SOUKA

USER MANUAL V1.0

NMS IP: 192.168.1.10
User Name: user
Password: user

*The X in the model number stands for different output modulations.

A Note from SOUKA about this Manual

Intended Audience

This user manual has been written to help people who have to use, integrate and to install the product. Some chapters require some prerequisite knowledge in electronics and especially in broadcast technologies and standards.

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1. INTRODUCTION

The SKD201X is the most cost-effective and smallest form factor solution in the market. With the second HDMI output port and a RF loop port, user can easily install the system with different requirements. Extremely compact and wall mountable, the SKD201X fits into any space virtually.

2. FEATURES

1. Extremely compact with less than 3CM height
2. MER greater than 35dB
3. High output level with 45dBmV MAX
4. Support MEPG 2.0 FHD encoding
5. Additional HDMI output port for HD content quick display
6. Built-in web UI allows for easy set-up and control visa the web browser

3. SPECIFICATION

ENCODING		
Input Connector	HDMI 1.4	
VIDEO	Encoding	MPEG 2
	Input Resolution	1920*1080_60P; 1920*1080_50P; 1920*1080_60i; 1920*1080_50i; 1280*720_60P; 1280*720_50P
	Bitrate	2 ~ 18 Mbps
AUDIO	Encoding	MPEG 1 Layer II; AC3;AAC-LC; HE-AAC
MODULATION		
DVB-T	Bandwidth	6/7/8M
	Constellation	4QAM, 16QAM, 64QAM
	MER	≥ 38 dB
	Coder Rate	1/2,2/3,3/4,5/6,7/8
	Guard Interval	1/4,1/8,1/16,1/32
	FFT	2k,8k
OUTPUT		
RF	Output Level	≥ 30dBmV
	Output Frequency Range	50 ~ 999.999MHz
	Out-band Rejection	≥ 60dB
SYSTEM			
---	---	---	---
Management	Front panel control; NMS;	LCN Insertion	YES
Language	English	Upgrade	NMS
GENERAL			
Power Supply	DC12V 1A	Power Consumption	< 5W
Net Weight	0.32KG	Dimension	28*178*105(mm)

**TO REDUCE THE RISK OF ELECTRICAL SHOCK,
DO NOT REMOVE COVER FROM THIS UNIT.
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

WARNING: TO PREVENT SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

4. SAFETY INSTRUCTIONS

1. Read all safety and operating instructions before you operate the modulator
2. Retain all safety and operating instructions for future reference
3. Heed all warnings on the modulator and in the safety and operating instructions
4. Follow all installation, operating and use instructions.
5. Unplug the modulator from the AC power outlet before cleaning. Use only a damp cloth for cleaning the exterior of the modulator
6. Do not use accessories or attachments not recommended by us, as they may cause hazards, and will void the warranty
7. Do not operate the modulator in high-humidity areas, or expose it to water or moisture.
8. Do not place the modulator on an unstable cart, bracket or table. The modulator may fall, causing serious personal injury and damage to the modulator. Install the modulator only in a mounting rack designed for 19" rack-mounted equipment.
9. Do not block or cover slots and openings in the modulator. These are provided for ventilation and protection from overheating. Never place the modulator near or over a radiator or heat register.
10. We strongly recommend using an outlet that contains surge suppression or ground fault protection. For added protection during a lightning storm, or when the modulator is left unattended for long periods of time, unplug it form the wall outlet or PDU and disconnect the lines between the modulator and its source. This will prevent damage caused by lightning or power line surges.
11. Do not overload wall outlets or extension cords, as this can result in a risk of fire or electrical shock.
12. Never insert objects of any kind into the modulator through openings as the objects may touch dangerous voltage and will void the warranty. Refer all servicing to authorized service personnel.
13. Unplug the modulator from the wall outlet or PDU and refer servicing to authorized service personnel whenever the following occurs:
    • The power supply cord or plug is damaged
    • Liquid has been spilled into or objects have fallen into modulator
    • The modulator has been exposed to rain or water
    • The modulator has been dropped or the chassis has been damaged
    • The modulator exhibits a distinct change in performance

When replacement parts are required, ensure that the service technician uses replacement parts specified by us. Unauthorized substitutions may damage the modulator or cause electrical shock or fire, and will void the warranty.

5. UNPACKING AND HANDLING

A full SKD201X is shipped with all equipment assembled, wired, factory tested, and then packaged in an appropriate shipping container.

- SKD201X digital modulator (QTY=1)
- Power Cord and 2-pin plug (QTY=1)

5.1 Mechanical Inspection

Inspect the front and rear of the equipment for shipping damage. Make sure the equipment is clean, and no wire, cable, or connectors are broken, damaged or loose.

5.2 Precautions

Avoid heat buildup
Ensure easy access to rack wiring
Facilitate servicing and maintenance
Avoid direct heating or air conditioning
Make sure rack supports are sufficiently rigid to support racks
Beware of dripping water onto equipment form leaky roofs, waveguide roof entries and cold water pipe condensations

5.3 Damage in Shipment

Should any damage be discovered after unpacking the unit, immediately file a claim with the carrier. A full report of the damage shall be made and a copy forwarded to Seller.

6. INSTALLATION

Please follow the instructions below to install the SKD201X digital modulator :

1. Connect the power plug to the jack
2. Connect the video source to the SKD201X modulator
3. Connect the SKD201X to your laptop or computer
4. Power up the modulator

7. FRONT PANEL VIEW

1. INDICATIORS

PWR	Indicate power on.
LINK LOCKED	Indicate that HDMI incoming signal is recognized
ENCODING	Indicate the modulator is working

2. LED DISPLAY
Four-digit LED display for front panel control.

3. Control Buttons

▼	**Enter, Move and Save**
MENU Buttons	Switch
▲	Indicate the modulator is working

8. REAR PANEL VIEW

1. **GND :** For modulator grounding
2. **DC12V:** DC12V power source
3. **NMS:** The default IP address is 192.168.1.10.
   User name: user.
   Password: user
4. **HD IN:** For HDMI cable in

6. **LOOP OUT:** For HDMI quick display to TV
7. **RF OUT :** 45dBmV output level is provided at this port.
8. **RF IN :** For RF signal loop

WARNING:
For the protection of your equipment and its proper working, it is necessary to connect the SKD201X to a ground connection.

9.WEB MANAGEMENT

9.1 LOGIN

The SKD201X has a friendly user interface for programming and monitoring the device. The user can get access to the built-in web UI by logging into Google Chrome, Firefox or Microsoft Edge accounts. (The best browsers)

The default user name and the default password are the following:

Username: *user*

Password: *user*

> Please make sure your computer address is in the same IP segment as the modulator is.
>
> Remind: 1. Please change the user name and password if needed.
>   2. Username/password are case-sensitive and may contain letters or numbers.
>   3. Username/password must be a minimum of 1 byte and a maximum of 32 bytes in length.

9.2 SYSTEM PAGE

This page is a read-only one which displays the general health of the unit, such as temperature, Input and output ports and Serial number. The information is provided as a quick way to monitor the system or assist with troubleshooting issue.

In the left side, it is the MENU while the settings will be displayed in the right side.

Device ID: The unique ID for this modulator.

Device Type: The device model number

Modulation: Indicates the RF output modulation.

Device Name: Change the name in the Basic Parameters.

Input resolution : Display the input HDMI resolution. Unknown means wrong input resolution or loss HDMI cable.

Signal Status: LOSS means no signal input. Locked means the signal is running.

Software Version: If there's something wrong with this device, please send this information to us.

Run Time: The modulator's total working hours.

9.3 BASIC PARAMETERS

Device Name	SKD2016A
Server Address	120.25.223.26
Signal Source	HDMI
Input Resolution	UNKNOWN
Country/Region	Albania
HDCP	ON
Manual Daylight Saving	
Local Timezone	(UTC+8:00)Beijing,Chong(
Date Time	2000/03/05 23:14:40 Local Sync
NTP Server	us.ntp.org.cn

✔ Submit

Device Name: Input the name you like.
Server Address : NO MORE FUNCTION.
Signal Source : HDMI
Input Resolution: Display the input HDMI resolution. Unknown means wrong input resolution or loss HDMI cable.
Country/Region : DVB-T country preset
HDCP : HDCP switch
Manual Daylight saving : Enable and disable the saving
Local Time zone: Select the time zone
Date Time : Correct the time here
Local Sync : Read your computer's time and date
NTS Server : Select the NTP server
SUBMIT : Save the settings

9.2 MODULATION PARAMETERS

Channel Num	CH-05
Attenuation(dB)	0
Frequency(MHz)	177.5
Bandwidth(M)	7
Transmission Mode	8K
Constellation	64QAM
Coderate	5/6
Guard Interval	1/16
Audio Encoder	MPEG1 Layer2
Symbol Rate(Kbps)	19000

CHANNEL NUM: Select the output channel in the drop-box.
Attenuation : Reduce the output level.
Frequency : Input the output channel manually by frequency.
Bandwidth: Select the bandwidth from 6/7/8M
Transmission : 2k and 8k
Constellation : 4QAM, 16QAM and 64QAM
Code rate and Guard interval : Please leave it as defaulted.
Audio Encoder: Select audio encoding
Symbol Rate : It is recommended to use the max one
SUBMIT : Save the settings

9.3 TS PARAMETERS

TSID	128	Network ID	128
Original Network ID	128	Network Name	SOUKA
PMT PID	4096	PCR PID	2003
Audio PID	2002	Video PID	2001
Service Name	SOUKA	Service ID	2
LCN	8	Service Provider Name	SOUKA
SDT Enable	ON	Service Type	MPEG2 HD digital tele ▾
NIT Enable	ON	EIT Information	

✔ Submit

Please input the PID here. Notice that the Video PID, Audio PID and PMT PID should be different, otherwise the system won't save it.

SDT and NIT enable is ON.

EIT information is mostly used in ISDB-T Japan.

EIT Information ✕

EIT Enable: ✔

NO.	Event Name	Event Detail	Copy Control Information
0			Copy Free ▾

Submit

9.4 NETWORK PARAMETERS

DHCP	OFF
IP Address	192.168.2.210
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.1
Primary DNS	8.8.8.8
Secondary DNS	202.96.134.133
MAC	00:60:70:00:82:4F

Set up modulator's NMS IP address.

⚠

Making changes in this area can affect the system communication.
PROCEED WITH CAUTION.

9.5 SYSTEM PARAMETERS

⚙ Upgrade System from file

Click the ‹Browse› button below and import the upgrade file, and then click the ‹Upgrade› button to upgrade the system. The device will automatically restart,when the upgrade is completed

[ ] Browse   Upgrade

⚙ Restore to factory settings

Click the ‹Restore› button to restore the device into the factory setting. The device will automatically restart,when the restore is completed.   Restore

⚙ Reboot

Click the Reboot button to reboot the device.   Reboot

⚙ Export Settings

Click the ‹Backup› button， then the device will backup all the current settings into your computer.   Backup

⚙ Import Settings

Click the ‹Browse› button below and import the restore file, and then click the ‹Restore› button to restore the device. The device will automatically restart,when the restore is completed.

[ ] Browse   Restore

Upgrade system from file
Upgrade the modulator

Restore to factory settings
All settings will go back to factory settings

Reboot
Restart the modulator

Export settings
You can backup your settings and import to another modulator. Or if the modulator can't work that well, you can send the backup file to us for modification.

Import settings
From here you can import the setting file to save time or import the right one to recover.

9.6 ACCOUNT

Current User Info

Current Username   [ ]

Current Password   [ ]

New User Info

New Username   [ ]

New Password   [ ]

Confirm Password   [ ]

✔ Submit

To verify the user name and the password, please input your current user name and password. **Please notice that they are both case-sensitive.**
If you forget your new user name or new password, you can use the reset button in the front panel to restore.
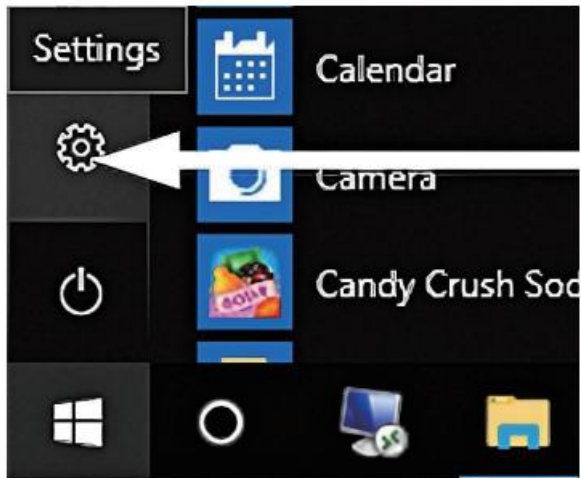
Making changes in this area can affect the system communication.
PROCEED WITH CAUTION.

10. QUICK IP ETHERNET CONNECTION GUIDE

NOTICE: Make sure you login your operation system as the administrator.

10.1 Go to " Windows Start"

10.2 Go to Windows Settings
10.3 Go to " Network & Internet"
10.4 Go to "Ethernet" on the left side of the menu

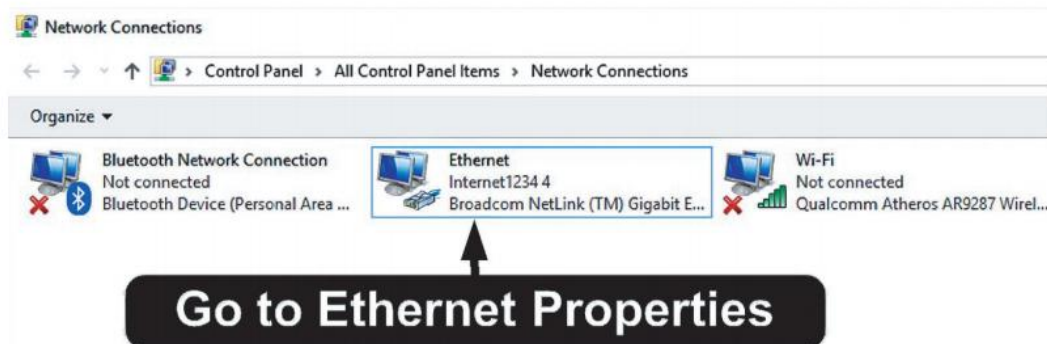10.5 Go to " Change adapter options"

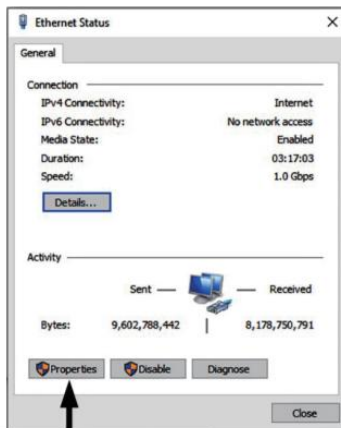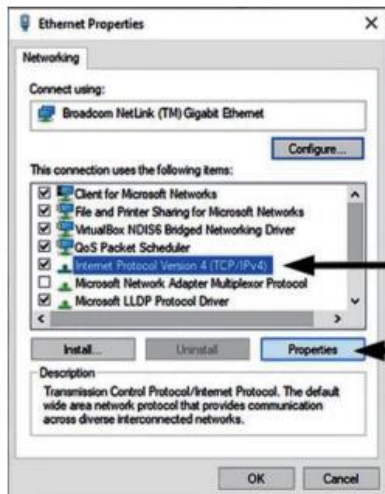10.6 Double click on the Ethernet Source or Right Click and select "Properties"

10.7 Open Properties

10.8 Go to "Internet Protocol Version 4 (TCP/IPv4)

10.9 Go to "Properties"
10.10 Go to "Use the following IP address"

10.11 Set IP address
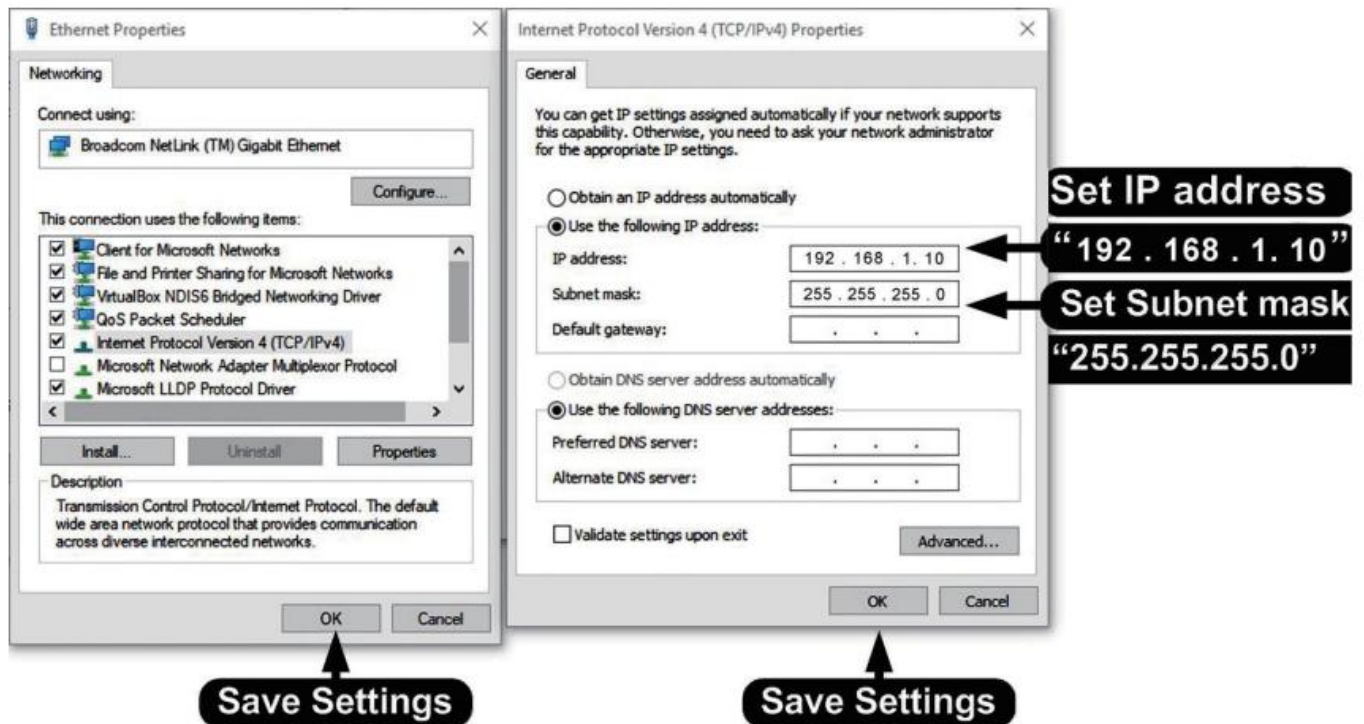
Set IP address: 192.168.1.10
Set Subnet mask: 255.255.255.0
Set Default gateway: 192.168.1.1

10.12 Save all the settings.

11. COMMON TROUBLESHOOTING

SN	Symptom	Recommended Action
1	Power LED is not lit.	Check the power cord connection
2	Can't login to the NMS	Check Chapter 10
3	The WEB UI is not in order and can't save the settings	Clear your browsing data
4	Unknown shown in the NMS	No video input
		No supported video resolution
5	Other issue	Please contact us for technical support

12. WARRANTY

Dingshengwei Electronics equipment has been thoroughly tested and found to be in proper operating condition when shipped from the factory and is warranted to be free from defects in materials or workmanship that may develop within one year of the date of purchase. DSW agrees to remedy such or furnish a new part, or at its option an entire unit, or any part of a unit that disclosed such defect, provided that the unit or part is returned to DSW or DSW authorized service facility according to the terms listed below.

Prior authorization with a return authorization number issued by DSW or its representative is required for all returns. The purchaser shall be responsible for all freight charges on shipment to DSW unless otherwise authorized. Charges to return a unit or part to purchaser will be paid by DSW. Claim for damage in shipment to the purchaser must be filed by the purchaser with the carrier in accordance with the carrier's regulations.

DSW shall not be responsible for the shipping charge if the returned unit turns out to be flawless.

A Return Material Authorization (RMA) Number is required on all products returned to DSW. Regardless if the product is being returned for repair or credit. Before returning product, please contact the DSW sale who you contact with.

Buyer :		RMA Number:
Mode Number	Products ID Number	Problem

If there's not enough space in this form, please attach a separate sheet of paper.

Thanks for using our products.
For more products, please visit our
website: http://www.soukacatv.com