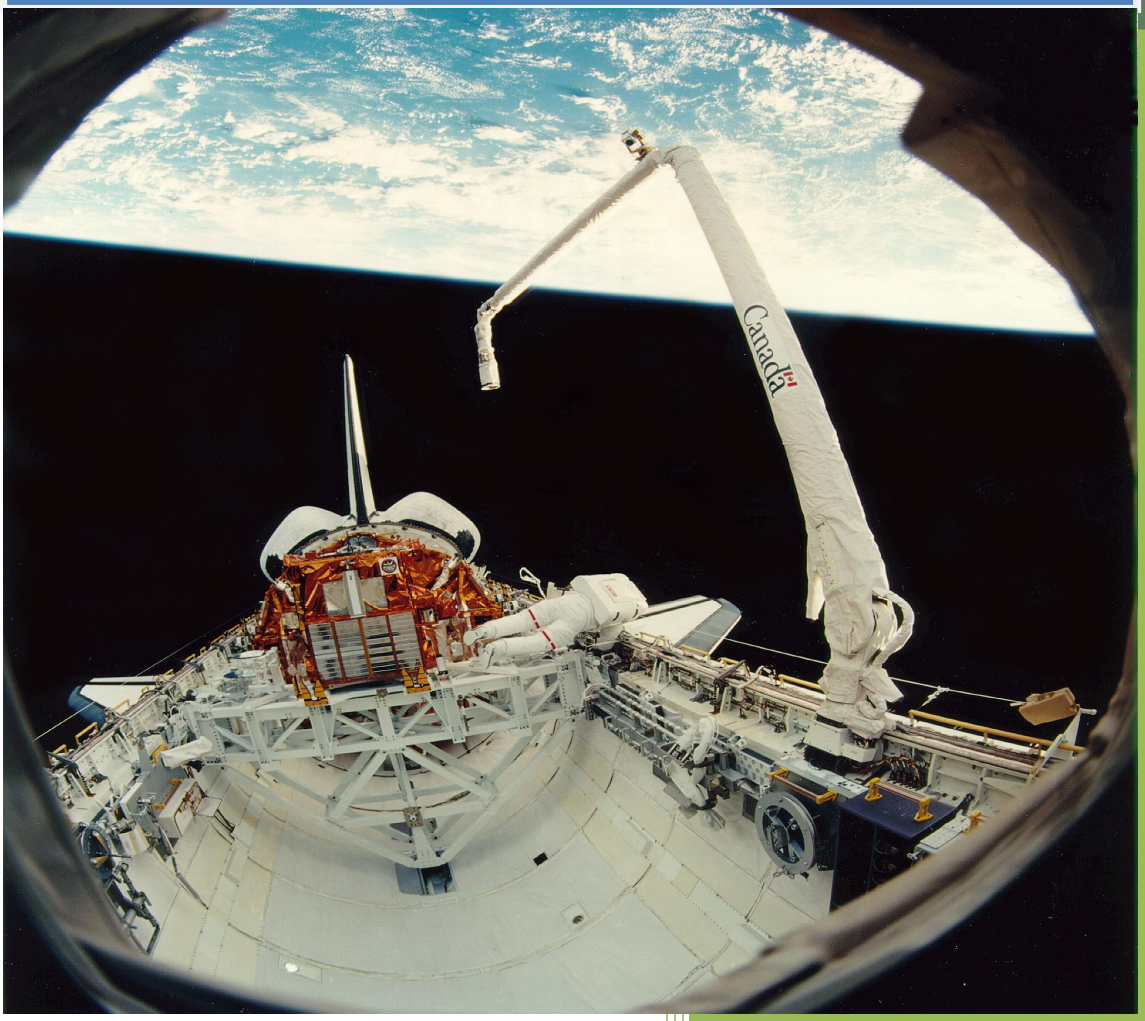
PTS-10A
Time Server
WEB Manual



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Notice for Safety Operation

The product performs reliably as long as it is used according to the guidance. Artificial damage or destruction of the device should be avoided. Before using the device, read this notice carefully for personal and equipment safety. Please keep the manual for further reference.

- Do not place the device near water sources or damp areas. Keep the ambient relative humidity within the range from 5% to 95% (non-condensing).
- Do not place the device in an environment with high magnetic field, strong shock, or high temperature. Keep the working and storage temperatures within the allowed range.
- Install and place the device securely and firmly.
- Please keep the device clean; if necessary, wipe it with a soft cotton cloth.
- Do not place any irrelevant materials on the device or cables. Ensure adequate heat dissipation and tidy cable layout without knots.
- Wear antistatic gloves or take other protective measures when operating the device.
- Avoid any exposed metal wires because they may be oxidized or electrified.
- Install the device in accordance with related national and local regulations.
- Before power-on, make sure the power supply is within the allowed range of the device. High voltage may damage the device.
- Power connectors and other connectors should be firmly interconnected.
- Do not plug in or out the power supply with wet hands. When the device is powered on, do not touch the device or any parts with wet hands.
- Before operating a device connected to a power cable, remove all jewelry (such as rings, bracelets, watches, and necklaces) or any other metal objects, because they may cause electric shock or burns.
- Do not operate the device or connect or disconnect cables during an electrical storm.
- Use compatible connectors and cables. If you are not sure, contact our sales or technical support personnel for confirmation.
- Do not disassemble the device by yourself. When an anomaly occurs, contact our sales or technical support personnel.
- If any part is lost, contact our sales or technical support personnel to purchase the substitute. Do not purchase parts from other channels.
- Dispose of the device in accordance with relevant national provisions, preventing

environmental pollution.

In the following cases, please immediately shut down your power supply and contact your Kyland representative:

- Water gets into the equipment.
- Equipment damage or shell damage.
- Equipment operation or performance has abnormally changed.
- The equipment emits odor, smoke or abnormal noise.

Indicator Flag

	Note	Highlight the important information and use of skills, necessary to the operation of your tips, supplement and instructions.
	Attention	Remind you of operation must be pay attention to and follow such as not operating in accordance with the requirements, equipment damage may arise or other unpredictable result.
	Alarm	Warning you could potentially dangerous situation, if unavoidable, may cause serious personal injury.

1. Basic Features

1.1. Introduction

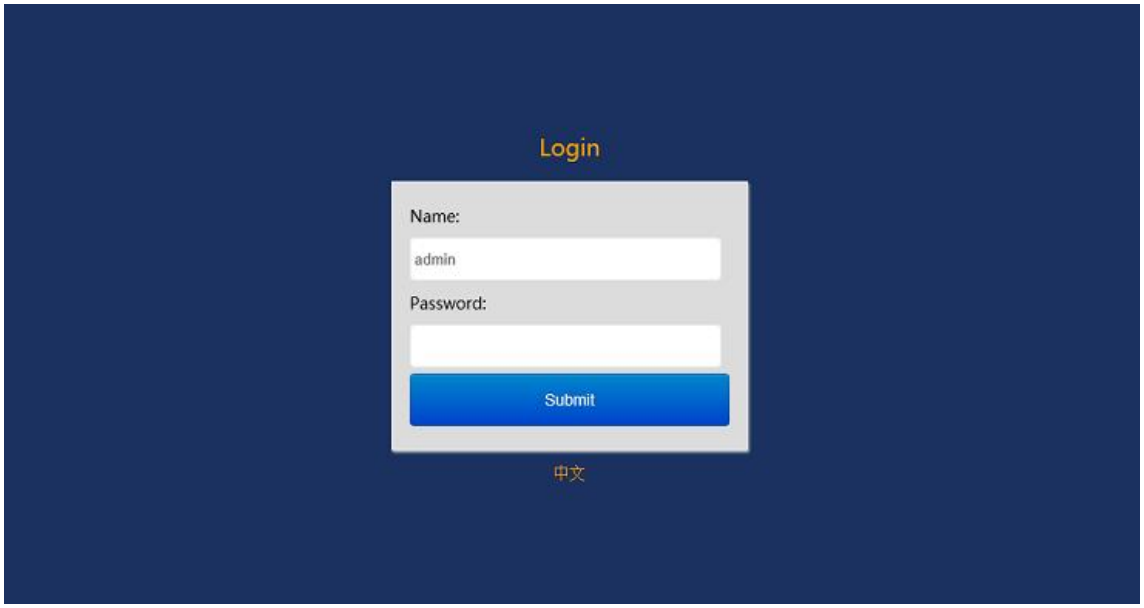
[Figure 1- 1] PTS-10A Time Server

The PTS-10A Time Server is a standard time server. It supports high precision reference clock, which can be synchronized to absolute time such as GPS, BDS, and GLONASS etc. Built-in TCXO, OCXO helps to provide stable reference frequency source. System supports multiple sources time sync auto selection algorithm which can perform stable switch between GPS, BDS, GLONASS, IRIG-B, PTP and local clock, and sky/ground and master/slave clock backup. PTS-10A time server provides flexible time output channels and signals. The output timing signals include PPS, PPM, PPH, IRIG-B (Demodulated), IRIG-B (Modulated), Serial Time Signal (TOD etc.) etc. Plus, PTS-10A supports network sync time protocols NTP/SNTP and PTP (IEEE1588 v2). IEEE1588 can works in several modes by the software configuration including grandmaster clock, slave clock and boundary clock. PTS-10A has LCD to show any status and do configuration by keyboard. Meanwhile, PTS-10A supports WEB and SNMP functions to manage system.

2. Operations

2.1. Login

Please connect PTS time server and PC by network cable. Open any WEB Browser of PC and input http://192.168.0.111 and press enter, the login WEB screen of PTS will be shown on your screen.



[Figure 2- 1] Login Screen

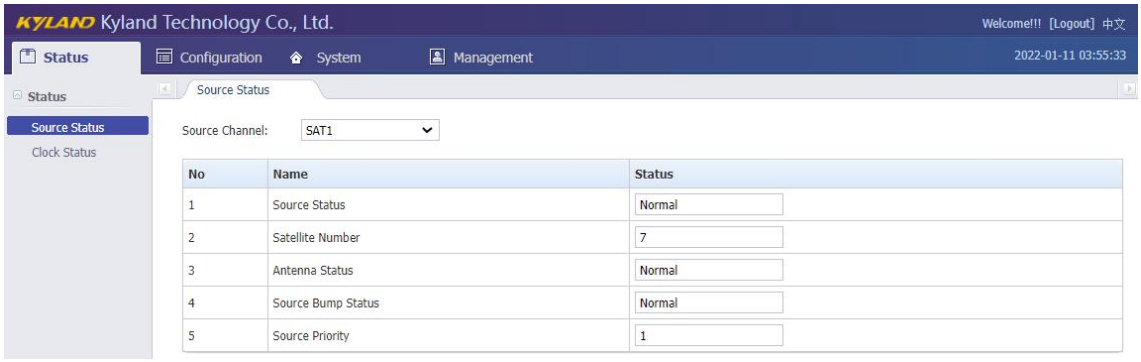
The default user name is 'admin', the default password also is 'admin'. PTS time server supports user to modify the password of 'admin' after you login WEB management system.

Before you access WEB management system of PTS time server, please confirm you might access this Ethernet port, if find any problems you should check the network whether or not is ready, maybe connection cable has some broken or something else.

The IP address is default IP address of eth0 of PTS time server, if you change Ethernet port or Ethernet IP address, you might input the correct IP address again and then go into the WEB management system of PTS time server.

2.2. Logout

After you submit your correct user name and password, the default screen of WEB management system will be shown as:



[Figure 2- 2] Default Screen

On the top right corner, system has a [Logout] option, if you want to logout system, you might directly click this and then system will go to original login screen and wait user to input login information again.

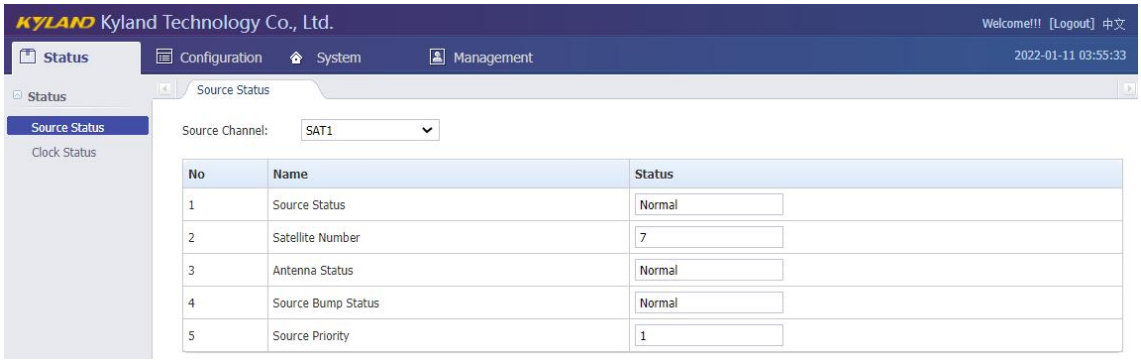
2.3. Languages

The default language is English, the WEB management system of PTS time server supports English and Chinese. System can switch language to Chinese language by [中文] option on login screen and default screen.

2.4. Status

The WEB management system supports to view time status by WEB. The status information can help user to easy know the current status and help them to analyze problems as soon as possible.

Press ‘Status’ to go to the status screen on the top of navigation bar. The status screen will be shown as:



[Figure 2- 3] Status Screen

2.4.1. Time Information

On the top right navigation bar, there is an area to show the current local time.

[Figure 2- 4] Time Information Screen

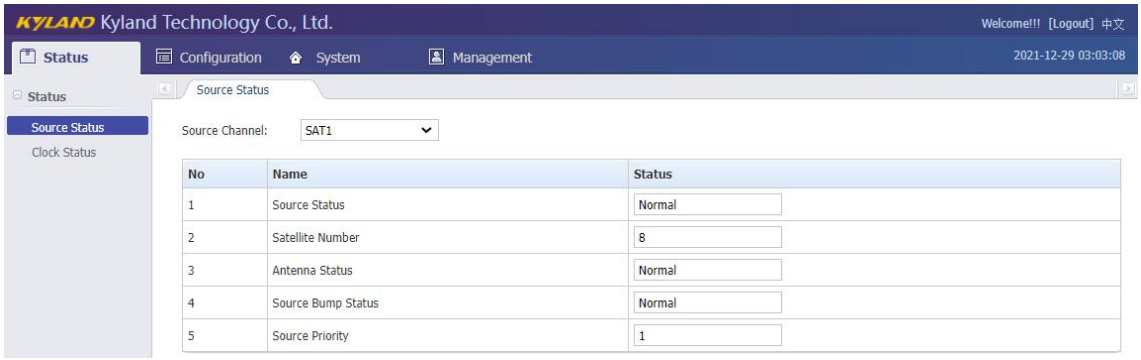
2.4.2. Source Status

Press 'Source Status' on the left navigation bar to show source status screen.

Press 'Source Channel' to select SAT1/SAT2/IRIG-B1/IRIG-B2/PTP channel.

Please refer to 'Configuration' section to set parameters.

Select 'SAT1' in Source Channel, the screen will be shown as:



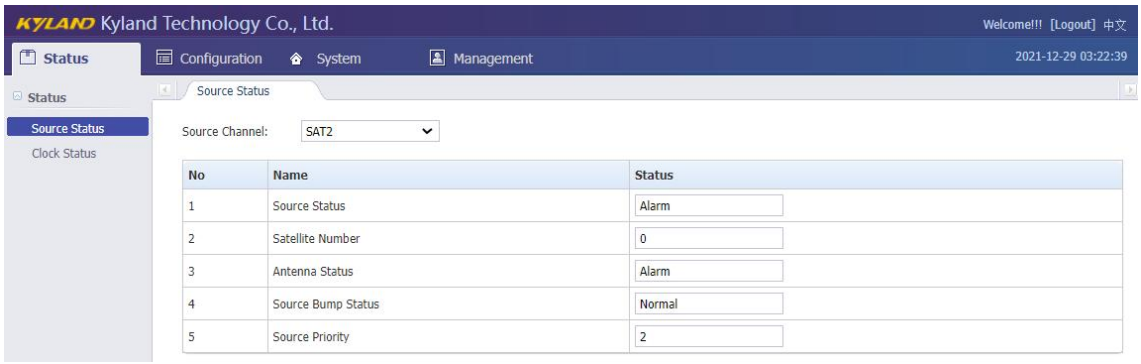
[Figure 2- 5] Source Status Screen (SAT1)

Table 1 – Source Status Information (SAT1)

Items	Parameters	Description
Source Status	Normal Alarm	Show the time source status. Normal: The time source can use; Alarm: The time source cannot use.
Satellite Number	0~128	Show how many satellites work together. Range is between 0 and 128; Default value is 0.
Antenna Status	Normal Alarm	Show the antenna status. Normal: The antenna can use;; Alarm: The antenna cannot use.
Source Bump Status	Normal Alarm	Show the time source bump status. Normal: The time source has not bump data. Alarm: The time source has bump data.
Source Priority	1~10	Show the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time

Items	Parameters	Description
		sources by source priority.

Select ‘SAT2’ in Source Channel, the screen will be shown as:

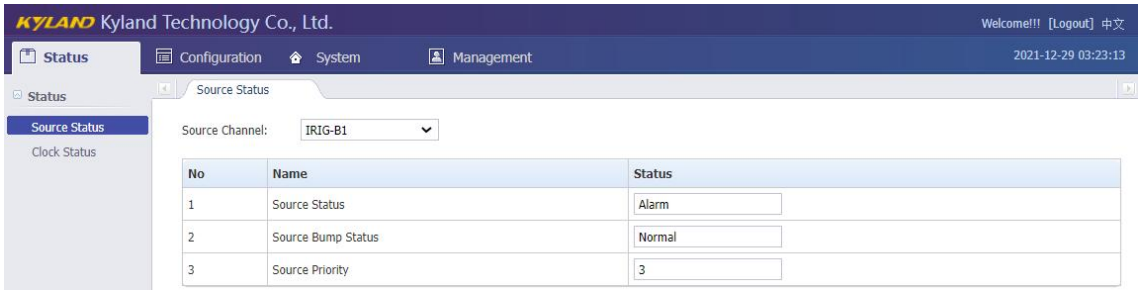


[Figure 2- 6] Source Status Screen (SAT2)

Table 2 – Source Status Information (SAT2)

Items	Parameters	Description
Source Status	Normal Alarm	Show the time source status. Normal: The time source can use; Alarm: The time source cannot use.
Satellite Number	0~128	Show how many satellites work together. Range is between 0 and 128; Default value is 0.
Antenna Status	Normal Alarm	Show the antenna status. Normal: The antenna can use;; Alarm: The antenna cannot use.
Source Bump Status	Normal Alarm	Show the time source bump status. Normal: The time source has not bump data. Alarm: The time source has bump data.
Source Priority	1~10	Show the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.

Select ‘IRIG-B1’ in Source Channel, the screen will be shown as:

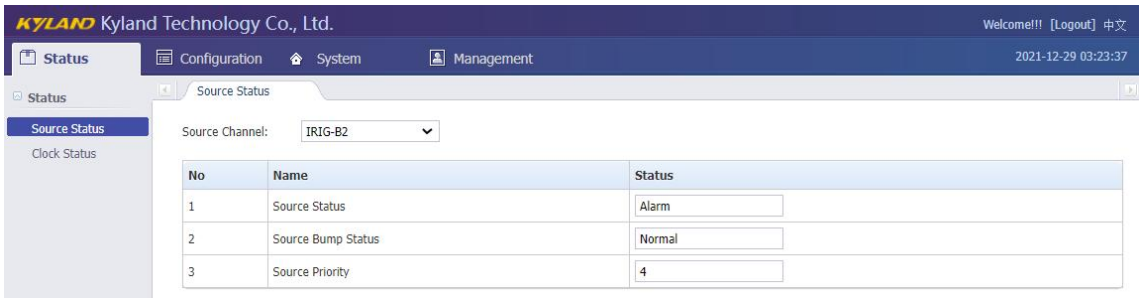


[Figure 2- 7] Source Status Screen (IRIG-B1)

Table 3 – Source Status Information (IRIG-B1)

Items	Parameters	Description
Source Status	Normal Alarm	Show the time source status. Normal: The time source can use; Alarm: The time source cannot use.
Source Bump Status	Normal Alarm	Show the time source bump status. Normal: The time source has not bump data. Alarm: The time source has bump data.
Source Priority	1~10	Show the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.

Select ‘IRIG-B2’ in Source Channel, the screen will be shown as:



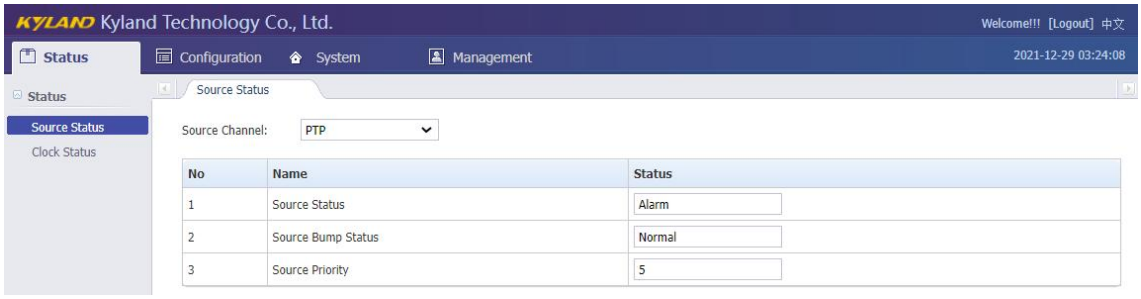
[Figure 2- 8] Source Status Screen (IRIG-B2)

Table 4 – Source Status Information (IRIG-B2)

Items	Parameters	Description
Source Status	Normal Alarm	Show the time source status. Normal: The time source can use; Alarm: The time source cannot use.
Source Bump Status	Normal Alarm	Show the time source bump status. Normal: The time source has not bump data. Alarm: The time source has bump data.
Source Priority	1~10	Show the priority for time source. 1 is highest source and 10 is

Items	Parameters	Description
		lowest source. It has 10 levels. System can select best time sources by source priority.

Select ‘PTP’ in Source Channel, the screen will be shown as:



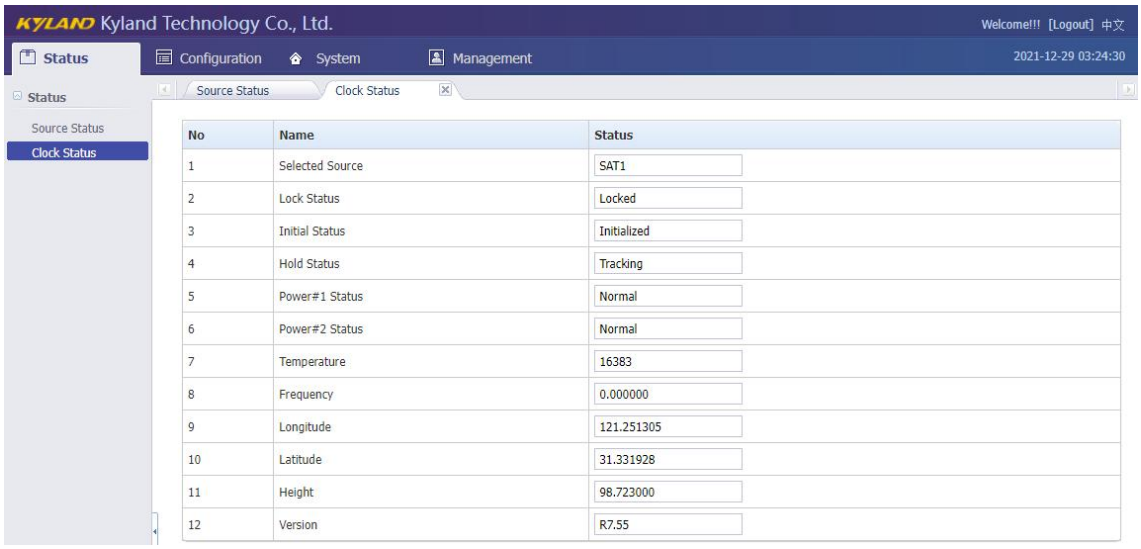
[Figure 2- 9] Source Status Screen (PTP)

Table 5 – Source Status Information (PTP)

Items	Parameters	Description
Source Status	Normal Alarm	Show the time source status. Normal: The time source can use; Alarm: The time source cannot use.
Source Bump Status	Normal Alarm	Show the time source bump status. Normal: The time source has not bump data. Alarm: The time source has bump data.
Source Priority	1~10	Show the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.

2.4.3. Clock Status

Press ‘Clock Status’ on the left navigation bar to show clock status screen. The clock status screen will be shown as:



[Figure 2- 10] Clock Status Screen

Table 6 – Clock Status Information

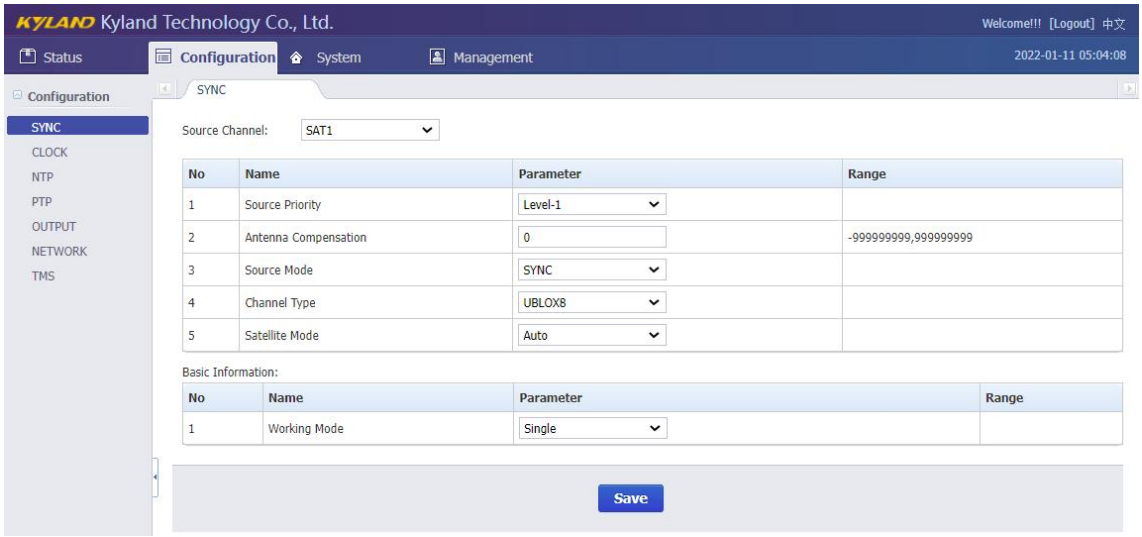
Items	Parameters	Description
Selected Source	SAT1 SAT2 IRIG-B1 IRIG-B2 PTP Local	Show which time source is the current time source. SAT1: The time source is SAT1 source channel. SAT2: The time source is SAT2 source channel. IRIG-B1: The time source is IRIG-B1 source channel. IRIG-B2: The time source is IRIG-B2 source channel. PTP: The time source is PTP source channel. Local: The device don't has time source.
Lock Status	Locking Locked	Show the oscillator status. Locking: The oscillator is locking; Locked: The oscillator is locked.
Initial Status	Initializing Initialized	Show the initial status. Initializing: The device is initializing; Initialized: The device is initialized.
Hold Status	Tracking Hold	Show the hold status. Tracking: The device is tracking with time source; Hold: The device lost time source。
Power#1 Status	Normal Alarm	Show the #1 power supply status. Normal: The power supply work well; Alarm: The power supply has alarm.
Power#2 Status	Normal Alarm	Show the #2 power supply status. Normal: The power supply work well; Alarm: The power supply has alarm.

Items	Parameters	Description
Temperature	0.0	Show the internal temperature. The 16383 means it has not temperature sensor inside.
Frequency	0.000	Show the frequency or power grid.
Longitude	0.00	Show longitude of geographic position information.
Latitude	0.00	Show latitude of geographic position information.
Height	0.00	Show height of geographic position information.
Version	-	Show the current version.

2.5. Configuration

The WEB management system supports to set configuration parameter by WEB. The user does not need go to local place to set parameter when time server supports this configuration interface. It is a good option for user to easy manage time server.

Press ‘Configuration’ to go to the configuration screen on the top of navigation bar. The screen will be shown as:

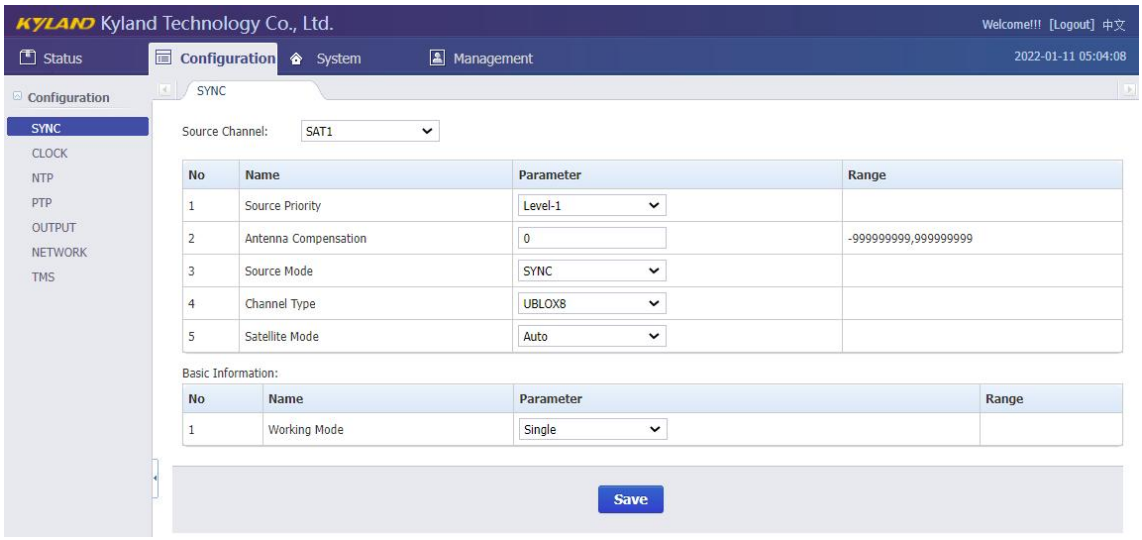


[Figure 2- 11] Configuration Screen

2.5.1. Sync Source Settings

Press ‘SYNC’ on the left navigation bar to show synchronization source setting screen. Press ‘Source Channel’ to select SAT1/SAT2/IRIG-B1/IRIG-B2/PTP channel.

If select ‘SAT1’ in Source Channel, the setting screen will be shown as:



[Figure 2- 12] Sync Source Setting Screen (SAT1)

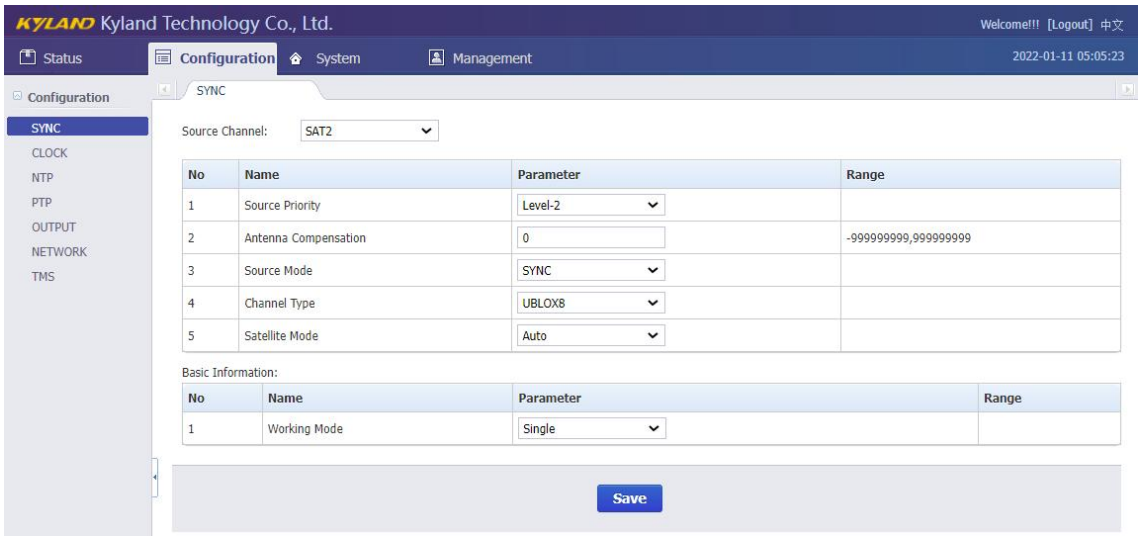
Table 7 – Sync Source Setting (SAT1)

Item	Parameter	Description
Channel Type	UBLOX5 UBLOX8 AT3340 HWA210B HWA210L	Set satellite receiver module to receive satellite signal. UBLOX5: Select UBLOX5 receiver module; UBLOX8: Select UBLOX8 receiver module; AT3340: Select AT3340 receiver module; HWA210B: Select HWA210B receiver module; HWA210L: Select HWA201L receiver module. ⚠ The device only installs one receiver module for each channel. Please confirm with factory label and set the correctly channel type to receive satellite information.
Satellite Mode	Auto A-BDS A-GPS A-GLN F-BDS F-GPS F-GLN	When you select satellite receiver module for each satellite channel, you might use this parameter to make it work at right mode. Different satellite receiver module has different definition on these options. Before you use this device, please contact technical support to confirm how to use them. ⚠ UBLOX8 will define as following description: Auto: Make satellite automatic working at GPS mode; A-BDS: Make satellite priority working at BDS mode by mixed position fix mode with BDS and GPS, when BDS is invalid, it can work at GPS mode.; A-GPS: Make satellite priority working at GPS mode by mixed position fix mode with GPS and BDS, when GPS is invalid, it can work at BDS mode;

Item	Parameter	Description
		A-GLN: Make satellite priority working at GLONASS mode by mixed position fix mode with GLONASS and GPS, when GLONASS is invalid, it can work at GPS mode; F-BDS: Make satellite only working at BDS mode; F-GPS: Make satellite only working at GPS mode; F-GLN: Make satellite only working at GLONASS mode. ⚠ AT3340 will define as the following description: Auto: Make satellite automatic working at GPS mode; A-BDS: Make satellite only working at BDS mode; A-GPS: Make satellite only working at GPS mode; A-GLN: AT3340 does not support GLONASS, this parameter can make satellite working at GPS mode by mixed position fix mode with GPS and BDS; F-BDS: Make satellite only working at BDS mode; F-GPS: Make satellite only working at GPS mode; F-GLN: AT3340 does not support GLONASS, this parameter can make satellite working at GPS mode by mixed position fix mode with GPS and BDS. ⚠ The other modules can ask the technical support.
Antenna Compensation	0ns	According to different antenna types and lengths, system can set time delay compensation for satellite channel. Unit is nanosecond(ns); Range is between -999999999ns and 999999999ns; Default value is 0ns.
Source Priority	1~10	Set the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.
Source Mode	SYNC PEER NONE	Set source working mode. SYNC: Make it work at individual time source; PEER: Make it work at redundancy time source; NONE: Make it doesn't work.
Working Mode	Single	Set time source working logic. Single: The system can work at one valid time source.

Press 'Save' button to save the current setting when you change setting.

If select 'SAT2' in Source Channel, the setting screen will be shown as:



[Figure 2- 13] Sync Source Setting Screen (SAT2)

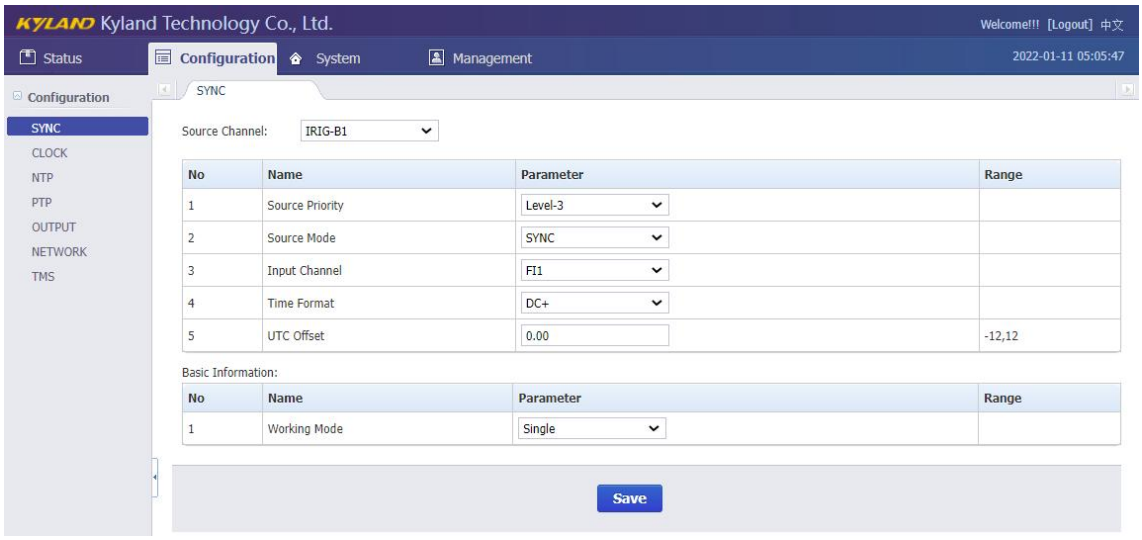
Table 8 – Sync Source Setting (SAT2)

Item	Parameter	Description
Channel Type	UBLOX5 UBLOX8 AT3340 HWA210B HWA210L	Set satellite receiver module to receive satellite signal. UBLOX5: Select UBLOX5 receiver module; UBLOX8: Select UBLOX8 receiver module; AT3340: Select AT3340 receiver module; HWA210B: Select HWA210B receiver module; HWA210L: Select HWA201L receiver module. ⚠ The device only installs one receiver module for each channel. Please confirm with factory label and set the correctly channel type to receive satellite information.
Satellite Mode	Auto A-BDS A-GPS A-GLN F-BDS F-GPS F-GLN	When you select satellite receiver module for each satellite channel, you might use this parameter to make it work at right mode. Different satellite receiver module has different definition on these options. Before you use this device, please contact technical support to confirm how to use them. ⚠ UBLOX8 will define as following description: Auto: Make satellite automatic working at GPS mode; A-BDS: Make satellite priority working at BDS mode by mixed position fix mode with BDS and GPS, when BDS is invalid, it can work at GPS mode.; A-GPS: Make satellite priority working at GPS mode by mixed position fix mode with GPS and BDS, when GPS is invalid, it can work at BDS mode;

Item	Parameter	Description
		A-GLN: Make satellite priority working at GLONASS mode by mixed position fix mode with GLONASS and GPS, when GLONASS is invalid, it can work at GPS mode; F-BDS: Make satellite only working at BDS mode; F-GPS: Make satellite only working at GPS mode; F-GLN: Make satellite only working at GLONASS mode. ⚠ AT3340 will define as the following description: Auto: Make satellite automatic working at GPS mode; A-BDS: Make satellite only working at BDS mode; A-GPS: Make satellite only working at GPS mode; A-GLN: AT3340 does not support GLONASS, this parameter can make satellite working at GPS mode by mixed position fix mode with GPS and BDS; F-BDS: Make satellite only working at BDS mode; F-GPS: Make satellite only working at GPS mode; F-GLN: AT3340 does not support GLONASS, this parameter can make satellite working at GPS mode by mixed position fix mode with GPS and BDS. ⚠ The other modules can ask the technical support.
Antenna Compensation	0ns	According to different antenna types and lengths, system can set time delay compensation for satellite channel. Unit is nanosecond(ns); Range is between -999999999ns and 999999999ns; Default value is 0ns.
Source Priority	1~10	Set the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.
Source Mode	SYNC PEER NONE	Set source working mode. SYNC: Make it work at individual time source; PEER: Make it work at redundancy time source; NONE: Make it doesn't work.
Working Mode	Single	Set time source working logic. Single: The system can work at one valid time source.

Press 'Save' button to save the current setting when you change setting.

If select 'IRIG-B1' in Source Channel, the setting screen will be shown as:



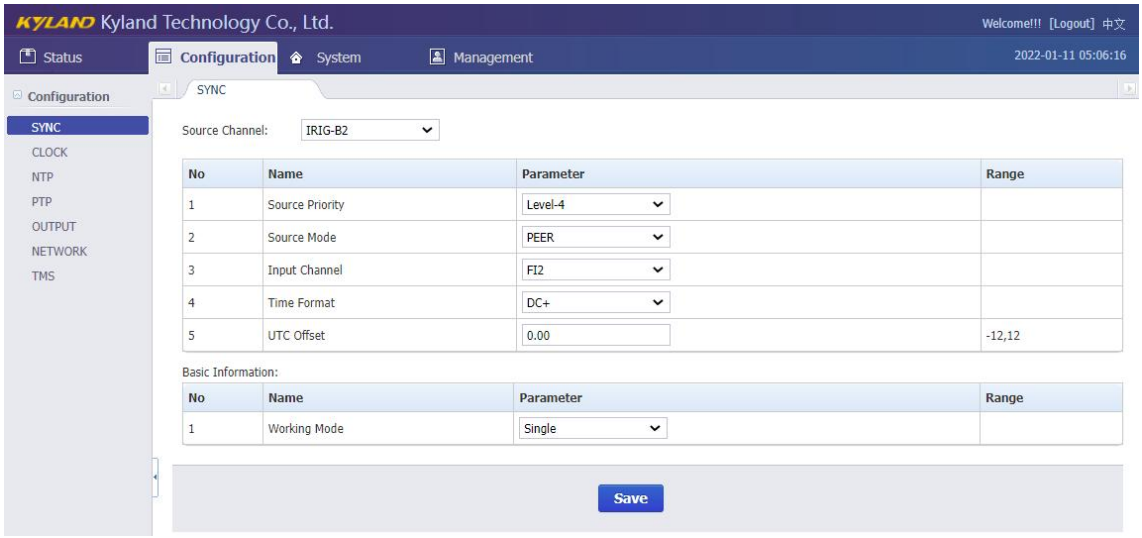
[Figure 2- 14] Sync Source Setting Screen (IRIG-B1)

Table 9 – Sync Source Setting (IRIG-B1)

Item	Parameter	Description
Source Priority	1~10	Set the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.
Source Mode	SYNC PEER NONE	Set source working mode. SYNC: Make it work at individual time source; PEER: Make it work at redundancy time source; NONE: Make it doesn't work.
Input Channel	FI1 FI2	Set IRIG-B input time signal coming from which hardware channel. There are two channel, one is FI1 interface and another is FI2 interface, please refer to section "Panel" and find where these interfaces are.
Time Format	DC+ DC -	To set IRIG-B input signal format. DC+: positive polarity DC, high level is 1; DC-: negative polarity DC, low level is 1.
UTC Offset	0.00H	Set time offset between IRIG-B and UTC time. Unit is Hour(H); Range is between -12H and 12H. Default value is 0.00H.
Working Mode	Single	Set time source working logic. Single: The system can work at one valid time source.

Press 'Save' button to save the current setting when you change setting.

If select ‘IRIG-B2’ in Source Channel, the setting screen will be shown as:



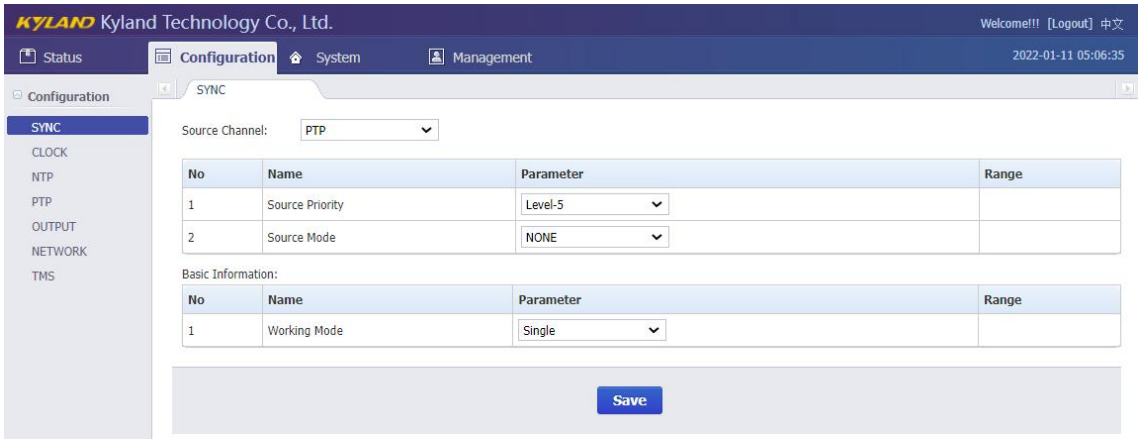
[Figure 2- 15] Sync Source Setting Screen (IRIG-B2)

Table 10 – Sync Source Setting (IRIG-B2)

Item	Parameter	Description
Source Priority	1~10	Set the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.
Source Mode	SYNC PEER NONE	Set source working mode. SYNC: Make it work at individual time source; PEER: Make it work at redundancy time source; NONE: Make it doesn’t work.
Input Channel	FI1 FI2	Set IRIG-B input time signal coming from which hardware channel. There are two channel, one is FI1 interface and another is FI2 interface, please refer to section “Panel” and find where these interfaces are.
Time Format	DC+ DC -	To set IRIG-B input signal format. DC+: positive polarity DC, high level is 1; DC-: negative polarity DC, low level is 1.
UTC Offset	0.00H	Set time offset between IRIG-B and UTC time. Unit is Hour(H); Range is between -12H and 12H. Default value is 0.00H.
Working Mode	Single	Set time source working logic. Single: The system can work at one valid time source.

Press ‘Save’ button to save the current setting when you change setting.

If select ‘PTP’ in Source Channel, the setting screen will be shown as:



[Figure 2- 16] Sync Source Setting Screen (PTP)

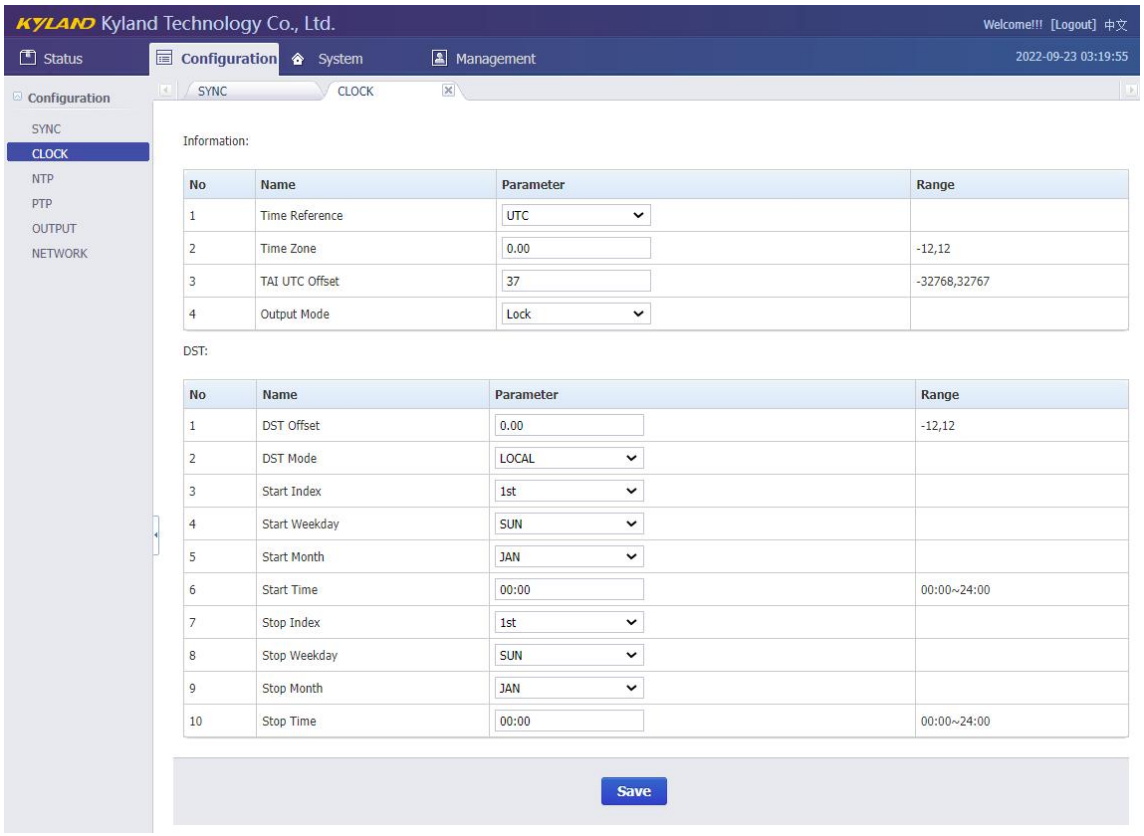
Table 11 – Sync Source Setting (PTP)

Item	Parameter	Description
Source Priority	1~10	Set the priority for time source. 1 is highest source and 10 is lowest source. It has 10 levels. System can select best time sources by source priority.
Source Mode	SYNC PEER NONE	Set source working mode. SYNC: Make it work at individual time source; PEER: Make it work at redundancy time source; NONE: Make it doesn’t work.
Working Mode	Single	Set time source working logic. Single: The system can work at one valid time source.

Press ‘Save’ button to save the current setting when you change setting.

2.5.2. Clock Settings

Press ‘CLOCK’ on the left navigation bar to show clock setting screen. The clock setting screen will be shown as:



[Figure 2- 17] Clock Setting Screen

Table 12 – Clock Setting

Items	Parameters	Description
Time Reference	UTC TAI	Set reference time as required. UTC: Make reference time work at UTC format; TAI: Make reference time work at TAI format. ⚠ If PTP time needs TAI time stamp, please set this parameter to TAI format.
Time Zone	0.00H	Set time zone offset for local time. Unit is Hour(H); Range is between -12H and 12H. Default value is 0.00H.
TAI UTC Offset	37	Set time offset between TAI and UTC. Unit is Second(s); Range is between -32768s and 32767s. Default value is 37s. ⚠ When time source provides this offset value, the current parameter will keep the same value with time source; when time source does not provide this offset value, the current

Items	Parameters	Description
		parameter will be set by manual.
Output Mode	Always Lock	Set signal output mode. Always: Any interfaces can output signal for any time. Lock: Any interfaces only can output signal after the first time synchronization with any time source.
DST Offset	0.00H	Set Daylight Saving Time (DST) time offset value. Unit is Hour(H); Range is between -12H and 12H. Default value is 0.00H. ⚠ The default value 0 means system cannot adjust time according to DST configuration.
DST Mode	UTC LOCAL	Set Daylight Saving Time (DST) working mode. UTC: Adjusting DST time according to UTC reference time. LOCAL: Adjust DST time according to local reference time.
Start Index	1st 2nd 3rd 4th 5th Last	Set start parameters for DST starting time. Set start index number to define week index in month. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to start.
Start Weekday	MON TUE WEN THU FRI SAT SUN	Set start parameters for DST starting time. Set start weekday to define day index in week. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to start.
Start Month	JAN FEB MAR APR MAY JUN JUL AUG SEP	Set start parameters for DST starting time. Set start month to define month index in year. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to start.

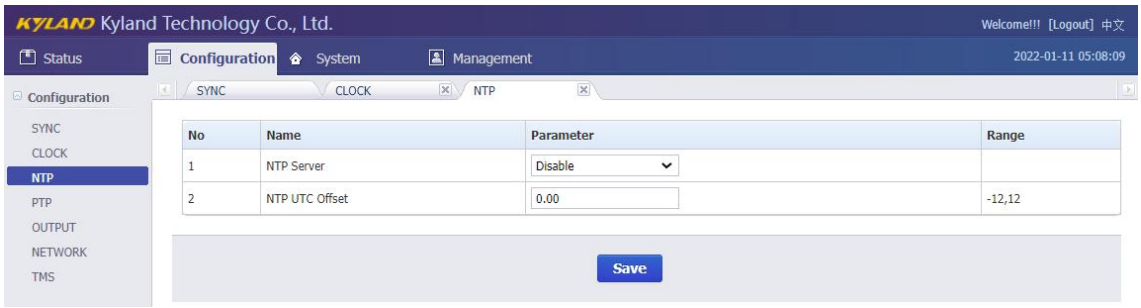
Items	Parameters	Description
	OCT NOV DEC	
Start Time	00:00~24:00	Set start parameters for DST starting time. Set start time to define what time to start DST. Format is 24 hours format. Range is between 00:00 and 24:00. Default value is 00:00. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to start.
Stop Index	1st 2nd 3rd 4th 5th Last	Set stop parameters for DST stopping time. Set stop index number to define week index in month. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to stop.
Stop Weekday	MON TUE WEN THU FRI SAT SUN	Set stop parameters for DST stopping time. Set stop weekday to define day index in week. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to stop.
Stop Month	JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	Set stop parameters for DST stopping time. Set stop month to define month index in year. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to stop.
Stop Time	00:00~24:00	Set stop parameters for DST stopping time.

Items	Parameters	Description
		Set stop time to define what time to start DST. Format is 24 hours format. Range is between 00:00 and 24:00. Default value is 00:00. ⚠ The Daylight Saving Time (DST) will define by what month, week, day and time to stop.

Press 'Save' button to save the current setting when you change setting.

2.5.3. NTP Settings

Press 'NTP' on the left navigation bar to show NTP setting screen. The NTP setting screen will be shown as:



[Figure 2- 18] NTP Setting Screen

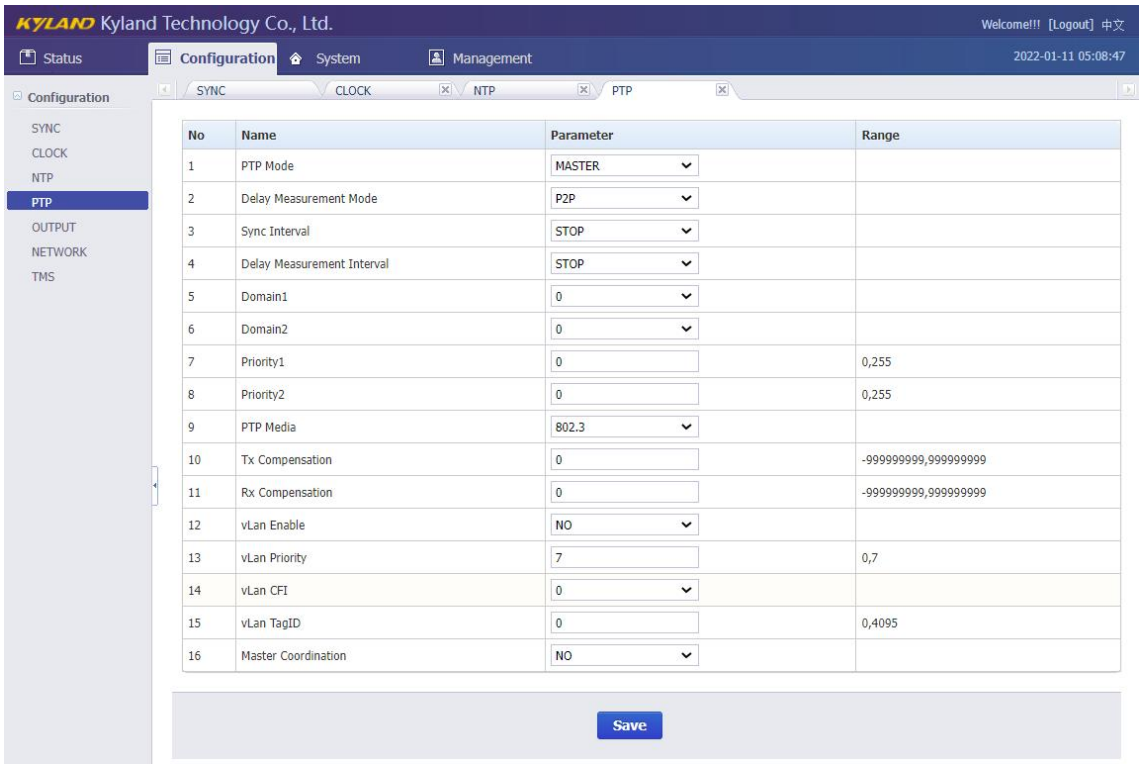
Table 13 – NTP Setting

Items	Parameters	Description
NTP Server	Enable Disable	Activate NTP server feature. Enable: Make NTP server start working; Disable: Make NTP server stop working.
NTP UTC Offset	0.00H	Set time offset between NTP time stamp and UTC. If NTP time stamp needs time offset, please set this parameter. Unit is Hour(H); Range is between -12H and 12H. Default value is 0.00H.

Press 'Save' button to save the current setting when you change setting.

2.5.4. PTP Settings (Optional)

Press 'PTP' on the left navigation bar to show PTP setting screen. The PTP setting screen will be shown as:



[Figure 2- 19] PTP Setting Screen

Table 14 – PTP Setting

Items	Parameters	Description
PTP Mode	Master Slave Boundary	Set PTP Clock working mode. Master: Set PTP Clock working at Master of OC mode. Slave: Set PTP Clock working at Slave of OC mode. Boundary: Set PTP Clock working at Boundary mode. ⚠ The PTP product supports the maximum two physical ports. When it is Boundary mode, PTP can automatic select one port as Master mode and another port as Slave mode.
Delay Measurement Mode	E2E P2P Disable	Set PTP Clock delay measurement mode. E2E: Set it works at E2E mode; P2P: Set it works at P2P mode; Disable: Don't enable delay measurement function.
Sync Interval	-8~4 STOP	Set PTP Clock sending sync message rate of Master mode. -8~4: Set a number for interval. If it is n, the actual interval is 2^n seconds. STOP: Don't send sync message. Default value is STOP. ⚠ When PTP mode is Master or Boundary, if this parameter is STOP, it means PTP cannot send Sync, Announce message.

Items	Parameters	Description
Delay Measurement Interval	-8~4 STOP	Set PTP Clock sending delay measurement message rate of Slave mode. -8~4: Set a number for interval. If it is n, the actual interval is 2^n seconds. STOP: Don't send delay measurement message. Default value is STOP. ⚠ When PTP mode is Slave or Boundary, if this parameter is STOP , it means PTP cannot send Delay, PDelay message according to Delay Measurement Mode.
Domain1	0~3	Set the working domain name for PTP message of ETH0. Range is between 0 and 3. Default value is 0.
Domain2	0~3	Set the working domain name for PTP message of ETH1. Range is between 0 and 3. Default value is 0.
Priority1	0~255	Set working priority 1 for PTP message. Range is between 0 and 255. Default value is 0.
Priority2	0~255	Set working priority 2 for PTP message. Range is between 0 and 255. Default value is 0.
PTP Media	802.3 IPv4	Set the transmission protocol for PTP. 802.3: PTP uses IEEE802.3 transmission protocol. IPv4: PTP uses Ipv4 transmission protocol.
Rx Compensation	0ns	Set the time delay compensation for receiving PTP message. Unit is nanosecond(ns); Range is between -999999999ns and 999999999ns. Default value is 0ns.
Tx Compensation	0ns	Set the time delay compensation for sending PTP message. Unit is nanosecond(ns); Range is between -999999999ns and 999999999ns. Default value is 0ns.
vLan Enable	YES NO	Set whether or not have vLan information in PTP message. YES: Set PTP message with vLan message. NO: Set PTP message without vLan message.
vLan	0~7	Set vLan priority of PTP message.

Items	Parameters	Description
Priority		Range is between 0 and 7. Default value is 0.
VLan CFI	0~1	Set vLan CFI information of PTP message. Range is between 0 and 1. Default value is 0.
vLan TagID	0~4095	Set vLan ID information of PTP message. Range is between 0 and 4095. Default value is 0.
Master Coordination	YES NO	Set whether or not use master coordination function (BMC). YES: Enable BMC function. NO: Disable BMC function. ⚠ When BMC is working, device will check all master messages in the same networks and find the best master clock. This function is suitable for the master clocks to coordinate time.

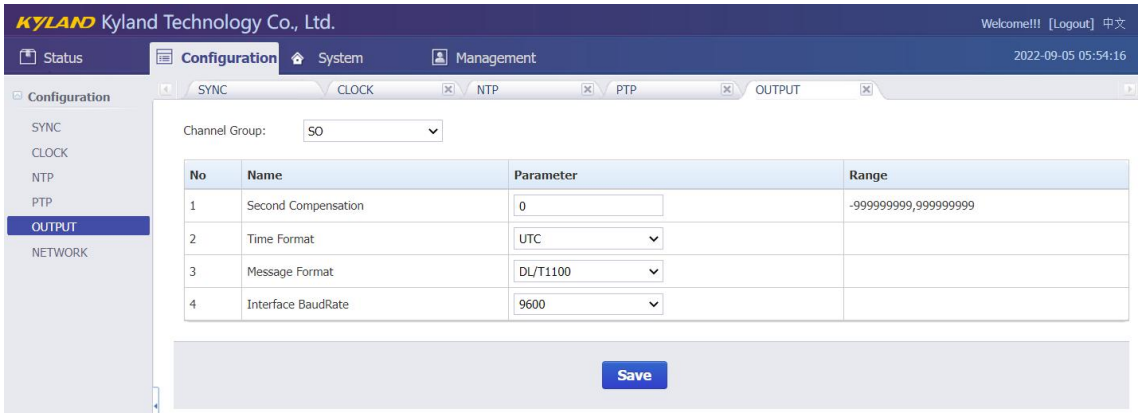
Press ‘Save’ button to save the current setting when you change setting.

2.5.5. Output Settings

Press ‘OUTPUT’ on the left navigation bar to show output setting screen.

Press ‘Channel Group’ to select SO/O1/O2/O3/O4/O5/AC output channel.

If select ‘SO’ in Channel Group, the setting screen will be shown as:



[Figure 2- 20] Output Setting Screen (SO)

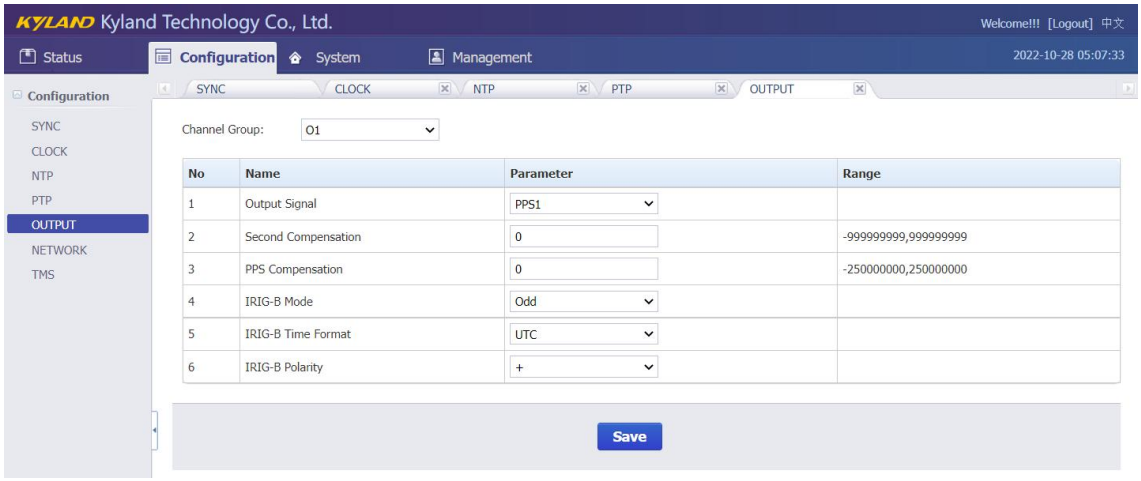
Table 15 – Output Setting (SO)

Items	Parameters	Description
Second Compensation	0s	Set second compensation offset for SO. Unit is second(s);

Items	Parameters	Description
		Range is between -999999999s and 999999999s. Default value is 0s.
Time Format	UTC TAI Local	Set reference time for TOD output signal of SO. UTC: Make output time working at UTC format; TAI: Make output time working at TAI format. Local: Make output time working at Local format.
Message Format	NMEA-RMC NMEA-ZDA CM-TOD DL/T1100 CMMB	Set coding format for serial message of SO. NMEA-RMC: Use RMC coding format of NMEA; NMEA-ZDA: Use ZDA coding format of NMEA; CM-TOD: Use custom format of Chinese Mobile TOD; DL/T1100: Use custom format of DL/T 1100.1. CMMB: Use custom format of Chinese Radio and Television. ⚠ The detail message refers to technical specification.
Interface BaudRate	300~115200	Set working baud rate for serial port of SO. Range is between 300 and 115200. Default value is 9600.

Press ‘Save’ button to save the current setting when you change setting.

If select ‘O1’ in Channel Group, the setting screen will be shown as:



[Figure 2- 21] Output Setting Screen (O1)

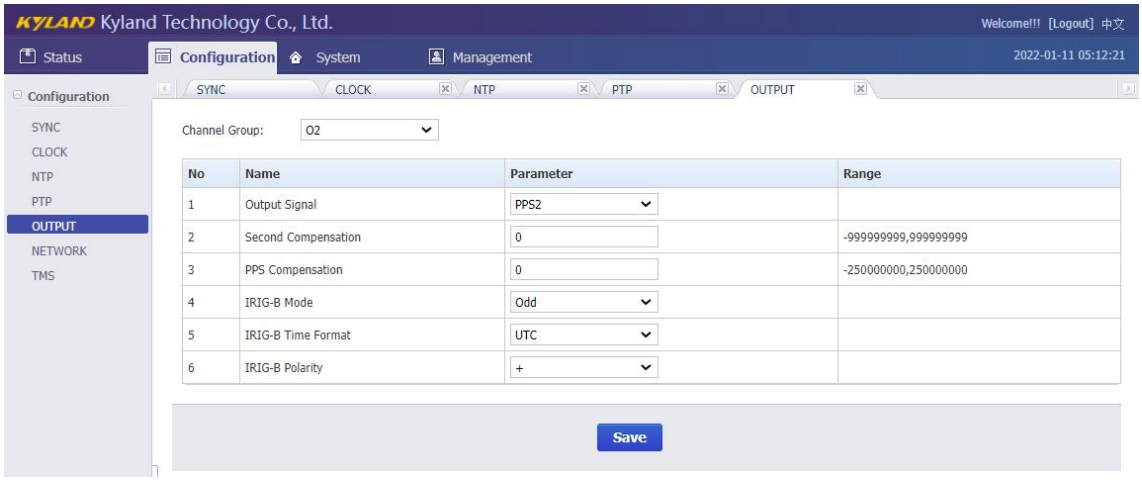
Table 16 – Output Setting (O1)

Items	Parameters	Description
Output Signal	PPS1 IRIG-B1 PPM PPH	Set output signal type for O1. PPS1: Set output signal is PPS; IRIG-B1: Set output signal is IRIG-B; PPM: Set output signal is PPM;

Items	Parameters	Description
		PPH: Set output signal is PPH. ⚠ The PPS is pulse signal. It is one pulse per second. ⚠ The PPM is pulse signal. It is one pulse per minute. ⚠ The PPH is pulse signal. It is one pulse per hour. ⚠ If the order hardware supports IRIG-B modulated interface, only the IRIG-B is valid for IRIG-B modulated interface; if the order hardware does not support IRIG-B modulated interface, the all output signals are valid.
Second Compensation	0s	Set second compensation offset for O1. Unit is second(s); Range is between -999999999s and 999999999s. Default value is 0s.
PPS Compensation	0ns	Set PPS compensation offset for O1. Unit is nanosecond(ns); Range is between -250000000ns and 250000000ns. Default value is 0ns.
IRIG-B Mode	Even Odd	Set IRIG-B check code for O1. Even: Use Even mode check code to code IRIG-B signal; Odd: Use Odd mode check code to code IRIG-B signal.
IRIG-B Time Format	UTC TAI Local	Set reference time for IRIG-B output signal of O1. UTC: Make output time working at UTC format; TAI: Make output time working at TAI format. Local: Make output time working at Local format.
IRIG-B Polarity	+ -	Set IRIG-B output signal polarity for O1. +: positive polarity DC, high level is 1; -: negative polarity DC, low level is 1.

Press ‘Save’ button to save the current setting when you change setting.

If select ‘O2’ in Channel Group, the setting screen will be shown as:



[Figure 2- 22] Output Setting Screen (O2)

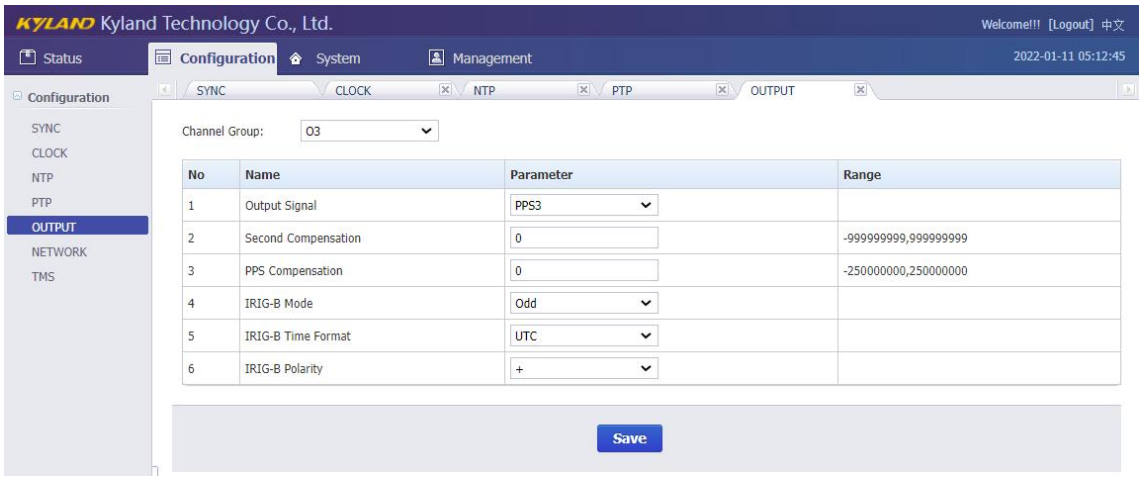
Table 17 – Output Setting (O2)

Items	Parameters	Description
Output Signal	PPS2 IRIG-B2 PPM PPH	Set output signal type for O2. PPS2: Set output signal is PPS; IRIG-B2: Set output signal is IRIG-B; PPM: Set output signal is PPM; PPH: Set output signal is PPH. ⚠ The PPS is pulse signal. It is one pulse per second. ⚠ The PPM is pulse signal. It is one pulse per minute. ⚠ The PPH is pulse signal. It is one pulse per hour.
Second Compensation	0s	Set second compensation offset for O2. Unit is second(s); Range is between -999999999s and 999999999s. Default value is 0s.
PPS Compensation	0ns	Set PPS compensation offset for O2. Unit is nanosecond(ns); Range is between -250000000ns and 250000000ns. Default value is 0ns.
IRIG-B Time Format	UTC TAI Local	Set reference time for IRIG-B output signal of O2. UTC: Make output time working at UTC format; TAI: Make output time working at TAI format. Local: Make output time working at Local format.
IRIG-B Mode	Even Odd	Set IRIG-B check code for O2. Even: Use Even mode check code to code IRIG-B signal; Odd: Use Odd mode check code to code IRIG-B signal.
IRIG-B	+	Set IRIG-B output signal polarity for O2.

Items	Parameters	Description
Polarity	-	+: positive polarity DC, high level is 1; -: negative polarity DC, low level is 1.

Press 'Save' button to save the current setting when you change setting.

If select 'O3' in Channel Group, the setting screen will be shown as:



[Figure 2- 23] Output Setting Screen (O3)

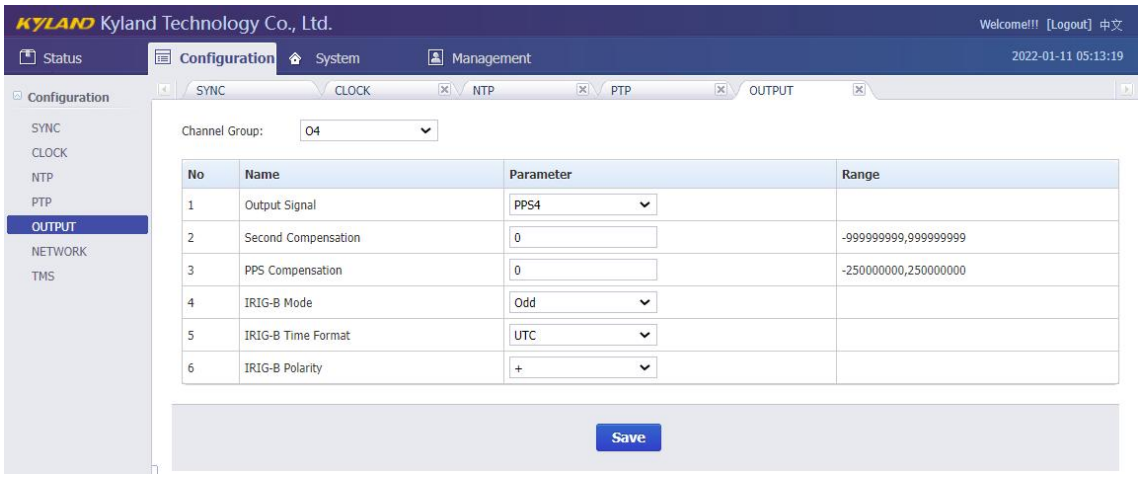
Table 18 – Output Setting (O3)

Items	Parameters	Description
Output Signal	PPS3 IRIG-B3 PPM PPH	Set output signal type for O3. PPS3: Set output signal is PPS; IRIG-B3: Set output signal is IRIG-B; PPM: Set output signal is PPM; PPH: Set output signal is PPH. ⚠ The PPS is pulse signal. It is one pulse per second. ⚠ The PPM is pulse signal. It is one pulse per minute. ⚠ The PPH is pulse signal. It is one pulse per hour.
Second Compensation	0s	Set second compensation offset for O3. Unit is second(s); Range is between -999999999s and 999999999s. Default value is 0s.
PPS Compensation	0ns	Set PPS compensation offset for O3. Unit is nanosecond(ns); Range is between -250000000ns and 250000000ns. Default value is 0ns.
IRIG-B Time	UTC TAI	Set reference time for IRIG-B output signal of O3. UTC: Make output time working at UTC format;

Items	Parameters	Description
Format	Local	TAI: Make output time working at TAI format. Local: Make output time working at Local format.
IRIG-B Mode	Even Odd	Set IRIG-B check code for O3. Even: Use Even mode check code to code IRIG-B signal; Odd: Use Odd mode check code to code IRIG-B signal.
IRIG-B Polarity	+ -	Set IRIG-B output signal polarity for O3. +: positive polarity DC, high level is 1; -: negative polarity DC, low level is 1.

Press 'Save' button to save the current setting when you change setting.

If select 'O4' in Channel Group, the setting screen will be shown as:



[Figure 2- 24] Output Setting Screen (O4)

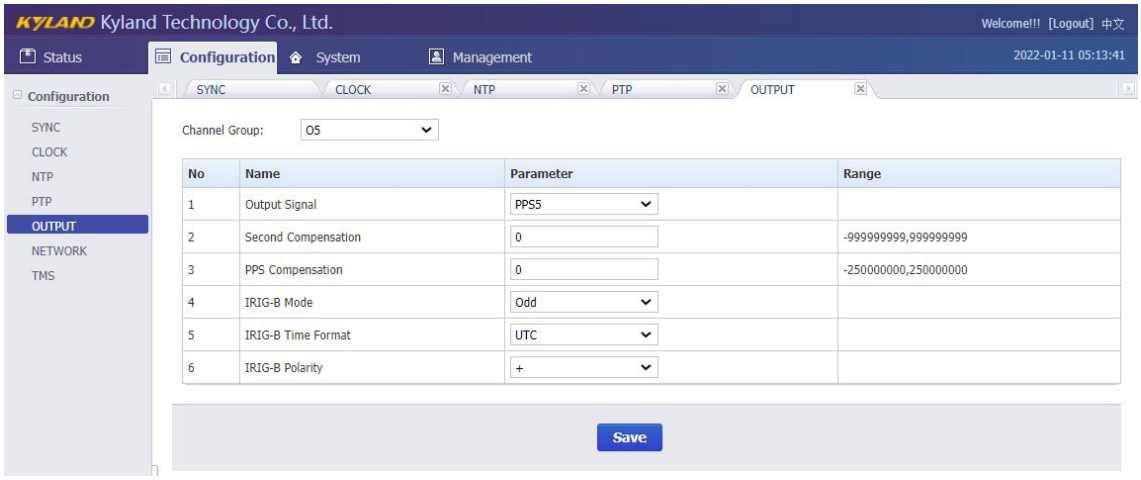
Table 19 – Output Setting (O4)

Items	Parameters	Description
Output Signal	PPS4 IRIG-B4 PPM PPH	Set output signal type for O4. PPS4: Set output signal is PPS; IRIG-B4: Set output signal is IRIG-B; PPM: Set output signal is PPM; PPH: Set output signal is PPH. ⚠ The PPS is pulse signal. It is one pulse per second. ⚠ The PPM is pulse signal. It is one pulse per minute. ⚠ The PPH is pulse signal. It is one pulse per hour.
Second Compensation	0s	Set second compensation offset for O4. Unit is second(s); Range is between -999999999s and 999999999s. Default value is 0s.

Items	Parameters	Description
PPS Compensation	0ns	Set PPS compensation offset for O4. Unit is nanosecond(ns); Range is between -250000000ns and 250000000ns. Default value is 0ns.
IRIG-B Time Format	UTC TAI Local	Set reference time for IRIG-B output signal of O4. UTC: Make output time working at UTC format; TAI: Make output time working at TAI format. Local: Make output time working at Local format.
IRIG-B Mode	Even Odd	Set IRIG-B check code for O4. Even: Use Even mode check code to code IRIG-B signal; Odd: Use Odd mode check code to code IRIG-B signal.
IRIG-B Polarity	+ -	Set IRIG-B output signal polarity for O4. +: positive polarity DC, high level is 1; -: negative polarity DC, low level is 1.

Press ‘Save’ button to save the current setting when you change setting.

If select ‘O5’ in Channel Group, the setting screen will be shown as:



[Figure 2- 25] Output Setting Screen (O5)

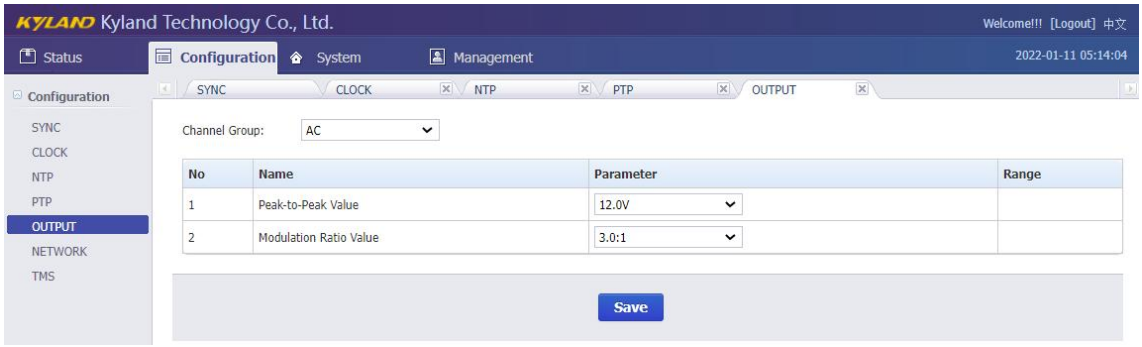
Table 20 – Output Setting (O5)

Items	Parameters	Description
Output Signal	PPS5 IRIG-B5 PPM PPH	Set output signal type for O5. PPS5: Set output signal is PPS; IRIG-B5: Set output signal is IRIG-B; PPM: Set output signal is PPM; PPH: Set output signal is PPH. ⚠ The PPS is pulse signal. It is one pulse per second.

Items	Parameters	Description
		⚠ The PPM is pulse signal. It is one pulse per minute. ⚠ The PPH is pulse signal. It is one pulse per hour.
Second Compensation	0s	Set second compensation offset for O5. Unit is second(s); Range is between -999999999s and 999999999s. Default value is 0s.
PPS Compensation	0ns	Set PPS compensation offset for O5. Unit is nanosecond(ns); Range is between -250000000ns and 250000000ns. Default value is 0ns.
IRIG-B Time Format	UTC TAI Local	Set reference time for IRIG-B output signal of O5. UTC: Make output time working at UTC format; TAI: Make output time working at TAI format. Local: Make output time working at Local format.
IRIG-B Mode	Even Odd	Set IRIG-B check code for O5. Even: Use Even mode check code to code IRIG-B signal; Odd: Use Odd mode check code to code IRIG-B signal.
IRIG-B Polarity	+ -	Set IRIG-B output signal polarity for O5. +: positive polarity DC, high level is 1; -: negative polarity DC, low level is 1.

Press ‘Save’ button to save the current setting when you change setting.

If select ‘AC’ in Channel Group, the setting screen will be shown as:



[Figure 2- 26] Output Setting Screen (AC)

Table 21 – Output Setting (AC)

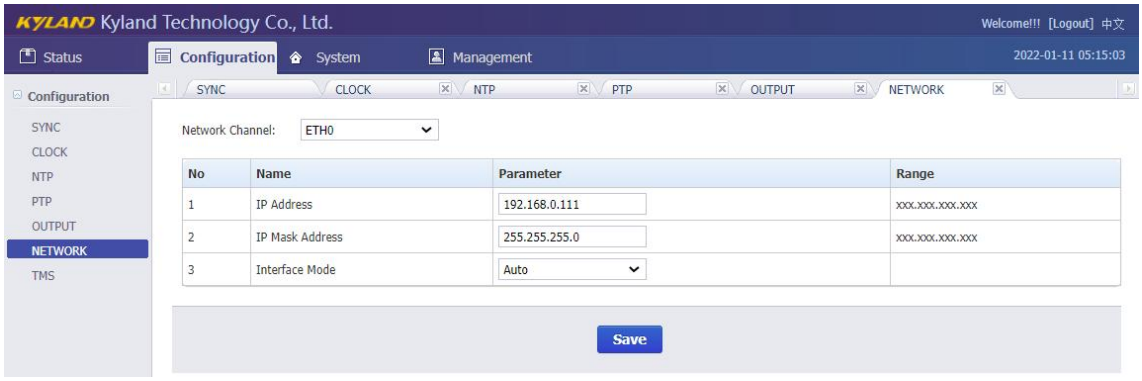
Items	Parameters	Description
Peak-to-Peak	3.0V~12.0V	Set IRIG-B output signal peak-to-peak value for O5. Unit is V;

Items	Parameters	Description
		Step is 0.5V; Range is between 3.0V and 12.0V. Default value is 12.0V. ⚠ The modulated IRIG-B signal has the same encoder with O1 output channel, the other parameters please refer to O1 output parameters.
Modulation Ratio	3.0:1~6.0:1	Set IRIG-B output signal modulation ratio for O5. Step is 0.5:1; Range is between 3.0:1 and 6.0:1. Default value is 3.0:1. ⚠ The modulated IRIG-B signal has the same encoder with O1 output channel, the other parameters please refer to O1 output parameters.

Press ‘Save’ button to save the current setting when you change setting.

2.5.6. Network Settings

Press ‘NETWORK’ on the left navigation bar to show network setting screen. The network setting screen will be shown as:



[Figure 2- 27] – Network Setting Screen

Press ‘Save’ button to save the current setting when you change setting.

Press ‘Network Group’ to select different network port including ETH0/1/2/3.

ETH2/ETH3 are optional, they can only work at Copper and 100M mode.

Items	Parameters	Description
IP Address	XXX.XXX.XXX.XXX	Set IP address for network ports. ETH0:192.168.0.111 ETH1:192.168.1.111

Items	Parameters	Description
		ETH2:192.168.0.111 ETH3:192.168.1.111
IP Mask Address	XXX.XXX.XXX.XXX	Set Subnet mask address for network ports. ETH0:255.255.255.0 ETH1:255.255.255.0 ETH2:255.255.255.0 ETH3:255.255.255.0
Interface Mode	Auto, 100M-FX FDX, 100M-FX-HDX, 1000M-X FDX, 1000M-X HDX	PTS-10A can provide more network types. One of them can set ETH0/ETH1 mode work with Auto or work with 100M and 1000M fiber. Auto: 100M/1000M Copper automatic mode; 100M-FX FDX: 100M Optical full duplex mode; 100M-FX HDX: 100M Optical half duplex mode; 1000M-FX FDX: 1000M Optical full duplex mode; 1000M-FX HDX: 1000M Optical half duplex mode.

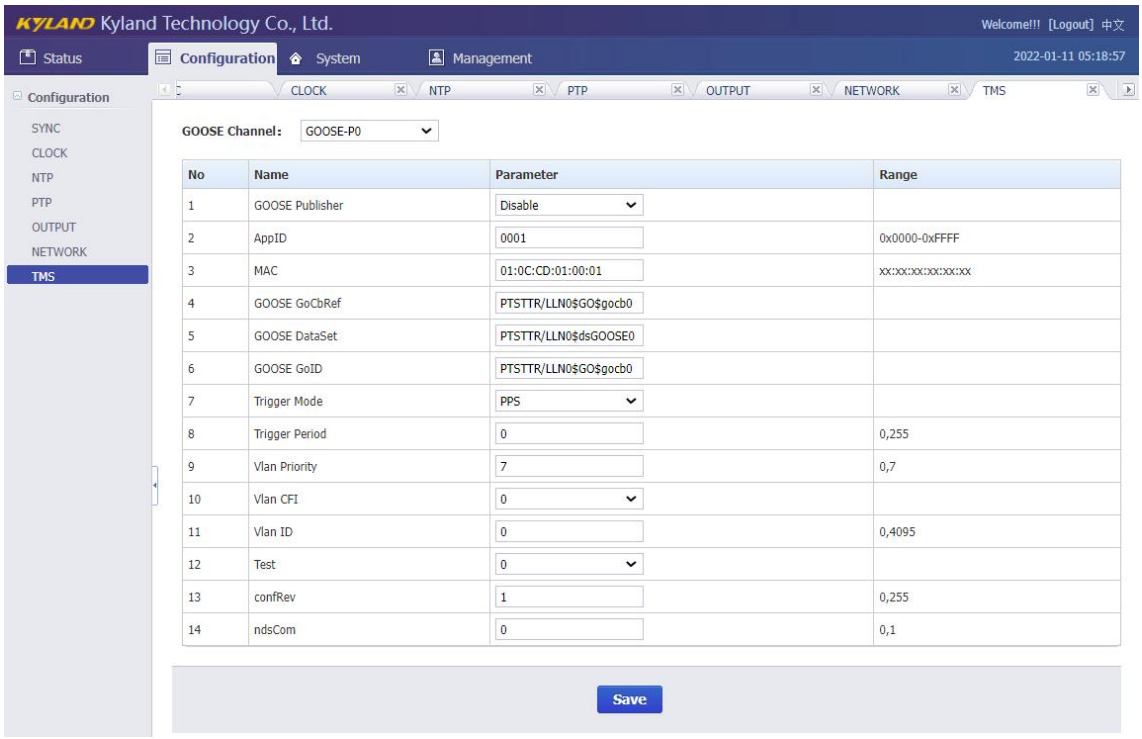
2.5.7. TMS Settings (Optional)

Press ‘TMS’ on the left navigation bar to show TMS setting screen.

Press ‘GOOSE channel’ to select GOOSE publisher and GOOSE subscriber channel.

- The GOOSE publisher includes GOOSE-P0/GOOSE-P1 and work on ETH0/ETH1;
- The GOOSE subscriber includes GOOSE-S0/GOOSE-S1 and work on ETH0/ETH1.

If select ‘GOOSE-P0’ in GOOSE Channel, the setting screen will be shown as:



[Figure 2- 28] GOOSE Publisher Screen (GOOSE-P0)

Table 22 – GOOSE Publisher Setting (GOOSE-P0)

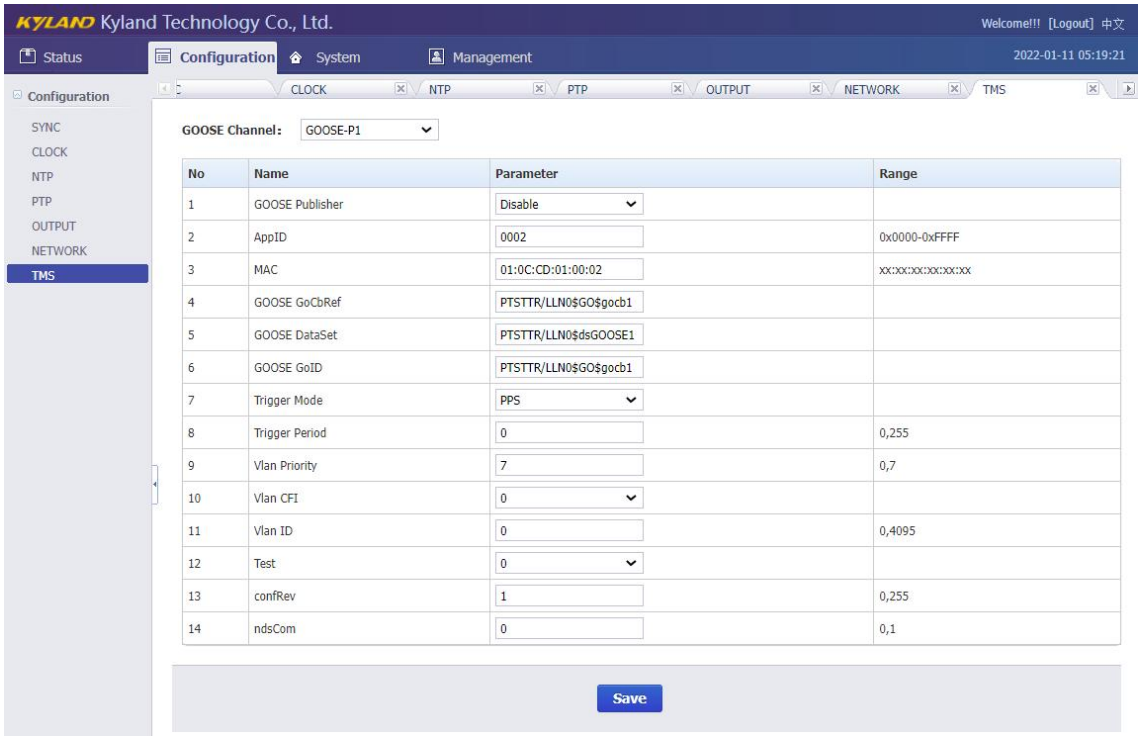
Items	Parameters	Description
GOOSE Publisher	Enable Disable	Activate GOOSE publisher feature for ETH0. Enable: Make GOOSE publisher start working; Disable: Make GOOSE publisher stop working.
APPID	0xXXXX	Set APPID of GOOSE message. Range is between 0x0000 and 0xFFFF. Default value is 0x0001. ⚠ APPID is a 32 bits data with hex display.
MAC	01.0C.CD.01.XX.XX	Set MAC address of GOOSE message. Default value is 01.0C.CD.01.00.01. ⚠ The first four parts of MAC address are standard value of GOOSE message. If you find any network messages with these values, the message is GOOSE message.
GOOSE GoID	PTSTTR/LLN0GOgocb0	Set GCB ID of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb0. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.

Items	Parameters	Description
GOOSE GoCBRef	PTSTTR/LLN0GOgocb0	Set GCB reference of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb0. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
GOOSE Dataset	PTSTTR/LLN0$dsGOOSE0	Set GCB dataset of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0$dsGOOSE0. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
Trigger Mode	PPS PPM PPH	Set trigger mode to send GOOSE message. PPS: Use PPS to trigger GOOSE message; PPM: Use PPM to trigger GOOSE message; PPH: Use PPH to trigger GOOSE message.
Trigger Period	0~255	Set period to send out GOOSE message. Range is between 0 and 255. Default value is 0. ⚠ The 0 means no data change and the non-zero means system will send a new GOOSE when the current time at PPS, PPM or PPH can be divisible by trigger period. ⚠ If trigger mode is PPS, the trigger period unit is second. When the whole seconds of the current time is divisible by trigger period, the new GOOSE will generate. ⚠ If trigger mode is PPM, the trigger period unit is minute. When the whole seconds of the current time is divisible by trigger period multiplied by 60, the new GOOSE will generate. ⚠ If trigger mode is PPH, the trigger period unit is hour. When the whole seconds of the current time is divisible by trigger period multiplied by 3600, the new GOOSE will generate.
vLan Priority	0~7	Set vLan priority of GOOSE message. Range is between 0 and 7.

Items	Parameters	Description
		Default value is 7.
vLan CFI	0~1	Set vLan CFI information of GOOSE message. Range is between 0 and 1. Default value is 0.
vLan ID	0~4095	Set vLan ID information of GOOSE message. Range is between 0 and 4095. Default value is 0.
Test	0~1	Set Test flag of GOOSE message. Range is between 0 and 1. Default value is 0.
confRev	0~255	Set confRev value of GOOSE message. Range is between 0 and 255. Default value is 1.
ndsCom	0~255	Set ndsCom value of GOOSE message. Range is between 0 and 255. Default value is 0.

Press ‘Save’ button to save the current setting when you change setting.

If select ‘GOOSE-P1’ in GOOSE Channel, the setting screen will be shown as:



[Figure 2- 29] GOOSE Publisher Screen (GOOSE-P1)

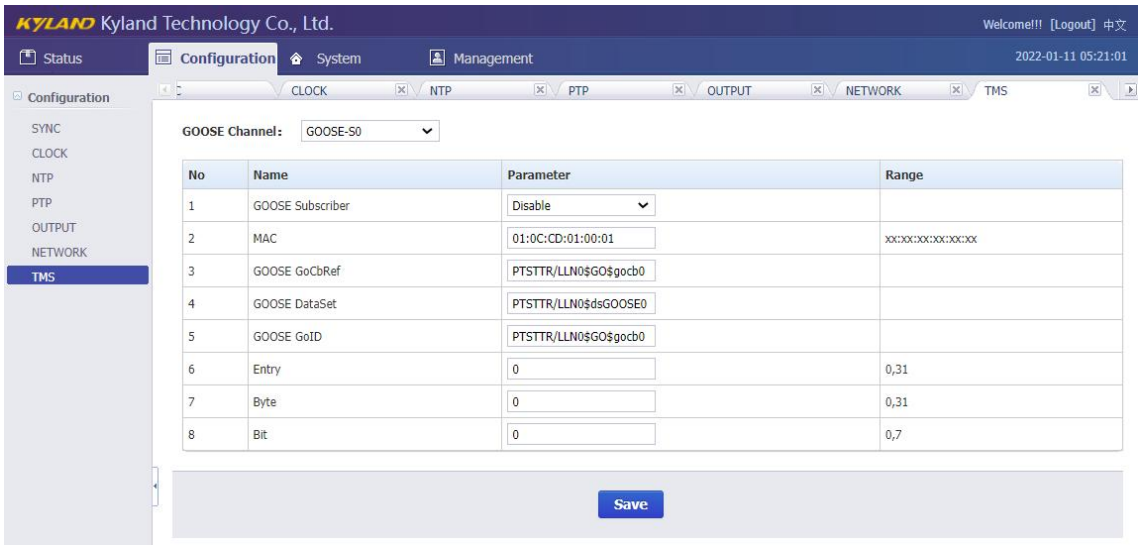
Table 23 – GOOSE Publisher Setting (GOOSE-P1)

Items	Parameters	Description
GOOSE Publisher	Enable Disable	Activate GOOSE publisher feature for ETH1. Enable: Make GOOSE publisher start working; Disable: Make GOOSE publisher stop working.
APPID	0xXXXX	Set APPID of GOOSE message. Range is between 0x0000 and 0xFFFF. Default value is 0x0002. ⚠ APPID is a 32 bits data with hex display.
MAC	01.0C.CD.01.XX.XX	Set MAC address of GOOSE message. Default value is 01.0C.CD.01.00.02. ⚠ The first four parts of MAC address are standard value of GOOSE message. If you find any network messages with these values, the message is GOOSE message.
GOOSE GoID	PTSTTR/LLN0GOgocb1	Set GCB ID of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb1. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
GOOSE GoCBRef	PTSTTR/LLN0GOgocb1	Set GCB reference of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb1. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
GOOSE Dataset	PTSTTR/LLN0$dsGOOSE1	Set GCB dataset of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0$dsGOOSE1. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
Trigger Mode	PPS PPM PPH	Set trigger mode to send GOOSE message. PPS: Use PPS to trigger GOOSE message; PPM: Use PPM to trigger GOOSE message; PPH: Use PPH to trigger GOOSE message.
Trigger Period	0~255	Set period to send out GOOSE message. Range is between 0 and 255. Default value is 0.

Items	Parameters	Description
		⚠ The 0 means no data change and the non-zero means system will send a new GOOSE when the current time at PPS, PPM or PPH can be divisible by trigger period. ⚠ If trigger mode is PPS, the trigger period unit is second. When the whole seconds of the current time is divisible by trigger period, the new GOOSE will generate. ⚠ If trigger mode is PPM, the trigger period unit is minute. When the whole seconds of the current time is divisible by trigger period multiplied by 60, the new GOOSE will generate. ⚠ If trigger mode is PPH, the trigger period unit is hour. When the whole seconds of the current time is divisible by trigger period multiplied by 3600, the new GOOSE will generate.
vLan Priority	0~7	Set vLan priority of GOOSE message. Range is between 0 and 7. Default value is 7.
vLan CFI	0~1	Set vLan CFI information of GOOSE message. Range is between 0 and 1. Default value is 0.
vLan ID	0~4095	Set vLan ID information of GOOSE message. Range is between 0 and 4095. Default value is 0.
Test	0~1	Set Test flag of GOOSE message. Range is between 0 and 1. Default value is 0.
confRev	0~255	Set confRev value of GOOSE message. Range is between 0 and 255. Default value is 1.
ndsCom	0~255	Set ndsCom value of GOOSE message. Range is between 0 and 255. Default value is 0.

Press ‘Save’ button to save the current setting when you change setting.

If select 'GOOSE-S0' in GOOSE Channel, the setting screen will be shown as:



[Figure 2- 30] GOOSE Subscriber Screen (GOOSE-S0)

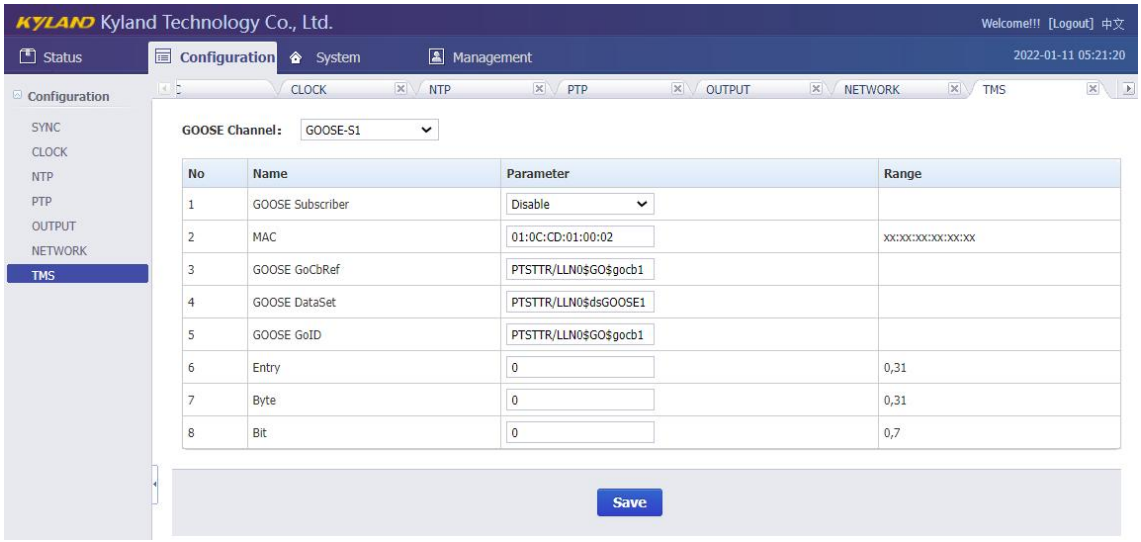
Table 24 –GOOSE Subscriber Setting (GOOSE-S0)

Items	Parameters	Description
GOOSE Subscriber	Enable Disable	Activate GOOSE subscriber feature for ETH0. Enable: Make GOOSE subscriber start working; Disable: Make GOOSE subscriber stop working.
MAC	0xXXXX	Set APPID of GOOSE message. Range is between 0x0000 and 0xFFFF. Default value is 0x0001. ⚠ APPID is a 32 bits data with hex display.
GOOSE GoID	PTSTTR/LLN0GOgocb0	Set GCB ID of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb0. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
GOOSE GoCBRef	PTSTTR/LLN0GOgocb0	Set GCB reference of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb0. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
GOOSE Dataset	PTSTTR/LLN0$dsGOOSE0	Set GCB dataset of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0$dsGOOSE0.

Items	Parameters	Description
		⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
Entry	0~31	Set the entry index of GOOSE message. Range is between 0 and 31. Default value is 0. ⚠ The maximum entry is 32. The 0 is the first entry. The 31 is the last entry.
Byte	0~31	Set the byte position of entry item Range is between 0 and 31. Default value is 0. ⚠ The maximum byte of entry is 32. The 0 is the first byte. The 31 is the last byte.
Bit	0~7	Set the bit position of byte item. Range is between 0 and 7. Default value is 0. ⚠ The maximum bit of byte is 8. The 0 is the first bit. The 31 is the last bit.

Press ‘Save’ button to save the current setting when you change setting.

If select ‘GOOSE-S1’ in GOOSE Channel, the setting screen will be shown as:



[Figure 2- 31] GOOSE Subscriber Screen (GOOSE-S1)

Table 25 –GOOSE Subscriber Setting (GOOSE-S1)

Items	Parameters	Description
GOOSE Subscriber	Enable	Activate GOOSE subscriber feature for ETH1.

Items	Parameters	Description
	Disable	Enable: Make GOOSE subscriber start working; Disable: Make GOOSE subscriber stop working.
MAC	0xXXXX	Set APPID of GOOSE message. Range is between 0x0000 and 0xFFFF. Default value is 0x0002. ⚠ APPID is a 32 bits data with hex display.
GOOSE GoID	PTSTTR/LLN0GOgocb1	Set GCB ID of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb1. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
GOOSE GoCBRef	PTSTTR/LLN0GOgocb1	Set GCB reference of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0GOgocb1. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
GOOSE Dataset	PTSTTR/LLN0$dsGOOSE1	Set GCB dataset of GOOSE message. It is a string defined by GOOSE standard. Default value is PTSTTR/LLN0$dsGOOSE1. ⚠ Provide IEC61850 ICD file, the current default value is made by this ICD file.
Entry	0~31	Set the entry index of GOOSE message. Range is between 0 and 31. Default value is 0. ⚠ The maximum entry is 32. The 0 is the first entry. The 31 is the last entry.
Byte	0~31	Set the byte position of entry item Range is between 0 and 31. Default value is 0. ⚠ The maximum byte of entry is 32. The 0 is the first byte. The 31 is the last byte.
Bit	0~7	Set the bit position of byte item. Range is between 0 and 7. Default value is 0. ⚠ The maximum bit of byte is 8. The 0 is the first bit. The 31 is the last bit.

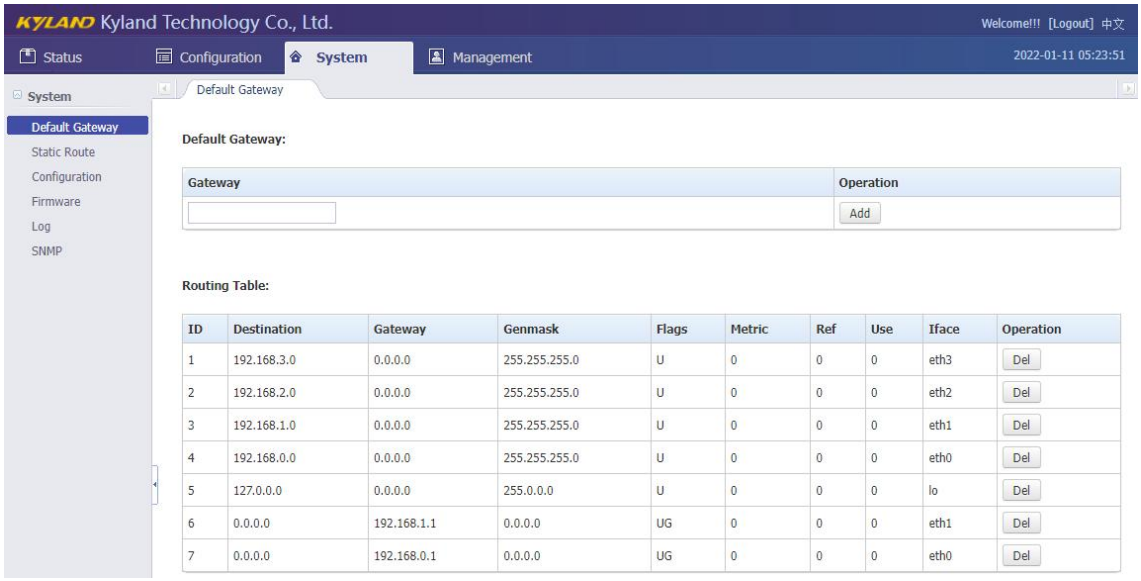
Press ‘Save’ button to save the current setting when you change setting.

2.6. System

The WEB management system supports to manage Gateway, Route information and to backup and restore configuration file, in the same time it also supports firmware management and log management of PTS time server by WEB.

Normally, if has SNMP features, the SNMP management node will be shown in the left navigation bar.

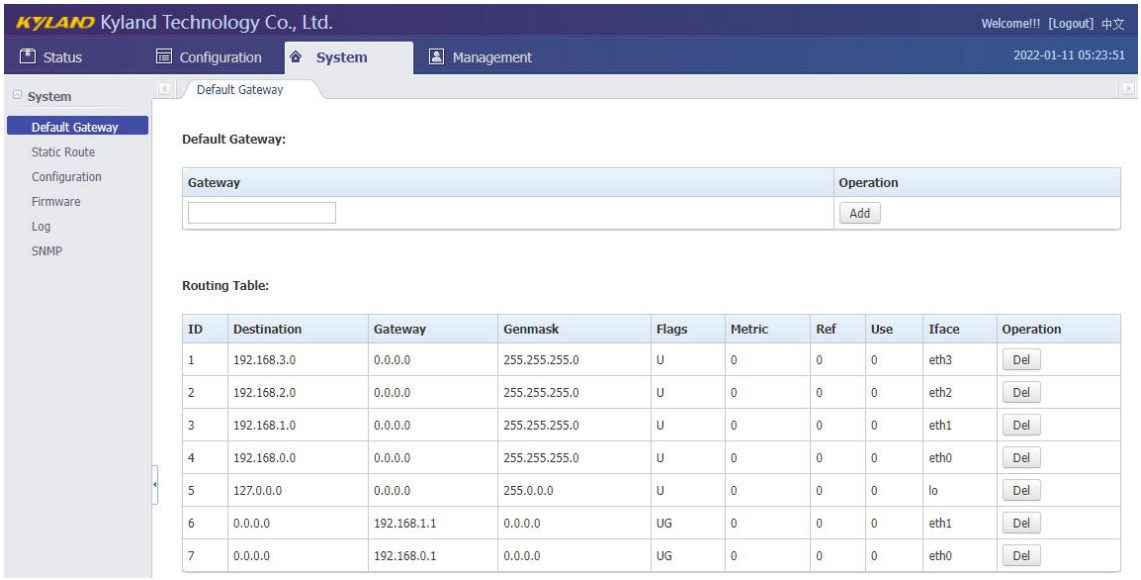
Press ‘System’ to go to the system screen on the top of navigation bar. The screen will be shown as:



[Figure 2- 32] System Screen

2.6.1. Gateway

Press ‘Default Gateway’ on the left navigation bar to manage Gateway information. The gateway screen will be shown as:



[Figure 2- 33] Gateway Screen

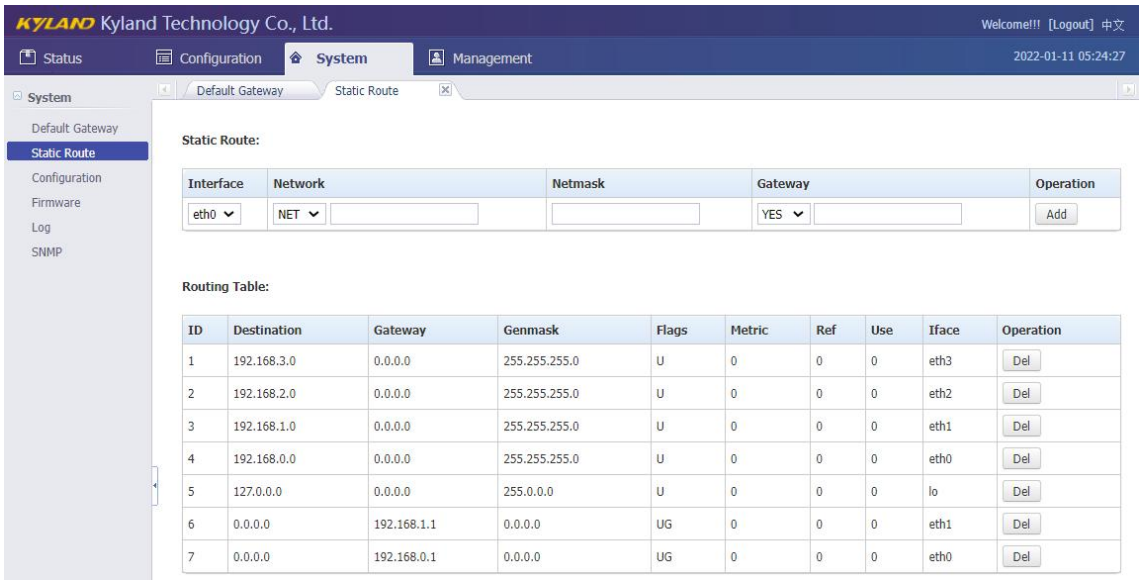
The current routing table will be listed on the bottom of screen.

Press ‘Add’ to add a new gateway for PTS time server.

Press ‘Del’ to delete the selected route information.

2.6.2. Route

Press ‘Route’ on the left navigation bar to manage Route information. The route screen will be shown as:



[Figure 2- 34] Route Screen

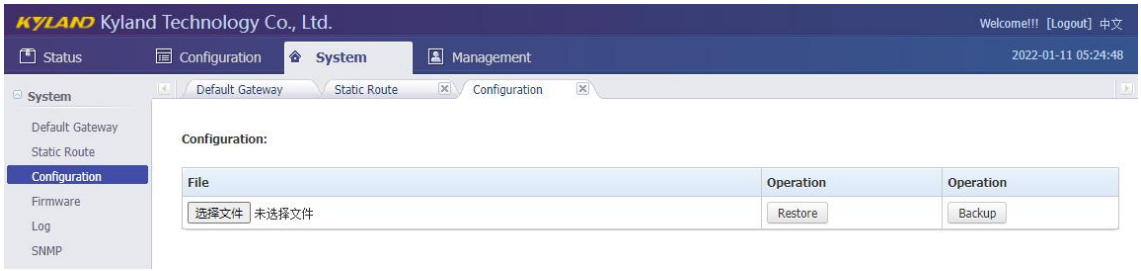
The current routing table will be listed on the bottom of screen.

Press ‘Add’ to add a static route for PTS time server.

Press ‘Del’ to delete the selected route information.

2.6.3. Configuration

Press ‘Configuration’ on the left navigation bar to backup and restore configuration file. The configuration screen will be shown as:



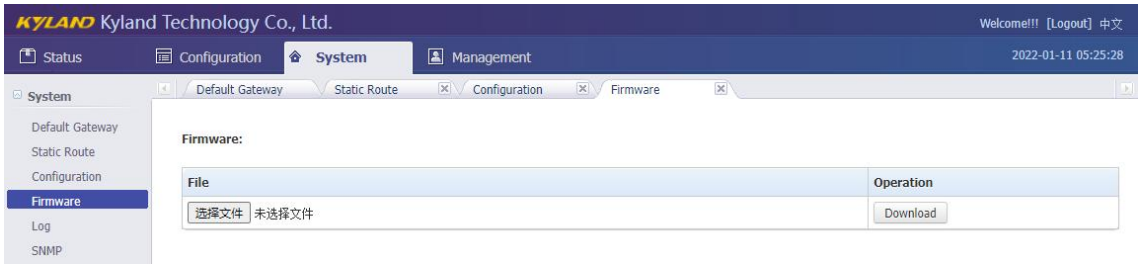
[Figure 2- 35] Configuration Screen

Press ‘Backup’ and system will pop-up a tip window, let user to select a directory to save configuration file. The name of configuration file is named by MAC address.

Press ‘Restore’ to restore a configuration by WEB. Before do it, please select a file. After press ‘Restore’, the system will active your selected configuration file.

2.6.4. Firmware

Press ‘Firmware’ on the left navigation bar to upgrade firmware. The firmware screen will be shown as:



[Figure 2- 36] Firmware Screen

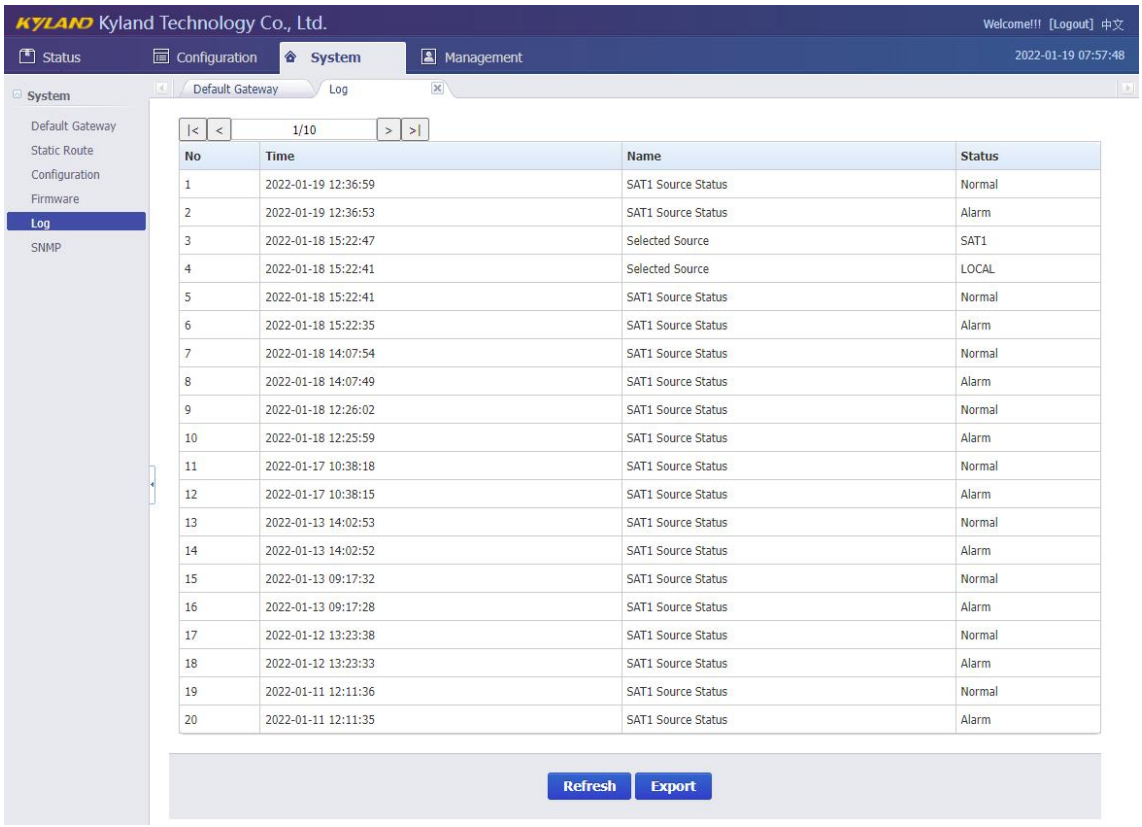
Press ‘Download’ to update the new firmware of PTS time server. Before do it, please select upgrade file. After finish this action, you should reboot device and make the new firmware active. There are 2 types to reboot device. One is turn off power and then turn on; another is controlled by WEB management system.

The firmware should be published by Official.

2.6.5. Log

Press ‘Log’ on the left navigation bar to manage log feature.

The Log screen will be shown as:



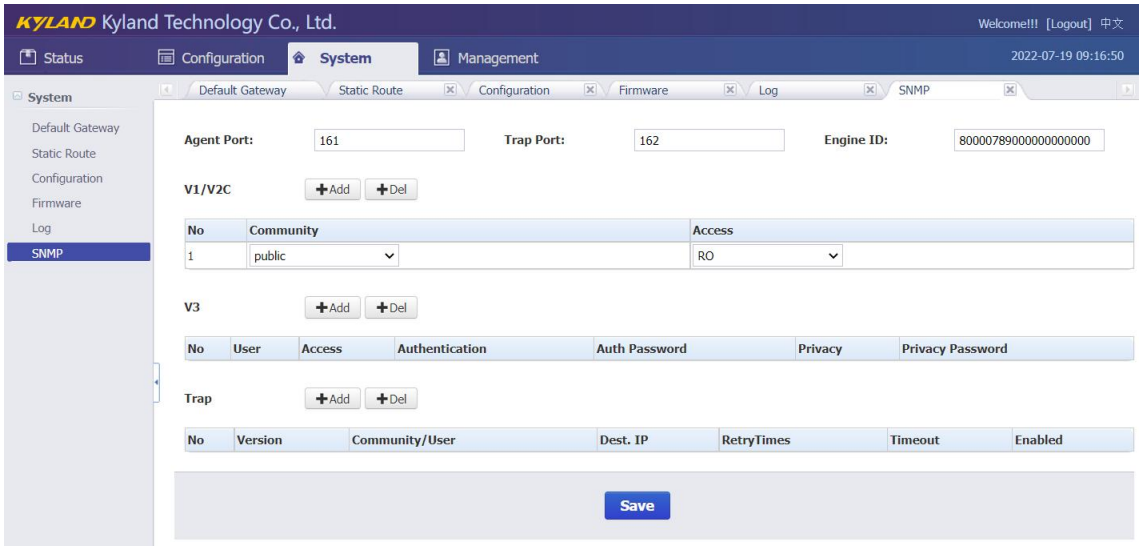
[Figure 2- 37] Log Screen

Log management supports to view and export log file to local. The each page will show the maximum 20 log items. More log will show the others page. You might change by navigation bar of top page. Press ‘Refresh’ can refresh the log item. Press ‘Export’ can export a log file to local and view it.

2.6.6. SNMP (Optional)

Press ‘SNMP’ on the left navigation bar to manage SNMP feature.

The SNMP screen will be shown as:



[Figure 2- 38] SNMP Screen

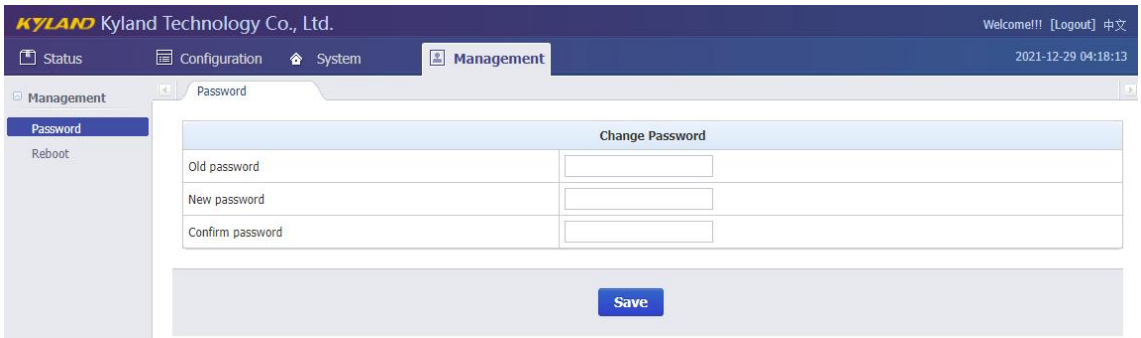
SNMP management supports to modify agent port and to add or delete V1/V2C, V3 and TRAP access parameters. The default agent port of SNMP is 161 and the default trap port of SNMP is 162. The Engine ID normally is generated by system. The default access parameter of V1/V2C named 'public', it only has read-only permissions. V3 and TRAP do not have default value.

Any modifications about SNMP should reboot device to activate it.

2.7. Management

The WEB management system supports to change user password and reboot device by WEB.

Press 'Management' to go to the management screen on the top of navigation bar. The screen will be shown as:

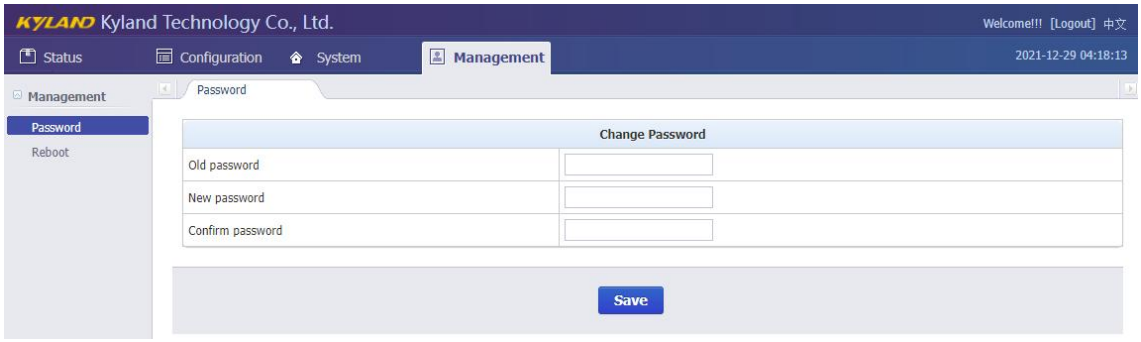


[Figure 2- 39] Management Screen

2.7.1. Change Password

Press 'Change Password' on the left navigation bar to change password. The change

password screen will be shown as:

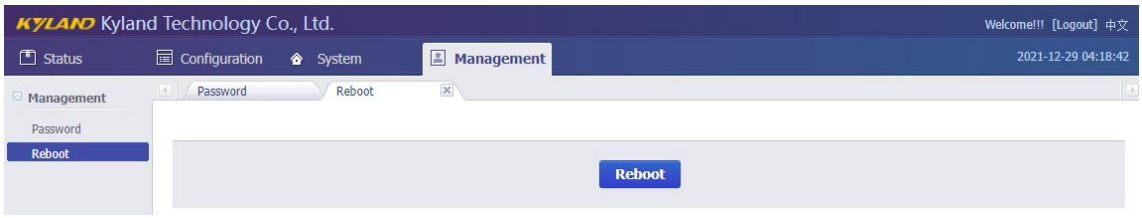


[Figure 2- 40] Change Password Screen

Please 'Save' to confirm the new password.

2.7.2. Reboot

Press 'Reboot' on the left navigation bar to reboot device. The reboot screen will be shown as:



[Figure 2- 41] Reboot Screen

Press 'Reboot' to reboot device, but it need user to confirm again according to pop-up dialog.

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