



Temperature Fiber Optical Sensing Terminal

User Manual

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Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Note	Provides additional information to emphasize or supplement important points of the main text.

Safety Instruction

CLASS 1 LASER PRODUCT
IEC 60825-1:2014

CLASS 1 LASER PRODUCT

The product meets the requirements of Class 1 laser products. Class 1 Laser products that are safe during use, including long-term direct intrabeam viewing, even when exposure occurs while using telescopic optics.

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Chapter 1 Device Activation

To protect the security and privacy of the user account and data, you should set a login password to activate the device when access the device via network.



Note

Refer to the user manual of the software client for the detailed information about the client software activation.

1.1 Activate the Device via SADP

Search and activate the online devices via SADP software.

Before You Start

Access www.hikvision.com to get SADP software to install.

Steps

1. Connect the device to network using the network cable.
2. Run SADP software to search the online devices.
3. Check **Device Status** from the device list, and select **Inactive** device.
4. Create and input the new password in the password field, and confirm the password.



Caution

We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

5. Click **OK**.
Device Status changes into **Active**.
6. Optional: Change the network parameters of the device in **Modify Network Parameters**.

1.2 Activate the Device via Browser

You can access and activate the device via the browser.

Steps

1. Connect the device to the PC using the network cables.
2. Change the IP address of the PC and device to the same segment.



Note

The default IP address of the device is 192.0.0.64. You can set the IP address of the PC from 192.0.0.2 to 192.0.0.254 (except 192.0.0.64). For example, you can set the IP address of the PC to 192.0.0.100.

3. Input **192.0.0.64** in the browser.

4. Set device activation password.



We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

5. Click **OK**.
6. Input the activation password to log in to the device.
7. Optional: Go to **Configuration** → **Network** → **Network Settings** → **TCP/IP** to change the IP address of the device to the same segment of your network.

1.3 Activate the Device via Local Client

Before You Start

Get the client software from the technical support, and install the client according to the prompts.

Steps

1. Connect the device to network using the network cable.
2. Run the client software and double click **Add Device**.
3. Input **192.0.0.64** and click **Add**.
4. Find your device IP in the left list, and double click to enter the device.
4. Input new password (admin password) and confirm the password.



We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

Chapter 2 Local Client Operation Instructions

Local client is mainly used for debugging.

Double-click **Add Device** in the upper-left corner, enter the device IP address, and click **Add**. After adding, you can find the device IP address in the left list, and double-click to enter the debugging interface.

Click **Log In** in the upper-left corner, enter administrator user name and password, and click **OK** to log in to client.

You can view the interface without logging in to local client, but cannot edit the parameters. Logging in is not recommended for normal user. Please contact professionals to edit parameters.

2.1 View Real-Time Data

You can view the channels, partitions, curves, channel parameters, partition parameters, and alarm information. You can also set temperature calibration, mute or clear the alarm message. Only certain models support the mute function, please refer to the actual device.

Click **Real-time Detection** to enter the interface.

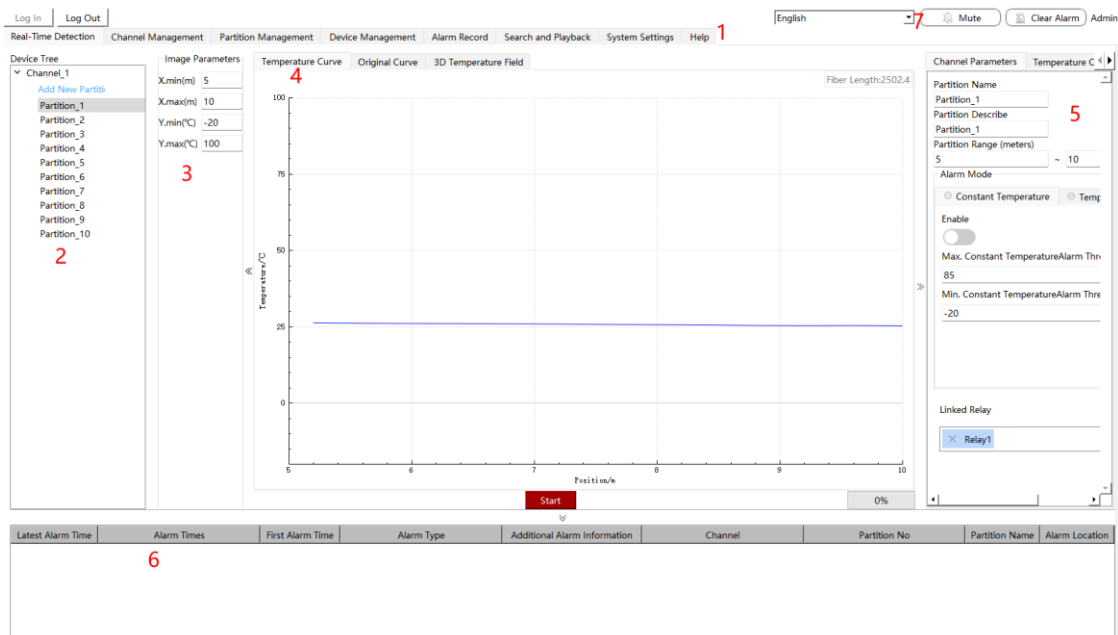


Figure 2-1 Real-time Detection Interface

Table 2-1 Interface Introduction

Serial No.	Introduction
1	Navigation bar
2	Channel and Partition List Click the channel to display the channel's curve chart and channel parameters. Click the partition under different channels to display the partition's curve chart and partition parameters of the associated channel.

Serial No.	Introduction
3	Image parameters: You can set maximum and minimum parameter values for the X and Y axes of the chart.
4	View the temperature curve, original curve, and 3D temperature field of the channel or partition. Click Start to begin drawing the curve. Click Stop to halt the drawing. Analyze data and troubleshoot issues based on the real-time temperature data and original data curves. When there is a temperature change, fluctuations will appear in the curve.
5	Channel parameters: View and set the parameters of the selected channel or partition.  Note Refer to <u>Channel Management</u> and <u>Partition Management</u> for details. Temperature calibration: Refer to <u>Temperature Calibration</u> for details.
6	View the latest alarm records. You can view the alarm time, times, type, and other information. Constant Temperature Alarm An alarm is triggered when the temperature at any measurement point in the partition exceeds the set value. Temperature Rise/Drop Alarm An alarm is triggered when the rate of temperature change at any measurement point in the partition exceeds the set value. Temperature Difference Alarm An alarm is triggered when the difference between the temperature at any measurement point in the partition and the average temperature within the detection range exceeds the set value.
7	Mute and Clear Alarm buttons. Click the corresponding button to mute or clear the alarm message. Mute function is only supported by certain models. Please refer to the actual device. Mute After the alarm is triggered, click the button to stop the buzzer. This operation does not clear the current alarm status. Clear Alarm After the alarm is triggered, click the button to stop the buzzer and clear the current alarm status. All partition statuses are restored to normal.

Serial No.	Introduction
	 Note Only certain models support the buzzer, please refer to the actual device. For devices that support the buzzer, ensure that it is enabled. Refer to <u>Set Buzzer</u>.

2.2 Temperature Calibration

When all optical fibers are in the same temperature environment, adjust the overall trend of the temperature curve to ensure it is horizontal.

Steps

1. Click **Real-time Detection** to enter the interface.
2. Select a channel or a partition.
3. Click **Temperature Calibration** on the right side of the page.

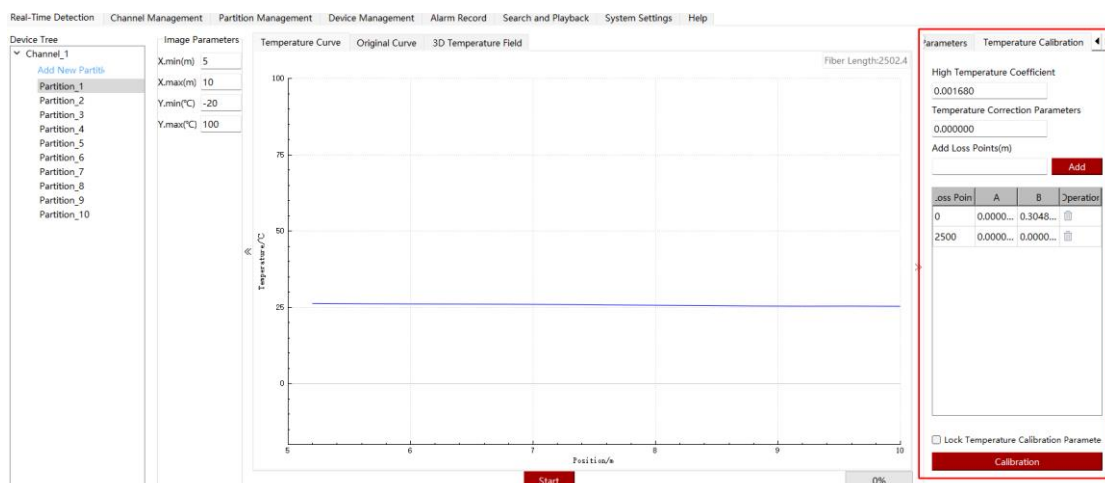


Figure 2-2 Temperature Calibration

- After the device is started, it automatically analyzes and calculates fiber optic loss points and loss, and obtains an initial loss point table. The loss points in the table header are the loss point positions automatically calculated by the device, while A and B are the automatic compensation parameters.

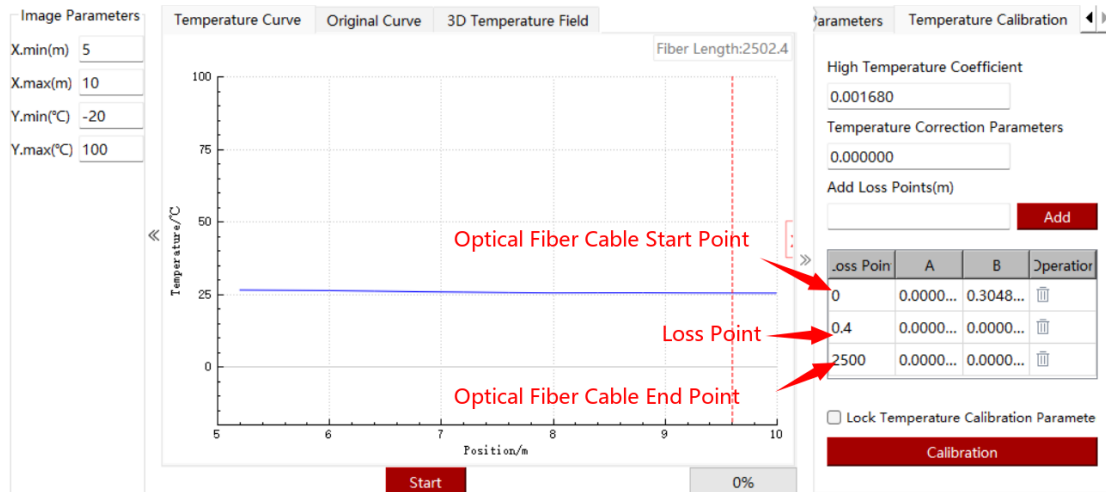


Figure 2-3 Temperature Compensation

- The first row in the table indicates the start point of the optical cable is 0, the last row indicates the end point of the optical cable calculated automatically, and the intermediate rows is the loss point. When there are only two rows, it indicates that the optical fiber in the channel has no intermediate loss points. Up to 16 rows can be displayed.
- Adjusting A affects the slope of the segment from the current line position to the next line position, while adjusting B affects the horizontal shift of the segment from the current line position to the next line position. Generally, when adjustments are needed, only the A value is modified.
- 4. Check if the ambient temperature curve shows a horizontal trend overall, and the values of the ambient temperature curve should be close to the room temperature. If it is normal, check **Lock Temperature Calibration Parameters** to lock parameters, which will prevent the device from recapturing the loss points upon the next startup.

Note

Modify the parameter settings on the left or use the scroll wheel to zoom in and out of the curve.

5. Add or delete loss points to reduce sporadic loss point errors, loss point omissions, or an increase in loss points.
6. Adjust the loss point.
 - If the temperature curve has steps, it may indicate that some loss points are overlooked in the automatic calculation. You can compare the original curve to verify if there are actual loss points at the step locations. After confirmation, you can manually input the positions of the loss points, click **Add**, and then click **Calibration**. After the pop-up window appears, click **Confirm** and observe the curve again.

Note

After clicking **Calibration**, recalculation is required. When it involves switching multiple channels, the waiting time may be longer.

- Or click  to delete the incorrect points when the loss points are automatically calculated incorrectly.
- If a segment of the temperature curve slopes upwards, find the row in the table corresponding to the start point of this segment, decrease the A value of that row by a step of 0.0000005, click **Calibration**, wait for the pop-up, then click **Confirm** to reacquire the curve, and reassess whether further adjustments are needed.

- If a segment of the temperature curve slopes downward, find the row in the table that corresponds to the start point of this segment, increase the A value of that row by a step of 0.0000005, click **Calibration**, wait for the pop-up, then click **Confirm** to reacquire the curve, and reassess whether further adjustments are needed.
- 7. Repeat the adjustment and click **Calibration** until the ambient temperature curve is horizontal without any tilt. Check **Lock Temperature Calibration Parameters** to lock parameters.
- 8. (Optional) Uncheck **Lock Temperature Calibration Parameters**, and then restart the device to recalculate automatically.

2.3 Channel and Partition Management

Enable the used channels and add partitions to the channels. Define the areas corresponding to different optical fiber ranges based on the channels and partitions.

2.3.1 Set Channel Parameter

Enable/disable channels, edit channel names and descriptions according to the actual connection of channel interfaces.

Steps



- The system automatically displays different numbers of channels based on different devices.
- It is recommended to purchase the accompanying optical fiber for this product.

1. Click **Channel Management** to enter the interface.

Channel No	Channel Name	Channel Description	Fiber Length	Optical Fiber Calibration Coefficient	Enable	Operation
1	Channel_1	Channel_1	2502.4m	1		
2	Channel_2	Channel_2	0m	1		
3	Channel_3	Channel_3	0m	1		
4	Channel_4	Channel_4	0m	1		

Figure 2-4 Channel Management

2. View channel information, including channel name, channel description, fiber length, fiber calibration coefficient, and whether it is enabled.
3. Click the enable slider to enable/disable the channel based on the actual channel wiring situation.
4. Click to set channel parameters.
5. Set the channel parameters in the pop-up page.

Channel Name

Modify the channel name according to the actual situation.

Channel Description

Modify the channel description according to the actual situation.

Optical Fiber Calibration Coefficient

The coefficient of the fiber's outer shell and core. The default value is 1, and cannot be configured

6. Click **Save**.

2.3.2 Add a Partition

Different partitions can be added for each channel. Each partition represents a range of distances along the optical fiber, and different partitions can be distinguished by different ranges.

Steps

1. Click **Partition Management** to enter the interface.
2. Click **Add** on the right side of the page and set the parameters for a partition.

Figure 2-5 Add a Partition

Partition Name

Create a name for the partition.

Partition Description

Describe the channel according to the actual situation.

Partition Range

Set the length range of the optical fiber used for this partition (start point and end point).

For example, if you enter 0 m ~ 10 m, it means the optical fiber range for this partition is from 0 m to 10 m.

Link Relay

Select the relay that needs to be linked with this partition. After a partition alarm is triggered, the linked relay will respond. For example, if the partition is connected to a siren, the siren will sound after the alarm is triggered.

Alarm Settings

Constant Temperature Alarm

Click to enable this alarm.

Set **Max. Alarm Threshold** and **Min. Alarm Threshold**.

An alarm will be triggered when the temperature of the current partition exceeds the set value.

Temperature Rise/Drop Alarm

Click to enable this alarm.

Set **Alarm Rate Threshold**.

An alarm will be triggered when the temperature change rate of the current partition exceeds the set value.

Temperature Difference Alarm

Click to enable this alarm.

Set **Alarm Threshold** and **Reference Temperature Range**.

An alarm will be triggered when the difference between the highest temperature of the current partition and the average temperature of the reference partitions exceeds the set value.

Check **Copy to All Partitions of the Channel** to copy parameters for **Temperature Difference Alarm** to other partitions.

3. Click **Save**.

4. You can also perform other operations for the added partition.

Icon	Description
	Click  to edit the partition.
	Click  to delete the partition.
 Note Only the last partition can be deleted.	
	If a partition is disabled, you can click  to enable it. Or check multiple disabled partitions, click Enable at the top of the list to batch enable them.
	If you want to disable a partition, click  to disable it. Or check multiple enabled partitions, click Disable at the top of the list to batch disable them.
 Note After disabling, the fiber length involved in the partition will not be analyzed for data.	

3.4.3 Batch Add Partitions

If multiple partitions need to be added, and the fiber optic length of each partition is the same, partitions can be batch added. Different partitions can be added for each channel. Each partition represents a range of distances along the optical fiber, and different partitions can be distinguished by different ranges.

Steps

1. Click **Partition Management** to enter the interface.

2. Click **Batch Add** on the right side of the page and set the parameters.

Batch Add

Add Partition Start Point (m)

Single Partition Length (m)

Partition Interval Distance (m)

Total Number of Batch Add Partition

Alarm Settings

Constant Temperature Alarm

Enable ☒

Alarm Max.Threshold (°C) 85

Alarm Min.Threshold (°C) -50

Temperature Rise Alarm

Enable ☒

Alarm Rate Threshold (°C/min) 10

Temperature Drop Alarm

Enable ☒

Alarm Rate Threshold (°C/min) -10

Temperature Difference Alarm

Enable ☒

Alarm Threshold 50

Temperature Reference Range (r) 5 ~ 6

Linked Relay

OK Cancel

Figure 2-6 Batch Add Partitions

Add Partition Start Point

Set the starting length of all fibers involved in the partitions.

Single Partition Length

Set the length of batch added partitions, and each partition has the same length.

Partition Interval Distance

Set the distance between batch added partitions. The fiber optic length here refers to the loss length which is not used for data analysis.

Total Number of Batch Added Partition

Enter the total number of batch added partitions.

Alarm Settings

Constant Temperature Alarm

Click to enable this alarm.

Set **Max. Alarm Threshold** and **Min. Alarm Threshold**.

An alarm will be triggered when the temperature of the current partition exceeds the set value.

Temperature Rise/Drop Alarm

Click to enable this alarm.

Set **Alarm Rate Threshold**.

An alarm will be triggered when the temperature change rate of the current partition exceeds the set value.

Temperature Difference Alarm

Click to enable this alarm.

Set **Alarm Threshold** and **Reference Temperature Range**.

An alarm will be triggered when the difference between the highest temperature of the current partition and the average temperature of the reference partitions exceeds the set value.

Check **Copy to All Partitions of the Channel** to copy parameters for **Temperature Difference Alarm** to other partitions.

Link Relay

Select the relay that needs to be linked with this partition. After a partition alarm is triggered, the linked relay will respond. For example, if the partition is connected to a siren, the siren will sound after the alarm is triggered.

3. Click **OK**.

4. You can also perform other operations for the added partition.

Icon	Description
	Click  to edit the partition.
	Click  to delete the partition.
 Note	
Only the last partition can be deleted.	
	Or check multiple disabled partitions, click Enable at the top of the list to batch enable them.
	Or check multiple enabled partitions, click Disable at the top of the list to batch disable them.
 Note	
After disabling, the fiber length involved in the partition will not be analyzed for data.	

2.3.3 Import and Export Partition Data

You can export the partition data from one channel and import the data into other channels.

Steps

1. Click **Partition Management** to enter the interface.
2. Click **Export** to export the partition data of this channel to the local computer.
3. Edit relevant parameters according to the exported data.
4. Return to **Partition Management**, click **Import**.
5. Select the completed data.

2.4 Set Buzzer

After enabling the buzzer, the buzzer stays buzzing for tampering alarm.

Steps

1. Click **Device Management** to enter the interface.
2. Slide **Enable Buzzer** to enable/disable the buzzer.

After enabling the buzzer, the buzzer stays buzzing for tampering alarm.

Device Type	No.	Relay Name	Trigger Status	Belonged Module	Relay Status
Buzzer					
Relay	1	Relay1	Triggered	Local Relay	Remain Open
	2	Relay2	Not Triggered	Local Relay	Remain Open
	3	Relay3	Not Triggered	Local Relay	Remain Open
	4	Relay4	Not Triggered	Local Relay	Remain Open
	5	Relay5	Not Triggered	Local Relay	Remain Open
	6	Relay6	Not Triggered	Local Relay	Remain Open
	7	Relay7	Not Triggered	Local Relay	Remain Open
	8	Relay8	Not Triggered	Local Relay	Remain Open
	9	Relay9	Not Triggered	Local Relay	Remain Open
	10	Relay10	Not Triggered	Local Relay	Remain Open
	11	Relay11	Not Triggered	Local Relay	Remain Open
	12	Relay12	Not Triggered	Local Relay	Remain Open
	13	Relay13	Not Triggered	Local Relay	Remain Open
	14	Relay14	Not Triggered	Local Relay	Remain Open
	15	Relay15	Not Triggered	Local Relay	Remain Open
	16	Relay16	Not Triggered	Local Relay	Remain Open
	17	Relay17	Not Triggered	Local Relay	Remain Open
	18	Relay18	Not Triggered	Local Relay	Remain Open
	19	Relay19	Not Triggered	Local Relay	Remain Open
	20	Relay20	Not Triggered	Local Relay	Remain Open
	21	Relay21	Not Triggered	Local Relay	Remain Open
	22	Relay22	Not Triggered	Local Relay	Remain Open
	23	Relay23	Not Triggered	Local Relay	Remain Open
	24	Relay24	Not Triggered	Local Relay	Remain Open
	25	Relay25	Not Triggered	Local Relay	Remain Open
	26	Relay26	Not Triggered	Local Relay	Remain Open
	27	Relay27	Not Triggered	Local Relay	Remain Open

Figure 2-7 Set Buzzer

2.5 View Alarm Record

Click **Device Management** to enter the interface.

Start Time	Latest Alarm Time	Alarm Times	First Alarm Time	Alarm Type	Additional Alarm Information	Channel	Partition No	Partition Name	Alarm Location
2024-08-05 00:02:00	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:25.8°C;Temperature Drop0.1°C/min ↓	Channel_1	1	Partition_1	6.4m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:25.2°C;Temperature Drop0.1°C/min ↓	Channel_1	2	Partition_2	11.2m
2024-11-06 00:00:00	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:24.5°C;Temperature Drop0.1°C/min ↓	Channel_1	3	Partition_3	19.6m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:24.4°C;Temperature Drop0.2°C/min ↓	Channel_1	4	Partition_4	20.4m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:23.8°C;Temperature Drop0.0°C/min ↓	Channel_1	5	Partition_5	30m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:23.8°C;Temperature Drop0.1°C/min ↓	Channel_1	6	Partition_6	32.4m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:23.6°C;Temperature Drop0.0°C/min ↓	Channel_1	7	Partition_7	37.6m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:23.4°C;Temperature Drop0.2°C/min ↓	Channel_1	8	Partition_8	40.4m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:23.4°C;Temperature Drop0.2°C/min ↓	Channel_1	9	Partition_9	48.4m
	2024-11-05 16:56:32	1	2024-11-05 16:56:32	Temperature Drop	Temperature:23.0°C;Temperature Drop0.3°C/min ↓	Channel_1	10	Partition_10	50.4m
	2024-11-05 16:36:37	1	2024-11-05 16:36:37	Temperature Drop	Temperature:25.6°C;Temperature Drop0.0°C/min ↓	Channel_1	2	Partition_2	10.4m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:25.7°C;Temperature Drop0.1°C/min ↓	Channel_1	1	Partition_1	8m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:24.9°C;Temperature Drop0.1°C/min ↓	Channel_1	3	Partition_3	15.2m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:24.2°C;Temperature Drop0.0°C/min ↓	Channel_1	4	Partition_4	24m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:23.9°C;Temperature Drop0.0°C/min ↓	Channel_1	5	Partition_5	29.6m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:23.8°C;Temperature Drop0.0°C/min ↓	Channel_1	6	Partition_6	32.4m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:23.2°C;Temperature Drop0.0°C/min ↓	Channel_1	7	Partition_7	35.2m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:23.5°C;Temperature Drop0.2°C/min ↓	Channel_1	8	Partition_8	43.2m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:23.3°C;Temperature Drop0.0°C/min ↓	Channel_1	9	Partition_9	50m
	2024-11-05 16:36:32	1	2024-11-05 16:36:32	Temperature Drop	Temperature:23.1°C;Temperature Drop0.1°C/min ↓	Channel_1	10	Partition_10	50.4m
	2024-10-31 20:52:07	1	2024-10-31 20:52:07	Temperature Drop	Temperature:24.6°C;Temperature Drop0.1°C/min ↓	Channel_1	1	Partition_1	5.2m
	2024-10-31 20:52:07	1	2024-10-31 20:52:07	Temperature Drop	Temperature:23.8°C;Temperature Drop0.0°C/min ↓	Channel_1	2	Partition_2	10.8m
	2024-10-31 20:52:07	1	2024-10-31 20:52:07	Temperature Drop	Temperature:22.6°C;Temperature Drop0.2°C/min ↓	Channel_1	9	Partition_9	50m
	2024-10-31 20:52:02	1	2024-10-31 20:52:02	Temperature Drop	Temperature:23.6°C;Temperature Drop0.0°C/min ↓	Channel_1	3	Partition_3	15.6m
	2024-10-31 20:52:02	1	2024-10-31 20:52:02	Temperature Drop	Temperature:23.2°C;Temperature Drop0.1°C/min ↓	Channel_1	4	Partition_4	21.2m
	2024-10-31 20:52:02	1	2024-10-31 20:52:02	Temperature Drop	Temperature:22.9°C;Temperature Drop0.1°C/min ↓	Channel_1	5	Partition_5	29.6m
	2024-10-31 20:52:02	1	2024-10-31 20:52:02	Temperature Drop	Temperature:22.8°C;Temperature Drop0.0°C/min ↓	Channel_1	6	Partition_6	31.6m

Figure 2-8 Alarm Record

Set the filter conditions on the left, and click Search to search historical alarm records.

2.6 View Relay

Click **Device Management** → **Relay** to view the status of the relays linked with the device, etc.

2.7 Playback Temperature Curve

Temperature curves can be scheduled for, retrieved, and played back.

2.7.1 Set storage parameters

Set the channels for storing the temperature curves and the storage intervals.

Steps

1. Click **System Settings** → **Storage** to enter the interface.

Channel Name	Enable Storage	Storage Interval (s)
Channel_1	☐	5
Channel_2	☐	5
Channel_3	☐	5
Channel_4	☐	5

Figure 2-9 Storage

2. Set the storage interval for the channel.



Note

The system can store up to 10 G of content. After this limit is exceeded, the system will automatically overwrite the existing content.

3. Enable the channels that need to store temperature curves.
The enabled channels will store temperature curves according to the set storage interval.

What to do next:

You can search and playback the stored content. For more details, see [Search and Playback](#).

2.7.2 Search and Playback

Search the stored temperature curves and replay them.

Before You Start

Storage parameters are set. For specific configuration methods, see [Set Storage Parameters](#).

Steps

1. Click **Search and Playback** to enter the interface.

Start Time 2024-08-05 00:00:00	Time	File Name	File Size (bytes)	Fiber Channel	Operation
End Time 2024-11-06 00:00:00	2024-10-15 17:06:21	channel_4_20241015_170621_24832_10000Hz_data.bin	10032128	Channel_4	▶
Select Channel Channel_1	2024-10-15 16:39:05	channel_4_20241015_163905_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 16:30:17	channel_4_20241015_163017_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 16:21:29	channel_4_20241015_162129_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 16:12:40	channel_4_20241015_161240_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 16:03:52	channel_4_20241015_160352_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 15:55:03	channel_4_20241015_155503_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 15:46:15	channel_4_20241015_154615_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 15:37:27	channel_4_20241015_153727_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 15:28:38	channel_4_20241015_152838_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 15:19:50	channel_4_20241015_151950_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 15:11:02	channel_4_20241015_151102_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 15:02:13	channel_4_20241015_150213_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 14:53:25	channel_4_20241015_145325_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 14:44:36	channel_4_20241015_144436_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 14:35:48	channel_4_20241015_143548_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 14:27:00	channel_4_20241015_142700_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 14:18:11	channel_4_20241015_141811_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 14:09:23	channel_4_20241015_140923_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 14:00:35	channel_4_20241015_140035_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 13:51:46	channel_4_20241015_135146_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 13:42:58	channel_4_20241015_134258_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 13:34:10	channel_4_20241015_133410_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 13:25:21	channel_4_20241015_132521_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 13:16:33	channel_4_20241015_131633_24832_10000Hz_data.bin	10032128	Channel_4	▶
	2024-10-15 13:07:44	channel_4_20241015_130744_24832_10000Hz_data.bin	10032128	Channel_4	▶

Search Total: 824 Home Previous Page Next Page Last Page Go Current 1 Page Total 5 Page

Figure 2-10 Search and Playback

- Set the filter conditions on the left.
- Click **Search** to search the temperature curves.
- Click ▶ to play the temperature curves.

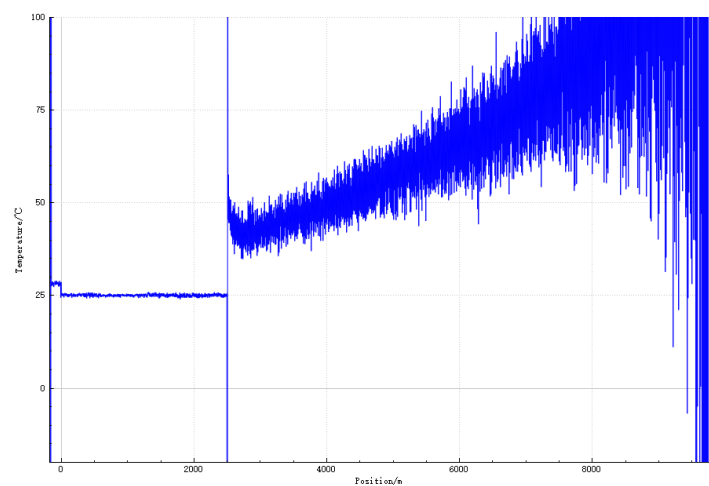


Figure 2-11 Playing Window

- Optional:** In the playing window, click ● / ● to pause/start playback. After pausing, you can set the playing rate.

2.8 Optical Fiber Monitoring Settings

2.8.1 Set Optical Fiber Acquisition Card Parameters

Set the frequency and method for the acquisition card to collect reflection information.

Steps

1. Click **System Settings** → **Optical Fiber Monitoring Settings** → **Acquisition Settings** to enter the interface.
2. Set parameters.

Sampling Rate

Check the sampling rate of the acquisition card.

Repetition Frequency

The frequency at which the acquisition card samples.

Sampling Method

Fixed Cumulative Times and **Fixed Total Time** are selectable.



Note

- The waiting time depends on the current total sampling time or total sampling times. If the current total sampling time is 5 s, the waiting time is between 0 to 5 s.
 - For 10 km device: setting the total sampling times to 50,000 is equivalent to setting the total sampling time to 5 s.
 - For 20 km device: setting the total sampling times to 150,000 is equivalent to setting the total sampling time to 30 s.
 - For 30 km device: setting the total sampling times to 180,000 is equivalent to setting the total sampling time to 60 s.
-

3. Click **Save**.

2.8.2 Set Optical Module

Steps



Note

Only administrators can set optical module parameters.

1. Click **System Settings** → **Optical Fiber Monitoring Settings** → **Optical Module Settings** to enter the interface.
2. Set parameters.

Pumping Circuit

The pulse intensity emitted by the optical module. The system automatically identifies this data based on the connected optical module, and it can be modified according to the actual situation.

Pulse Width

The pulse width emitted by the optical module. The system automatically identifies this data based on the

connected optical module, and it can be modified according to the actual situation.

3. Click **Save**.

2.9 Modbus Protocol Settings

When using Modbus protocol for communication, the device acts as a DTS slave device, responding to data requests from the master device. In the **TCP Parameter**, you can set the TCP port, and when the master device adds the DTS slave device, it selects the DTS IP and the set TCP port for addition. In the **RTU Parameter**, you can set **Baud Rate** and **slaveID**, and for serial device connections, the master device selects the same baud rate and identifies the DTS device through the slave ID.

2.10 Help

Click **Help** to view **Open Source Software Licenses**.

Chapter 3 Web Client Operation Instructions

3.1 Overview

You can view the computing power, CPU temperature, network status, photoelectric module status, device information, channel status, numbers of alarms, real-time temperature data and original data. You can also mute or clear the alarm message. Only certain models support the mute function; please refer to the actual device.

Log in to the device via Web browser and the overview interface is entered by default.

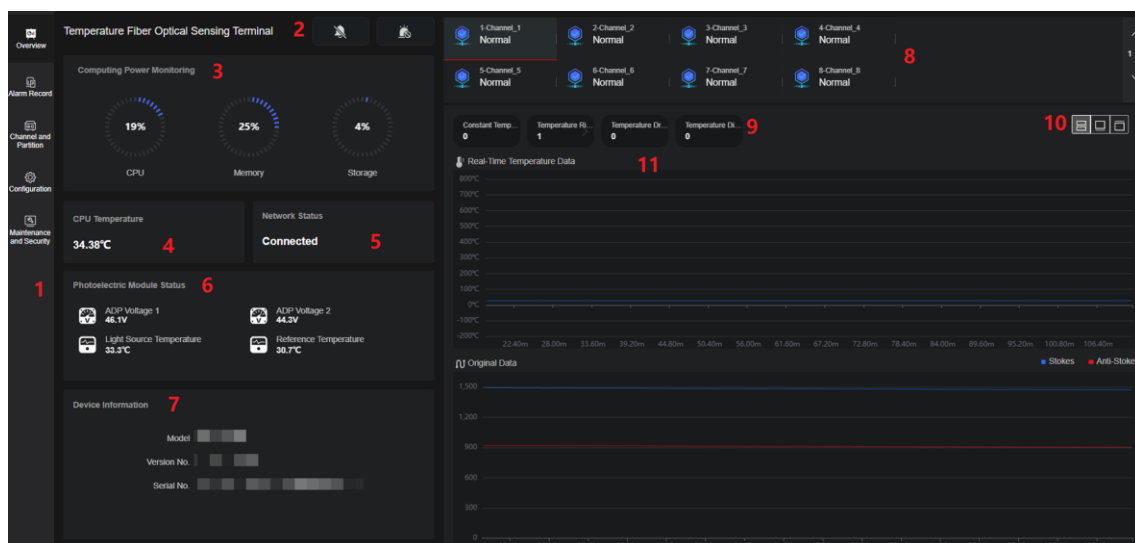


Figure 3-1 Overview

Table 3-1 Overview Interface Introduction

Serial No.	Introduction
1	Navigation Bar
2	Mute and Clear Alarm buttons. Click the corresponding button to mute or clear the alarm message. Mute function is only supported by certain models. Please refer to the actual device.  After the alarm is triggered, click the button to stop the buzzer. This operation does not clear the current alarm status.  After the alarm is triggered, click the button to stop the buzzer and clear the current alarm status. All partition statuses are restored to normal.

Serial No.	Introduction
	 Note Only certain models support the buzzer, please refer to the actual device. For devices that support the buzzer, ensure that it is enabled. Refer to <u>Set Buzzer</u>.
3	View computing power, which includes CPU, memory, and storage.
4	View CPU temperature.
5	View network status.
6	View photoelectric module status.
7	View device information, which includes model, version No. and Serial No.
8	View the enabled channels and their status. Select different channels to view the fiber break location of the current channel, the number of constant temperature/temperature rise/temperature drop/temperature difference alarms, real-time temperature curves, and original curves for the selected channel.  Note The interface displays all channels supported by the device.
9	View the number of constant temperature/temperature rise/temperature drop/temperature difference alarms for the selected channel. Click the data to jump to the alarm record interface to view the current alarm records.  Note Refer to <u>View Alarm Record</u> for details.
10/11	Constant Temperature Alarm An alarm is triggered when the temperature at any measurement point in the partition exceeds the set value. Temperature Rise/Drop Alarm An alarm is triggered when the rate of temperature change at any measurement point in the partition exceeds the set value. Temperature Difference Alarm An alarm is triggered when the difference between the temperature at any measurement point in the partition and the average temperature within the

Serial No.	Introduction
	detection range exceeds the set value.
	Analyze data and troubleshoot issues based on the real-time temperature data and the original data curve. When there is a temperature change, the curve fluctuates.  Simultaneously display the real-time temperature data and the original data (Stokes and Anti-Stokes) of the selected channel.  Display the real-time temperature data of the selected channel.  Display the original data (Stokes and Anti-Stokes) of the selected channel.

Open Source Software Statement

Click  → **Open Source Software Statement** in the top right corner of the page.

View Online Document

Click  → **View Online Document** in the top right corner of the page.

3.2 View Alarm Record

Click **Alarm Record** in the left list to enter the interface.

Start Time
2024/03/01 00:00:00

End Time
2024/10/25 23:59:59

Alarm Event Type*

Fiber Cut X
Constant Te... X
Temperature... X
Temperature... X
Temperature... X

Fiber Channel*

1 X 2 X 3 X 4 X

Partition Name
Enter

Temperature Range*

-200.0 °C ~ 800.0 °C

Alarm Time	Alarm Tl...	First Alarm Time	Alarm Event Type	Alarm information	Fiber Channel	Partition No.	Partition Name	Alarm Location	Backtracking
2024/10/16 16:28:22	1	2024/10/16 16:28:22	Fiber Cut Alarm	/	Channel_4	--	--	0m	
2024/10/16 11:53:58	1	2024/10/16 11:53:58	Temperature Rise Alarm	Alarm Temperature25.1°C, Temperature Rise Rate 0.2°C/min	Channel_4	1	1	6m	
2024/10/16 11:53:53	1	2024/10/16 11:53:53	Temperature Rise Alarm	Alarm Temperature24.7°C, Temperature Rise Rate 0°C/min	Channel_4	1	1	6m	
2024/10/16 11:52:44	1	2024/10/16 11:52:44	Temperature Rise Alarm	Alarm Temperature24.9°C, Temperature Rise Rate 0°C/min	Channel_4	1	1	5.6m	
2024/10/16 11:52:28	1	2024/10/16 11:52:28	Temperature Rise Alarm	Alarm Temperature25°C, Temperature Rise Rate 0.1°C/min	Channel_4	1	1	6m	
2024/10/15 18:27:57	1	2024/10/15 18:27:57	Temperature Rise Alarm	Alarm Temperature25°C, Temperature Rise Rate 0.1°C/min	Channel_4	1	1	6m	

Search

Total: 6 10 / Page

< 1 > 1 / 1Page Go

Figure 3-2 Alarm Record

Set the filter conditions on the left, and click **Search** to search historical alarm records. Select an alarm and click  on the right to backtrack alarm.

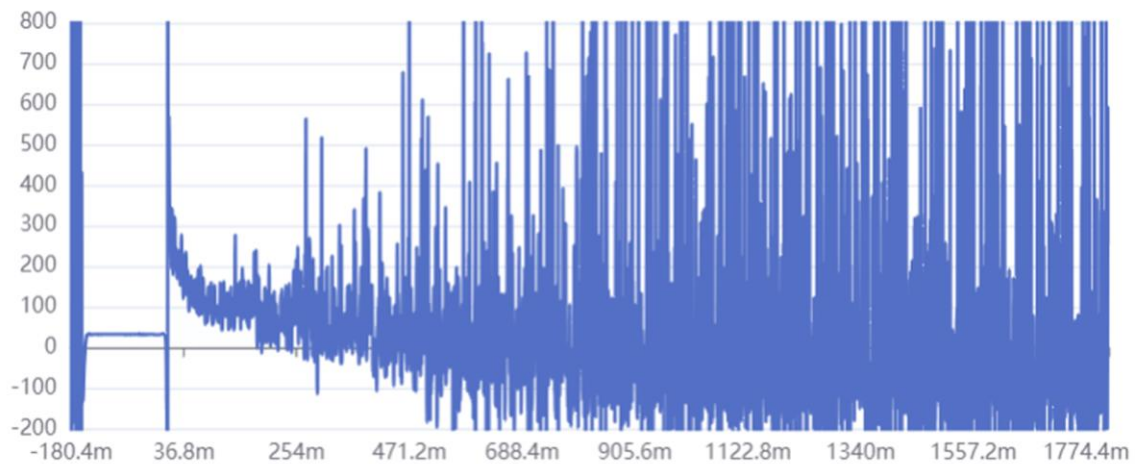


Figure 3-3 Backtracking

You can view the temperature curves of all points in the partition where the alarm is located.
Click **Download Picture** to download the temperature chart.

3.3 Channel and Partition

3.3.1 Set Channel Parameter

Enable/disable channels, edit channel names and descriptions according to the actual connection of channel interfaces.

Steps



- The system automatically displays different numbers of channels based on different devices.
 - It is recommended to purchase the accompanying optical fiber for this product.
-

1. Go to **Channel and Partition**.
2. Hover the mouse over the channel name you need to configure on the left side of the page, and click .

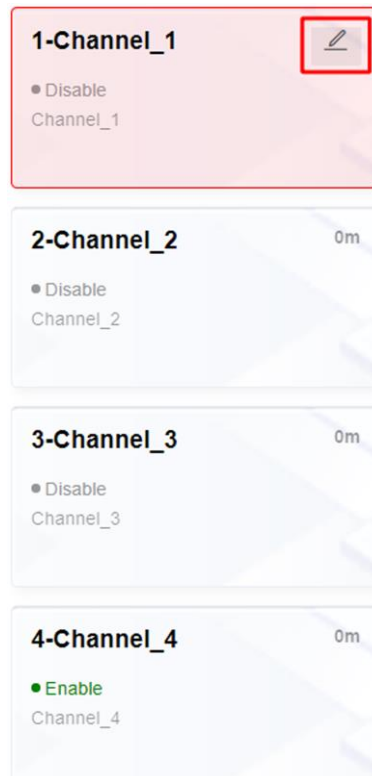


Figure 3-4 Channel

3. Set the channel parameters in the pop-up page.

Channel Name

Modify the channel name according to the actual situation.

Enable

Enable/disable this channel based on the actual wiring situation.

Channel Description

Modify the channel description according to the actual situation.

Fiber Length

View the length of the fiber connected to the channel interface.

Optical Fiber Calibration Coefficient

The coefficient of the fiber's outer shell and core. The default value is 1, and cannot be configured

4. Click **Save**.

3.3.2 Add a Partition

Different partitions can be added for each channel. Each partition represents a range of distances along the optical fiber, and different partitions can be distinguished by different ranges.

Steps

1. Go to **Channel and Partition**.
2. Click **Add** on the right side of the page and set the parameters for a partition.

*Partition Name

Partition Description

*Partition Range m ~ m

Link Relay ▼

Alarm Settings

① Constant Temperatu... ☐

① Temperature Rise Al... ☐

① Temperature Drop A... ☐

① Temperature Differe... ☐

Figure 3-5 Add a Partition

Partition Name

Create a name for the partition.

Partition Description

Describe the channel according to the actual situation.

Partition Range

Set the length range of the optical fiber used for this partition (start point and end point).

For example, if you enter 0 m ~ 10 m, it means the optical fiber range for this partition is from 0 m to 10 m.

Link Relay

Select the relay that needs to be linked with this partition. After a partition alarm is triggered, the linked relay will respond. For example, if the partition is connected to a siren, the siren will sound after the alarm is triggered.

Alarm Settings

Constant Temperature Alarm

Click to enable this alarm.

Set **Max. Alarm Threshold** and **Min. Alarm Threshold**.

An alarm will be triggered when the temperature of the current partition exceeds the set value.

Temperature Rise/Drop Alarm

Click to enable this alarm.

Set **Alarm Rate Threshold**.

An alarm will be triggered when the temperature change rate of the current partition exceeds the set

value.

Temperature Difference Alarm

Click to enable this alarm.

Set **Alarm Threshold** and **Reference Temperature Range**.

An alarm will be triggered when the difference between the highest temperature of the current partition and the average temperature of the reference partitions exceeds the set value.

Check **Copy to All Partitions of the Channel** to copy parameters for **Temperature Difference Alarm** to other partitions.

3. Click **Save**.

4. You can also perform other operations for the added partition.

Icon

Description



Click  to edit the partition.



Click  to delete the partition.



Note

Only the last partition can be deleted.



If a partition is disabled, you can click  to enable it.

Or check multiple disabled partitions, click **Enable** at the top of the list to batch enable them.



If you want to disable a partition, click  to disable it.

Or check multiple enabled partitions, click **Disable** at the top of the list to batch disable them.



Note

After disabling, the fiber length involved in the partition will not be analyzed for data.

Refresh

Click **Refresh** to refresh the status.

Search

Select a status in the drop-down box in the upper right corner of the page, enter the partition name, and click  to search the partition.

3.3.3 Batch Add Partitions

If multiple partitions need to be added, and the fiber optic length of each partition is the same, partitions can be batch added. Different partitions can be added for each channel. Each partition represents a range of distances along the optical fiber, and different partitions can be distinguished by different ranges.

Steps

1. Go to **Channel and Partition**.

2. Click **Batch Add** on the right side of the page and set the parameters.

Starting Point of Batch ... * m

* Length of Single Partition m
The length of batch added partitions can be set, and each partition has the same length.

* Partition Distance m
The distance between batch added partitions can be set.

Total number of batch added partitions ^
v

Link Relay v

Alarm Settings

☐ Constant Temperature Alarm

☐ Temperature Rise Alarm

☐ Temperature Drop Alarm

☐ Temperature Difference Alarm

Figure 3-6 Batch Add Partitions

Starting Point of Batch Adding Partitions

Set the starting length of all fibers involved in the partitions.

Length of Single Partition

Set the length of batch added partitions, and each partition has the same length.

Partition Distance

Set the distance between batch added partitions. The fiber optic length here refers to the loss length which is not used for data analysis.

Total Number of Batch Added Partitions

Enter the total number of batch added partitions. (Optional)

Link Relay

Select the relay that needs to be linked with this partition. After a partition alarm is triggered, the linked relay will respond. For example, if the partition is connected to a siren, the siren will sound after the alarm is triggered.

Alarm Settings

Constant Temperature Alarm

Click to enable this alarm.

Set **Max. Alarm Threshold** and **Min. Alarm Threshold**.

An alarm will be triggered when the temperature of the current partition exceeds the set value.

Temperature Rise/Drop Alarm

Click to enable this alarm.

Set **Alarm Rate Threshold**.

An alarm will be triggered when the temperature change rate of the current partition exceeds the set value.

Temperature Difference Alarm

Click to enable this alarm.

Set **Alarm Threshold** and **Reference Temperature Range**.

An alarm will be triggered when the difference between the highest temperature of the current partition and the average temperature of the reference partitions exceeds the set value.

Check **Copy to All Partitions of the Channel** to copy parameters for **Temperature Difference Alarm** to other partitions.

3. Click **Save**.

4. You can also perform other operations for the added partition.

Icon	Description
	Click  to edit the partition.
	Click  to delete the partition.
 Note Only the last partition can be deleted.	
	 Or check multiple disabled partitions, click Enable at the top of the list to batch enable them.
	 Or check multiple enabled partitions, click Disable at the top of the list to batch disable them.
 Note After disabling, the fiber length involved in the partition will not be analyzed for data.	
Refresh	Click Refresh to refresh the status.
Search	Select a status in the drop-down box in the upper right corner of the page, enter the partition name, and click  to search the partition.

3.3.4 Batch Import Partition Data

If the partition data to be added for multiple channels is similar, you can export the partition data from one channel and import the data into other channels.

Steps

1. Go to **Channel and Partition**.
2. Click **Import** on the right side of the page and set the parameters.
3. Optional: Click **Download Template**, and enter relevant parameters according to template.
4. Return to **Channel and Partition**, click **Import** → . Select the completed template, click **Import**.

3.3.5 Export Partition Data

You can export the partition data from one channel and import the data into other channels.

Steps

1. Go to **Channel and Partition**.
2. Click **Export** to export the partition data of this channel to the local computer.

What to do next

After editing, import it into other channels.

3.4 Configuration

3.4.1 System Settings

View Device Information

You can view device information, such as Model, Serial No. and Firmware Version.

Enter **Configuration** → **System** → **System Settings** → **Basic Information** to view the device information. You can set **Device Name**.

Time and Date

You can configure time and date of the device by configuring time zone, time synchronization and Daylight Saving Time (DST).

Synchronize Time Manually

Steps

1. Go to **Configuration** → **System** → **System Settings** → **Time Settings**.
 2. Select **Time Zone**.
 3. Click **Manual**.
 4. Choose one time synchronization method.
 - Select **Set Time**, and manually input or select date and time from the pop-up calendar.
- Click **Sync. with computer time** to synchronize the time of the device with that of the local PC.

5. Click **Save**.

Set NTP Server

You can use NTP server when accurate and reliable time source is required.

Before You Start

Set up a NTP server or obtain NTP server information.

Steps

1. Go to **Configuration** → **System** → **System Settings** → **Time Settings**.
2. Select **Time Zone**.
3. Click **NTP**.
4. Set **Server IP Address**, **NTP Port** and **Interval**.
5. Click **Save**.

Set DST

If the region where the device is located adopts Daylight Saving Time (DST), you can set this function.

Steps

1. Go to **Configuration** → **System** → **System Settings** → **Time Settings**.
2. Check **Enable**.
3. Select **Start Time**, **End Time** and **DST Bias**.
4. Click **Save**.

Set Buzzer

After enabling the buzzer, the buzzer stays buzzing for tampering alarm.

Steps

1. Go to **Configuration** → **System** → **System Settings** → **Buzzer**.
2. Slide **Enable Buzzer** to enable/disable the buzzer.
After enabling the buzzer, the buzzer stays buzzing for tampering alarm.

Set User Account and Permission

The administrator can add, modify, or delete other accounts, and grant different permission to different user levels.



Note

To increase security of using the device on the network, please change the password of your account regularly. Changing the password every 3 months is recommended. If the device is used in high-risk environment, it is recommended that the password should be changed every month or week.

Steps

1. Go to **Configuration** → **System** → **User Management** → **User Management**.
2. Click **Add**. Enter **User Name**, select **User Role**, and enter **Password**. Assign remote permission to users based on needs.

Administrator

The administrator has the authority to all operations and can add users and operators and assign permission.

Installer

Users can be assigned permission of setting parameters.

Operator

Operators can be assigned all permission except for operations on the administrator and creating accounts.

Modify Select a user and click  to change the password and permission.

Delete Select a user and click .



The administrator can add up to 16 operator accounts.

3. Click **OK**.

Online Users

The information of users logging into the device is shown.

Go to **Configuration** → **System** → **User Management** → **Online Users** to view the list of online users.

3.4.2 Network Settings

TCP/IP

TCP/IP settings must be properly configured before you operate the device over network.

Go to **Configuration** → **Network** → **Network Settings** → **TCP/IP** for parameter settings.

NIC Type

Select a NIC (Network Interface Card) type according to your network condition.

IPv4

Two IPv4 modes are available.

DHCP

The device automatically gets the IPv4 parameters from the network if you check **DHCP**. The device IP address is changed after enabling the function. You can use SADP to get the device IP address.



The network that the device is connected to should support DHCP (Dynamic Host Configuration Protocol).

Manual

You can set the device IPv4 parameters manually. Input **IPv4 Address**, **IPv4 Subnet Mask**, and **IPv4 Default**

Gateway, and click **Test** to see if the IP address is available.

DNS

It stands for domain name server. It is required if you need to visit the device with domain name. And it is also required for some applications (e.g., sending email). Set **Preferred DNS Server** and **Alternate DNS server** properly if needed.

Network Service Settings

Go to **Configuration** → **Network** → **User Management** → **Network Service**.

HTTP Port

It refers to the port through which the browser accesses the device. For example, when the **HTTP Port** is modified to 81, you need to enter **http://192.168.1.64:81** in the browser for login.

websocket Port

TCP-based full-duplex communication protocol port for plug-in free preview.

Modbus

When using Modbus protocol for communication, the device acts as a DTS slave device, responding to data requests from the master device. In the **TCP Parameter**, you can set the TCP port, and when the master device adds the DTS slave device, it selects the DTS IP and the set TCP port for addition. In the **RTU Parameter**, you can set **Baud Rate** and **slaveID**, and for serial device connections, the master device selects the same baud rate and identifies the DTS device through the slave ID.

Set OTAP

The device can be accessed to the maintenance platform via OTAP protocol, in order to search and acquire device information, upload device status and alarm information, reboot and update the device.

Steps

1. Go to **Configuration** → **Network** → **Device Access** → **OTAP** to enable the function.
2. Set related parameters.
3. Click **Test** to check if the device connects to server.
4. Click **Save**.

Register Status turns to **Online** when the function is correctly set.

3.4.3 Optical Fiber Monitoring Settings

Set Optical Fiber Collection

Set the frequency and method for the acquisition card to collect reflection information.

Steps

1. Go to **Configuration** → **Optical Fiber Monitoring Setting** → **Optical Fiber Collection Configuration**.
2. Set parameters.

Sampling Rate

Check the sampling rate of the acquisition card.

Repetition Frequency

The frequency at which the acquisition card samples.

Sampling Method

Fixed Cumulative Times and **Fixed Total Time** are selectable.



Note

- The waiting time depends on the current total sampling time or total sampling times. If the current total sampling time is 5 s, the waiting time is between 0 to 5 s.
 - For 10 km device: setting the total sampling times to 50,000 is equivalent to setting the total sampling time to 5 s.
 - For 20 km device: setting the total sampling times to 150,000 is equivalent to setting the total sampling time to 30 s.
 - For 30 km device: setting the total sampling times to 180,000 is equivalent to setting the total sampling time to 60 s.
-

3. Click **Save**.

Set Optical Module

Steps



Note

Only administrators can set optical module parameters.

1. Go to **Configuration** → **Optical Fiber Monitoring Setting** → **Optical Module Configuration**.
2. Set parameters.

Pumping Current

The pulse intensity emitted by the optical module. The system automatically identifies this data based on the connected optical module, and it can be modified according to the actual situation.

Pulse Width

The pulse width emitted by the optical module. The system automatically identifies this data based on the connected optical module, and it can be modified according to the actual situation.

3. Click **Save**.

3.4.4 View Local Relay

Go to **Configuration** → **Device Management** → **Local Relay** to view the status of the relays linked with the

device, etc.

3.5 System Maintenance

3.5.1 Restart

You can restart the device via browser.

Go to **Maintenance and Security** → **Maintenance** → **Restart**, and click **Restart**.

3.5.2 Upgrade

Before You Start

You need to obtain the correct upgrade package.



Caution

DO NOT disconnect power during the process, and the device reboots automatically after upgrade.

Steps

1. Go to **Maintenance and Security** → **Maintenance** → **Upgrade**.
2. Choose **Upgrade Module**.
3. Click  to select the upgrade file.
4. Click **Upgrade**.

3.5.3 Import and Export Configuration File

It helps speed up batch configuration on other devices with the same parameters.

Steps

1. Export configuration file.
 - 1) Go to **Maintenance and Security** → **Maintenance** → **Backup and Reset**.
 - 2) Click **Export** and input the encryption password to export the current configuration file.
 - 3) Set the saving path to save the configuration file in local computer.
2. Import configuration file.
 - 1) Access the device that needs to be configured via web browser.
 - 2) Go to **Maintenance and Security** → **Maintenance** → **Backup and Reset**.
 - 3) Click  to select the saved configuration file.
 - 4) Click **Import**.

3.5.4 Default

Default helps restore the device parameters to the default settings.

Steps

1. Go to **Maintenance and Security** → **Maintenance** → **Backup and Reset**.
2. Click **Restore** or **Restore All** according to your needs.

Restore All data except network parameters and user accounts will be cleared.

Restore All All functions and parameters will be restored to factory settings.



Note

Be careful when using this function. After resetting to the factory default, all the parameters are reset to the default settings.

3.5.5 Search and Manage Log

Log helps locate and troubleshoot problems.

Steps

1. Go to **Maintenance and Security** → **Maintenance** → **Log**.
2. Set search conditions **Major Type**, **Minor Type**, **Start Time**, and **End Time**.
3. Click **Search**.
The matched log files will be displayed on the log list.
4. Optional: Click **Export** to save the log files in your computer.

3.5.6 Security Audit Log

The security audit logs refer to the security operation logs. You can search and analyze the security log files of the device so as to find out the illegal intrusion and troubleshoot the security events.

Security audit logs can be saved on device internal storage. The log will be saved every half hour after device booting. Due to limited storage space, you can also save the logs on a log server.

Set Log Server

The log server should support syslog (RFC 3164) over TLS.

Steps

1. Go to **Maintenance and Security** → **System Maintenance** → **Security Audit Log**.
2. Check **Enable Log Upload Server**.
3. Input **Log Server IP** and **Log Server Port**.
4. Click **Save**.

3.5.7 Device Debugging

You can set device debugging parameters.

Steps

1. Click **Maintenance and Security** → **System Maintenance** → **Device Debugging**.
2. You can set the following parameters.

SSH

To raise network security, disable SSH service. The configuration is only used to debug the device for the professionals.



See Far, Go Further