# IP to RF Universal Modulator
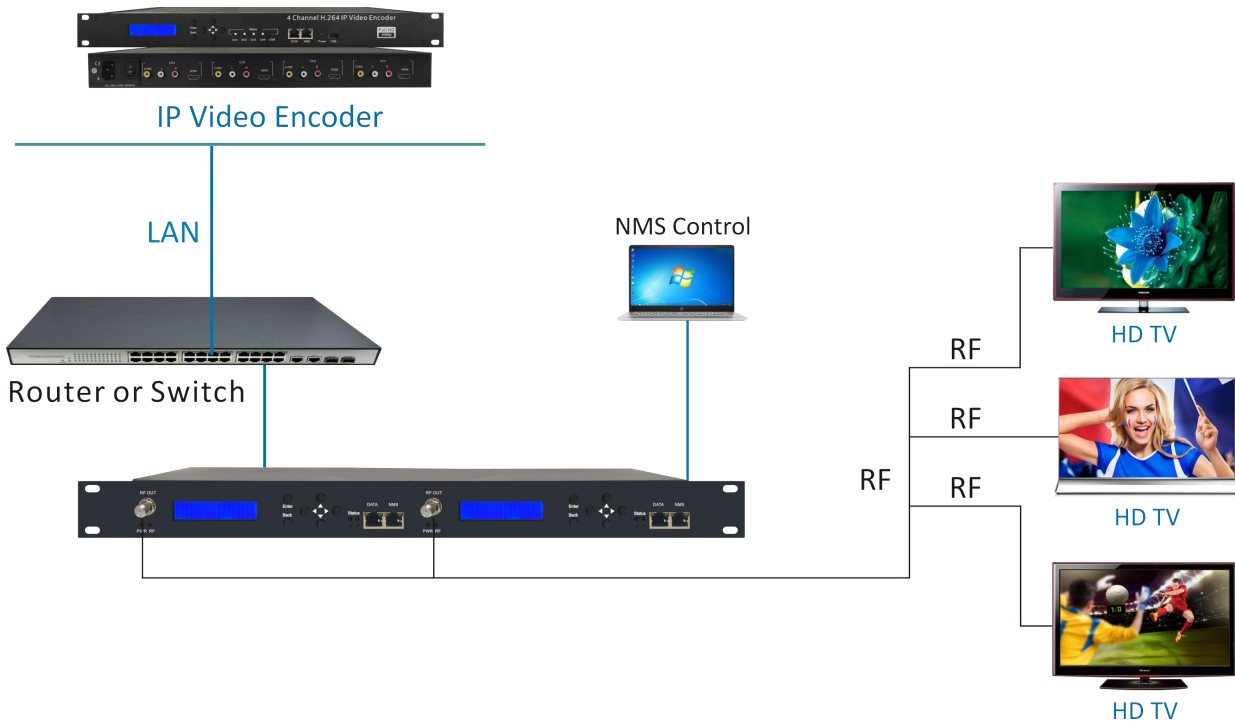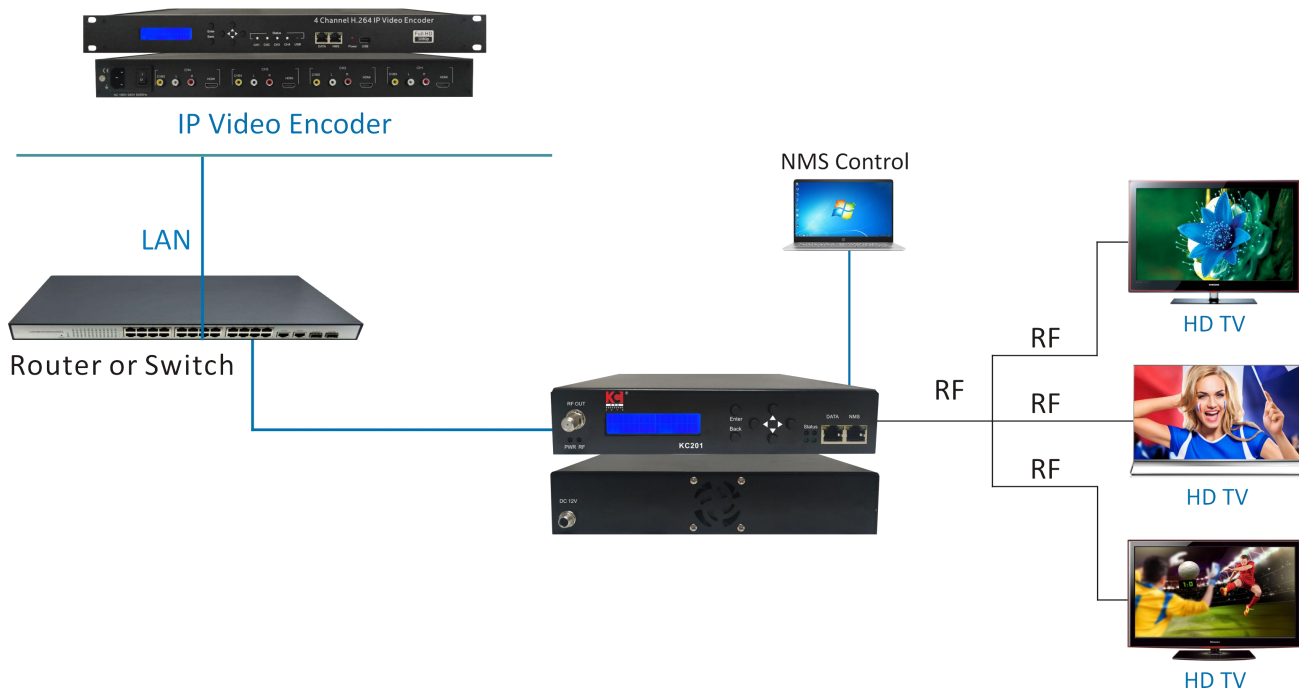
**KC201**

# TECHNICAL SPECIFICATIONS

| Input | |
|---|---|
| Interface | GE ports |
| Streaming | UDP / RTP, ip input over 8xSPTS or 1xMPTS |
| Transport Protocol | TS over UDP/RTP, unicast and multicast, IGMP V2/V3 |
| Packet Length | 188 Bytes |
| **Network Interface** | |
| Management | 1x1000Base-T Ethernet(RJ 45) |
| Data | 1x1000Base-T Ethernet(RJ 45) |
| Protocol | IEEE 802.3 Ethernet,RTP,ARP,IPv4,TCP/UDP,HTTP,IGMP v2/v3 |
| **Modulation** | |
| MER | Typ. 35dB |
| RF range | 50~950MHz, 1KHz step |
| RF output level | 95dBμV |

| 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 | | | |

| System | |
|---|---|
| Management | LCD + Control buttons/Ethernet |
| Language | English |
| Upgrade | Ethernet |
| **General** | |
| Power Supply | DC 12V 2A |
| Dimension | 220 x 206 x 44mm |
| Weight | 1000g |
| Environmental For Operating | Temperature: 5°C- 40°C<br>Relative Humidity: 80% @ 30°C |

# Application Example - IP to RF Modulator



IP Video Encoder

LAN

Router or Switch

NMS Control

RF

RF

RF

RF

HD TV

HD TV

HD TV



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## The solution used the following our products

1.HCI421 - 4 x HDMI/CVBS to IP Video Encoder
2.KC201 - IP to RF Modulator

# WEB OPERATION INSTRUCTION

The device is configured using NMS. Access to the NMS is via the network connection

## 1. IP Address of Computer Setting

We must choose the static IP address according to the default gateway address. The first three numbers must be the same (192.168.0.x in the example).
System Control> Network Connections> LAN Connection> Properties> Internet Protocol Version 4 TCP/IPv4 > Properties> Use the following IP address:
IP address Computer: 192.168.0.20 and Subnet mask: 255.255.255.0.
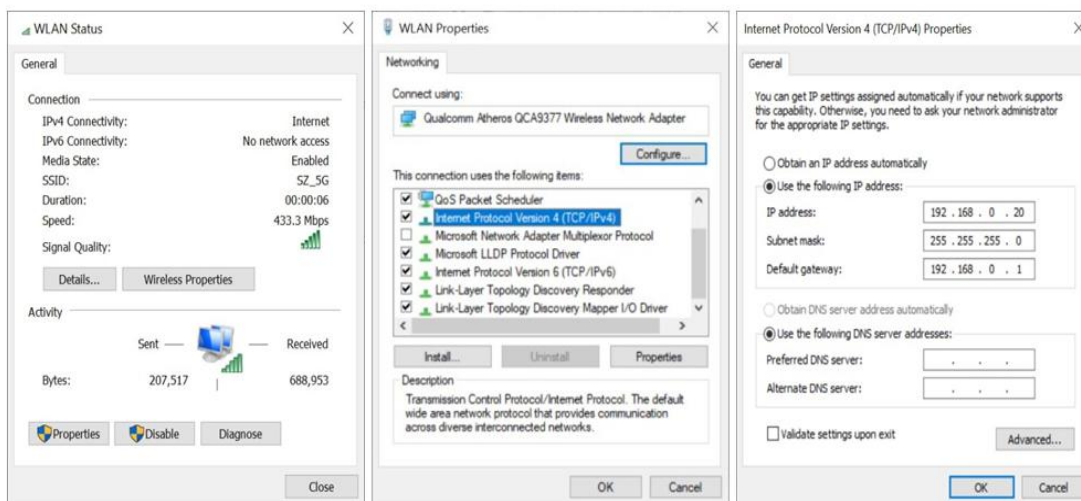


## 2. IP Address of Computer Setting

2.1 Each machine can have different username and password settings.
2.2 Please log in before operation. **Default IP is 192.168.0.168; Password: 0000**
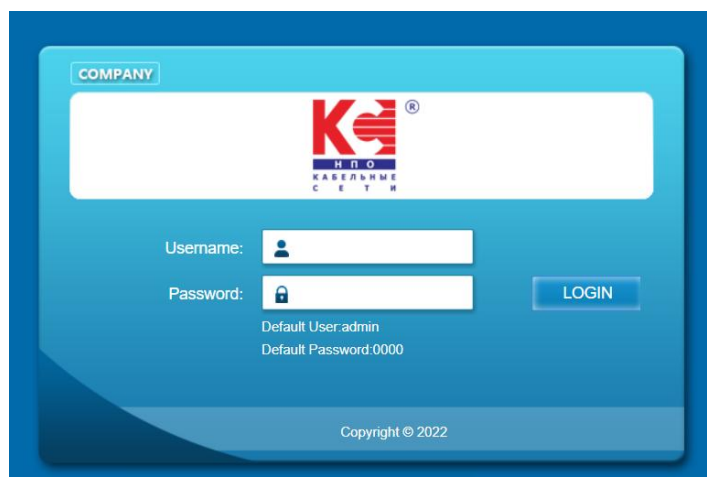
## 3. NMS Home Page & Status

Contents of the home page includes: Device Information/Streaming Setup/Modulator Setup/Network/ Password/Upgrade/Configuration.

And device's Device Information details are also show on this page. Here you can know the Model Name, Serial Number, Firmware version, Boot Version, Modulator Version, Modulator Mode, MAC Address.



## 4. Streaming Setup

Use the Streaming Setup Page to setup your required streaming method. You can choose up to 8xSPTS or 1xMPTS. You can choose UDP/RTP (unicast and multicast), UDP/RTP is automatic analysis.

## 5. Modulator Setup

Use the Modulator Setup Page to setup your required modulator information. If the input is SPTS, the PID and other parameters of the Transport Stream can be pass thought or remapping. If the input is MPTS, the PID and other parameters of the Transport Stream only pass thought.

## 5.1.Modulator-DVB-C

## 5.2.Modulator-DVB-T

## 6. Network Setup

The IP Out default setting is DHCP on. The Web Management default setting 192.168.0.168.



## 7. Password

You can modify the user name and password. In the New password field, enter the new password you want to change, also the same password as the new password to confirm.

## 8. Upgrade

Use the Upgrade page to update system firmware.



## 9. Configuration

Use the "Factory Reset" to reset configuration to factory default.

Use the "Download Config" to saved device setting configuration setting to PC.

Use the "Upload Config" to upload the file with pre-saved configuration settings to device.

## 10. LED light indication

1. Power light indication.

2. When RF output works, the LED of RF output will be bright.

   If over the RF setting standard, the LED will be blink.



3. Status LED indication

   When SPTS1 or SPTS5 receive IP streaming, the Status 1 blue LED will be bright.
   When SPTS2 or SPTS6 receive IP streaming, the Status 2 green LED will be bright.
   When SPTS3 or SPTS7 receive IP streaming, the Status 3 blue LED will be bright.
   When SPTS4 or SPTS8 receive IP streaming, the Status 4 green LED will be bright.
   When MPTS receive IP streaming, the Status 1~4 LED will be all bright.