



MPEG4 DVB-C/T Encoder Modulator



КС302WCT

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.

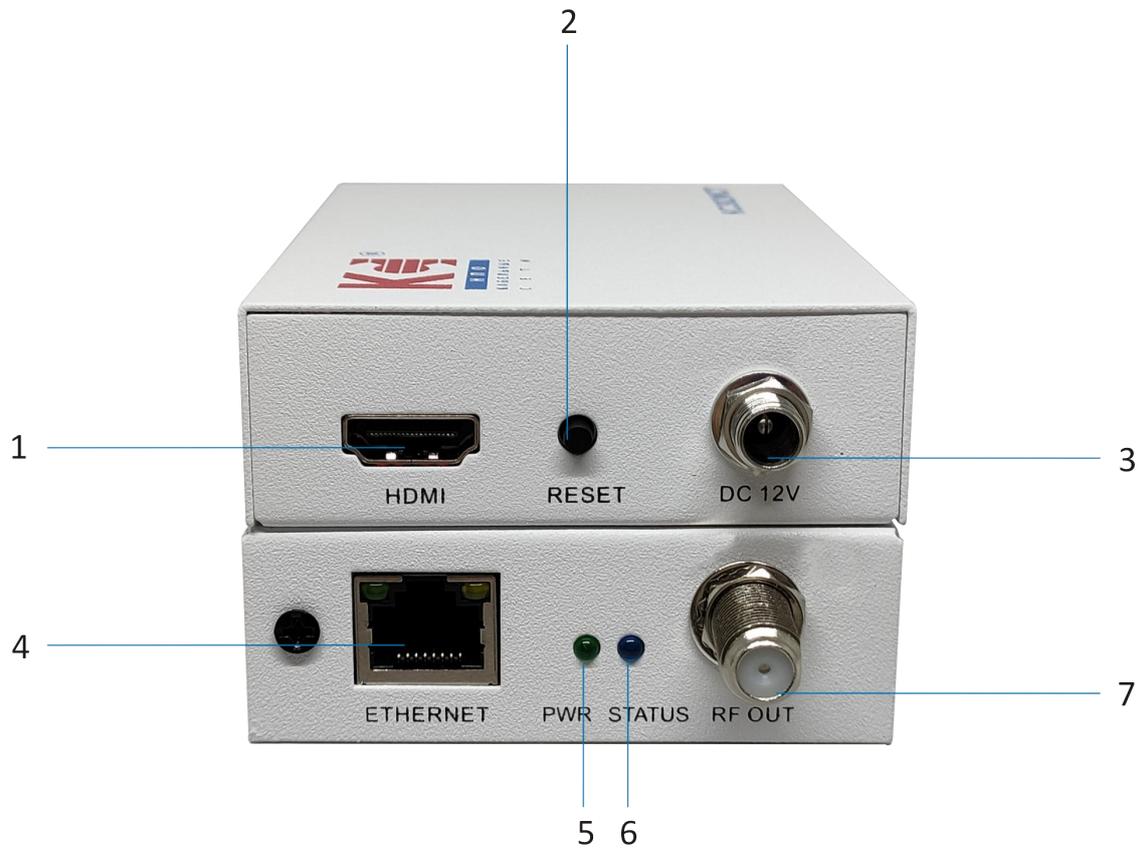
The device can do digital coding processing for HDMI signal with DTV technology. The product adopts RF modulation technology characteristic to transmit the multiple RF signal through one common coaxial cable for long distance transmission without amplification. The device can distribute your HD source 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

2. Reset Button

3. Power Input

4. Ethernet (NMS Control)

5. Power LED

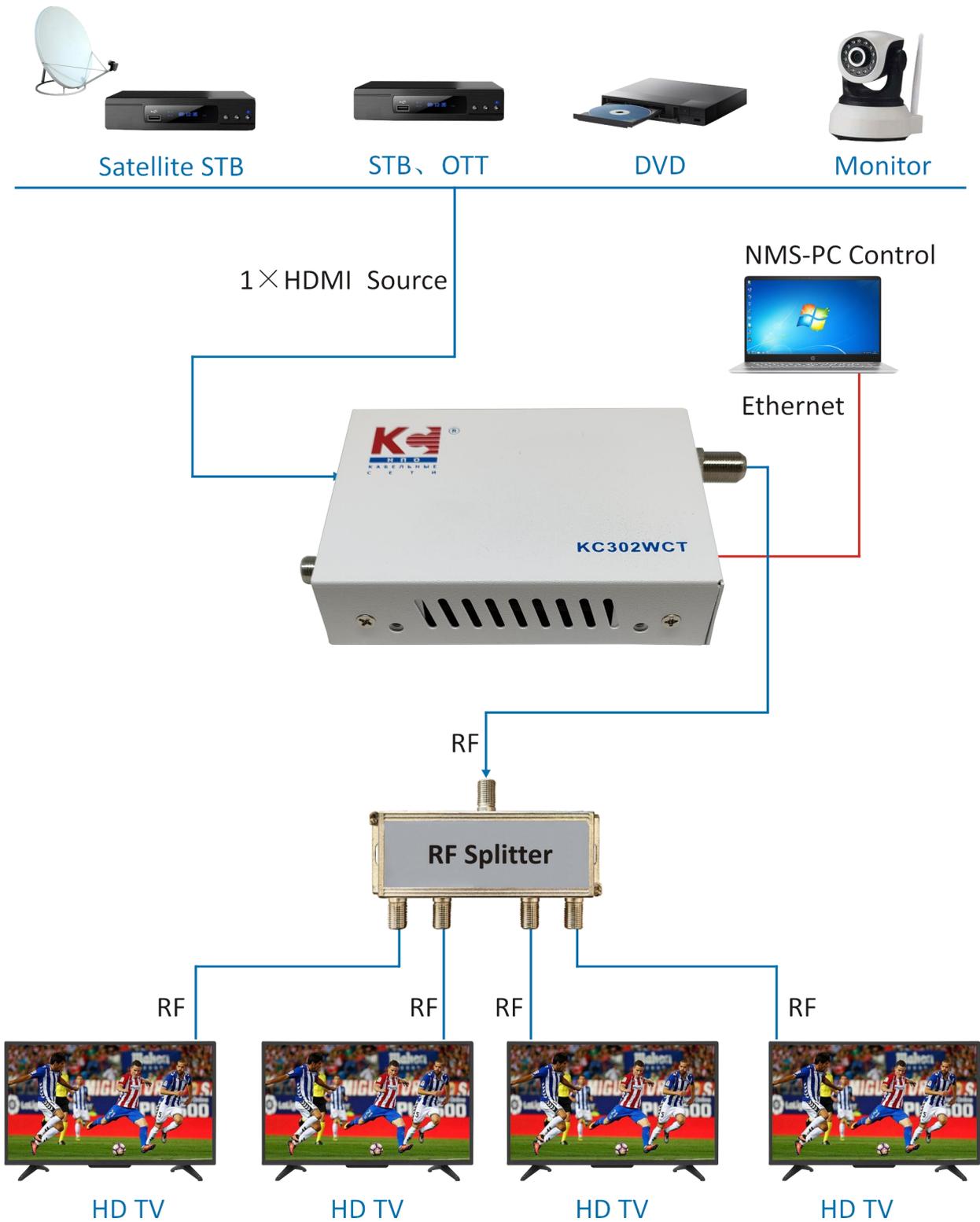
6. Status LED

7. RF Output

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	95dB μ V(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	5.000-8.000Mpsps ADJ
FFT	2K, 8K		
General			
Power Supply	DC 12V 1A		
Dimension	103x 64 x 24mm		
Weight	211g		

APPLICATION DIAGRAM

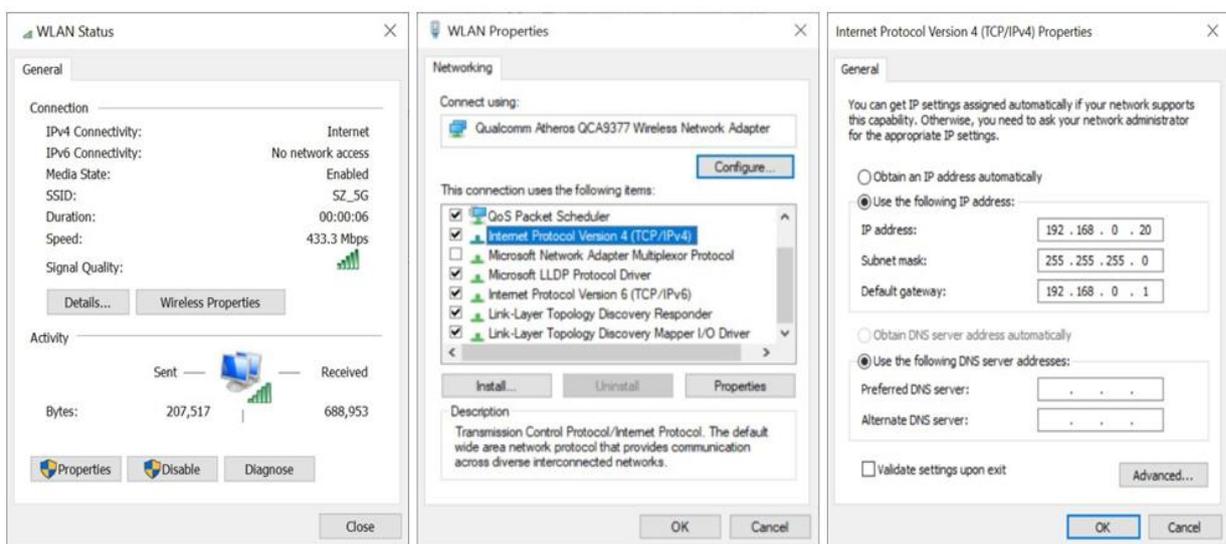


WEB OPERATION INSTRUCTION

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

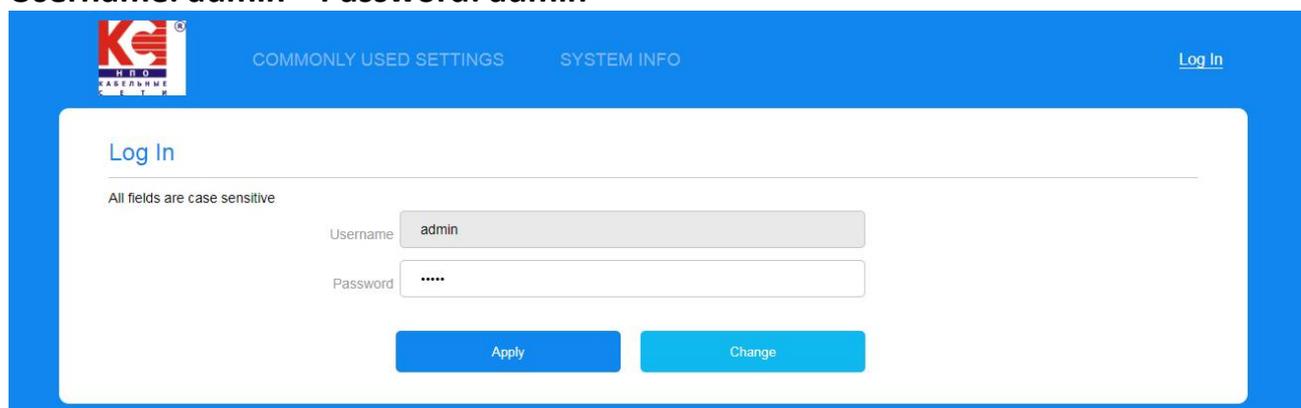
1. Computer static IP address Setting

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

The screenshot displays the 'General' settings page for DVB-T mode. The interface is organized into a left-hand navigation menu and a main configuration area. The navigation menu includes 'General', 'Stream', 'Network', and 'Update'. The main area is titled 'General' and contains the following settings:

- Source: HDMI
- System: DVB-T
- Frequency (KHz): 474000
- RF Attenuation (dB): 0
- Service Name: KSETI HD1
- FFT: 8K
- Code Rate: 5/6
- HDCP: Off
- Modulation: 64QAM
- Bandwidth (MHz): 8
- Logic Channel Number: 1
- Guard Interval: 1/16

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.

Stream

Transport Stream

PMT PID

Video PID

Audio PID

PCR PID

TS ID

Service ID

Network ID

ON ID

Service Provider

Network Name

Encoder

Bitrate

Audio Encoder

Half FPS

FHD Output

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.

Network

IP Address: 192.168.0.168 Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.1

MAC Address: 00:80:E1:02:58:4E

Save RELOAD

6. Update Section

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

Update

Update Modulator Firmware

Start Update Main MCU

Progress

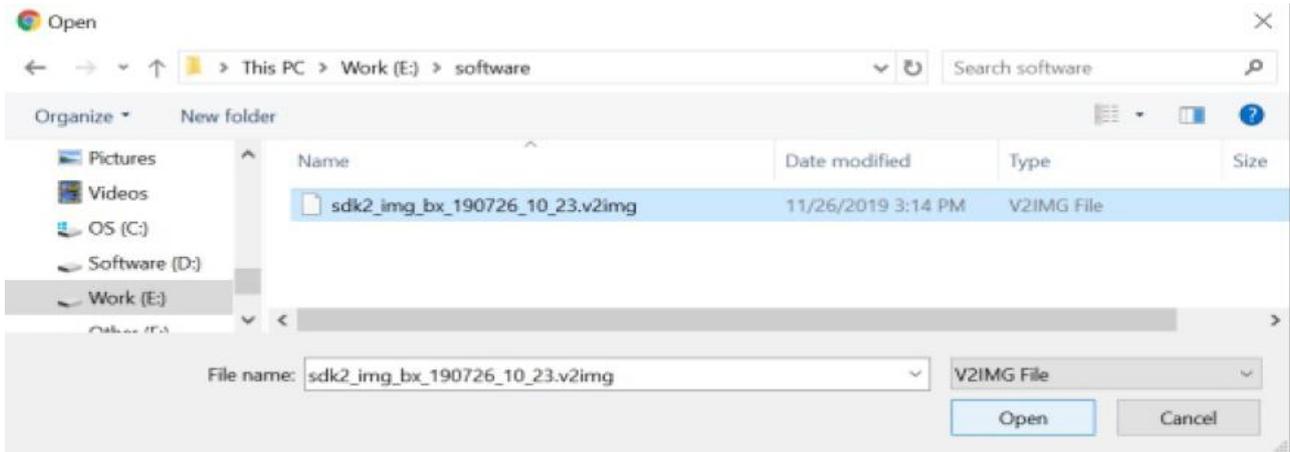
Remark:

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.

