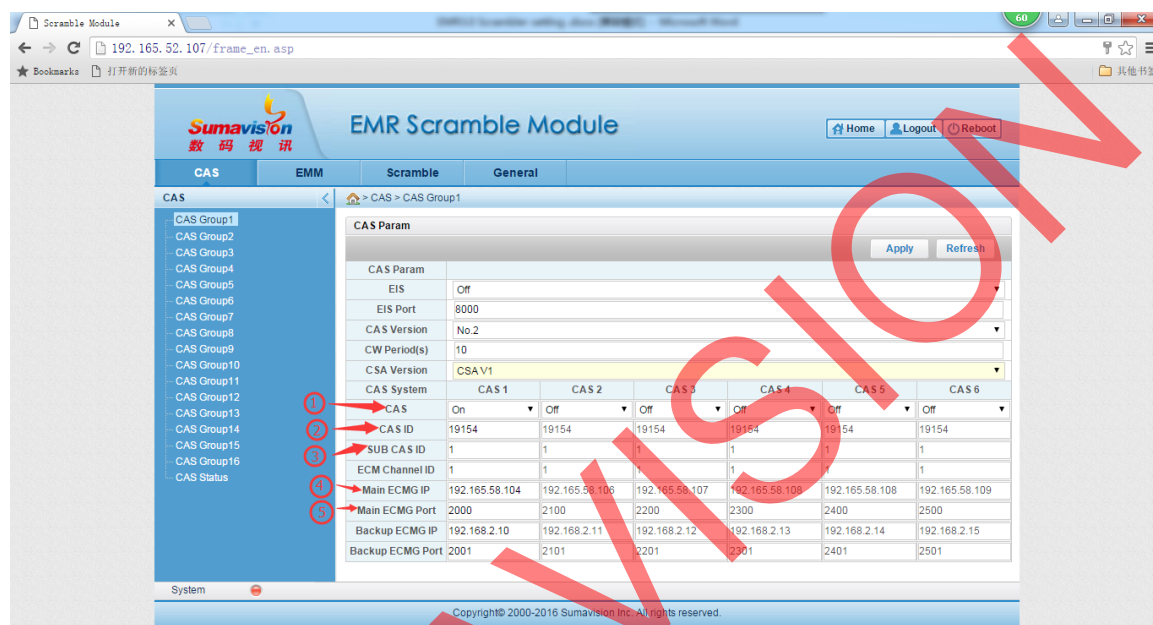


## Scrambler quick manual

### CA setting



Step①,choose CAS group 1-16,then turn on the cas function.

Step②, input CAS ID (Decimal or Hex)

Step③, input sub CAS ID

Step④, input main ECMG IP

Step⑤, input main ECMG port.

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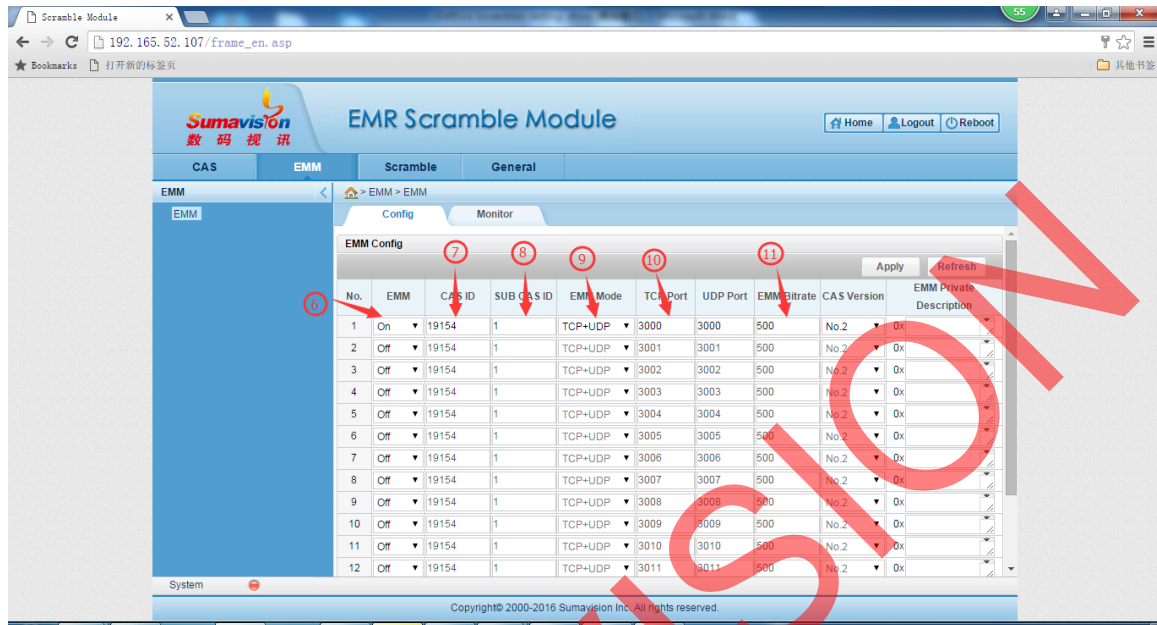
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## EMM setting



The screenshot shows the 'EMM Config' table in the 'EMR Scramble Module' interface. The table has the following columns: No., EMM, CAS ID, SUB CAS ID, EMM Mode, TCP Port, UDP Port, EMM Bitrate, CAS Version, and EMM Private Description. Red annotations highlight the following fields:

- ⑥: EMM status dropdown (set to 'On')
- ⑦: CAS ID input field (value: 19154)
- ⑧: SUB CAS ID input field (value: 1)
- ⑨: EMM Mode dropdown (set to 'TCP+UDP')
- ⑩: TCP Port input field (value: 3000)
- ⑪: EMM Bitrate input field (value: 500)

No.	EMM	CAS ID	SUB CAS ID	EMM Mode	TCP Port	UDP Port	EMM Bitrate	CAS Version	EMM Private Description
1	On	19154	1	TCP+UDP	3000	3000	500	No.2	0x
2	Off	19154	1	TCP+UDP	3001	3001	500	No.2	0x
3	Off	19154	1	TCP+UDP	3002	3002	500	No.2	0x
4	Off	19154	1	TCP+UDP	3003	3003	500	No.2	0x
5	Off	19154	1	TCP+UDP	3004	3004	500	No.2	0x
6	Off	19154	1	TCP+UDP	3005	3005	500	No.2	0x
7	Off	19154	1	TCP+UDP	3006	3006	500	No.2	0x
8	Off	19154	1	TCP+UDP	3007	3007	500	No.2	0x
9	Off	19154	1	TCP+UDP	3008	3008	500	No.2	0x
10	Off	19154	1	TCP+UDP	3009	3009	500	No.2	0x
11	Off	19154	1	TCP+UDP	3010	3010	500	No.2	0x
12	Off	19154	1	TCP+UDP	3011	3011	500	No.2	0x

Step⑥, turn on EMM.

Step⑦, input CAS ID

Step⑧, input Sub CAS ID

Step⑨, choose TCP+UDP

Step⑩, normally CAS use TCP, so set TCP port

Step⑪, setting EMM bitrate, normally the value is more than CAS setting.

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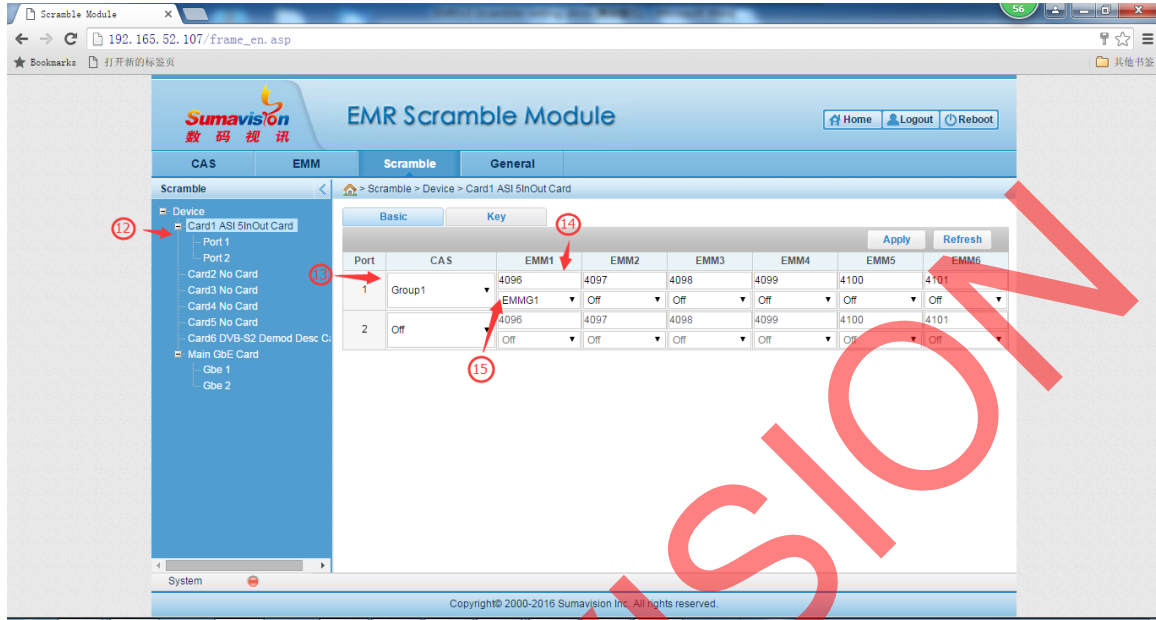
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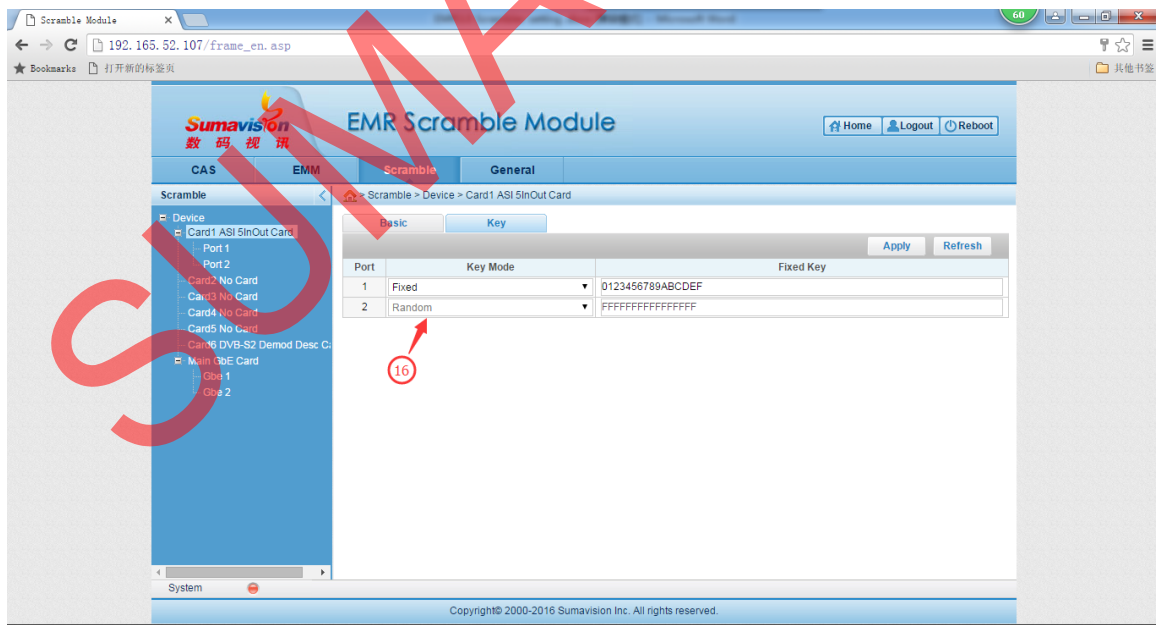
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## Scramble setting



- Step⑫, select the card for channel scramble
- Step⑬, choose the group which already defined
- Step⑭, set EMM Pid
- Step⑮, choose the EMM group which is already setted.



- Step⑯, choose key function, the key use Random.

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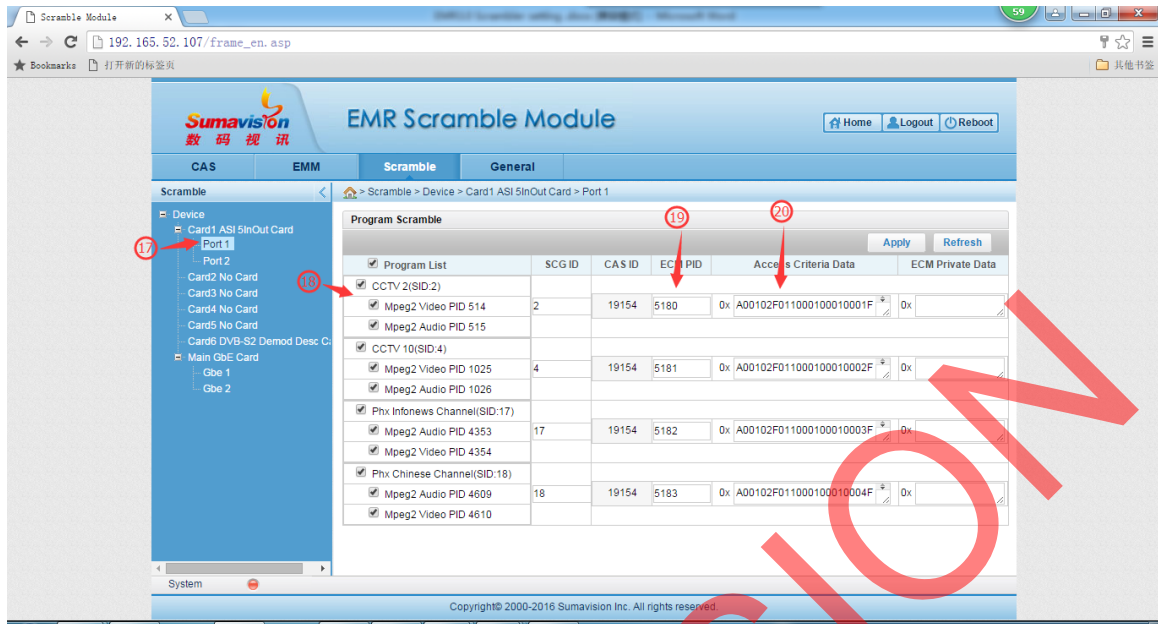
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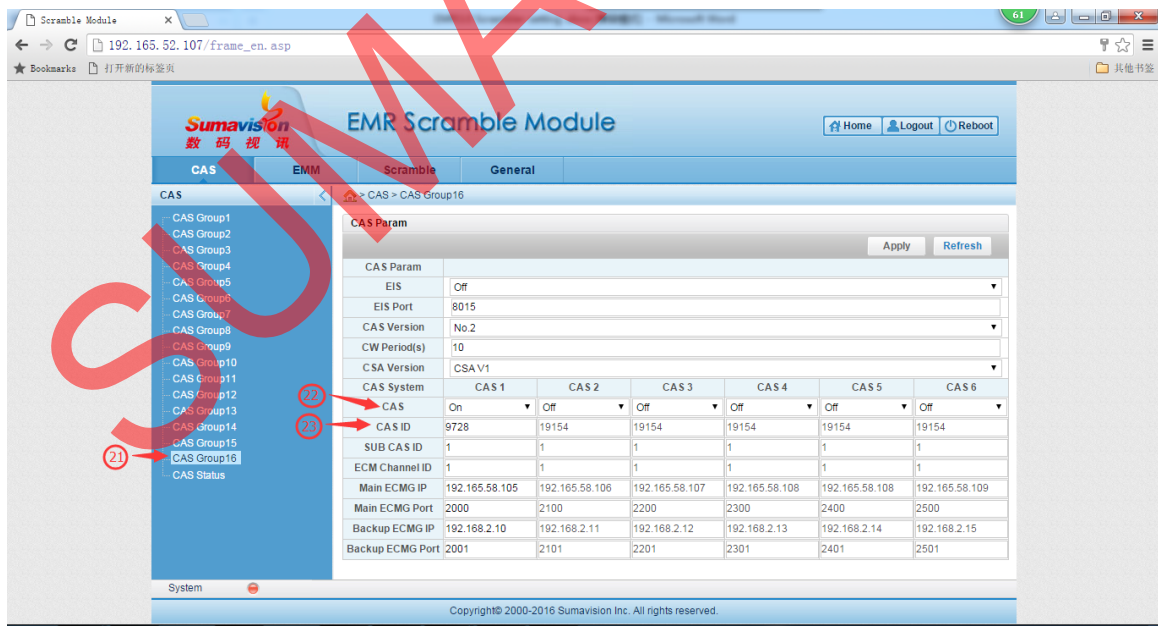
Step 17, choose the port, refresh it, then can get the channel on the right side.

Step 18, select channel which will scramble

Step 19, input ECM Pid

Step 20, input AC (Access Criteria) value

## BISS setting



Step 21, If use BISS, we suggest choose CAS Group 16 for BISS.

Step 22, turn on CAS

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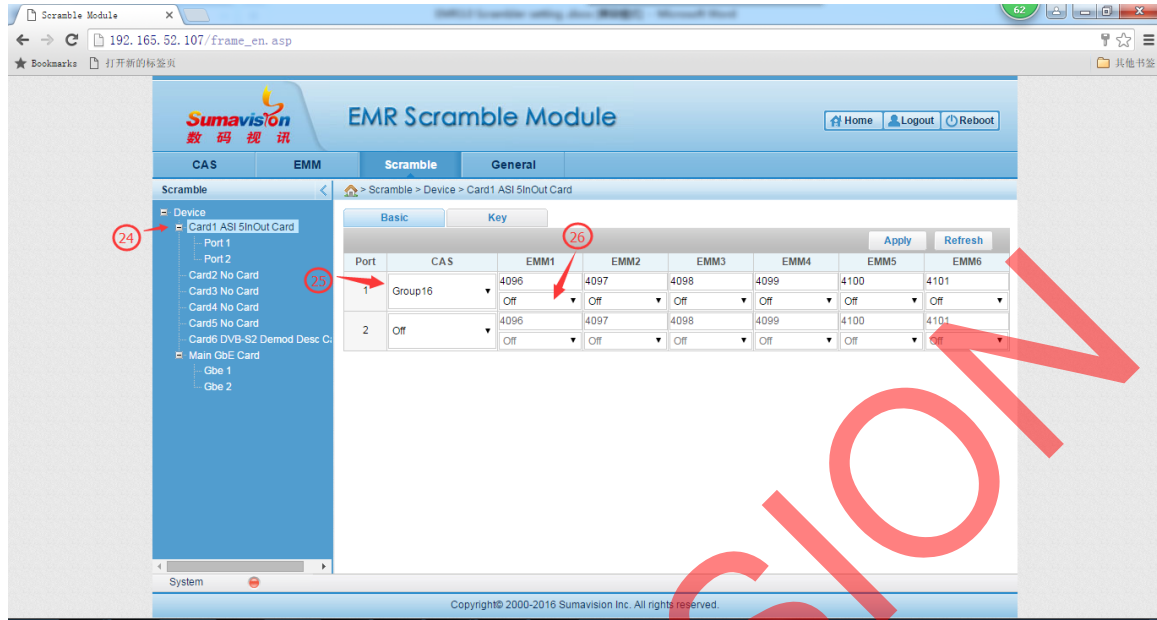
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Step 23, input CAS ID 9728 for BISS



EMR Scramble Module

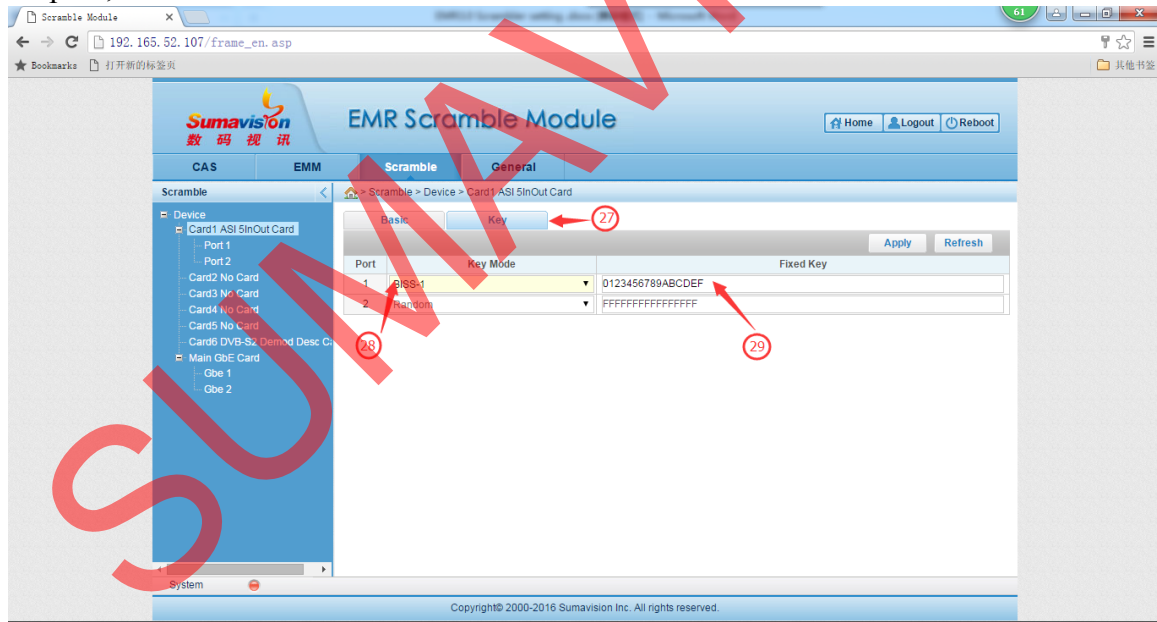
Scramble > Device > Card1 ASI 5InOut Card

Port	CAS	EMM1	EMM2	EMM3	EMM4	EMM5	EMM6
1	Group16	4096	4097	4098	4099	4100	4101
2	Off	4096	4097	4098	4099	4100	4101

Step 24, choose the card for setting

Step 25, choose the CAS Group which used for BISS

Step 26, turn off EMM



EMR Scramble Module

Scramble > Device > Card1 ASI 5InOut Card

Port	Key Mode	Fixed Key
1	BISS-1	0123456789ABCDEF
2	Random	FFFFFFFFFFFFFFFF

Step 27, choose key function

Step 28, select BISS-1 option

Step 29, input the key (16 digits)

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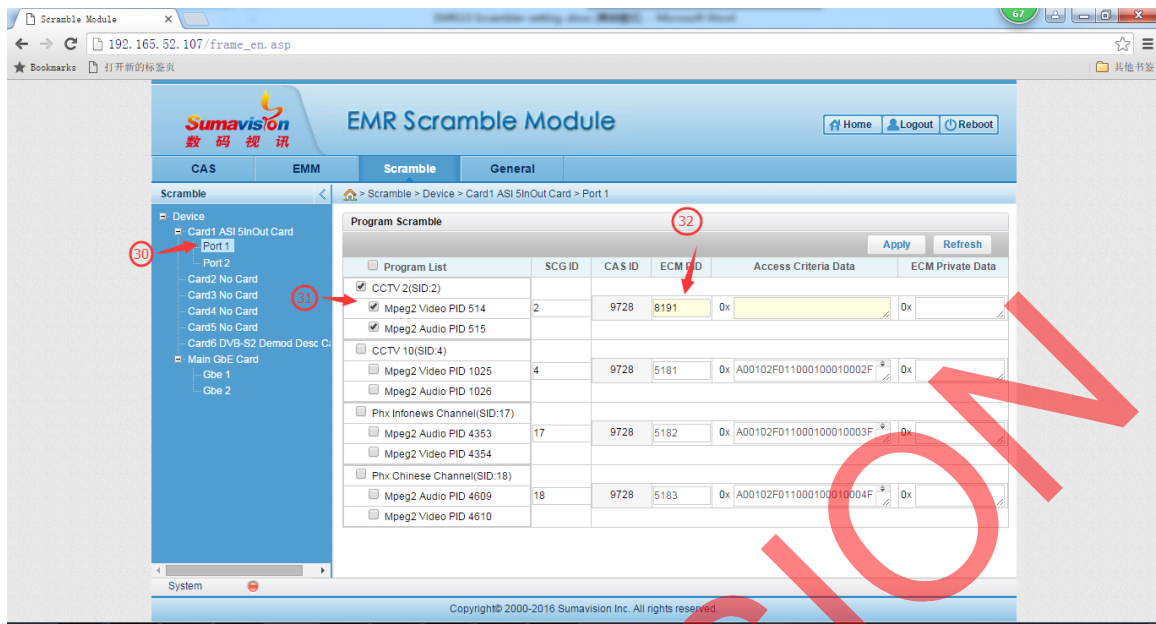
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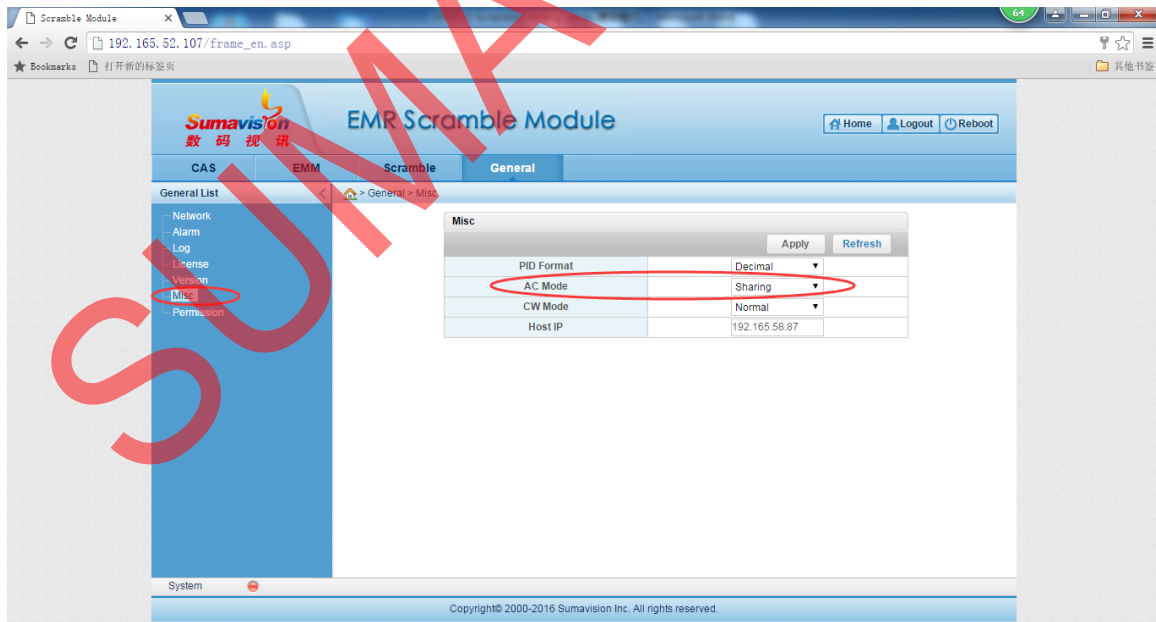


Step 30, choose the port

Step 31, select channel for scramble

Step 32, input ECM Pid 8191.

Note: this setting is using in scrambler version 3.0.4.10. If use BISS, on the descramble side, you need put key 12 digits. E.g. the key in scrambler is 1234560012345600, then in descramble side, the key is 123456123456.



When use BISS scramble more than one channel, we need to set those scrambled channel ECM PID 8191, but it will show PID conflict,

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so we need set AC Mode to be Sharing. Then all of scrambled channel can use 8191, and also all of channels do not put AC value.

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