

EMR3.0 Scramble Operation

User Guide

1. Product Introduction



Figure 1:

- ①、Ctrl: Network Management Control Interface, this port is for net manager function that manage the EMR3.0
- ②、CA: Scrambling Interface, this port is for scrambling function that communicate with CAS
- ③、GbE1-GbE4: Gigabit Ethernet interface, Gb SFP module interface

This is the operation guide for EMR3.0 Scramble function, it can scramble **N** (up to port License of EMR3.0) frequencies TS.

Contact Us

SUMAVISION TECHNOLOGIES CO.,LTD

Tel (India) : +91-998 767 9959

Email: worldmarket@sumavision.com

Tel (China) +86-10-82345859/69/70

Website: www.sumavision.com

Fax: +86 10 62978800

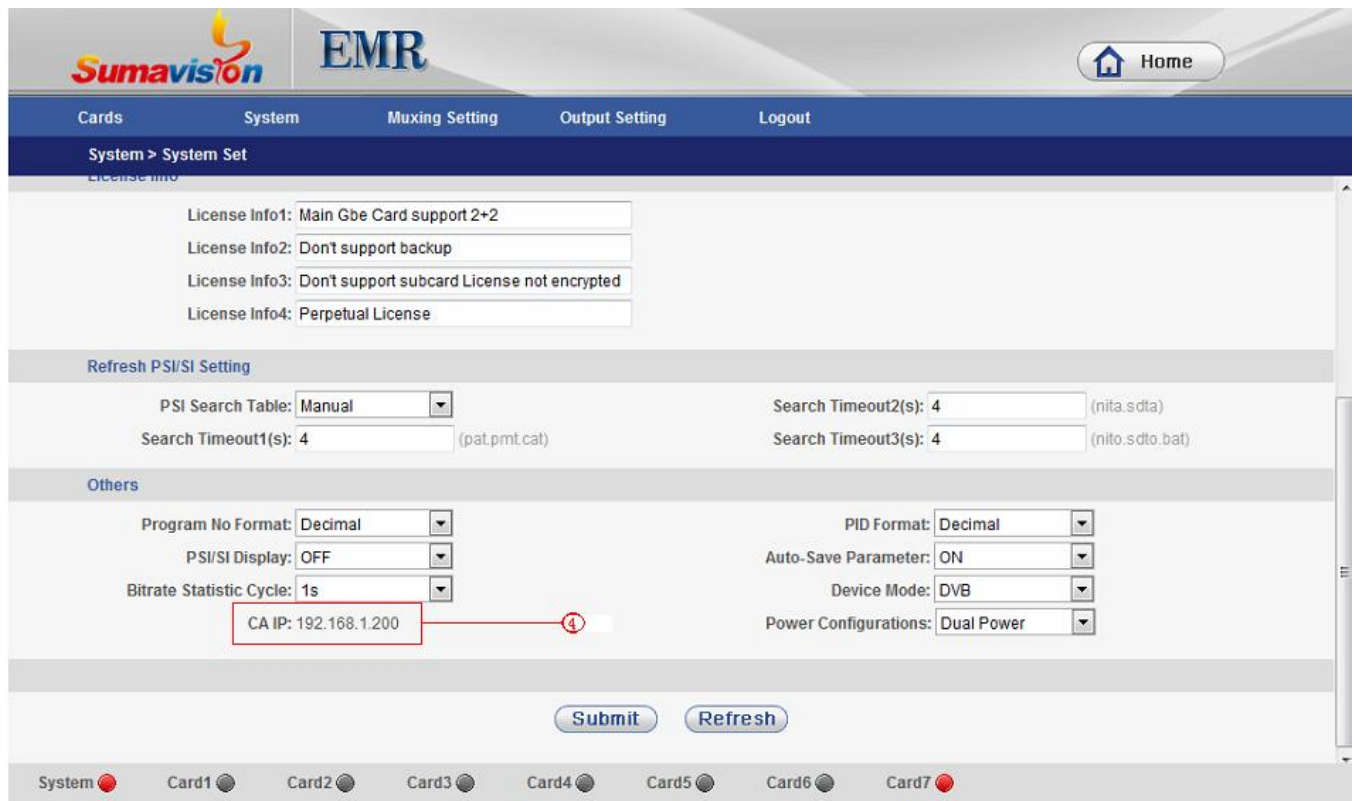
Environment Requirement

1、establish the connection ;

①、 Network configuration——confirm the IP of scramble module:

Step 1、 Both CA interface of EMR3.0 and PC(for Net manager) connect to switch; Ensure that there is no IP conflict in LAN, setting both IP of EMR3.0 mainboard and PC into the same subnet (for example: EMR3.0 IP: 192.168.1.100 and PC IP: 192.168.1.101);

Step 2 、 Typing EMR3.0's IP address into your search engine, and then go to "system"-> "system set", then you can see the web page as follow (for example: the scramble module's IP is 192.168.1.200) .The "CA IP" is the scramble module IP ④



The screenshot shows the 'System > System Set' web interface. The 'License Info' section contains four entries: 'Main Gbe Card support 2+2', 'Don't support backup', 'Don't support subcard License not encrypted', and 'Perpetual License'. The 'Refresh PSI/SI Setting' section has three search timeout fields set to 4 seconds. The 'Others' section includes dropdown menus for 'Program No Format' (Decimal), 'PSI/SI Display' (OFF), 'Bitrate Statistic Cycle' (1s), 'PID Format' (Decimal), 'Auto-Save Parameter' (ON), 'Device Mode' (DVB), and 'Power Configurations' (Dual Power). The 'CA IP' field is set to '192.168.1.200' and is highlighted with a red box and a circled '4' next to it. At the bottom, there are 'Submit' and 'Refresh' buttons, and a status bar showing 'System' and 'Card7' with red indicators.

Step 3、 Typing this IP④ into your search engine ,then you can begin to configure scramble module.

Contact Us

SUMAVISION TECHNOLOGIES CO.,LTD

Tel (India) :+91-998 767 9959

Email:worldmarket@sumavision.com

Tel (China)+86-10-82345859/69/70

Website:www.sumavision.com

Fax:+86 10 62978800

Scramble module configuration;

Now you can configure the scramble module:

Step 4、Go to "System" -> "System Parameter" Change the Network parameter to your requirement, the "IP Address" is the scramble IP , Clicks "submit" to complete the modification.



EMR3.0 Scramble Module

System > System Parameter

Network Parameter

IP Address: 192.168.1.200 Gateway: 192.168.1.0
 Net Mask: 255.255.255.0 MAC Address: 00-24-68-03-23-EC

License Info

License: Port 25Ports

Other

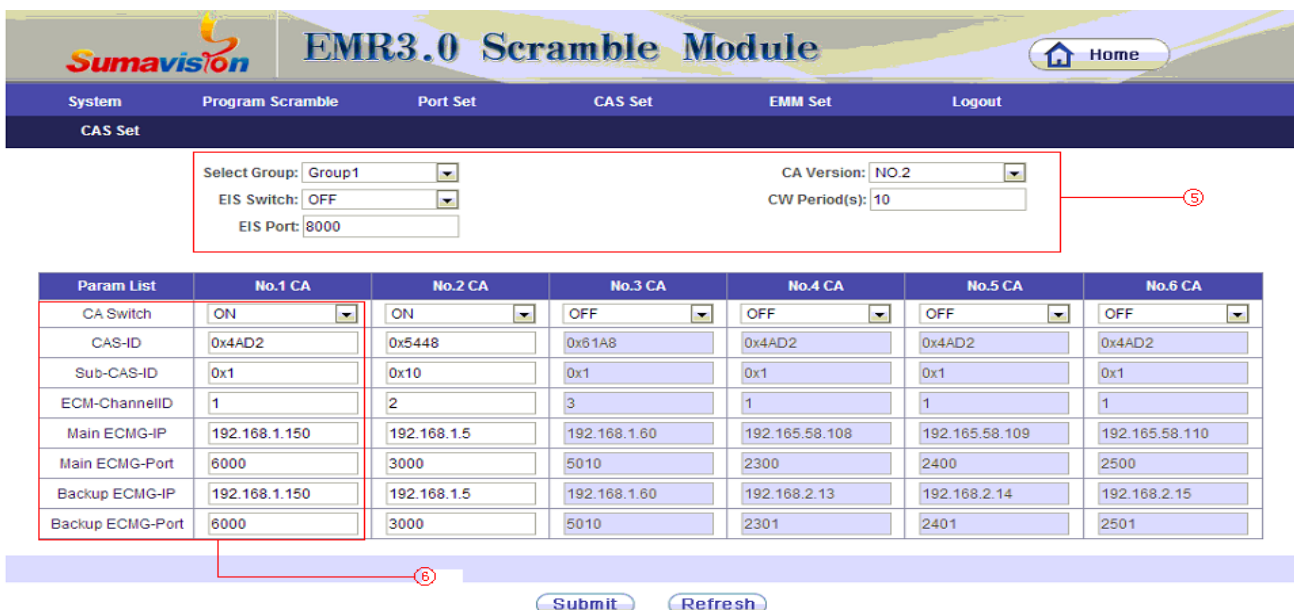
PID Display: Hexadecimal AC-Mode: Normal
 Moudule SN: 1212C472S185

Submit Refresh

Step 5、Go to "CAS Set".

⑤ Default parameters is ok, no need to do any change.

⑥ "CA Switch" , From "NO.1 CA" to "NO.6 CA" ,means it supports 6 CAS at most, according to the numbers of CAS in your network, unused port must be as "OFF".(For example as follow: two CAS in the network, so "NO.1" and "NO.2" as "ON", others kept as "OFF")



EMR3.0 Scramble Module

CAS Set

Select Group: Group1 CA Version: NO.2
 EIS Switch: OFF CW Period(s): 10
 EIS Port: 8000

Param List	No.1 CA	No.2 CA	No.3 CA	No.4 CA	No.5 CA	No.6 CA
CA Switch	ON	ON	OFF	OFF	OFF	OFF
CAS-ID	0x4AD2	0x5448	0x61A8	0x4AD2	0x4AD2	0x4AD2
Sub-CAS-ID	0x1	0x10	0x1	0x1	0x1	0x1
ECM-ChannelID	1	2	3	1	1	1
Main ECMG-IP	192.168.1.150	192.168.1.5	192.168.1.60	192.165.58.108	192.165.58.109	192.165.58.110
Main ECMG-Port	6000	3000	5010	2300	2400	2500
Backup ECMG-IP	192.168.1.150	192.168.1.5	192.168.1.60	192.168.2.13	192.168.2.14	192.168.2.15
Backup ECMG-Port	6000	3000	5010	2301	2401	2501

Submit Refresh

Contact Us

SUMAVISION TECHNOLOGIES CO.,LTD

Tel (India) : +91-998 767 9959

Email: worldmarket@sumavision.com

Tel (China) +86-10-82345859/69/70

Website: www.sumavision.com

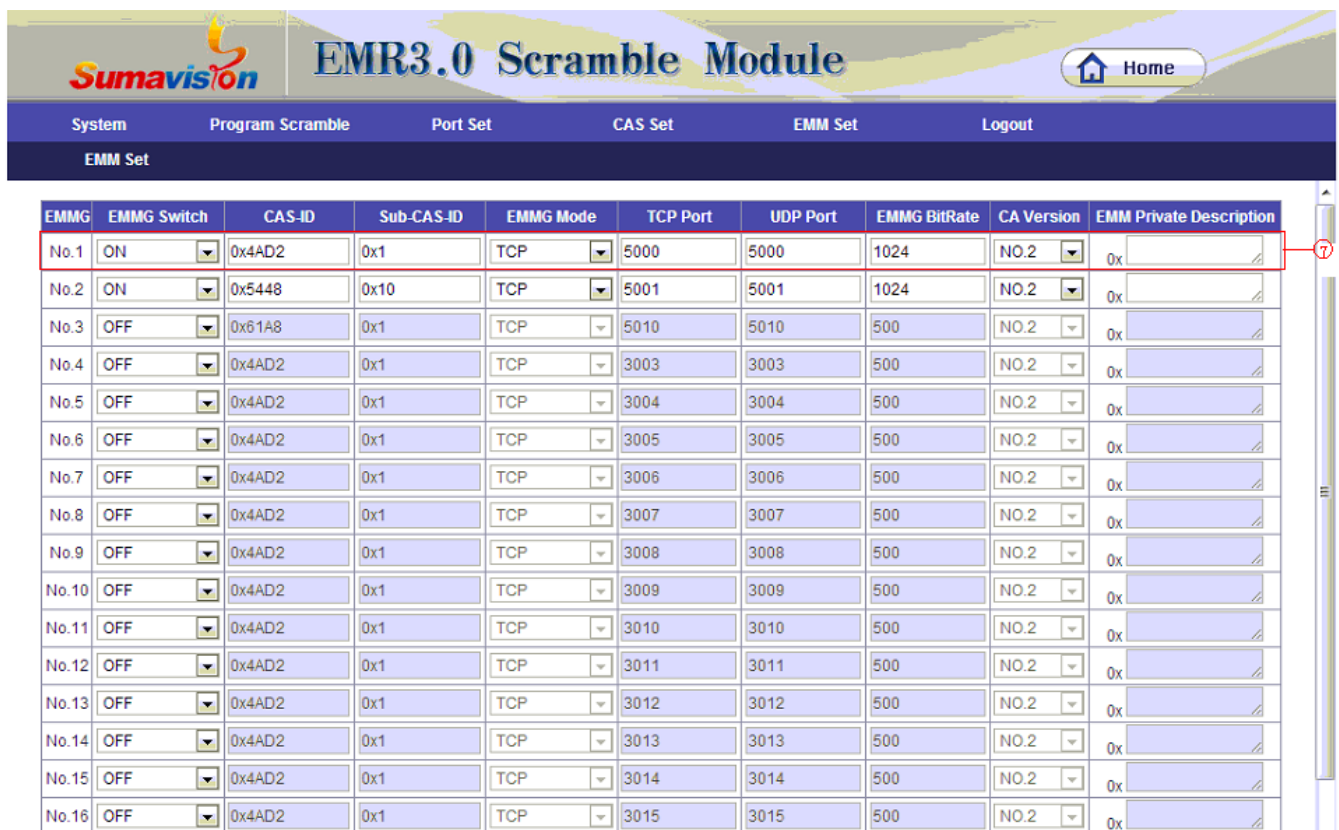
Fax: +86 10 62978800

"CAS-ID"、"Sub-CAS-ID"、"ECM-ChannelID": The ID of CAS company, you can get these parameters from CAS Company.

"Main ECMG-IP"、"Main ECMG-Port": The IP of primary CA system, you can get it from CAS Company.

"Backup ECMG-IP"、"Backup ECMG-Port": The IP of standby CA system, you can get it from CAS Company. If standby system does not exist, you can fill the same values as primary CA system. Clicks "submit" to complete the modification

Step 6、Go to "EMM Set"



EMMG	EMMG Switch	CAS-ID	Sub-CAS-ID	EMMG Mode	TCP Port	UDP Port	EMMG BitRate	CA Version	EMM Private Description
No.1	ON	0x4AD2	0x1	TCP	5000	5000	1024	NO.2	0x
No.2	ON	0x5448	0x10	TCP	5001	5001	1024	NO.2	0x
No.3	OFF	0x61A8	0x1	TCP	5010	5010	500	NO.2	0x
No.4	OFF	0x4AD2	0x1	TCP	3003	3003	500	NO.2	0x
No.5	OFF	0x4AD2	0x1	TCP	3004	3004	500	NO.2	0x
No.6	OFF	0x4AD2	0x1	TCP	3005	3005	500	NO.2	0x
No.7	OFF	0x4AD2	0x1	TCP	3006	3006	500	NO.2	0x
No.8	OFF	0x4AD2	0x1	TCP	3007	3007	500	NO.2	0x
No.9	OFF	0x4AD2	0x1	TCP	3008	3008	500	NO.2	0x
No.10	OFF	0x4AD2	0x1	TCP	3009	3009	500	NO.2	0x
No.11	OFF	0x4AD2	0x1	TCP	3010	3010	500	NO.2	0x
No.12	OFF	0x4AD2	0x1	TCP	3011	3011	500	NO.2	0x
No.13	OFF	0x4AD2	0x1	TCP	3012	3012	500	NO.2	0x
No.14	OFF	0x4AD2	0x1	TCP	3013	3013	500	NO.2	0x
No.15	OFF	0x4AD2	0x1	TCP	3014	3014	500	NO.2	0x
No.16	OFF	0x4AD2	0x1	TCP	3015	3015	500	NO.2	0x

"EMMG Switch": According to the numbers of CAS in your network, select it as "ON" unused will be kept as "OFF",

"CAS-ID"、"Sub-CAS-ID" : Refer to the previous setting

"EMMG Mode": Select as "TCP" or "TCP+UDP", it depends on the requirement of CAS

"TCP Port": The TCP communication port of EMMG , it should be match with the setting in CAS

"UDP Port": The UDP communication port of EMMG , it should be match with the setting in CAS, only available to UDP communication

"EMMG BitRate": The bandwidth of EMMG communication, it should be match with the setting in CAS

"CA Version": Default parameters is ok, no need to do any change.

"EMM Private Description": Default parameters (blank) is ok, no need to do any change.

Clicks "submit" to complete the modification.

Contact Us

SUMAVISION TECHNOLOGIES CO.,LTD

Tel (India): +91-998 767 9959

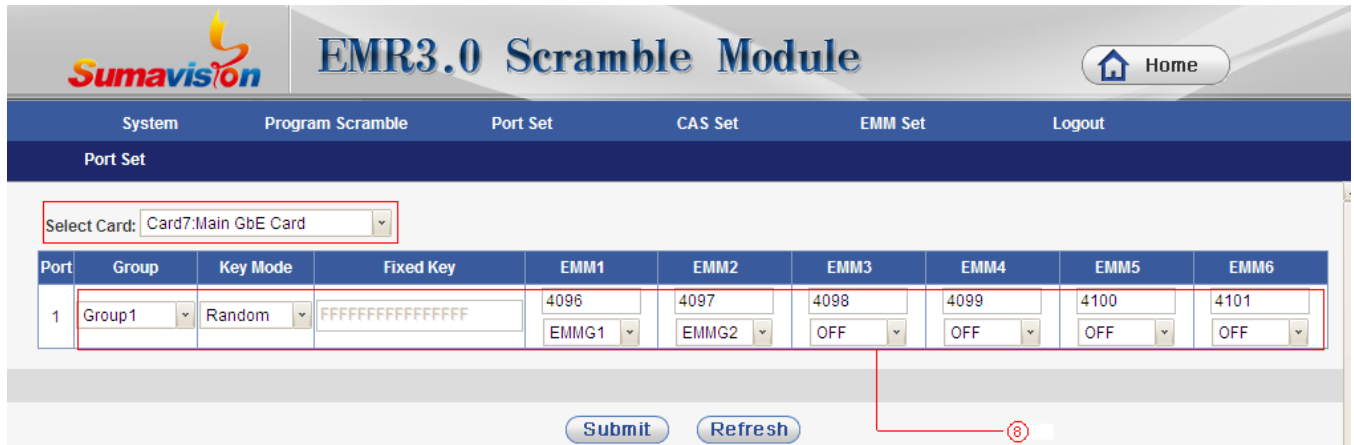
Email: worldmarket@sumavision.com

Tel (China): +86-10-82345859/69/70

Website: www.sumavision.com

Fax: +86 10 62978800

Step 7、Go to "Port Set"



Port	Group	Key Mode	Fixed Key	EMM1	EMM2	EMM3	EMM4	EMM5	EMM6
1	Group1	Random	FFFFFFFFFFFFFF	4096	4097	4098	4099	4100	4101
				EMMG1	EMMG2	OFF	OFF	OFF	OFF

First select the card as "Card7:Main GbE Card", it will be show the TS list as Port 1~N

⑧ The EMMG port setting for each TS

"Port"、The IP port number.

"Group"、Refer to the configuration of "CAS Set" option, if you select it as "OFF", the corresponding TS will be not scrambled.

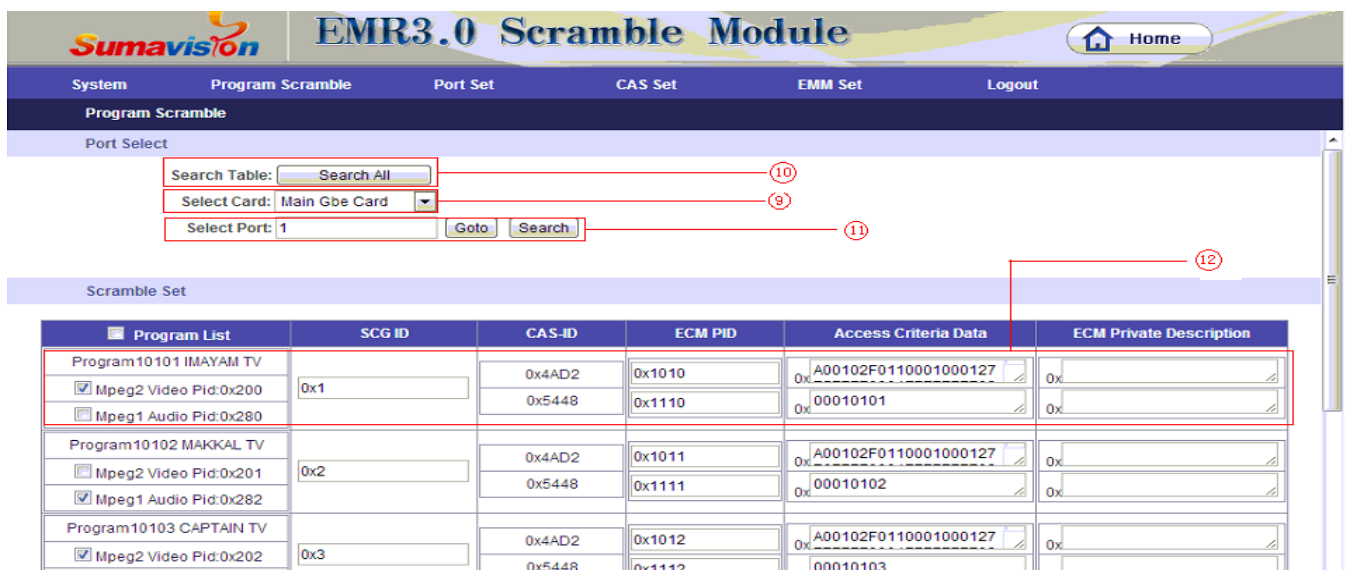
"Key Mode"、Select it as "Random".

"Fixed Key"、Only available in "Fixed" Key Mode

"EMM1"~"EMM6"、It corresponds to "NO.1 CA"~"NO.6 CA" in "CAS Set", and you can select the EMMG which have configured in "EMM Set", for example, "EMMG1" is for "EMM1" (NO.1 CA) and "EMMG2" is for "EMM2" (NO.2 CA).and you should input the PID of EMM, the type of PID is up to the setting of "PID Display" in "System" -> "System Parameter"

Click "Submit" to complete the configuration.

Step 8、Go to "Program Scramble"



Program List	SCG ID	CAS-ID	ECM PID	Access Criteria Data	ECM Private Description
Program10101 IMAYAM TV <input checked="" type="checkbox"/> Mpeg2 Video Pid:0x200 <input type="checkbox"/> Mpeg1 Audio Pid:0x280	0x1	0x4AD2 0x5448	0x1010 0x1110	0x_A00102F0110001000127 0x_00010101	0x_
Program10102 MAKKAL TV <input type="checkbox"/> Mpeg2 Video Pid:0x201 <input checked="" type="checkbox"/> Mpeg1 Audio Pid:0x282	0x2	0x4AD2 0x5448	0x1011 0x1111	0x_A00102F0110001000127 0x_00010102	0x_
Program10103 CAPTAIN TV <input checked="" type="checkbox"/> Mpeg2 Video Pid:0x202	0x3	0x4AD2 0x5448	0x1012 0x1112	0x_A00102F0110001000127 0x_00010103	0x_

Contact Us

SUMAVISION TECHNOLOGIES CO.,LTD

Tel (India) :+91-998 767 9959

Email:worldmarket@sumavision.com

Tel (China)+86-10-82345859/69/70

Website:www.sumavision.com

Fax:+86 10 62978800

- ⑨ "Select Card" as "Main Gbe Card".
 - ⑩ Click "Search All" to get the program list.
 - ⑪ Typing the Port number into the "Select Port", and then click "Goto" to enter the port, you can see the Program list that belongs to this port.
 - ⑫ "Program List" , it will show the program list ,and each program has video and audio scrambling options ,in which you can select "√" or blank to scramble or cancel, if you want to select all programs to scramble or cancel, you can select "√" or blank at "Program List"
- "SCG ID"**、 you can make a planning table of SCG ID as long as ensure that there is no SCG ID conflict in all programs.
- "CAS-ID"**、 According to the configuration of "CAS Set" option, typing the CAS ID into it.
- "ECM PID"**、 According to the planning table as long as ensure that there is no PID conflict in the network
- "Access Criteria Data"**、 The Access Criteria Data, you can call it as "AC value", which generated by CAS, you can copy it from CAS, which the AC value should be corresponds to "CAS ID"
- "ECM Private Description"**、 Default setting is ok.(Blank)
- Click "submit" to complete the modification, and then click "start scramble"

Step 9、 Check the communication status of EMMG and ECMG.

After finished all of the above configuration, including the CAS configuration, you must check the EMMG and ECMG status, which it should be showing as "good (main)", and also you can get the "EMM Bit rate" and "EMM TS Bit rate", if normal, that will be ok

Contact Us

SUMAVISION TECHNOLOGIES CO.,LTD

Tel (India) :+91-998 767 9959

Email:worldmarket@sumavision.com

Tel (China)+86-10-82345859/69/70

Website:www.sumavision.com

Fax:+86 10 62978800