaded.

3. After the update is completed, it will automatically return to the settings page.
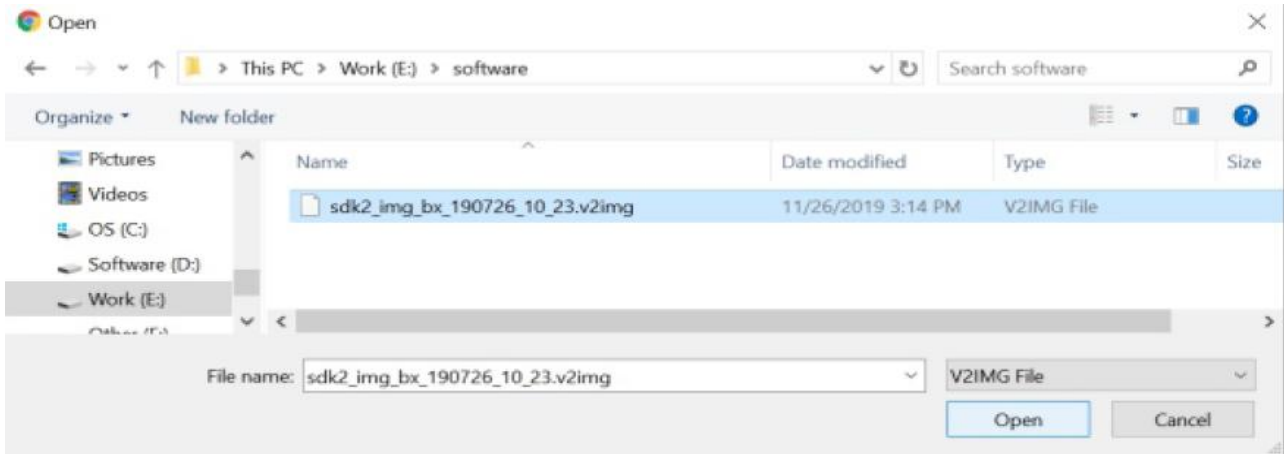
6.2. Update Main MCU

1. Click **" Start Update Main MCU "** button, it will jump to another page as below picture.
2. Choose the file [xxx.bin] to upload then click "Update " button.
3. When update finished, will automatically return to homepage.

7. System Info Section

User can check the software version and Video sources information here.
The button **" Reload "** is to upload the file that saved settings before.
The button **" Factory Default "** is for the settings restore factory defaults.