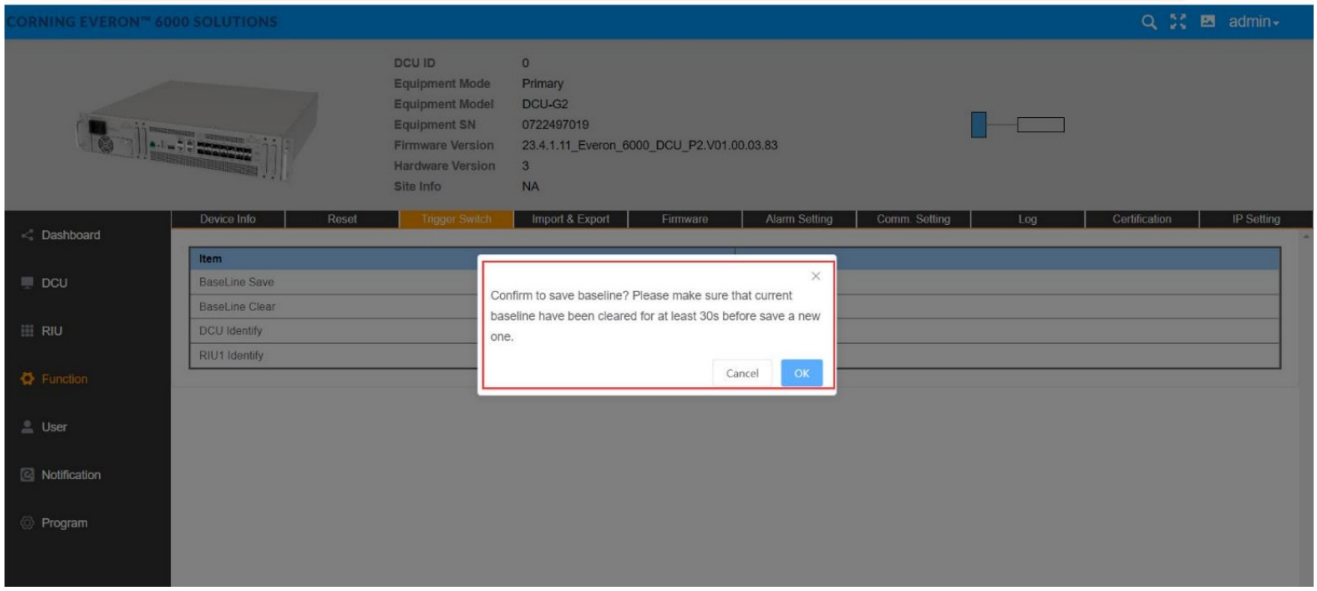
CORNING DHRU-G2-7 HRU Digital High Power Amplifier Module User Guide

CORNING DHRU-G2-7 HRU Digital High Power Amplifier Module

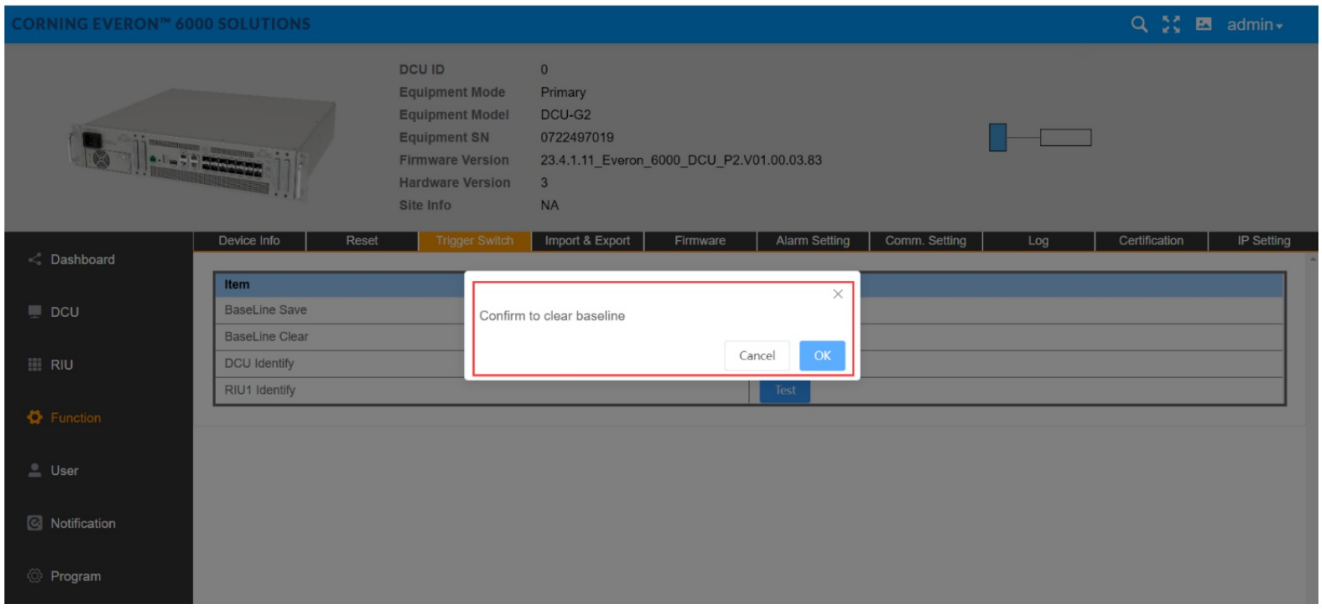
Contents

Function

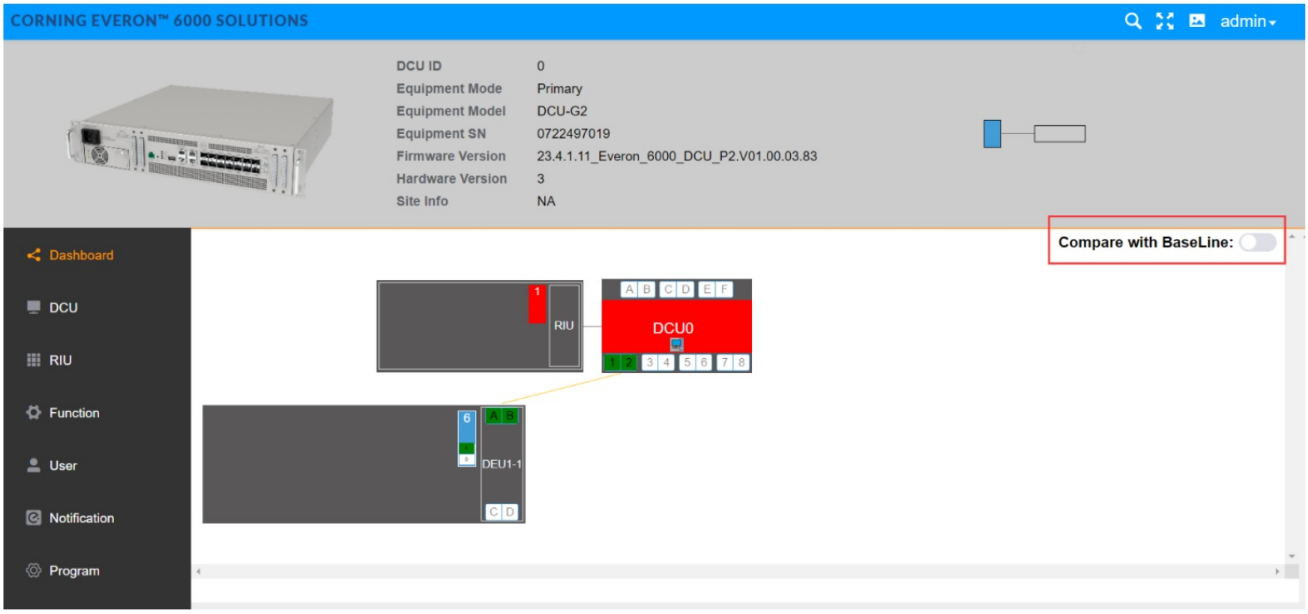
- **Figure 126. DCU—Function—Trigger Switch–Baseline Save Confirmation**



- **Figure 127. DCU—Function—Trigger Switch–Baseline Clear Confirmation**



- **Figure 128. DCU–Dashboard– Compare with Baseline**

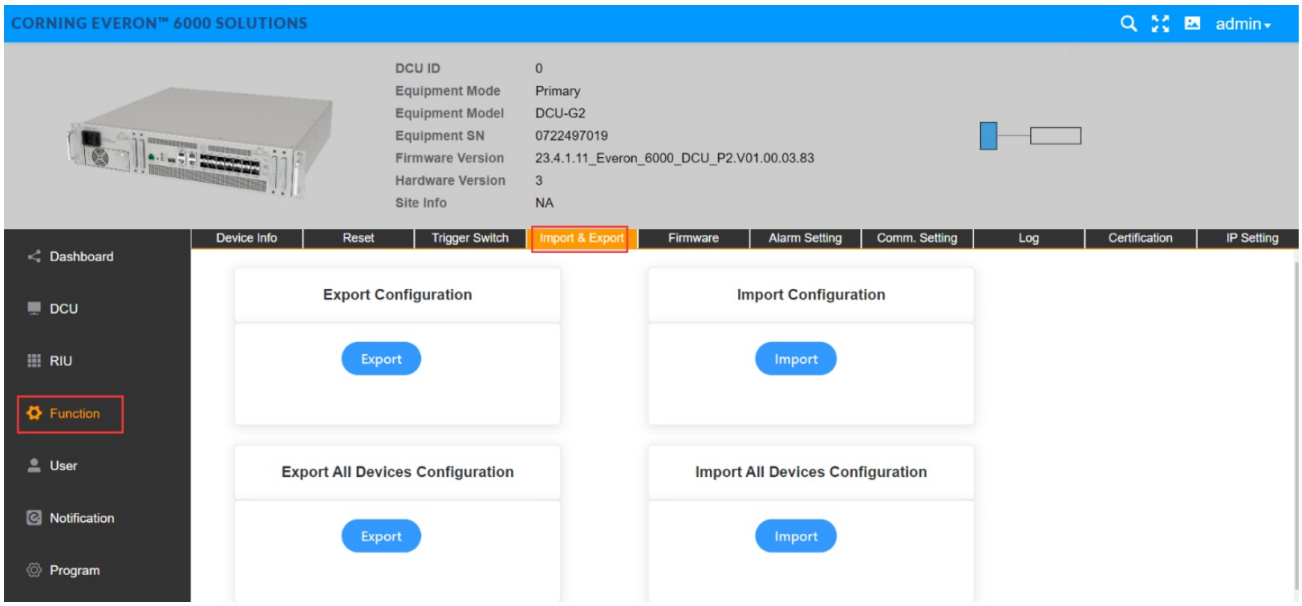


Instruction For Use

Import &Export

The user can import and export DCU configuration by clicking Function Import & Export, as shown in the following figure.

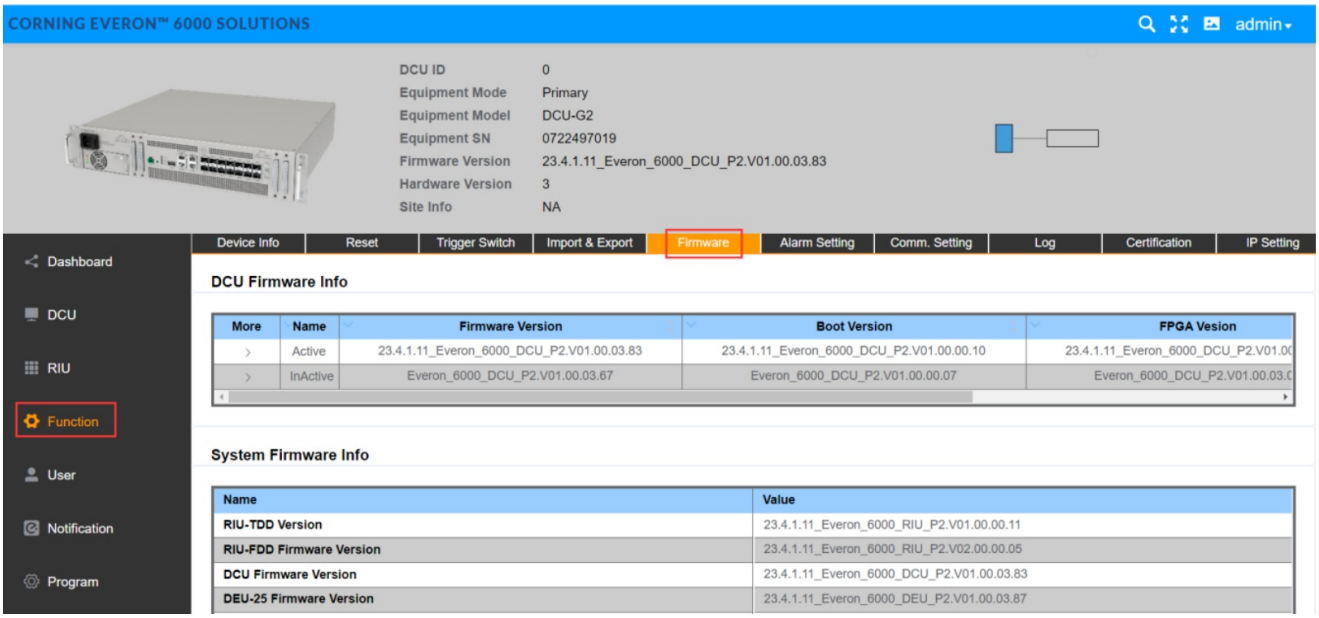
- **Figure 129 DCU Function Import & Export**



Firmware

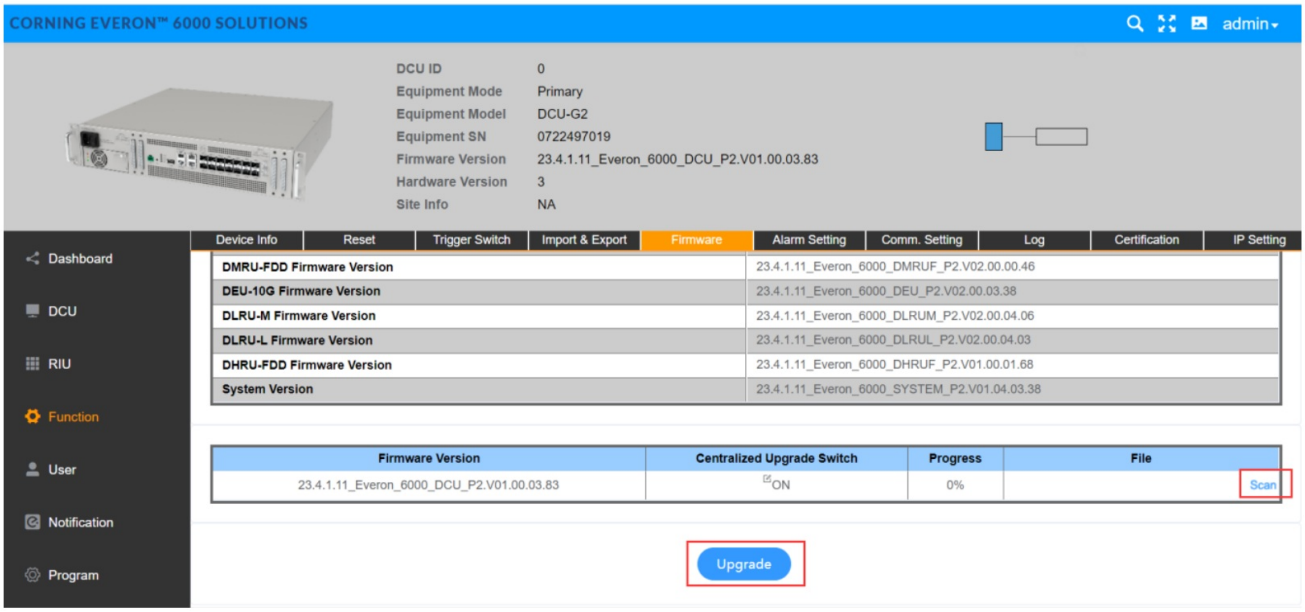
Click Function Firmware and the firmware info can be viewed and upgraded.

- **Figure 130.DCU Function Firmware**



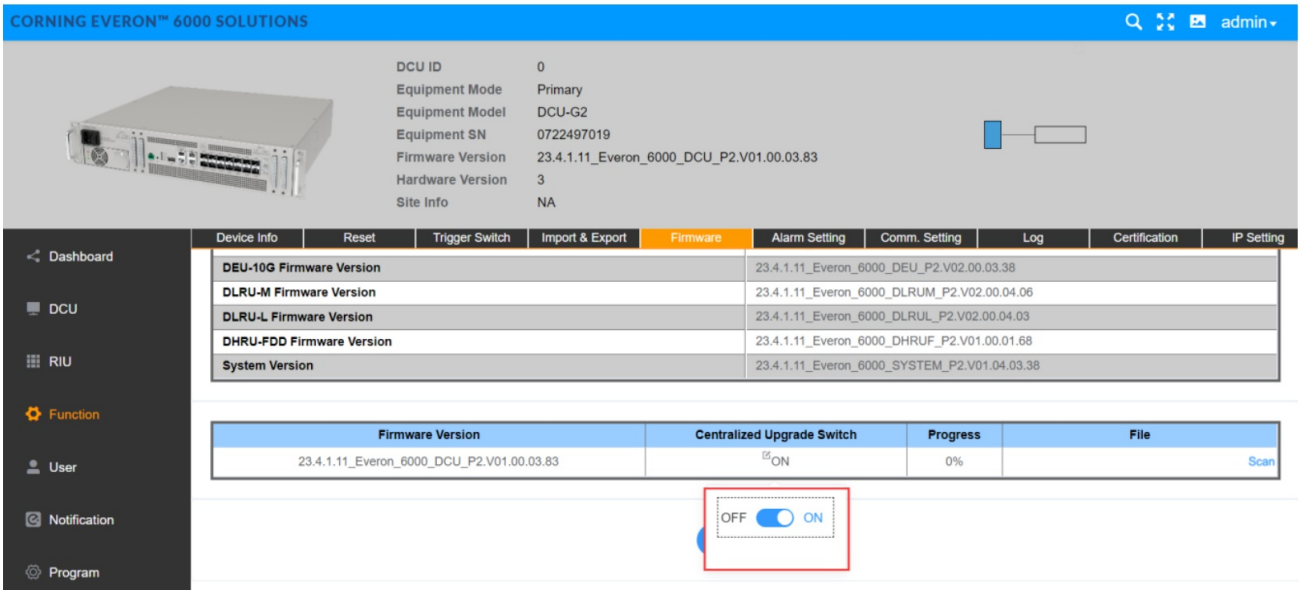
Two upgrade modes are supported by 5G digital DAS products of D430 series of the system software of all **NE**: centralized upgrade and decentralized upgrade. The settings of the two modes can be configured in Control Switch.

- **Figure 131. Firmware Upgrade Configuration**



1. Decentralized upgrade: the Control Switch is OFF and only the software of the current DCU unit can be upgraded in this mode. The steps to upgrade the software are the followings:
   Step 1: Click SCAN to import the software version to be upgraded.
   Step 2: Click Upgrade. When the progress of downloading the software to the device is 100% and FINISH is prompted, the software is successfully downloaded.
   Step 3: After the device is reset, the software will be upgraded automatically.
2. Centralize upgrade: the Control Switch is ON. The system software of seven NE (RIU, DCU, DEU, dLRU-2.5, dLRU-3.5, dMRU-2.5, dMRU-3.5) in the 5G digital DAS products will be stored after they are imported into the internal storage by the users. All the slave NE (slave DCU, DEU, dLRU) connected to this seven NE will automatically take the system software to be upgraded independently.

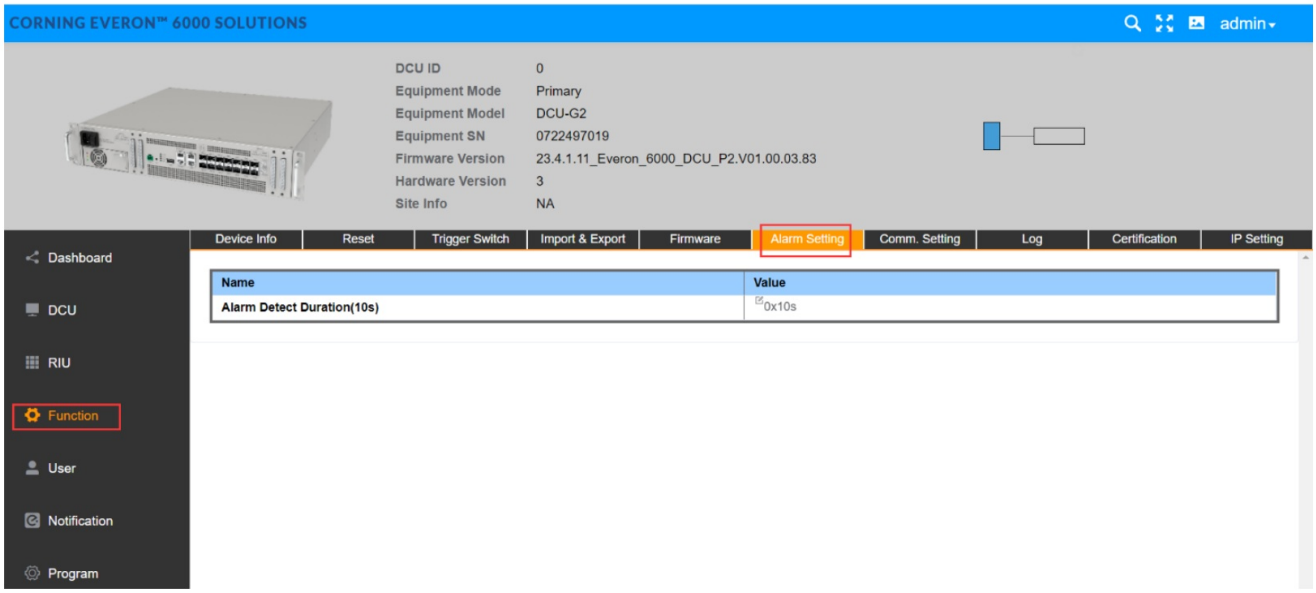
Figure 132. System Upgrade ON/OFF



Alarm Setting

Through Function Alarm Setting, setting the alarm duration can be achieved. When it is set to 1~253, it shows alarm duration, with the unit of 10s. Setting to 254 indicates an immediate level alarm; Set to 0 and the alarm will not occur until 3 minutes later.

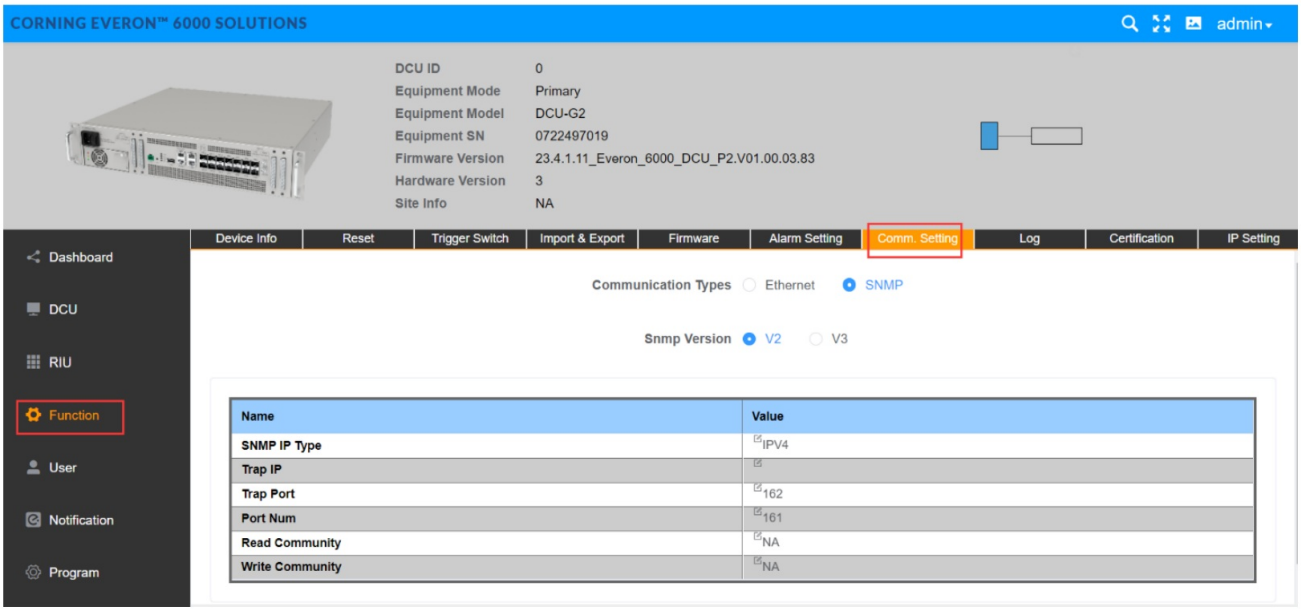
- **Figure 133. DCU Function Alarm Setting Alarm Detect Duration**



Comm. Setting

Click Function–Comm. Setting to set the network management communication types.

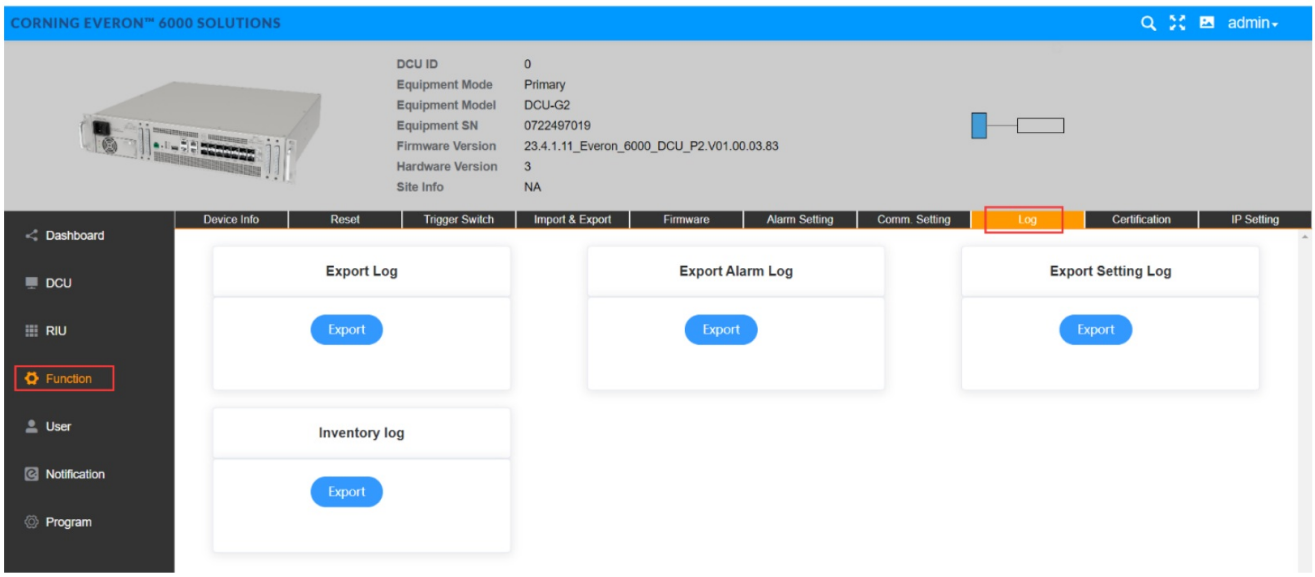
- Figure 134. DCU Function Comm. Setting



Log

Click Function–Log to export the log of DCU for problem analysis.

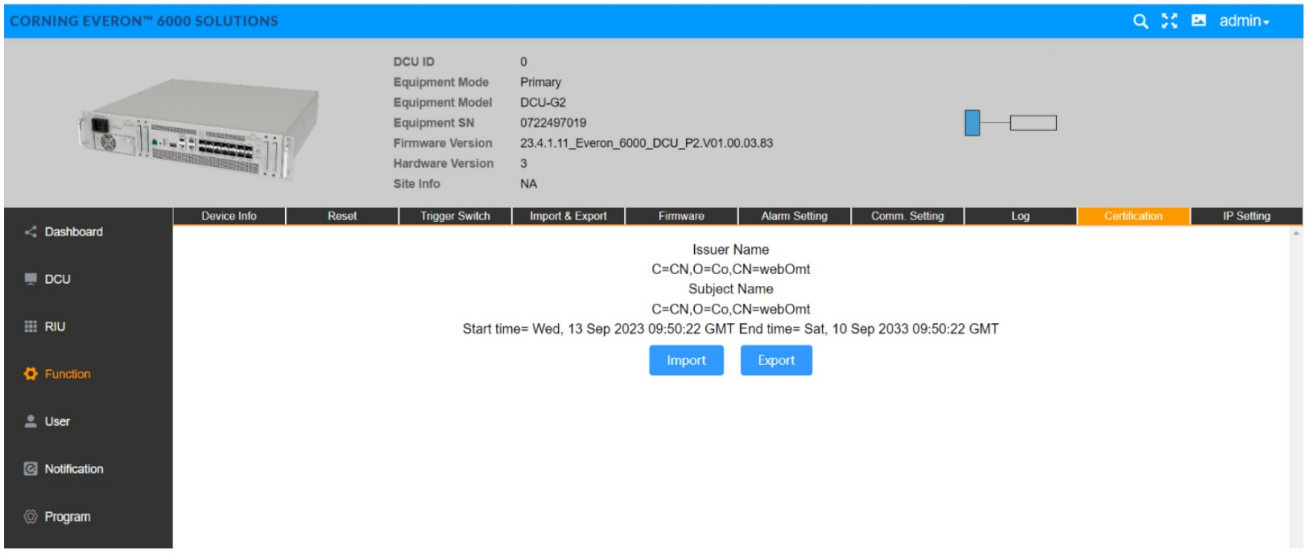
- **Figure 135.DCU—Function– Log**



Certification

Click Certification to view issuer name, subject name, start time and end time of DCU.

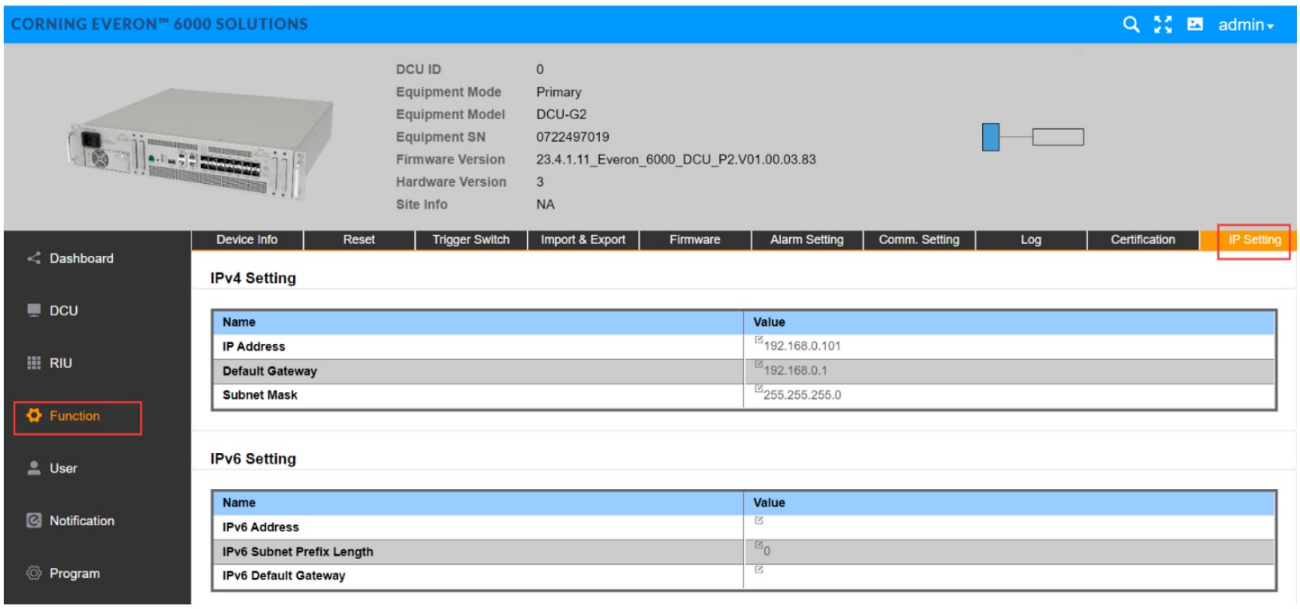
- **Figure 136.DCU—Function—Certification**



IP Setting

Click Function–IP Setting to set DCU IP for OMC communication.

- **Figure 137.DCU Function– IP Setting**

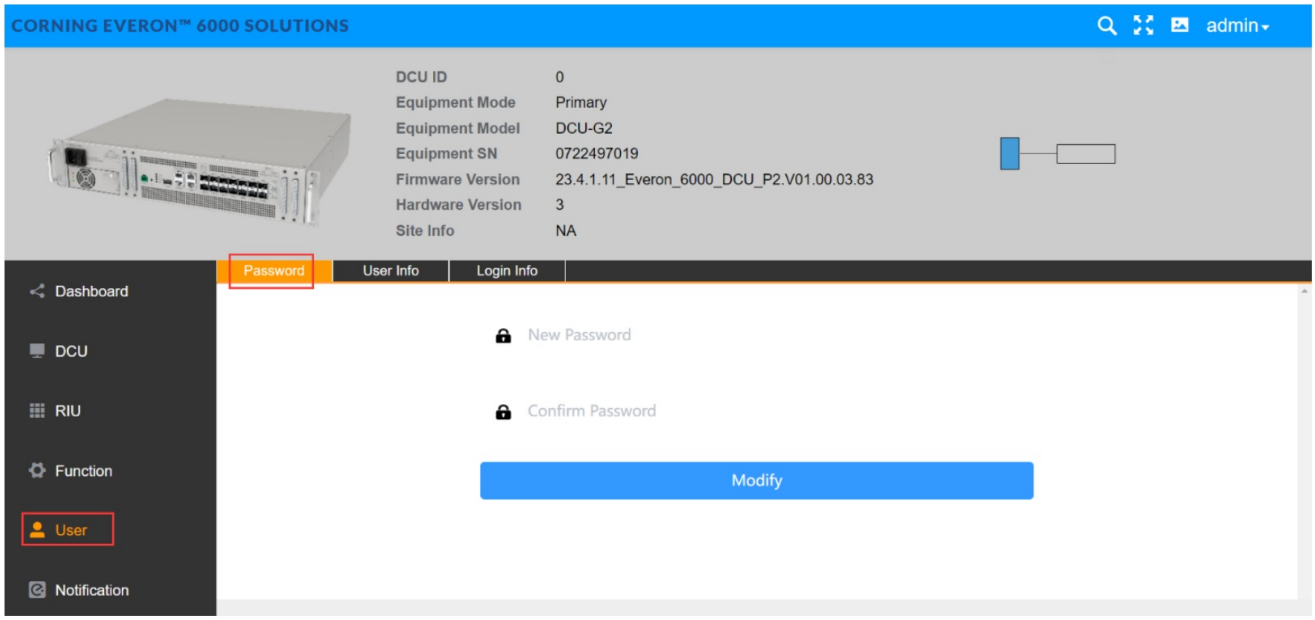


DCU -> User Info

Password

Click User->Password to reset the DCU password which should include capital and lower-case letters and 12 digits in length.

- **Figure 138. DCU User Password**



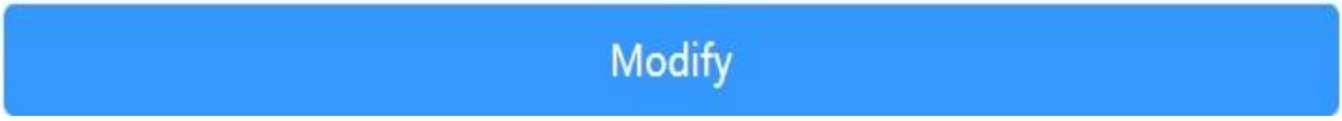
The rules for setting passwords are as follows:

1. Default account and password at the first access: account/password= admin/admin
2. Need to change the password after the first access
3. Password restriction:
    - The minimum user password length is 12 characters.
    - At least three combinations of numbers, uppercase, lowercase and special symbols

      It has been shown in the Web GUI if we enter into the password setup/modify page as follow

The minimum user password Lengel is 12 characters_

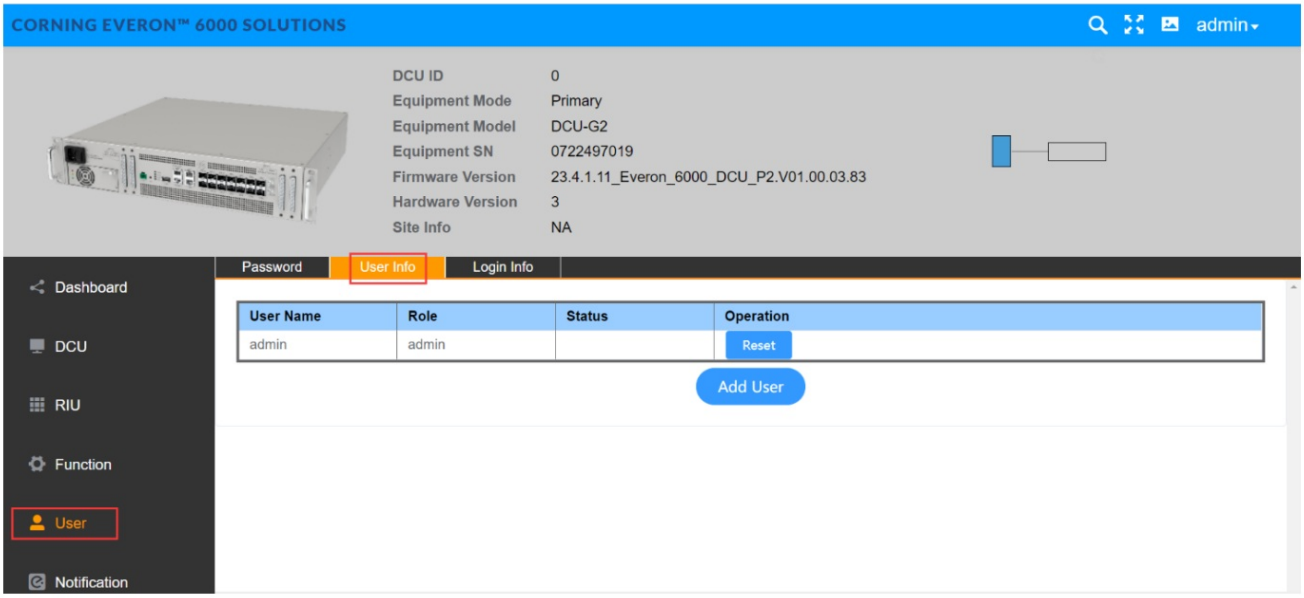
At least three combinations of numbers, uppercase, lowercase and special symbols



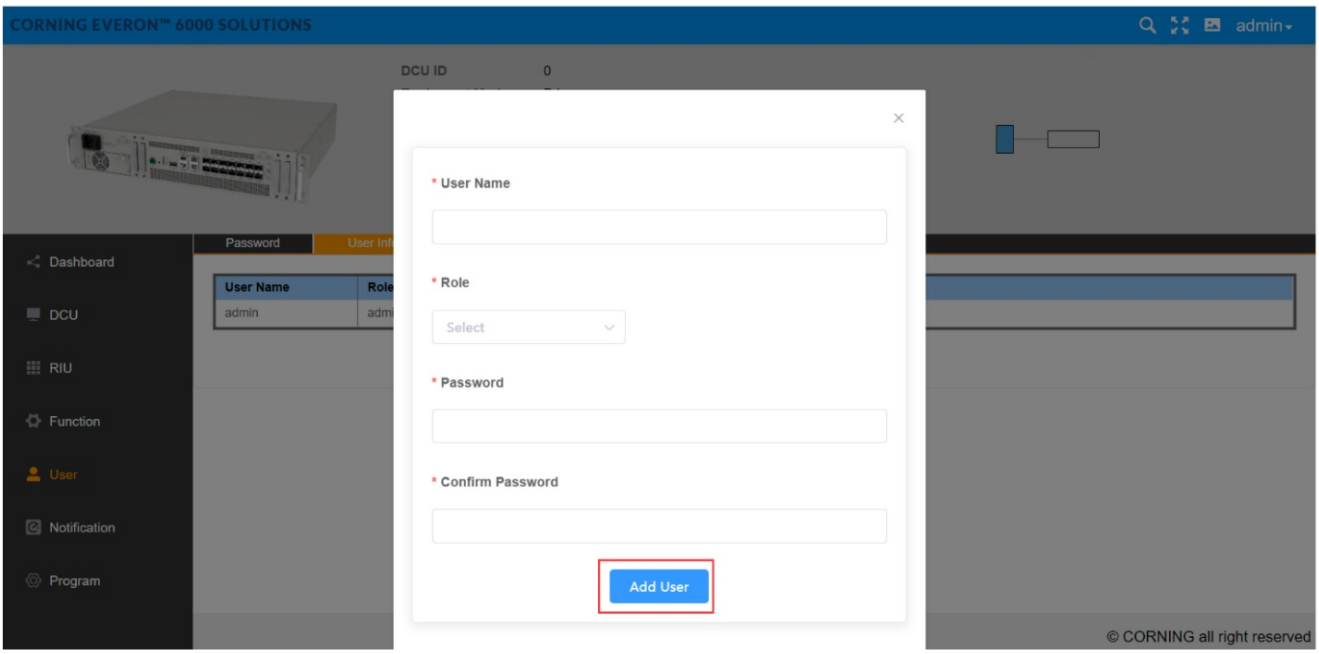
User Info

Click User->User Info to add a user and set the role and password.

- **Figure 139.DCU User User Info**



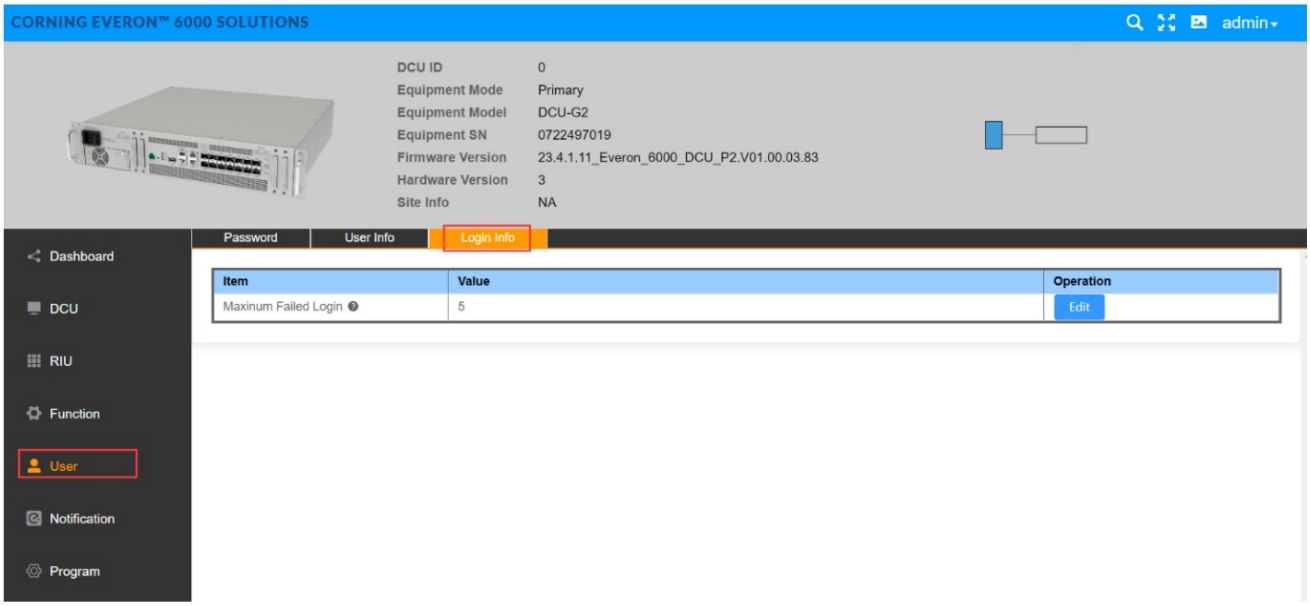
- **Figure 140.DCU User User Info Add User**



Login Info

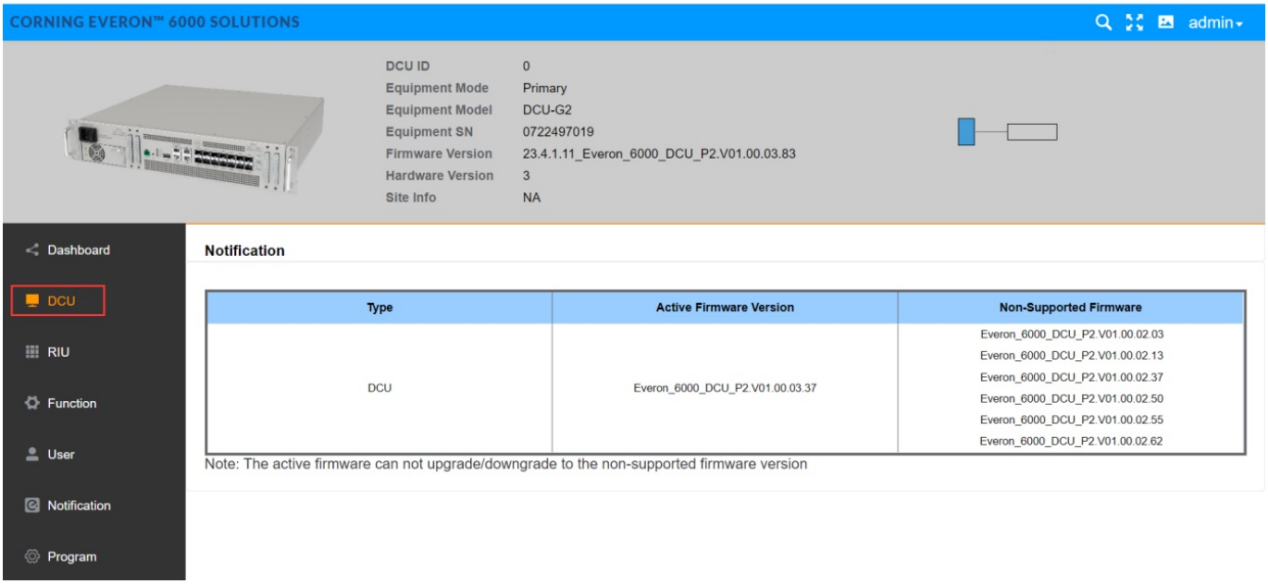
Click User->Login Info to set the max value of password input attempts. This function indicates that when a user logs in, the system will be locked if the times of password input exceeds the maximum.

- **Figure 141. DCU User Login Info**



Notification

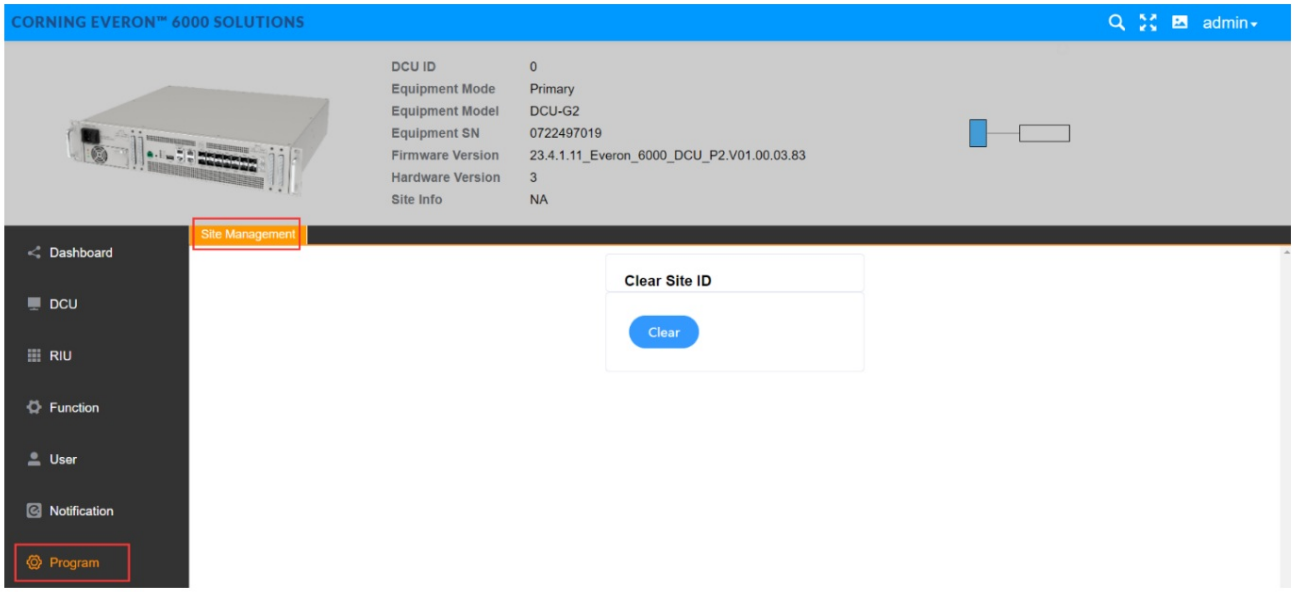
- **Figure 142. Notification**



Program

The DCU ID is automatically obtained and cannot be set. The default value is 0. It is updated only when the internal DCU network is connected.
Click Program Site Management to clear the site ID of the DCU.

- **Figure 143. DCU Program Site Management**


CORNING EVERON™ 6000 SOLUTIONS
admin
DCU ID 0
Equipment Mode Primary
Equipment Model DCU-G2
Equipment SN 0722497019
Firmware Version 23.4.1.11_Everon_6000_DCU_P2.V01.00.03.83
Hardware Version 3
Site Info NA
Dashboard
DCU
RIU
Function
User
Notification
Program
Site Management
Clear Site ID
Clear

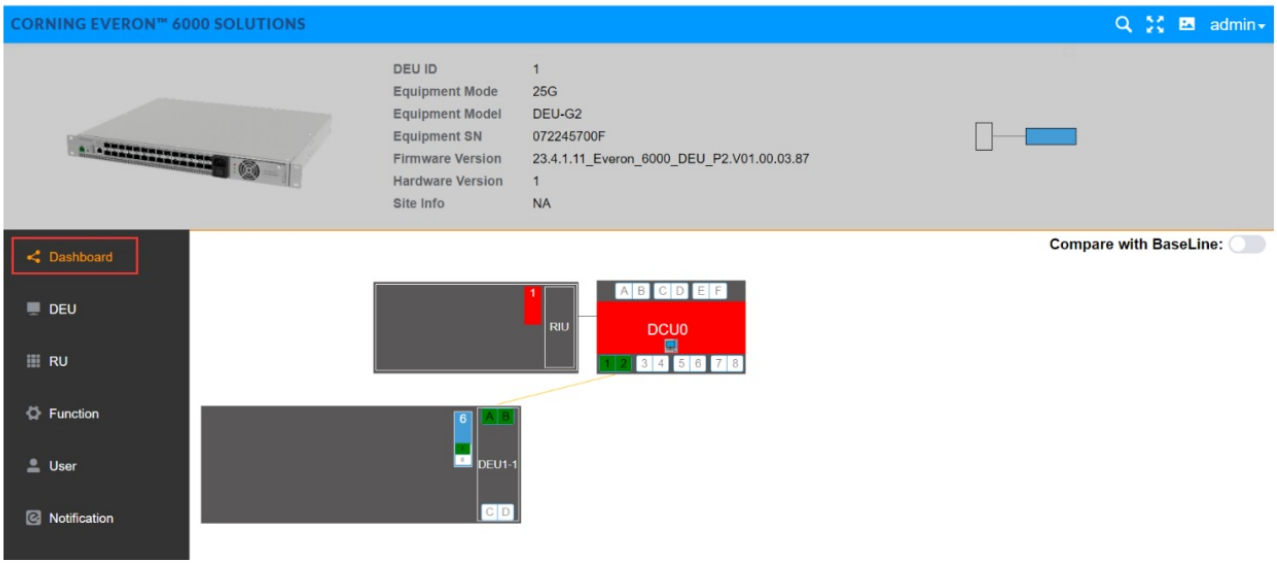
DEU Config

SN	DEU Parameters		Ranges	Default Values
1	Temperature THR		0~125℃	80℃
2	Power Temperature THR		0~125℃	80℃
3	Optical Module Temperature THR		0~125℃	80℃
4	RU Temperature THR		0~125℃	80℃
5	Equipment mode		25G/10G	
6	Alarm Detect Duration		0-255S	0-10S
7	Switch		ON/OFF	ON
8	Technology		3G/4G/5G	3G
9	UL Center Freq. (MHz)		(2496-2690), (3450-3700), (3700-3980), (817-849), (663-698), (2305-2315), (698-798), (1850-1915), (1695-1780)	
10	DL Center Freq. (MHz)		(2496-2690), (3450-3700), (3700-3980), (862-894), (617-652), (2350-2360), (728-768), (1930-2020), (2110-2200)	
11	BW		N/A/5MHz/10MHz/15MHz/20MHz/30MHz/40MHz/50MHz/60MHz/70MHz/80MHz/90MHz/100MHz/150MHz/200MHz	
12	Operator		ATT/VZW/TMB/OTHER	
13	Power Sharing =OFF	UL ATTN	-9~20 dB	0 dB
		DL ATTN	0~20 dB	0 dB
	Power Sharing = ON	DL ATTN	calculated by Power sharing	0 dB
14	UL Delay		0~4000000 us	0.0 us
15	DL Delay		0~4000000 us	0.0 us

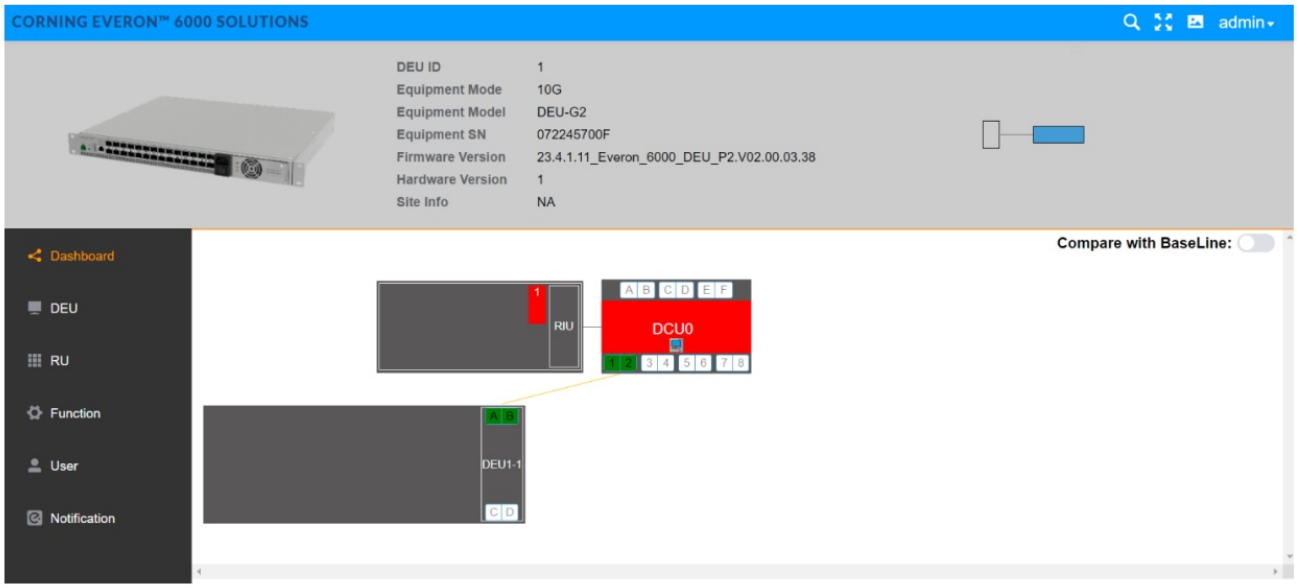
DEU -> Dashboard

Click the Dashboard navigation button to enter the dashboard page, where you can query the full topology of all the dependent NE connected to the DEU unit. And the info query and configuration management page of other NE can be switched to after clicking NE ID in the topology.

- **Figure 144. DEU25G Dashboard**

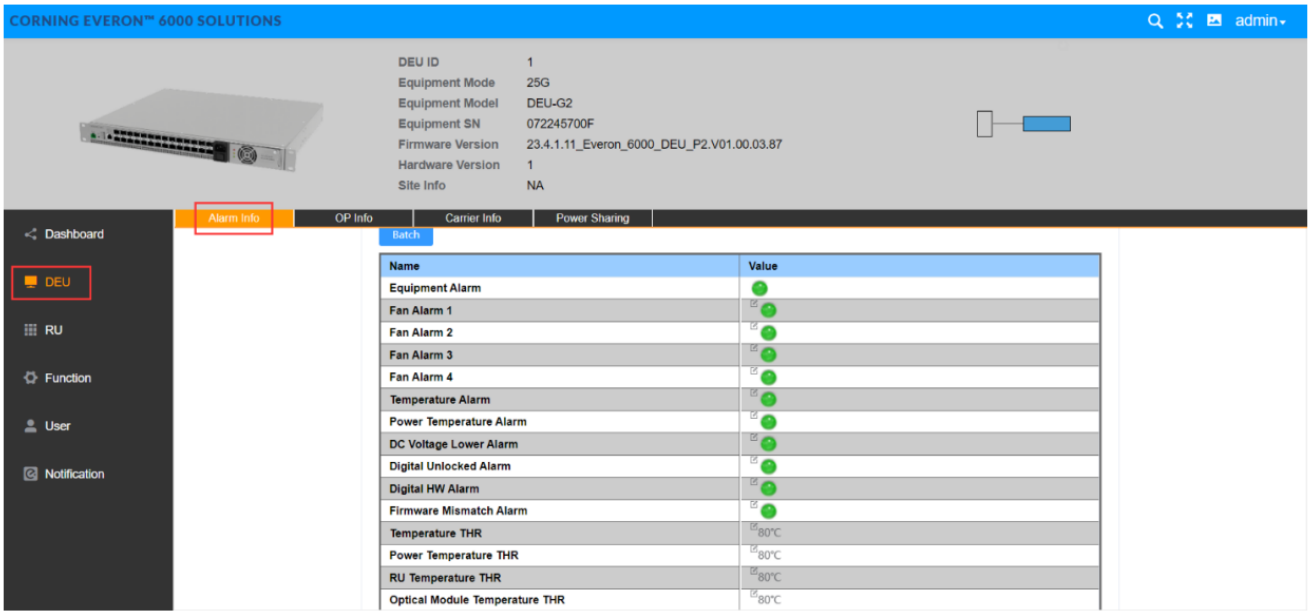


- **Figure 145.DEU10G Dashboard**

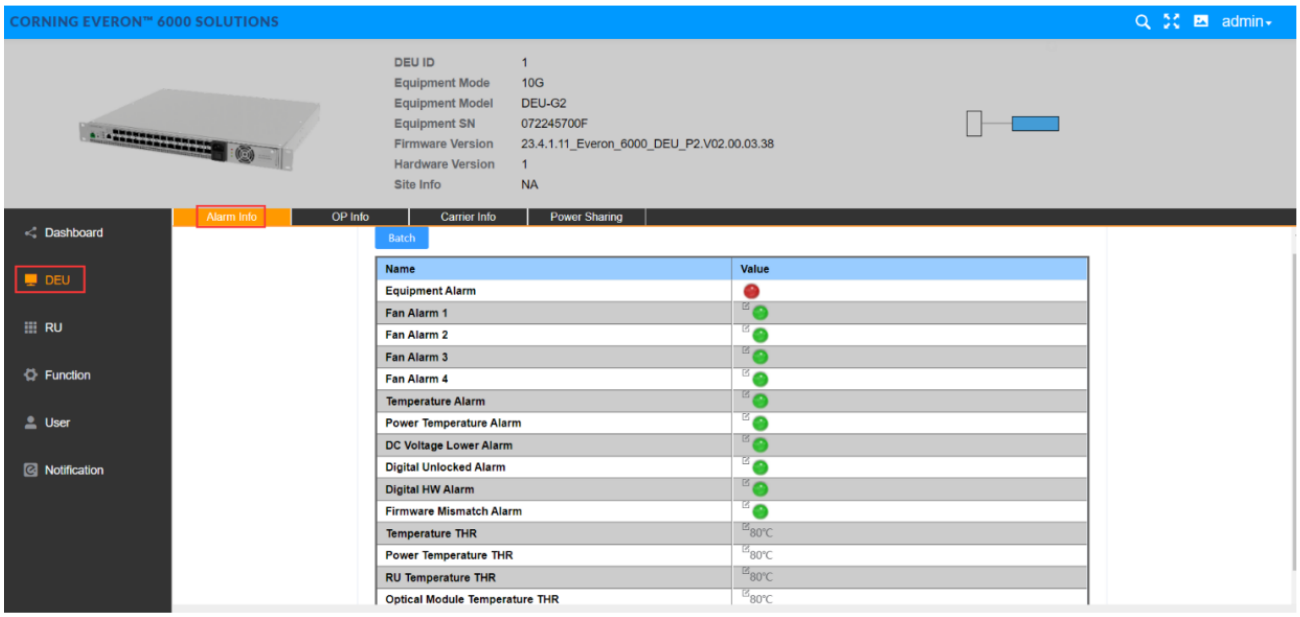


Alarm Info

- **Figure 146. DEU25G Alarm Info**



- **Figure 147.DEU 10 G Alarm Info**



Alarms can be set and viewed in this function which are defined as follows:

1. Equipment Alarm: Take effect if any alarm is valid.
2. Fan Alarm 1~4: Take effect if any fan (4 in total) in the module is abnormal.
3. Temperature Alarm: Take effect if the device temperature is higher than the device over temperature THR (80°C by default).
4. Power Temperature Alarm 1~2: Take effect if the temperature of any PSE is higher than the device over temperature THR (80°C by default).
5. DC Voltage Alarm: The alarm will occur if the input power<37V
6. Digital Unlocked Alarm: Take effect if the device is unlocked.
7. Firmware Mismatch Alarm: The module version does not match the system version.
8. Temperature THR: Alarm will be generated if the device temperature exceeds this value.
9. Power Temperature THR: Alarm will be generated if the power module temperature exceeds this value.
10. RU Temperature THR: Alarm will be generated if RU temperature exceeds it.
11. Optical Module Temperature THR: Generate alarm if the optical module temperature this value.

To set alarm info parameters

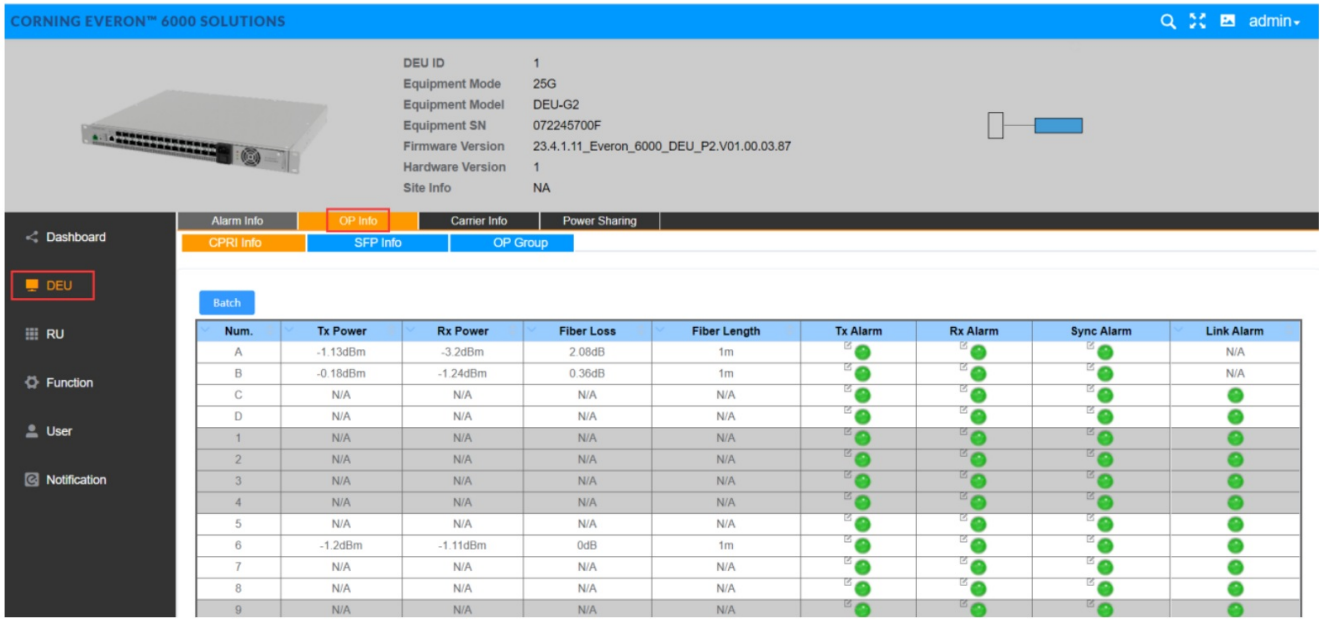
1. Click DCU—Alarm Info to enter the configuration page.
2. For alarms, click the edit button  and Disable and Enable button can be seen. Select Enable and the green icon will be displayed  .
3. For Temperature THR, Power Temperature THR, Optical Module Temperature THR, System Delay THR, click  to enter the values within the range according to the form above.
4. Click Finish  to complete the configuration.

OP Info

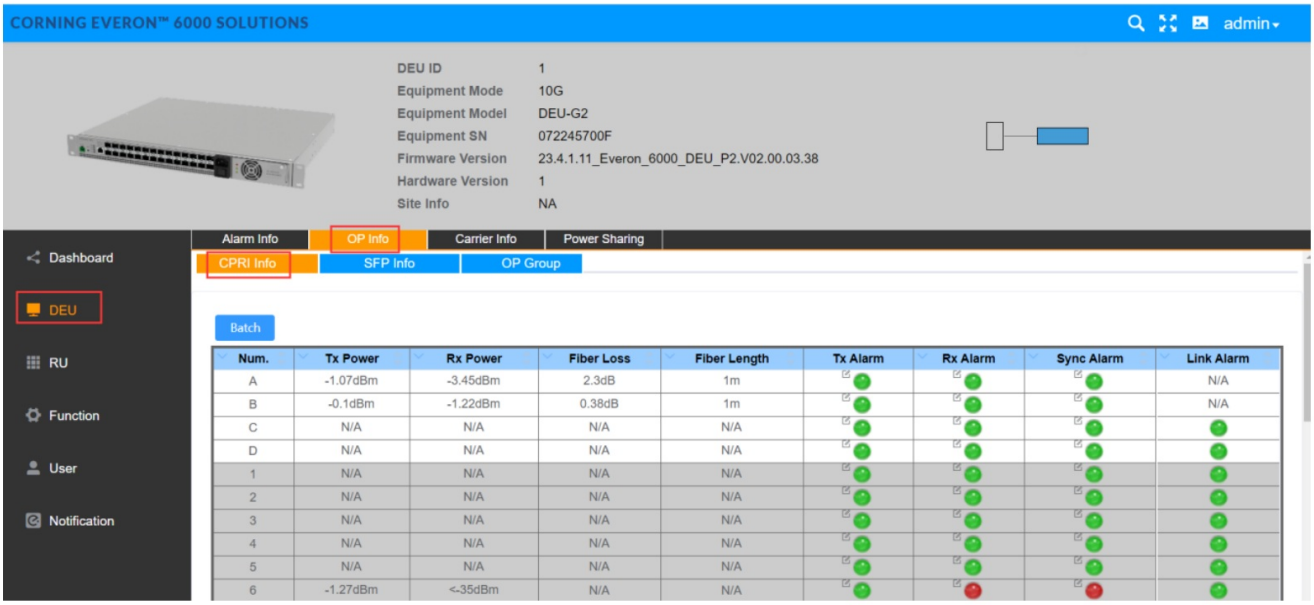
CPRI Info

The range of optical module transmitting power (Tx PWR) is -3dBm~5dBm; The range of Rx PWR shall be greater than -10dBm. The maximum operating temperature must be lower than 80 ° C and the optical module must be correctly matched. Otherwise, an exception may occur. Alarms can be queried on this interface.

- **Figure 148.DEU 25 G OP Info CPRI Info**

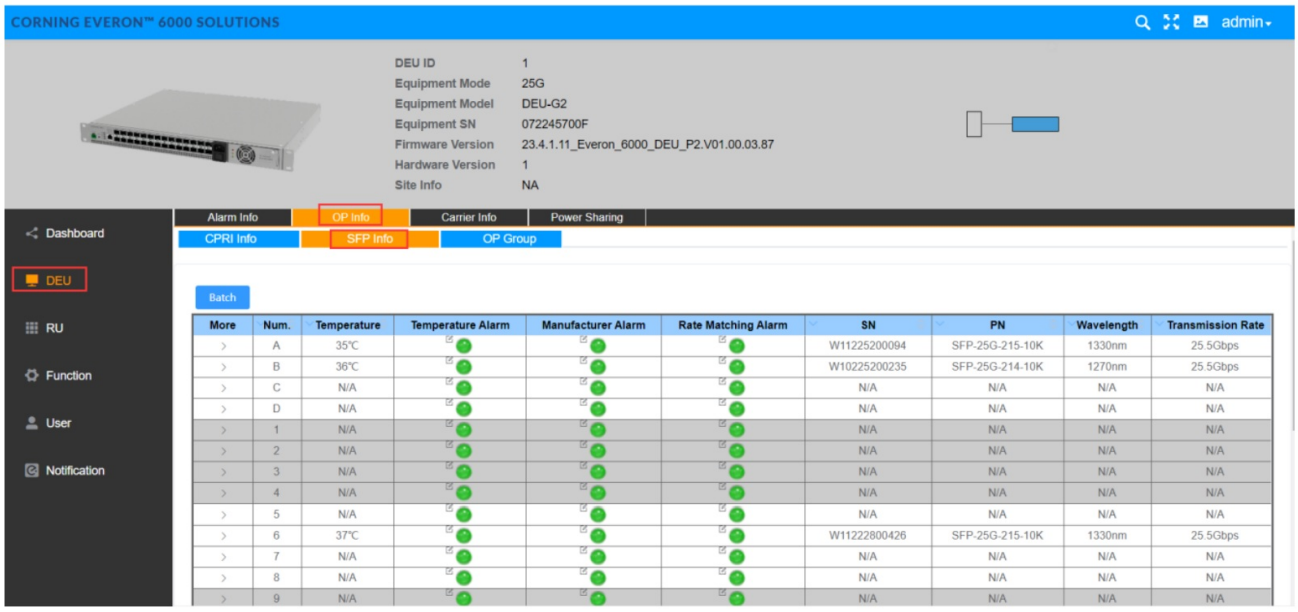


- **Figure 149.DEU 10 G OP Info CPRI Info**

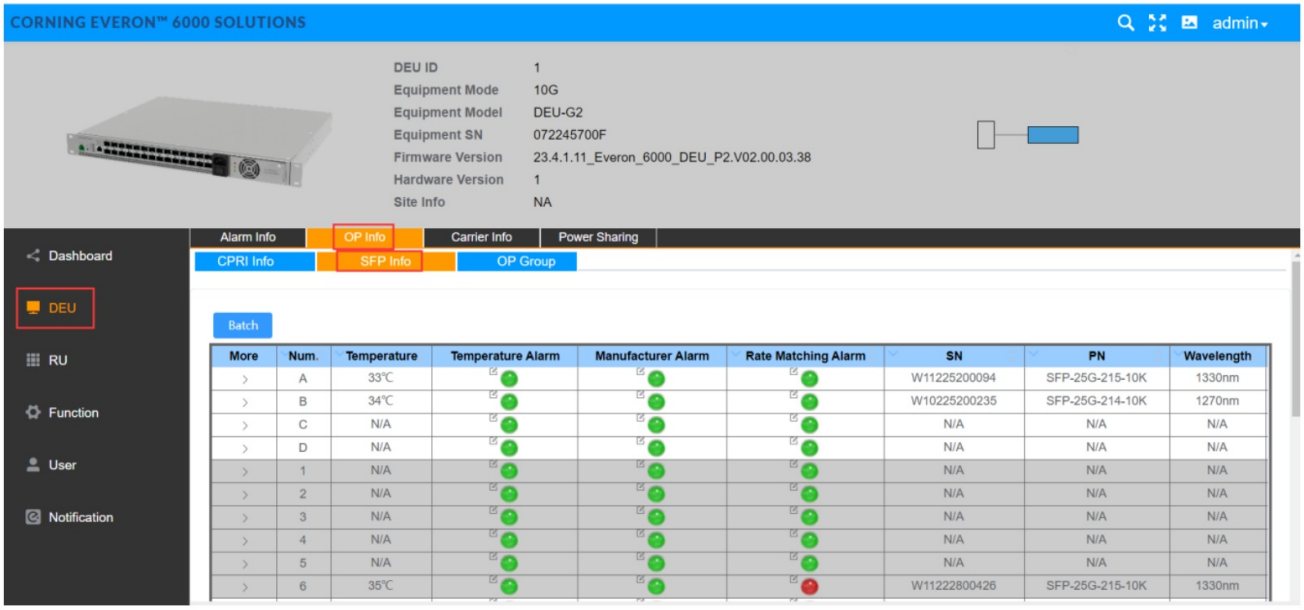


SFP Info

- **Figure 150. DEU 25 G OP Info SFP Info**

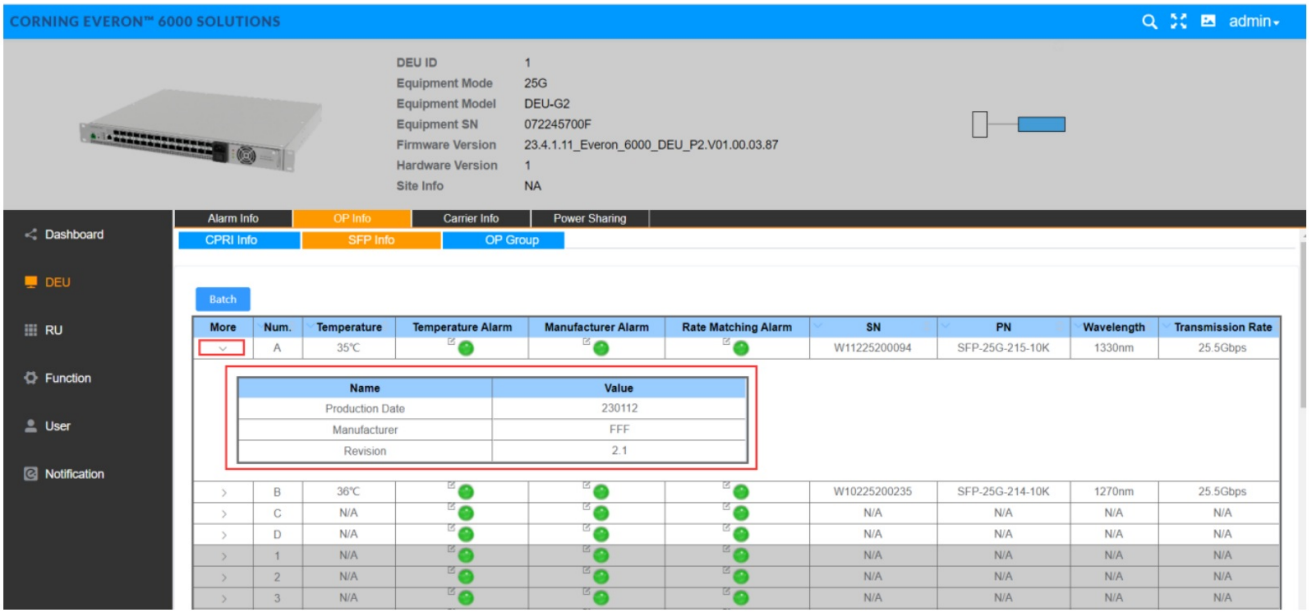


- **Figure 151.DEU 10 G OP Info SFP Info**

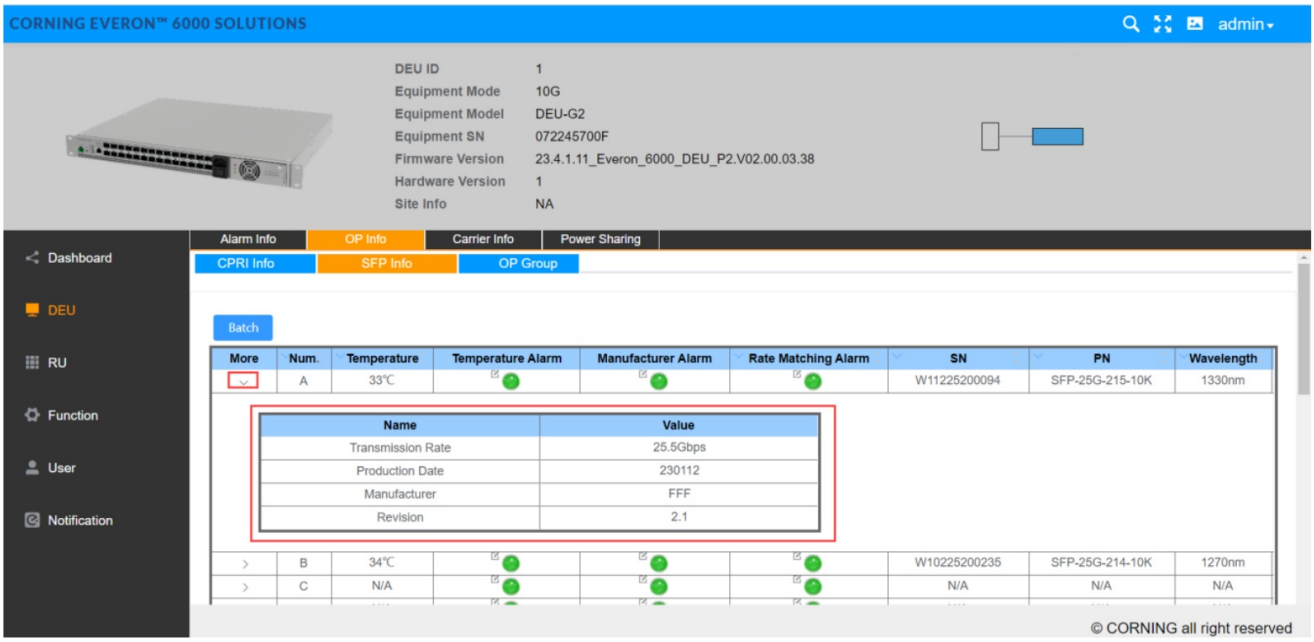


Click “>” under the SFP Info More to view the optical module info.

- **Figure 152.DEU 25 G OP Info SFP Info More**



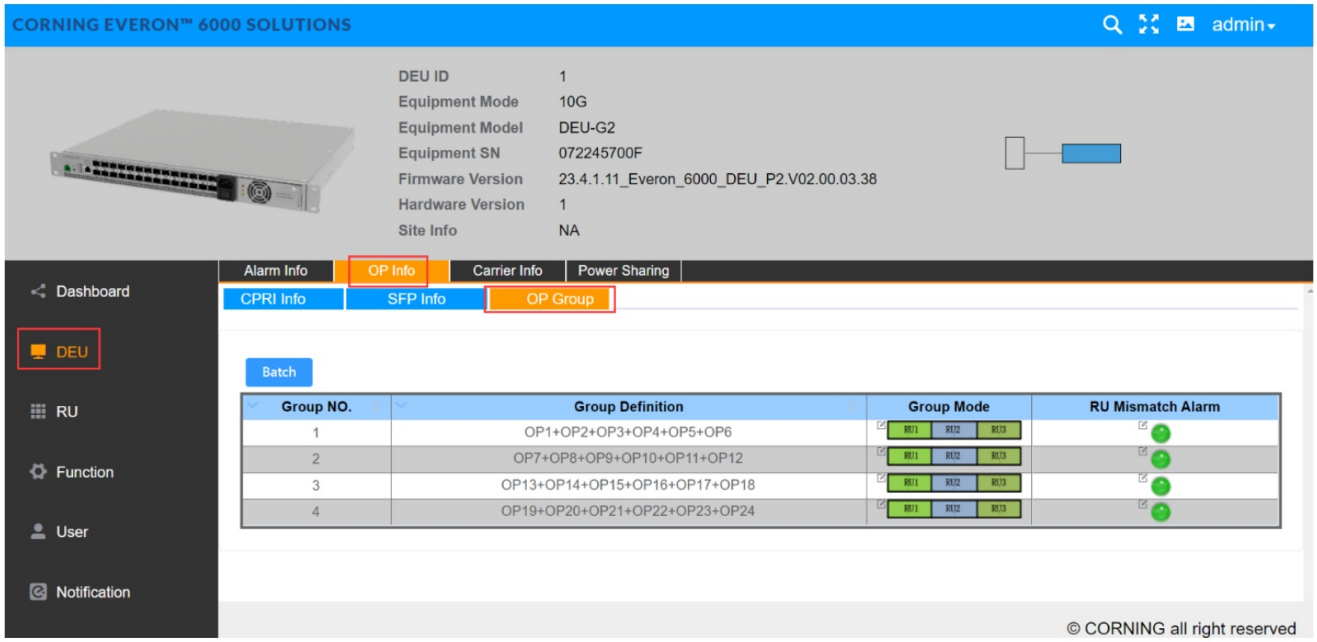
- **Figure 153. DEU 10 G OP Info SFP Info More**



OP Group

a. For the port configuration of 10G DEU, we design the new GUI for the various SFP port config. It supports 3 configuration mode on each 6 SFP ports (Group). Click DEU OP Info OP Group to configure SFP port as shown in Figure 154.

- **Figure 154. DEU 10G OP Info OP Group**



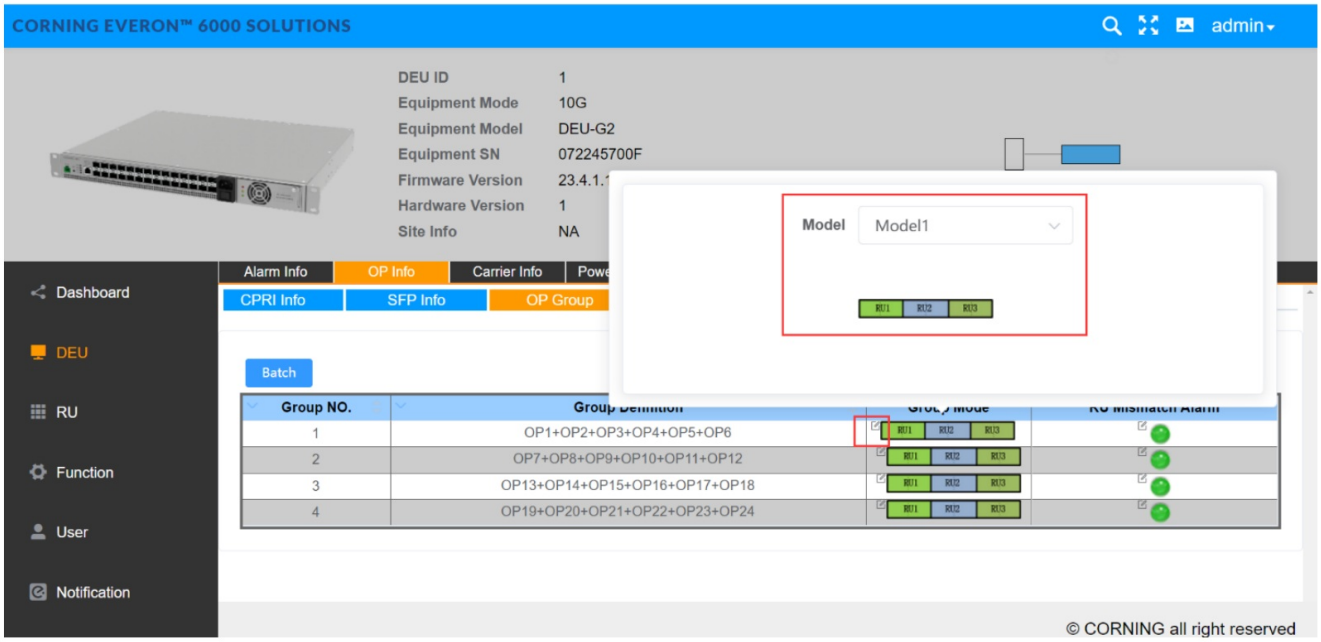
Click  button in Group Mode. In the drop-down box, there are three models to choose from. Then click Save to complete the configuration. Default configuration is model 1

Model 1: Two SFP ports are mapped to one RU, and it is recommended to align the DEU and RU SFPs in the same order, otherwise an SFP alarm will occur.

Model 2: 1 SFP port is mapped to 1 RU.

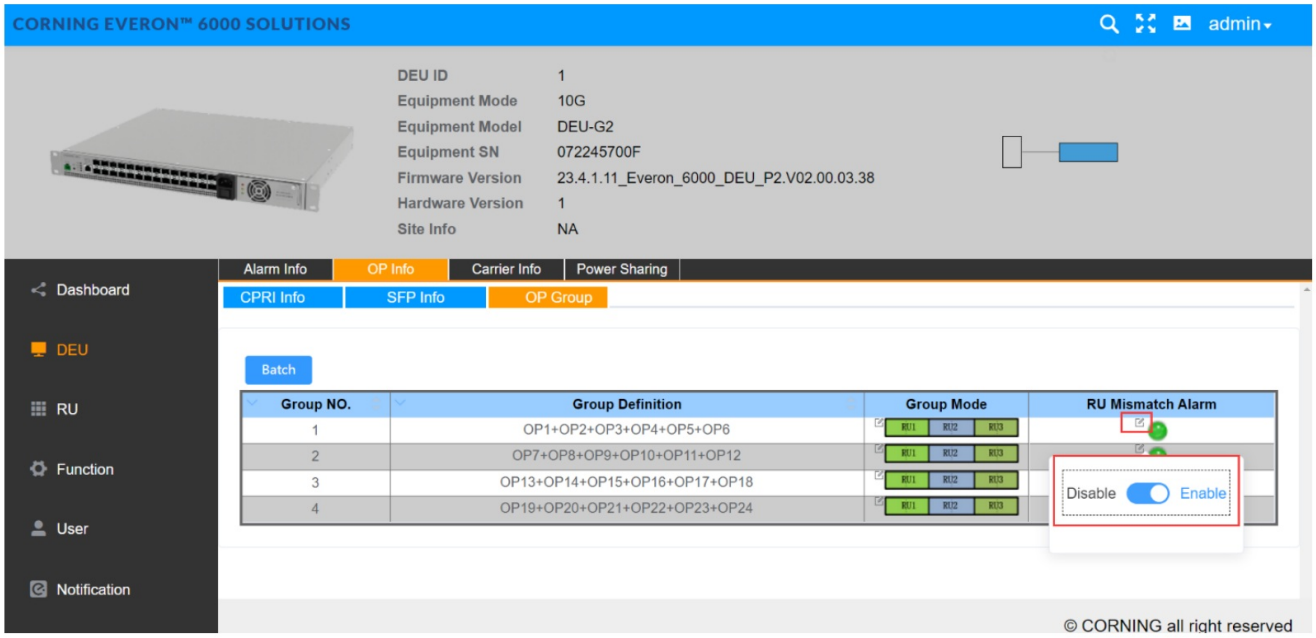
Model 3: 3 SFP ports are mapped to 1 RU. It is recommended to align the DEU and RU SFP in the same order, otherwise an SFP alarm will occur.

- **Figure 155. DEU 10 G Group Mode**



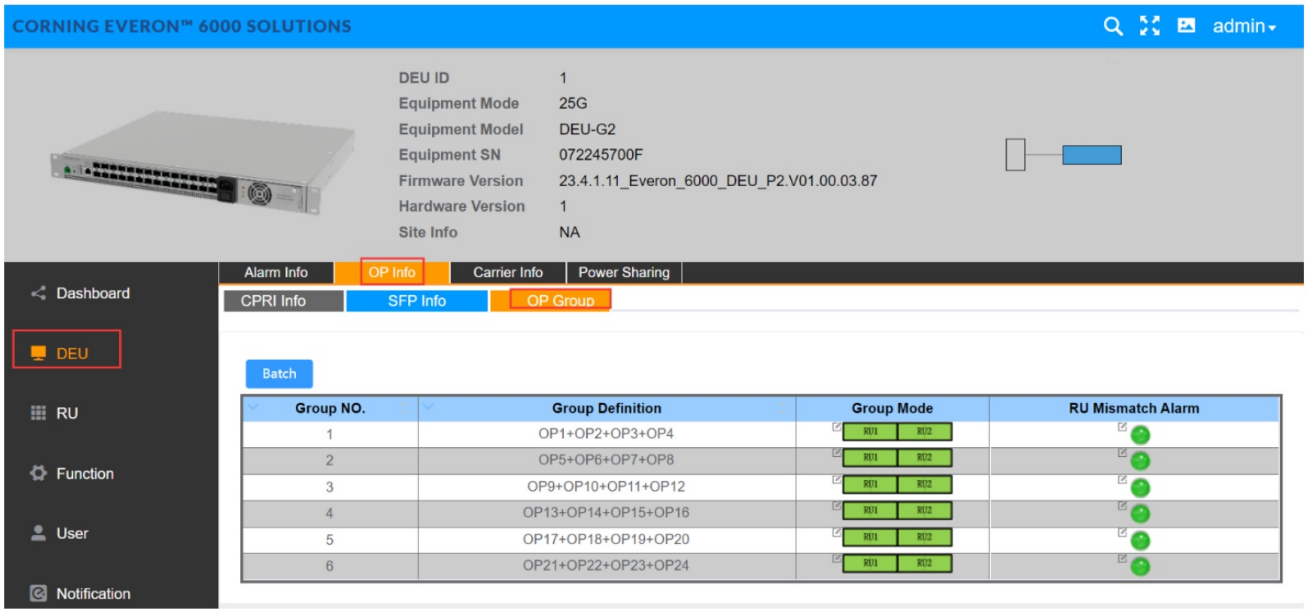
Click button in RU Mismatch Alarm. Select Enable/ Disable, then click Finish to complete the configuration.

- **Figure 156.DEU 10 G RU Mismatch Alarm**

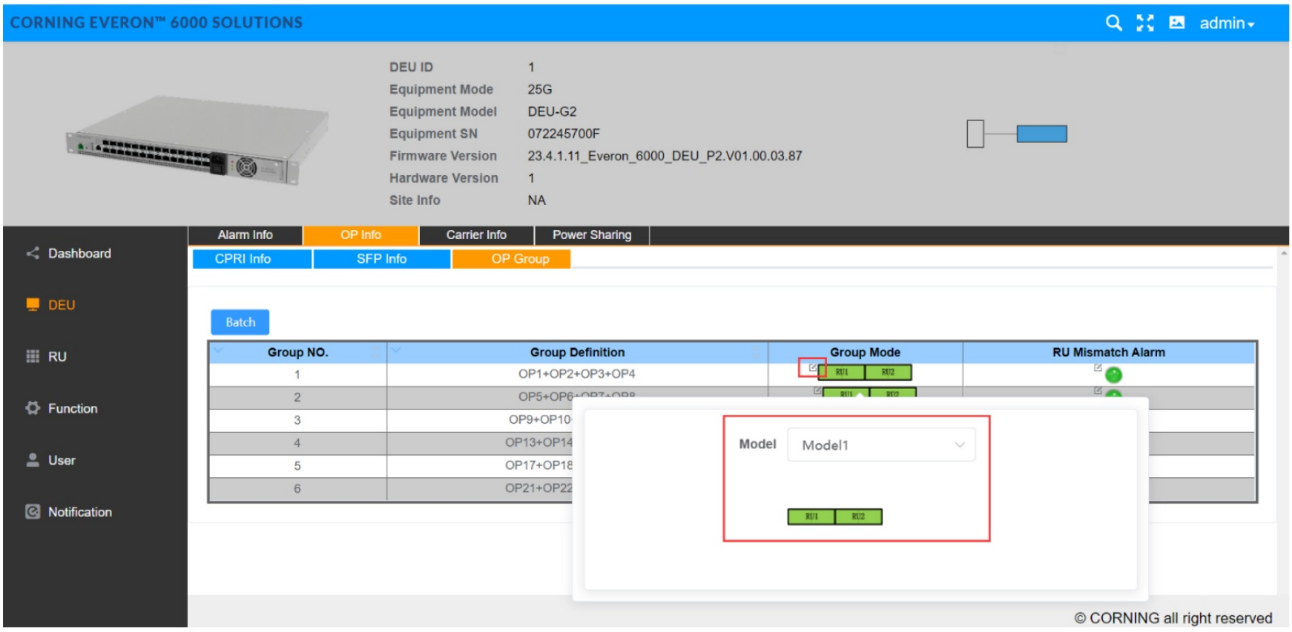


b. For the port configuration of 25G DEU, there are two models to choose from. The configuration steps are the same as that of 10G DEU OP group configuration.

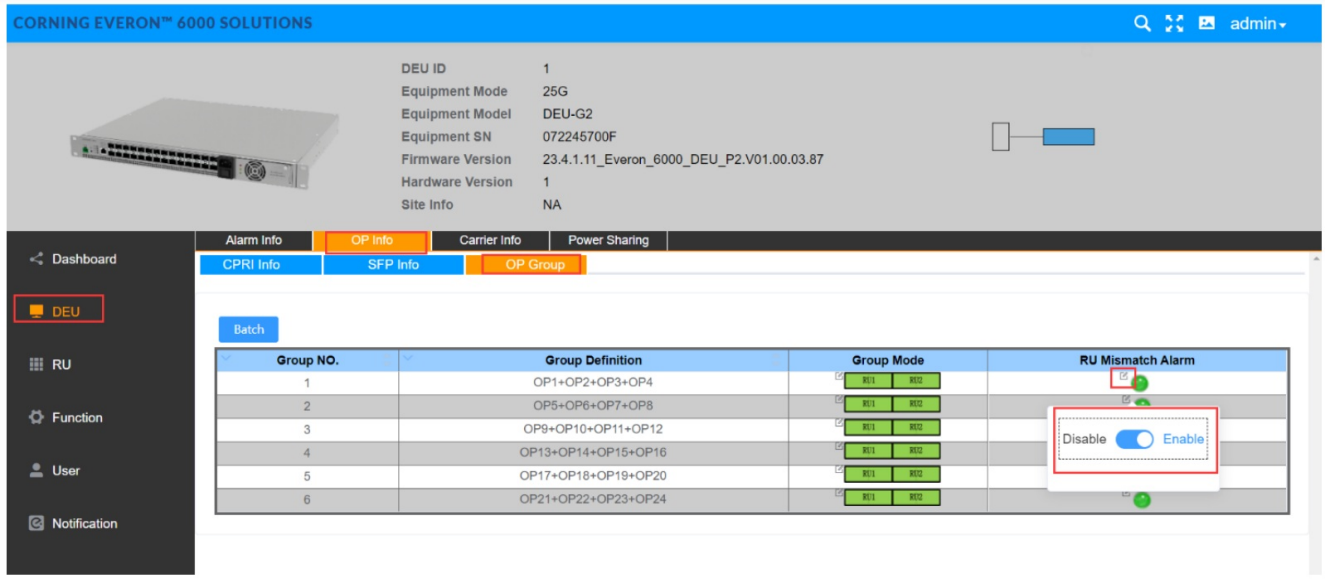
- **Figure 157.DEU 25G OP Info OP Group**



- **Figure 158.DEU 25G OP Group Group Mode**



- **Figure 159.DEU 25G OP Group RU Mismatch Alarm**

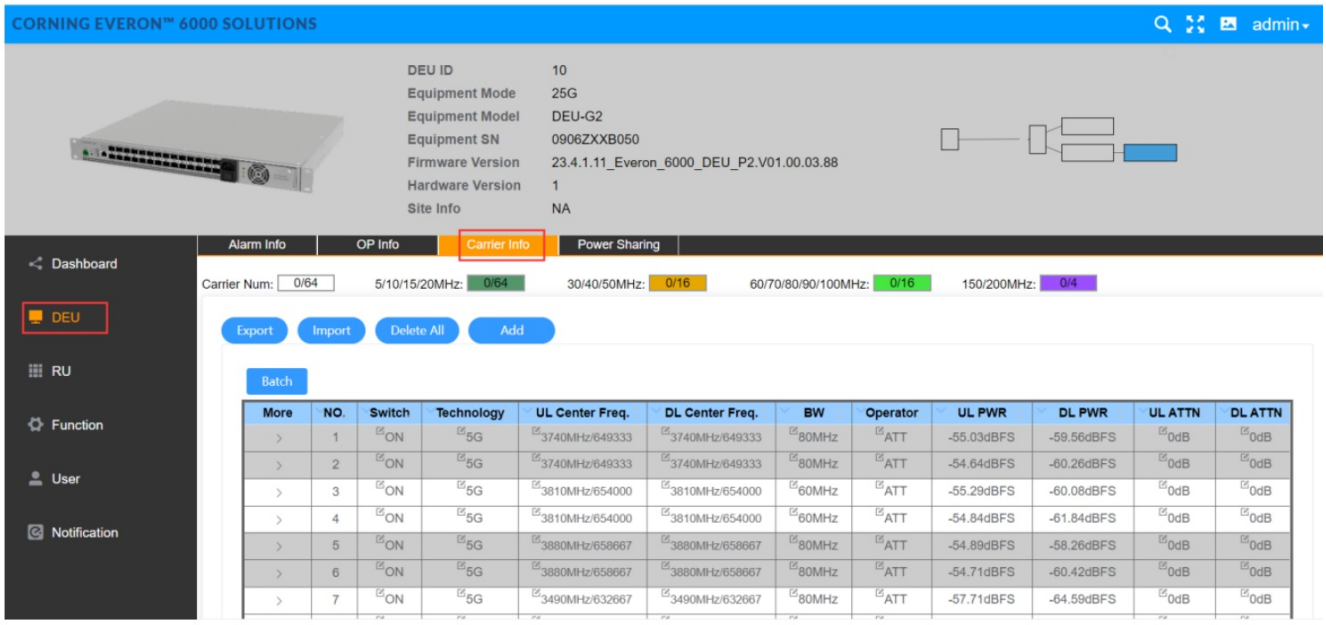


Carrier Info

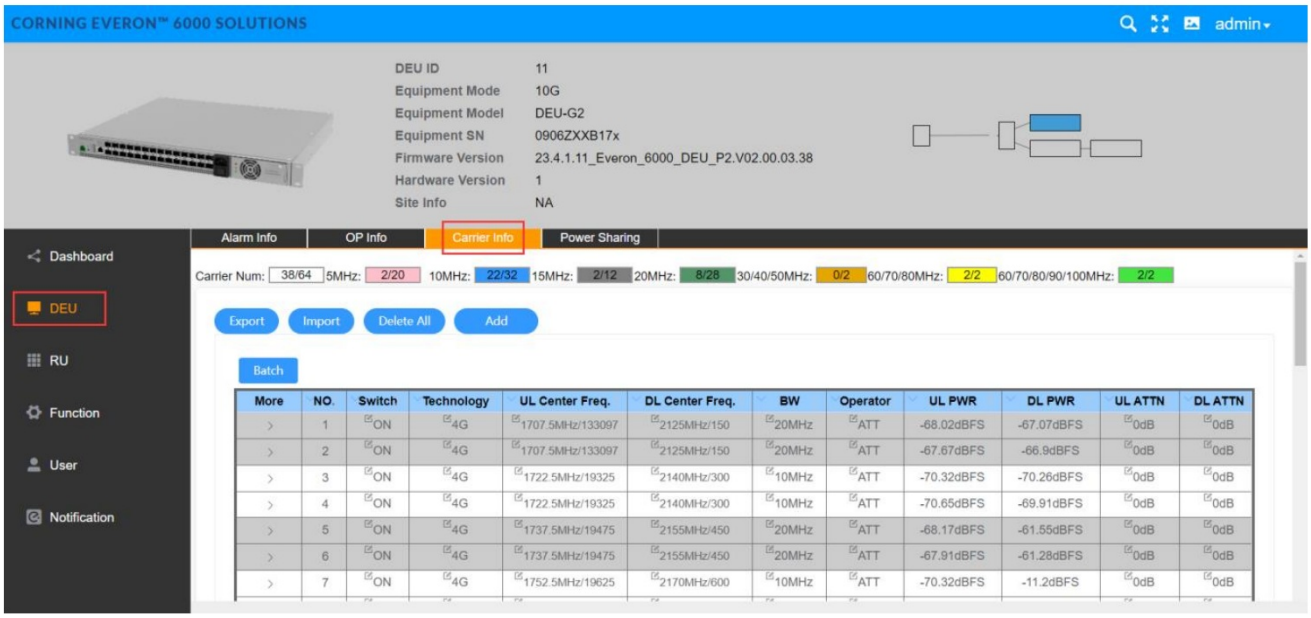
To configure carrier info

1. Click DEU Carrier Info Add to set UL Center Freq. and DL Center Freq. to enter the following page.
2. Click the icon in each field and select one from the drop-down options, enter values within the range and select ON/OFF and Enable/Disable button.
3. Click Finish to set.

- **Figure 160. DEU 25G Carrier Info**



- **Figure 161. DEU 10G Carrier Info**



To add carrier

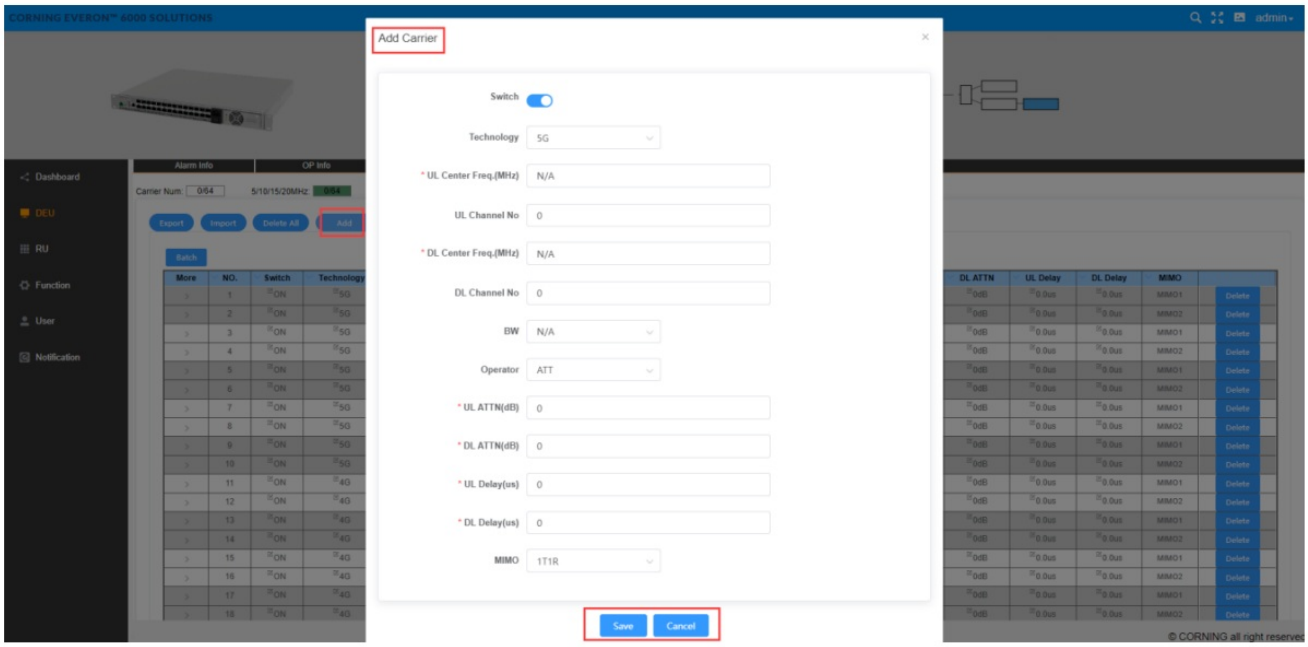
1. Click Add button  and the following setting page appear.

2. Click the arrow  and select one from the listed options.

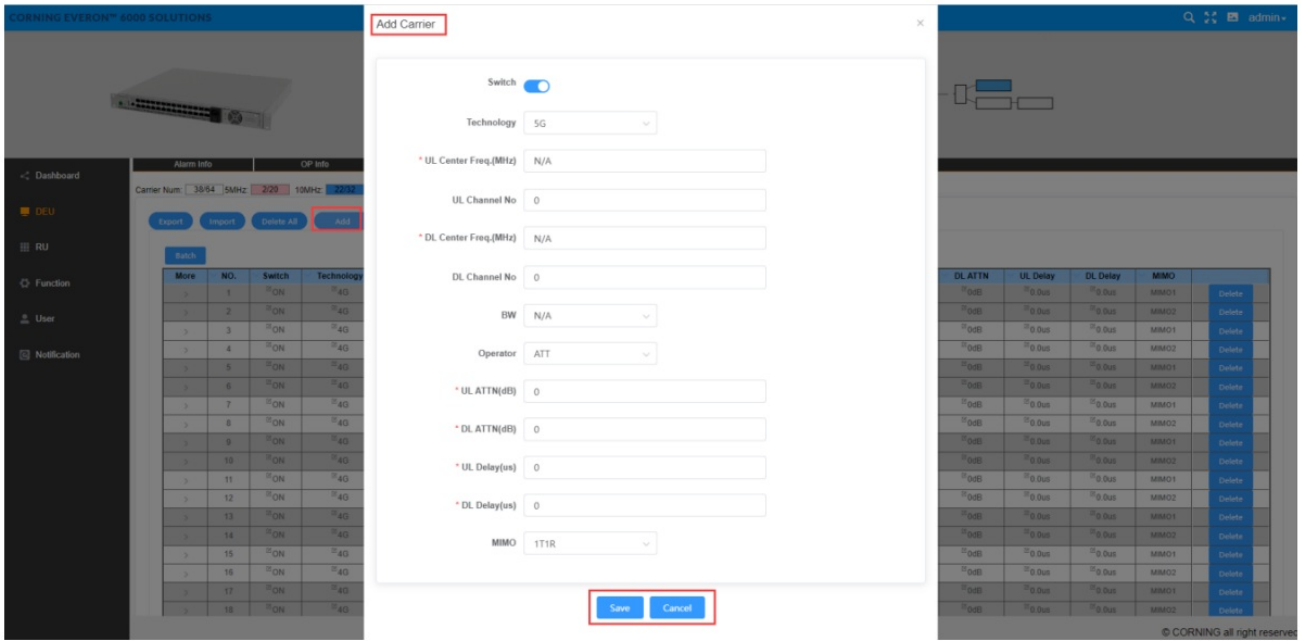
3. Enter the values of the field marked *.

4. Click Save  to finish the settings.

- **Figure 162.DEU 25G Carrier Info Add**



- **Figure 163. DEU 10 G Carrier Info Add**

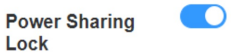


Power Sharing

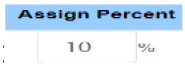
SN	DEU Sharing Power Parameters	Ranges	Default Values
1	Power Sharing Lock	ON/OFF (Lock the DL ATT config on the carrier info)	OFF
2	Band	2500T/3500F/3500G	3500G
3	Assigned	10% 100%	66%
4	Unassigned	0% 90%	34%
5	Number of Carrier for each band/sub-band	0 4	N/A
7	Assign Percent	0%-100%	33%
8	Assign Type	Density/Even	Density

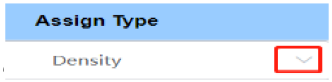
To configure power sharing

1. Click the Set button then the DL ATTN can be configured. 

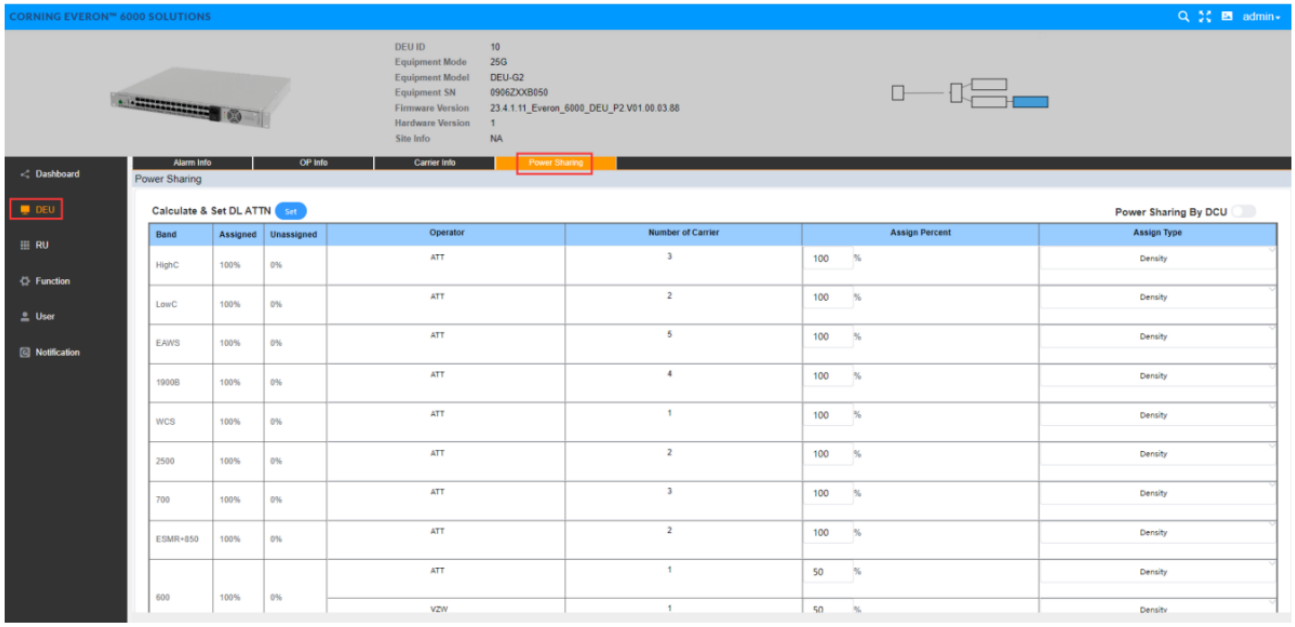
2. Select Powering Sharing Lock 

and operation success will pop up. 

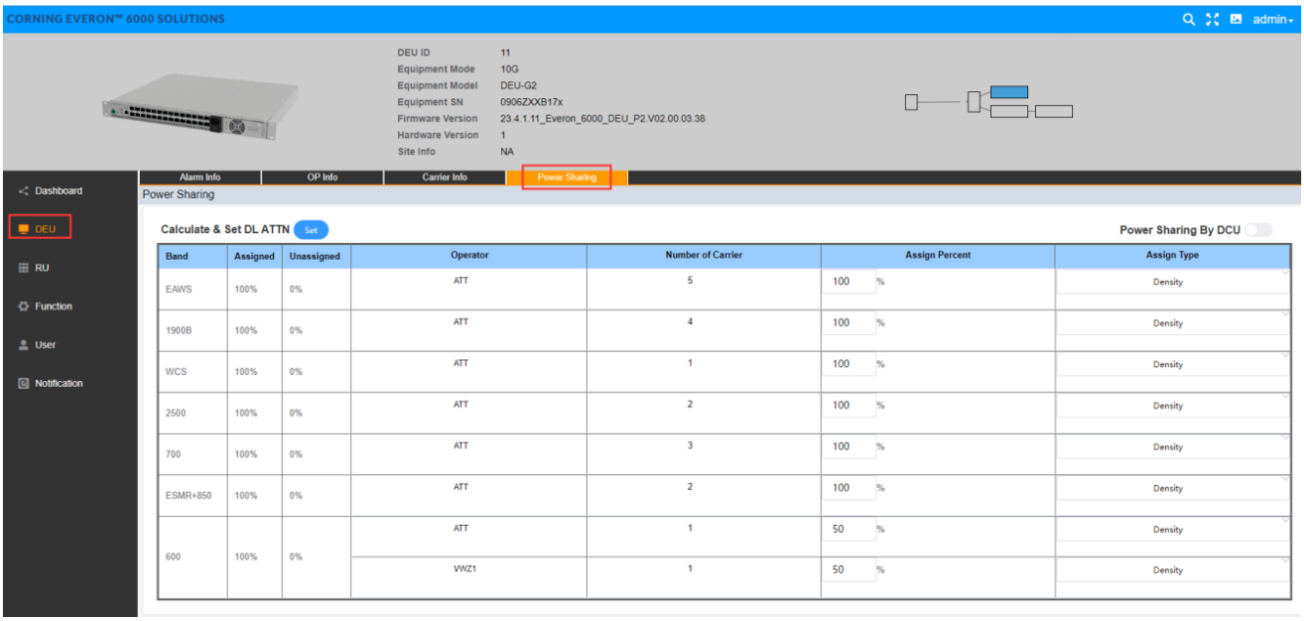
3. Enter the value of Assign Percent 

4. Click the arrow in Assign type 

- **Figure 164. DEU25G Power Sharing**



- **Figure 165.DEU 10 G Power Sharing**

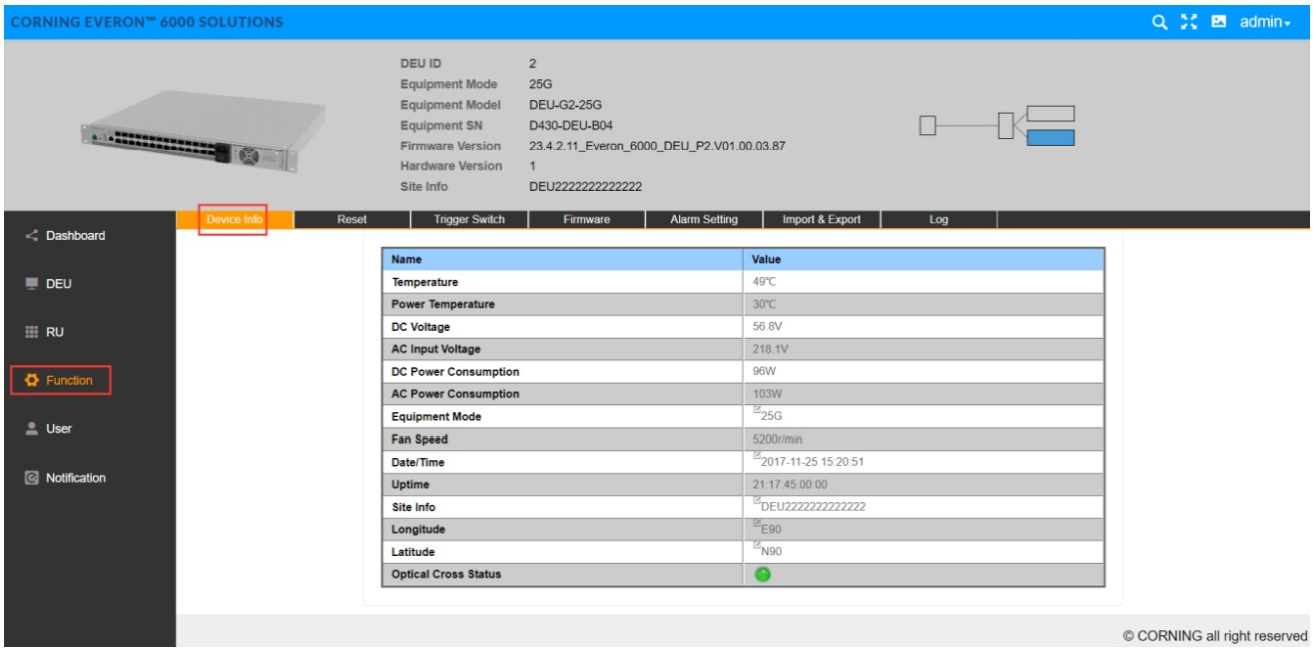


DEU -> Function

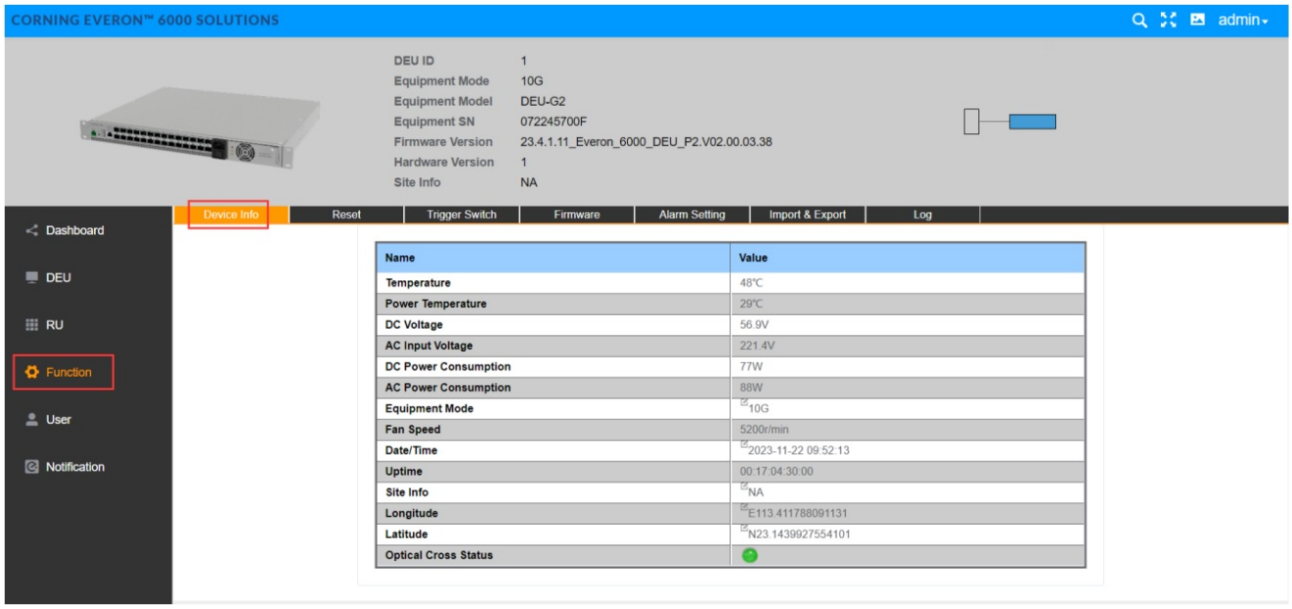
Device Info

Click Function Device Info to view the time, latitude, longitude, and other information of 10G/25G device. The site info is defined by the user.

- **Figure 166.DEU25G Function Device Info**



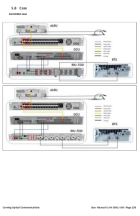
- **Figure 167. DEU 10 G Function Device Info**



Reset

Click Function Reset to clear the historical alarm, reset the software and hardware of the DEU, and reset the software and hardware of the RU connected to the DEU.

Documents / Resources

	CORNING DHRU-G2-7 HRU Digital High Power Amplifier Module [pdf] User Guide DHRU-G2-7, OJFDHRU-G2-7, OJFDHRUG27, DHRU-G2-7 HRU Digital High Power Amplifier Module, HRU Digital High Power Amplifier Module, Digital High Power Amplifier Module, High Power Amplifier Module, Power Amplifier Module, Amplifier Module, Module
	CORNING DHRU-G2-7 HRU Digital High Power Amplifier Module [pdf] User Manual DHRU-G2-7, OJFDHRU-G2-7, OJFDHRUG27, DHRU-G2-7 HRU Digital High Power Amplifier Module, HRU Digital High Power Amplifier Module, Digital High Power Amplifier Module, High Power Amplifier Module, Power Amplifier Module, Amplifier Module, Module
	CORNING DHRU-G2-7 HRU Digital High Power Amplifier Module [pdf] User Guide DHRU-G2-7, OJFDHRU-G2-7, OJFDHRUG27, DHRU-G2-7 HRU Digital High Power Amplifier Module, HRU Digital High Power Amplifier Module, Digital High Power Amplifier Module, High Power Amplifier Module, Power Amplifier Module, Amplifier Module, Module

References

- 196.ru
- 202.RU
- Corning Optical Communications | Fiber Optic Connectivity Solutions | Corning
- Legal Notices | Corning.com
- FCC Signal Booster Registration - Part 90 Class B Signal Booster Registration & Discovery
- User Manual