

# SC601

User Guide V5.

2016.09.09

\*EARLY VERSION 0.99\*



SC601 Overview
1.IP Finder4
2.Responsive Bootstrap6
3.Login SC601 Web Server7
4.Network Setup8
5.Stream Server
6.Video Tuning
7.Encoder Setup
8.Volume Tuning
9.Record Stream21
10.Firmware Update
11.Account Setup23
12.Reset to Default25
13.RS-485
Appendix



# SC601 Overview



Item	Description						
	• Video						
Ŧ	■ 1x BNC for 3G / HD / SD-SDI						
Input	■ 1x HDMI, 1x DVI-I for DVI-D/HDMI and DVI-A/ VGA						
Interfaces	■ 3xBNC for YPbPr/CVBS/S-Video						
	• Audio						
	1xStereo audio through						
	<ul> <li>1xRCA for Analog L/R audio</li> </ul>						
	♦ SDI/HDMI/DVI-D embedded audio						
	<ul> <li>1x3.5 mm phone jack</li> </ul>						
	• H.264/AVC, Main / High Profile						
x 7. 1	• Configurable bit rate up to 10Mbps						
Video	• Supported input / output resolutions						
Feature	■ 1080@50p / 60p (1080p25 / 30p output)						
	■ 1080@50i / 59.94i / 60i						
	■ 720p@50p / 59.94p / 60p						
	■ 576@50p / 480@59.94p						
	■ 576@50i <u>/480@59.94i</u>						
Audio	• AAC-LC						
<b>F</b>	• Configurable bit rate range from 32Kbps to 384Kbps						
Feature	• Sample rate : 48KHz, 16bit						
Network	• 1x RJ45 for 10/100Mbps Ethernet						
<b>F</b>	• DHCP client						
Feature							
Supported Streaming	• TS over TCP/UDP (unicast & multicast)						
	• RTSP over HTTP/TCP/UDP (RTSP Elementary Stream)						
Protocol	• RTMP(Local & Publish)						
	• HLS						
Misc.	• RS-485						
	• 1x USB 2.0 Host for USB storage						
Features	• Web UI for system configuration						
	• Firmware upgradable						
	• LED indicator						
	Auto Signal Detection						
Record Format	• MP4						
~~	• TS						

Systems Engineering Power Supply

DC 12V (With DV Adapter)

## 1. IP Finder

a. Make sure your computer and SC601 are in the *same Local Area Network*.(Make sure SC601 is connected to a Router not a Hub!!)

**b.** Execute SC601 IP Finder.exe .

SC600 IPFinder 150324		×
		<b>i.</b> If the network is
		available, local IP
		Address shows on (Pic
		1.).
	10.10.80.46	
	Scan	
		(Pic 1.)

© SC600 IPFinder 150324		<b>ii.</b> If the network is
	_	NOT available, shows
		on (Pic 2.).
	10.10.80.46	
	Scan	
No SC600 found		( <b>B</b> : - 2)
		(Pic 2.)

4



i. In scanning



(Pic 3.)

#### ii. Scan completed.

6	SC600 IPFinder 150324	-	
	IP Address: 10.10.80.178 IP Address: 10.10.80.250 IP Address: 10.10.80.120 IP Address: 10.10.80.174	MAC Address:02-06-00-00-00-04 MAC Address:00-04-00-00-02-BE MAC Address:00-04-00-00-03-01 MAC Address:00-04-00-00-02-BD	
			10.10.80.46
E			Scan
Fe	und 4 SC600		

(Pic 4.)

SC601 default IP Address mode is dynamic by **DHCP**, you can set as static IP Address on Web Server.

(Tips:User can double click the column of IP address or MAC address, and the home page of stream server will be pop out on the default server.)



## 2. Responsive Bootstrap



If the screen resolution of the browser is less than 1024x768, the menu bar would be automatically hide to an icon in the upper of the right

(Pic 5.)



User can click the button to show the full menu bar. in the upper of the right corner .

JMC Systems Engineering AB



# 3. Login SC601 Web Server



#### (Pic 7.)

Before login to SC601 web server, user has to input Username and Password.Username: adminPassword:000000.



## 4. Network Setup

C 5C601	× 💽					
		Pagard	Statue	Sotting	DC/05	1 X
	Live	Record	Status	Setting	K340J	
					English	•
		Liv	ve Strean	1 Setup		
				COLUMN .		
		1	Network S	Setup		
Dynamic IP Ac	Idressin	g (DHCP)				
Enable Disable						
Static IP Address :	192.168.1.2	20				
Subnet Mask :	255.255.25	5.0				
Default Gateway :	192.168.1.1	1				
Primary DNS :	192.168.1.1	1				
Secondary DNS :						
Remind						
Please change the I network configurati	P address in on changed!	browser, after				
5	U.S.					
Reset Apply Sa	ve					
التلة لمعتدي التحد						
		Fi	rmware l	Jodate		

(Pic 8.)

Login Web Server and select <u>Setting → Network Setup</u>, as above.

There are two IP Address modes, Dynamic (DHCP) and Static (fixed).

Save

The button can save the network configuration.

Apply

Click the button to show the configuration changed immediately but will not be saved.

et Clear all values of current input.



HOME LIVE	Record	Status	Setting	RS48	15	tiqui					
Dynamic IP Ad *Enable Disable	dressing	DHCP)									
Salic P Address (	100100120		10.00	00							South and
Bullevet Mask	210.210.210.0		+ -	× 0 10	10.00.200	Vigi bin/Siveset	ngi.				41
Default Geleway	10110211		17.84	Sc 4882	EN ENTRE	-ECHRELOS	OR - 253ABS	L.			
Primary DNB :	10210911			lome	Live	Record	Statue	Satting	PS/R5	English	
Secondary ONS :				Tenne		ite solo	Giulas	outing	- Nonda	and the second s	
9	•	Firm	1	Alertii Nease use I	P Finder1	to get CHCP IP	Address				
			1				N	letwork Se	etup		
		_	1				Fi	rmware Uj	pdate		
							A	ccount Se	etup		



After Enabling DHCP, please use IP Finder to get the dynamic IP address and login again.

HOME Live	Record	Status Se	tting R	S485	English				
Dynamic IP A	ddressing	DHCP)							
Enable OD	sable	10	100	- (m)					Lord
Static IP Address	10 10 50 200	4	× 3 10.10	80.62 toji bin liveseto Refizi - ECRACIAR	AN- DERIVER				9
Subnet Mask :	255 255 255 0				-		-		-
Default Gateway :	10 10 80 254		tome L	ive Record	Status	Setting	RS485	trigan	
Primary DNS :	10 10 80 254	1 2	President						
Secondary DNS :		1	letwork eetup	euccess?					
Remind Please change the network configura	IP address in bro tion changed	ereer, atter	llert!   lefic IP Addre	in Enable , Please cli	ckt				
_				> Login A	gain	etwork Se	rtup		
					-		of a take		
2	_					mware Up	Juate		
-2	_				FI	mware Up	Juate		

(Pic 10.)

After DHCP Disable, please click the button **"Login Again**" to login again.

9



#### 5. Stream Server

#### **General setting**



(Pic 11.)

- 1. Select source first. (HDMI, DVI, DVI\_A, CVBS, S-Video, YPbPr, SDI)
- Then select server and apply setting. (RTSP, RTMP, HLS, RTMP\_Publish, RTSP\_ES and Raw UDP)
- 3. Press the button of Apply nd Loading.
- 4. The RTSP URL will be showed.

(Tips:HLS can only be streamed on the devices which are produced by Apple co.(EX: ipad , iphone) )  $\,$ 

(Tips: Press button of Reset to initial the status of Live Stream Setup.)



SC601	HOME	Live	Recor	d Status	Setting	RS485		
RTSP Serv rtsp://10 1.	er URL	:8000/li		C media player a) Playback Audio Vic Open File Open Nultiple Files Open Folder Open Network Stream Open Network Stream Open Network Protocol Please enter a neth Trap://10.10.80 Network Protocol Stream definition of the second Stream definition	deo Subtitle Tor Ctrl+O Ctrl+Shift+ Ctrl+D Ctrl+N Ctrl+N is: ** Network is: ** Network is: *** Network is: *** Network is: **** Network is: **** Network is: **** Network	ols View Help O Dis View Help O Capture Device 3. br		

(Pic 12.)

- 1. After the server of RTSP has started, user can go to the RTSP address first.(Pic 12.)
- 2. Open VLC media player and follow the instruction.
- 3. Copy the RTSP URL to the column.
- 4. Play.



SC601 HOME Live F	Record Status Setting RS485
RTSP Server URL rtsp://10.10.80.89:8000/es 1.	Image: Stream in the second

(Pic 12-1.)

- 1. After the server of RTSP\_ES has started, user can go to the RTSP address first.(Pic 12-1.)
- 2. Open VLC media player and follow the instruction.
- 3. Copy the RTSP URL to the column.
- 4. Play.





#### (Pic 13.)

- 1. The setting of RTMP is the same as "general setting". (Pic 11.)
- 2. After stream server and source are running, go to the live page to watch the RTMP streaming.

#### **RTMP** Publish

HOME Live Rec	ord Status	Setting	RS485	English	-	
	Liv	ve Strea	0	н (ла. н.		
Stream Server Sele	ction		and a			
RTMP, Facility					83. 344 hours	
Input Source Selec	tion				-	
CM (M	•	1	The Avenue		S	
Coptal	•	83	and the second			
Video Tuning			A PROPERTY AND	x.	-	
Brightness	128	1				-
Contrast	128	R	MP Publish UK	L		
	1. S.					

(Pic 14.)

13



- 1. If there is a RTMP Publish URL, the RTMP URL could be pasted into the correspond column.
- 2. Apply setting.
- 3. Go to Your channel and watch the live streaming.

#### **RTMP Publish Authentication**

Stream Server Selection		Encoder Setup				
Server RTMP_Publish		Scale Down	No	T		
		H.264 Encode	Main 3.1	•		
Input Source Selection		Audio Stereo	Stereo	•		
DVI T	Auto Source Selection	Stereo Bitrate (Kbps)	384К	•		
		Video Bitrate(Server ON)	3000(Kbps)	T		
		Video Rate Mode	VBR	•		
Video Tuning		Analog Audio System	EBU	•		
Brightness	128					
Contrast	128	RTMP Publish URL				
Hue	128	rtmp://				
Saturation	128	RTMP Username				
Volume Tuning		RTMP Password				
Volume	100%	Reset Apply				

(Pic 15.)

RTMP authentication is only valid on publishing to Adobe Flash Media Server &

Wowza Server. User can set multiple sets of account information on Adobe Flash Media Server.



(Pic 16.)

For Apple devices, such as iPad or iPhone, login SC601 Web Server by Safari browser.

(Tips: SC601 support live streaming to the internet via "Wowza Server", "Adobe FMS", "Ustream", "Twhich", and "Youtube". The way of obtain steaming key can be found on the related website.  $\circ$  )



SC601 HOME Live Record Status Setting RS	6485
Live Stream Se	tup
Stream Server Selection Enco	oder Setup
Server Raw UDP 🔽 Auto stream at startup Scale I	Down No
H.264 E	Encode Main 3.1
Input Source Selection Audio	Stereo Stereo
SDI	Bitrate (Kbps) 384K
Video I Video I Video I	Bitrate(Server ON) 3000(Kbps)
Audio Video I	Rate Mode VBR
Video Tuning Analog	Audio System
Remind!! No available for SDI.	UDP stream
IP Add	225.0.0.1
L. Port	1231
Reset	Apply 2.
3 Judg:	//@225.0.0.1:1234
J	
A	
Copen Media	
🕞 File 💿 Disc 🚏 Network 📑 Capture Device	
Network Protocol	
Please enter a network URL:	
udp://@225.0.0.1:1234	•
http:///www.example.com/steam.avi xtp://@:1234 mmrs://mms.examples.com/steam.asx xtsp://server.example.cug:8060/test.sdp http://www.yourtube.com/watch?v=gg64x	
Show more options	Play - Cancel

#### (Pic 16-1.)

- 1. Enter the IP address (in the range of 224.0.0.0 to 239.255.255.255) and Port number
- 2. Click Apply
- 3. Open VLC and follow the instruction



# 6. Video Tuning

			Status	Setting	RS485	English	
			Live	e Stream S	Setup		
Strear	n Server	Selection	1	End	oder Setup		
Server	OFF	,		Scale	Down	No	•
				H.264	Encode	Main 3.1	
Input	Source S	selection		Audio	Stereo	Stereo	•
_	014			Stere	o Bitrate (Kbps)	384K	•
Video	Dustal			Video	Bitrate(Server OFF)	6000(Kbps)	•
Autio	Urgital			Video	Rate Mode	VBR	
Video	Tuning		~	Analo	og Audio System	EBU	
Brightner			128	Res	Apply		
Contrast	_		128				
Hue	_		128				

#### (Pic 17.)

User can adjust these parameters during watching live stream. The extra function of CVBS and S-Video is Sharpness. When user watch live stream and doing video tuning, the stream server would not be terminated or restart.

(Tips:There is no video tuning option in SDI input source  $_{\circ}$   $\,$  )



# 7. Encoder Setup

C601 HOME Live Record S	Status Setting RS4	85	
Live	Stream Setup	English	
Stream Server Selection	Encoder Setup		
OFF .	Scale Down	No	•
	H.264 Encode	Main 3.1	•
nput Source Selection	Audio Stereo	Stereo	•
	Stereo Bitrate (Kbps)	364K	•
Auto Source Selection	Video Bitrate(Server	6000(Kbps)	•
Digital •	Video Rate Mode	VBR	•
/ideo Tuning	Analog Audio System	EBU	•
drightness 128	Reset Apply		
Contrast 128			
lue 128			

(Pic 18.)

1. Scale Down	(Table 2.)
2. H.264 Encoder:	Support Main3.0, Main3.1 and High4.0.
3. Audio Stereo:	Proviide (Stereo) & (Mono).
4. Stereo Bitrate:	From 32(Kbps) to 384(Kbps).
5. Video Bitrate(Server OFF):	Record Only(bear). Up to 16000(Kbps)
Video Bitrate(Server ON):	Stream Only(bear). Up to 12000(Kbps).
	Record+stream: Up to 6000(Kbps)。
6. Video Rate Mode:	VBR & CBR <sub>o</sub>
7. Audio Source:	Only HDMI and DVI and SDI Support Digital



8. Analog Audio System:

EBU & SMPTE.

(Table 1.)

(Tips: When video bitrates is higher than 6000kbps and doing recording at the same time, SC601 does not guarantee the quality in the status.)

## \*Scale Down

Outpu				Outpu	ut			
t	1920x1080	1440x1080	1440x900	1280x72	060-540	720-676	720-400	320x240
Input				0	960x540	720x576	720x480	
1080p60	0	Devue	Davis	Davis	Dever	Deve	Davia	Davis
(to p30)	0	Down	Down	Down	Down	Down	Down	Down
1080i60	0	Down	Down	Down	Down	Down	Down	Down
1080p50	0	Down	Down	Down	Down	Down	Down	Down
(to p25)	0	DOWN	DOWN	Down	DOWIT	DOWIT	DOwn	DOwn
1080i50	0	Down	Down	Down	Down	Down	Down	Down
720p60	N/A	N/A	N/A	0	Down	Down	Down	Down
720p50	N/A	N/A	N/A	0	Down	Down	Down	Down
576p60	N/A	N/A	N/A	N/A	N/A	0	Down	Down
480p60	N/A	N/A	N/A	N/A	N/A	N/A	0	Down



PAL		N1/A				0	Down	Down
(digital)	N/A	IN/A	N/A	IN/A	IN/A	0	DOwn	
NTSC							0	Down
(ditital)	N/A	IN/A	IN/A	IN/A	IN/A	N/A	0	
PAL							ſ	Down
(analog)	N/A	N/A	N/A	N/A	N/A	0	Down	
NTSC								Down
(analog)	N/A	N/A	N/A	N/A	N/A	N/A	Ο	
		Original						
		Scaling						
		down						
			(Not					
		N/A	Allow)					

(Table 2.)



## 8. Volume Tuning

SC601 HOME L	ive Record S	tatus Setting RS	485	
	Live	Stream Setup	English	•
Stream Server Sel	ection	Encoder Setup		
Server OFF		Scale Down	No	•
		H.264 Encode	Main 3.1	•
Input Source Selec	tion	Audio Stereo	Stereo	•
<b>6</b> 14		Stereo Bitrate (Kbps)	384K	•
Auto Source Selection		Video Bitrate(Server OFF)	6000(Kbps)	•
Audio Digital	•	Video Rate Mode	VBR	•
Video Tuning		Analog Audio System	EBU	٠
Brightness	128	Reset		
Contrast	128			
Hue	128			
Saturation	128			

(Pic 19.)

User can adjust HDMI and DVI volume when audio source input is digital. The Volume can be down or up. Only digital source input is worked.



## 9. Record Stream

HOME Li	e Record	Status	Setting	R5465	pin .			
Stream	Record							
UEB Storage Inh	armation.	2.	Start Record					
/endor Product	LO DATA USS Flash Disa	·			The basis of Automatica		4	10100
Lapacity Capacity	A DA N	3.	4	+ + C D 1010303	Autotorape/ R±+NUMBERABAR+ :		L	~
Stream Informati	100	1		Index of /usb	storage			
Itream Server Input Source Resolution	0FF DVI 1250 x 720	- (		Date	Last solution	2148	Destruction	
ramerate Inghtness Jontrast Le aturation Iharpness Inargness	60 tps 128 128 128 128 128 128 128 128	1	9	Painter Birmeiner     B suttor_bool.is     satist_bool.is     satist_bool.is     satist_bool.is     satist_bool.is	81-3mt-1970 00184 81-3mt-1970 00187 81-3mt-1970 00187 81-3mt-1970 00188 81-3mt-1970 00188	- 7.48 9.88 238 148 148		
(264 Level (264 Profile Judio Stereo Judio Bitrate Tideo Bitrate	3 1 Main Stereo 384 K2ps 6000 K2ps			Apache 2.0.34 (Chio) Serve	ar 10.10.80.85 Part 80			



- 1. Click Record button on the menu bar.
- 2. Start Record.
- 3. Click the picture of USB to see recording files in the USB storage.



(Pic 23.)

If there is no USB Storage plugged-in, shows as above.

22



# 10. Firmware Update

TOME	Live	Record	Status	Setting	RS485	English	
			Fin	mware Up	date		
Alerti							
During Fin	mware up	date PIEASE D	O NOT POWER	OFF or RELO/	ID THIS PAGE.		
During Fir	mware up	date,PIEASE D	mage file	OFF or RELO	D THIS PAGE.		
During Fir	select 1	firmware i	mage file	COFF or RELO	ID THIS PAGE.		
During Fir Please s Remind Firmware	mware up select 1 update wil	firmware i I Not Available	mage file	t OFF or RELO/	NO THIS PAGE.		
During Fir Please s Remind Firmware (	select 1 update will	firmware i I Not Available 1. Browse	mage file If stream serve 2. Update	r or recording l	NO THIS PAGE.		

(Pic 24.)

1. Click Browse Button to find the newest SC601 firmware in your computer.

2. Update the Pack A and wait for the words of "update successful".

3. Then update the Pack B and wait for the words of "Please reboot"

4. After the firmware update is successful, **reboot SC601.** 



(Tips: If there is no words of "update successful", it is not allowed to update another pack or reboot machine。)

## 11. Account Setup

HOME Live	Record	Status	Setting	RS485	English	
		Live	e Stream S	Setup		
		N	etwork Se	tup		
		Fir	mware Up	date		
		A	ccount Se	tup		
Original Account	admin					
Original Password	[]		0			
		Sut	mit			

(Pic 25.)

Before setting a new username and password, user has to input the "original" username and password. If user never changes the account, user just types the **default** username and password. If user changed before, user has to type the last username and password setting to pass the verification.



HOME	Live	Record	Status	Setting	RS485	English	
			Fin	mware Up	date		
Success You Can Set	New Acci	ount&Password	i Now!				
			A	ccount Se	tup		
Account		user		inters, en	nbers(Only '16' ractors.)		
Password							
Confirm				1			
			App	NY .			

(Pic 26.)

Reset a newer username and password. Then apply change.

- If newer account information was forgot, we can use USB disk to do restoring.
- USB disk must be FAT32 format.



## 12. Reset to Default

I. Using Web Page

IOME	Live	Record	Status	Setting	RS485	English
			Liv	e Stream	Setup	
			N	etwork Se	etup	
			Fir	mware Up	odate	
			A	ccount Se	etup	
			R	estore De	fault	
Warning Before P Factory (	II ressing The DefaultIIII	Button of Res	tore to Defaul	t, Be sure to CC	ONFIRM AGAIN. Th	e System Will Be Restored To
				Restore to De	fault	

(Pic 27.)

If system is broken or boot fail, the function of "Restore to default" can help

SC601 reset to the "Factory Default". If the function is also not work, user can try to use the File

of "SC601\_FACTORY\_RESTORE" to restore SC601 by USB disk.

II. Using USB disk

1. Turn off SC601.



2. Connect USB disc which contain the File of "SC601\_FACTORY\_RESTORE".

(Note: USB disk must be FAT32 format.)

3. Turn on SC601.



## 13.RS485

I. Configure Serial Lines

<ul> <li>⇐ → C</li> <li></li> </ul>	10.10.80.165/	× 🔲 ′cgi-bin/rs	485.cgi				- □ × 日公 =
SC601	HOME	Live	Record	Status	Setting	RS485	
						English	×
<b>RS48</b>	5 Seti	qr					
					BAUDRATE:	9600	
					DATA BITS:	8	
					STOP BITS:	2	•
					PARITY:	None	•
		<b>01</b>	02 03 04 0	05 - 06 - 07			
Apply	Save Clear	08	09 10				
Config1			Config2				
Config3	3	,,,	Config4		-,,		
Config5	;		Config6				
Config7		,,,	Config8	,,,,,,,,,,,,,	-,,		
Config9	)		Config10		-,,		

Configure BAUDRATE, DATA BIT, STOP BITS and PARITY to correspond with serial lines.

The BAUDRATE can be set as following values: **50**, **75**, **110**, **134**, **150**, **200**, **300**, **600**, **1200**, **1800**, **2400**, **4800**, **9600**, **19200**, **38400**, **115200** 



II. Save Configuration Files

<ul> <li>⇐ → C</li> <li>C</li> </ul>	10.10.80.165/	× 🗖 ′cgi-bin/rs4	485.cgi					
SC601	HOME	Live	Record	Status	Setting	RS485		
							English	
<b>RS48</b>	5 Setu	q						
0,15,66,18	7,255, 1				BAUDRATE:	9600		
					DATA BITS:	8		
					STOP BITS:	2		•
					PARITY:	None		•
Apply Config Config	Save) Clear	, ,,	02 03 04 0 09 10 Config2 Config4	05 06 07	2.			

1. Input Parametres.

**NOTE**: Each parameter must be within the range of  $0 \sim 255$  and separated by

#### Commas(,).

- 2. Choose which columns you want to save.
- 3. Click Save to save. If saving is successful, it will be showed below.

Success Save Config Fi	ile Success					
RS485	Setup					
0,15,66,187,25	55,			BAUDRATE:	9600	
				DATA BITS:	8	
				STOP BITS:	2	•
				PARITY:	None	•
Apply Sav Config1 Config3	ve Clear 01 08 08 08 00 000 000 000 000 000 000	02 03 04 0 09 10 Config2 Config4	05 06 07			
Config5		Config6		,,		
Config7 Config9		Config8 Config10				

29



**III.** Apply Parameters



#### method a:

1. Input Parameters.

2. Click Apply

method b:

If you already save configuration files, you can click the blue button.(ex.





# Appendix

# 1.Video Tuning

- a. Value: 0 to 255
- b. Video Tuning is available during streaming and recording.

	Brightness	Contrast	Hue	Saturation	Sharpness
HDMI	0	0	0	0	Х
DVI	0	0	0	0	х
DVI_A	0	0	0	0	Х
CVBS	0	0	0	0	0
S-VIDEO	0	0	0	0	0
YPbPr	0	0	0	0	Х
SDI	Х	Х	Х	Х	Х



# 2. Encoder setup

a. H.264 Encode	Up to Level 4.0
b. Audio Stereo	1. Stereo
	2. Mono
c. Stereo Bitrate	Up to 384kbps
d. Mono Bitrate	Up to 192kbps
e. Video Bitrate	Record Only :Up to 16000Kbps.
	Stream Only :Up to 12000Kbps.
	Stream On + Recording :
	Up to 6000Kbps. (Over 6000Kbps Will not be Smooth!!)
f. Video Rate Mode	1. VBR(Variable Bit Rate)
	2. CBR(Constant Bit Rate)
g. Analog Audio	i. HDMI
	1. No
	2. RCA
	3. External RCA
	ii. DVI
	1. No
	2. RCA
	3. External RCA
	iii. DVI_A
	1. RCA
	2. External RCA
	iv. CVBS
	1. RCA
	2. External RCA
	v. S-VIDEO
	1. RCA
	2. External RCA
	vi. YPbPr
	1. RCA
	2. External RCA
	vii. SDI
	1. No
	2. RCA
	3. External RCA



## 3. LED Behavior

Sourco	Flash Red Light(HDMI): Booting				
Source	Green Light: Signal Locked(Green/Red: S-Video, Green: CVBS)				
	Red Light: No Signal Input				
Record	Green Light: Video Recording				
Streaming	Green Light: Video Streaming				