

SSW020 Series
SSW030 Series
SSW080 Series
UMCT Intelligent Switch
Hardware Manual

Version 1.3

Synway Information Engineering Co., Ltd

www.synway.net

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Revision History

Version	Date	Comments
Version 1.0	2009-12	Initial publication
Version 1.1	2010-7	Add description on the new UMCT intelligent switch model SSW020A.
Version 1.2	2013-7	Add description on the new UMCT intelligent switch model SSW020A(2.0). Update some board information and relative contents.
Version 1.3	2014-12	Add description on the new UMCT intelligent switch model SSW080C.

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Chapter 1 Overview

The Synway UMCT intelligent switch adopts the X86 industrial embedded platform which has the Com Express structure as the main control unit. It owns all essential features of a PBX, such as the excellent expansibility and the capability to support a variety of functional boards. What's more, it supports all applications of the SynCTI driver platform as well as open source software like Asterisk.

The UMCT intelligent switch is extendable and allows hot swap of boards (replacing boards while the computer system using them remains in operation). The overall design features high efficiency and good ventilation. Especially, the SSW080B intelligent switch adopts the redundancy design, further ensuring the reliability in operation.

The UMCT intelligent switch models and their supported boards are shown in the table below (★ denotes supported).

UMCT Model	SCU Series					Board Series							RCU Series		
	SCU03	SCU03-3	SCU06(2.0)	SCU07	SCU08	SHD	SHT	SHN	DST	TEJ	FXM	Max. Inserted Boards	RCU01	RCU02	RCU04
SSW020	★					★	★	★	★	★	★	2	★		★
SSW020(2.0)	★					★	★	★	★	★	★	3	★		★
SSW030A		★	★	★	★	★	★	★	★	★	★	3	★		★
SSW080A		★	★	★	★	★	★	★	★	★	★	8	★	★	★
SSW080B		★	★	★	★	★	★	★	★	★	★	8	★	★	★
SSW080C		★	★	★	★	★	★	★	★	★	★	8	★	★	★
SSW080C(DC)		★	★	★	★	★	★	★	★	★	★	8	★	★	★

Note: A single switch can accommodate only a piece of SCU as well as a piece of RCU, but multiple voice boards in different series.

Table 1-1 List of Board Models Supported by UMCT Intelligent Switch

Feature	Series	Note
Digital trunk board	SHD	Provides E1/T1 digital line interface
Analog voice board	SHT	Provides analog line interface
VoIP board	SHN	Provides VoIP interface
Digital station tap board	DST	Provides high-impedance recording of digital phone lines
AST series digital board	TEJ	Supports digital voice interface of Asterisk platform
AST series analog board	FXM	Supports analog voice interface of Asterisk platform

Table 1-2 List of Board Types and Feature Description

1.1 SSW020A/SSW020A(2.0)

The SSW020A and SSW020A(2.0) UMCT intelligent switches are 1U in height and support up to 2 UMCT series voice boards.

The SSW020A is equipped with an RCU01 outlet board which accommodates the following interfaces: a VGA, a network interface, two USB2.0, two sound card interfaces and a Power key. See Figure 1-1 and Figure 1-2 for its hardware structure.

The SSW020A(2.0) is equipped with an RCU05 outlet board which accommodates the following

interfaces: a VGA, two network interfaces, two USB2.0, two sound card interfaces and a Power key. See Figure 1-1 and Figure 1-3 for its hardware structure.



Figure 1-1 SSW020A/ SSW020A(2.0) Front Panel

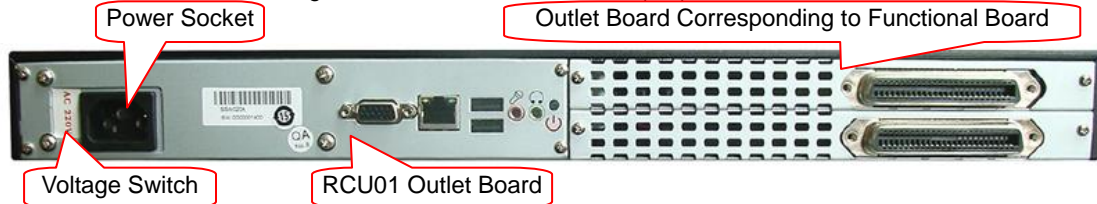


Figure 1-2 SSW020A Rear Panel

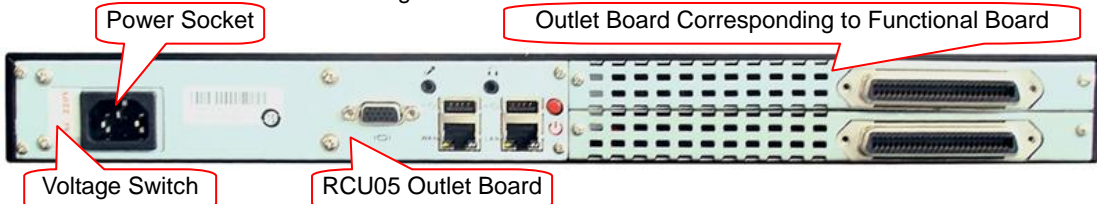


Figure 1-3 SSW020A(2.0) Rear Panel

The SSW020A and SSW020A(2.0) switches support two options for power supply: 220V AC and 110V AC, which can be selected by the voltage switch.

Note: Make sure the voltage option you choose conform to the actual voltage input before you power on the machine.

See Table 1-3 for the board models supported by SSW020A/SSW020A(2.0).

Series	Board Model	Available Ports per Board	Max. Inserted Boards	Note
SHD	SHD-30E-CT/PCI(SSW)	30	2	Up to 16 E1 digital interfaces configurable per system, with the maximum capacity of 480 ports Up to 128 fax channels available per system
	SHD-30E-CT/PCI/EC(SSW)	30		
	SHD-60E-CT/PCI(SSW)	60		
	SHD-60E-CT/PCI/EC(SSW)	60		
	SHD-120E-CT/PCI(SSW)	120		
	SHD-120E-CT/PCI/EC(SSW)	120		
	SHD-240E-CT/PCI(SSW)	240		
	SHD-240E-CT/PCI/EC(SSW)	240		
	SHD-30E-CT/PCI/FAX(SSW)	30		
	SHD-60E-CT/PCI/FAX(SSW)	60		
	SHD-120E-CT/PCI/FAX(SSW)	120		
	SHD-240E-CT/PCI/FAX (SSW)	240		
SHT	SHT-16C-CT/PCI/EC(SSW)	16	2	Up to 32 analog trunk channels configurable per system
	SHT-16C-CT/PCI/FAX(SSW)			
SHN	SHN-8B-CT/PCI+(SSW)	8		Up to 240 VoIP channels available per system
	SHN-16B-CT/PCI+(SSW)	16		
	SHN-32B-CT/PCI+(SSW)	32		
	SHN-60B-CT/PCI+(SSW)	60		
	SHN-120B-CT/PCI+(SSW)	120		
DST	DST-24B/PCI(SSW)	24		Up to 48 channels

			available per system
TEJ	TEJ101P(SSW)	30	Up to 16 E1 digital interfaces configurable per system, with the maximum capacity of 480 ports
	TEJ201P(SSW)	60	
	TEJ401P(SSW)	120	
	TEJ801P(SSW)	240	
FXM	FXM3201P(SSW)	32	Up to 64 voice channels available per system

Table 1-3 Model List of Functional Boards

1.2 SSW030A

The SSW030A UMCT intelligent switch is 2U in height and supports up to 3 UMCT series voice boards. See Figure 1-4 and Figure 1-5 for its hardware structure.

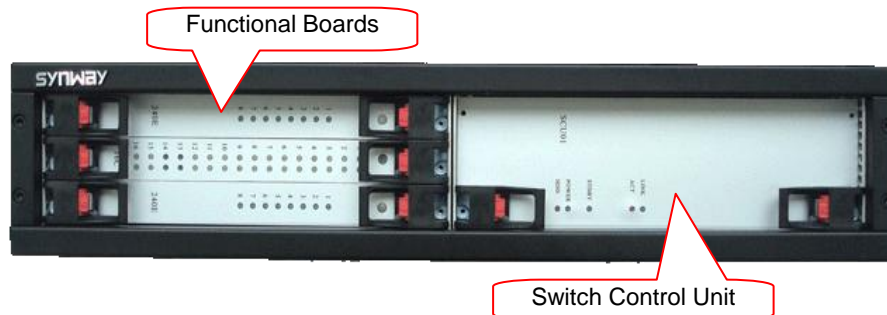


Figure 1-4 SSW030A Front Panel

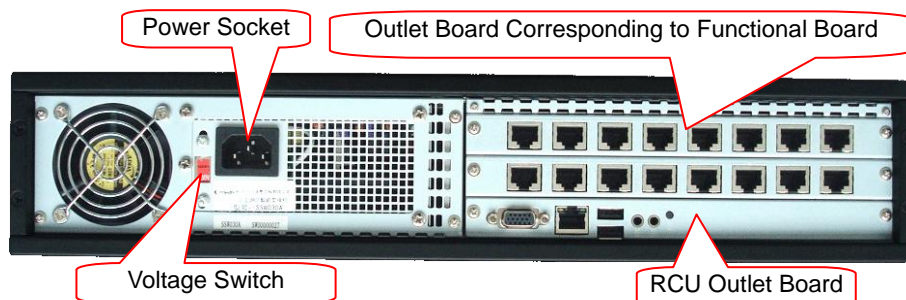


Figure 1-5 SSW030A Rear Panel

The SSW030A switch supports two options for power supply: 220V AC and 110V AC, which can be selected by the voltage switch.

Note: Make sure the voltage option you choose conform to the actual voltage input before you power on the machine.

See Table 1-4 for the board models supported by SSW030A.

Series	Board Model	Available Ports per Board	Max. Inserted Boards	Note
SHD	SHD-30E-CT/PCI(SSW)	30	3	Up to 24 E1 digital interfaces configurable per system, with the maximum capacity of 720 ports Up to 192 fax channels available per system
	SHD-30E-CT/PCI/EC(SSW)	30		
	SHD-60E-CT/PCI(SSW)	60		
	SHD-60E-CT/PCI/EC(SSW)	60		
	SHD-120E-CT/PCI(SSW)	120		
	SHD-120E-CT/PCI/EC(SSW)	120		
	SHD-240E-CT/PCI(SSW)	240		
	SHD-240E-CT/PCI/EC(SSW)	240		
	SHD-30E-CT/PCI/FAX(SSW)	30		

	SHD-60E-CT/PCI/FAX(SSW)	60		
	SHD-120E-CT/PCI/FAX(SSW)	120		
	SHD-240E-CT/PCI/FAX (SSW)	240		
SHT	SHT-16C-CT/PCI/EC(SSW)	16		Up to 48 analog trunk channels configurable per system
	SHT-16C-CT/PCI/FAX(SSW)			
SHN	SHN-8B-CT/PCI+(SSW)	8		Up to 360 VoIP channels available per system
	SHN-16B-CT/PCI+(SSW)	16		
	SHN-32B-CT/PCI+(SSW)	32		
	SHN-60B-CT/PCI+(SSW)	60		
	SHN-120B-CT/PCI+(SSW)	120		
DST	DST-24B/PCI(SSW)	24		Up to 72 channels available per system
TEJ	TEJ101P(SSW)	30		Up to 24 E1 digital interfaces configurable per system, with the maximum capacity of 720 ports
	TEJ201P(SSW)	60		
	TEJ401P(SSW)	120		
	TEJ801P(SSW)	240		
FXM	FXM3201P(SSW)	32	2	Up to 64 voice channels available per system

Table 1-4 Model List of Functional Boards

1.3 SSW080A/SSW080B/SSW080C

The SSW080A, SSW080B and SSW080C UMCT intelligent switches are 6U in height and support up to 8 UMCT series voice boards.

The SSW080A switch adopts common power supply. See Figure 1-6 for its hardware structure.

The SSW080A switch supports two options for power supply: 220V AC and 110V AC, which can be selected by the voltage switch.

Note: Make sure the voltage option you choose conform to the actual voltage input before you power on the machine.

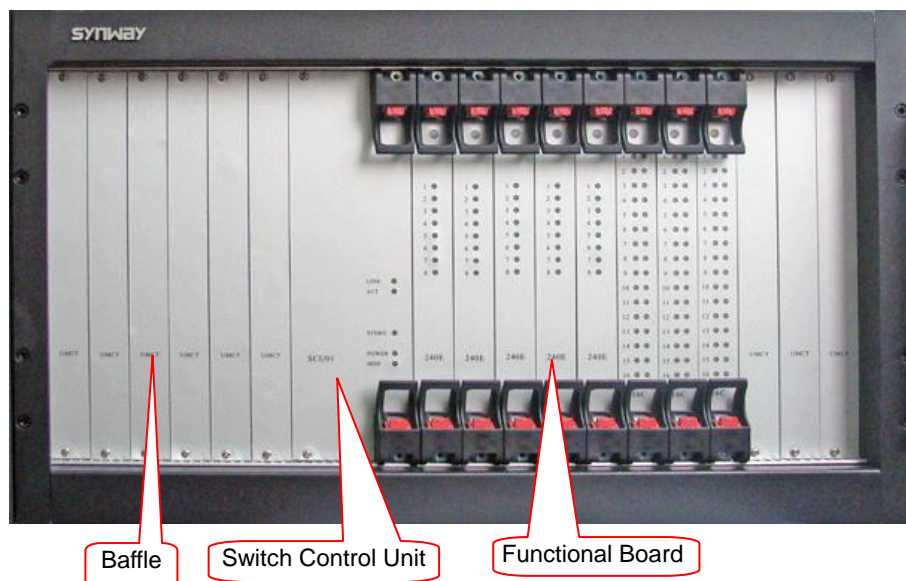


Figure 1-6 SSW080A Front Panel

The difference between SSW080B and SSW080A is that the SSW080B switch has a redundant power supply which further guarantees the operating stability. See Figure 1-7 and Figure 1-8 for the hardware structure of SSW080B.

The SSW080B supports a wide range of AC input, i.e. 100V~240V, 47~63Hz and the maximum current of 4A.

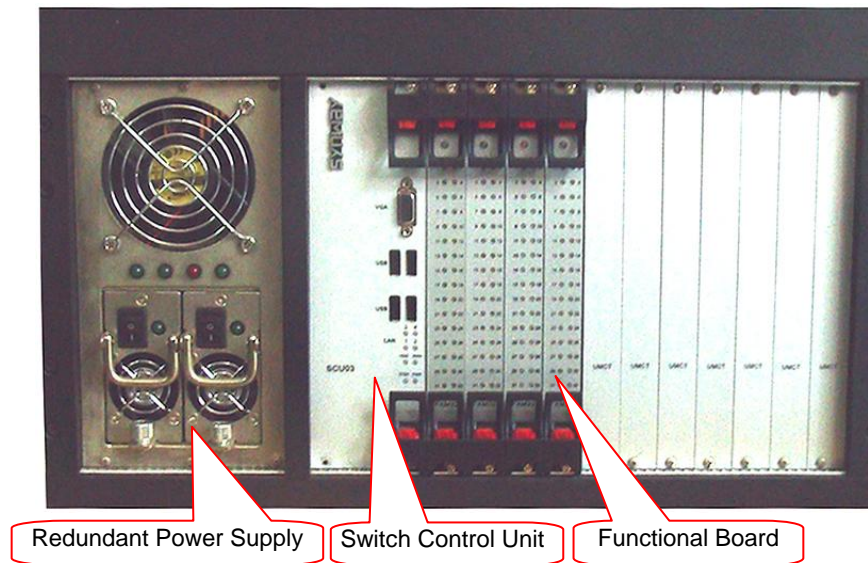


Figure 1-7 SSW080B Front Panel

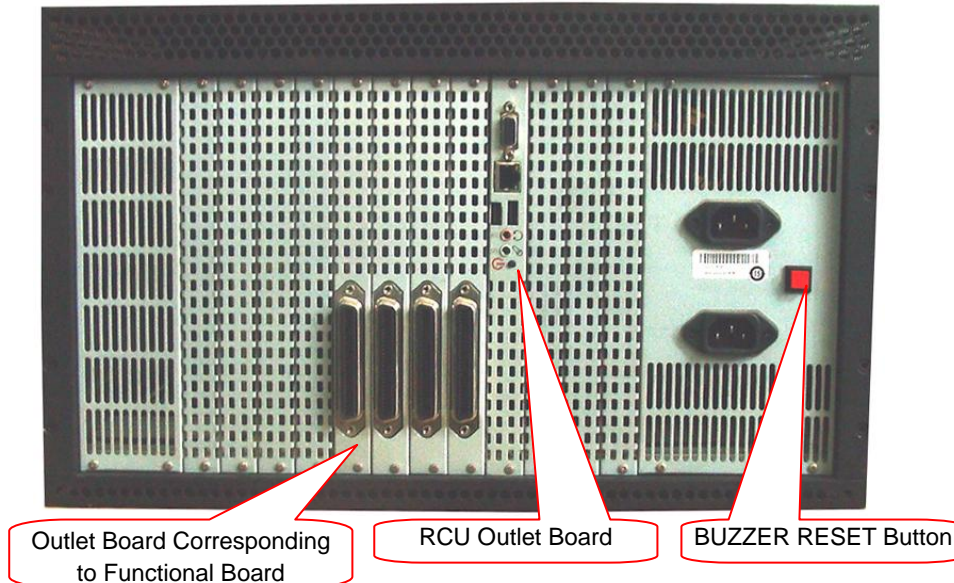


Figure 1-8 SSW080B Rear Panel

Note: Apart from the redundant power supply, the rear panel of SSW080A is the same as that of SSW080B.

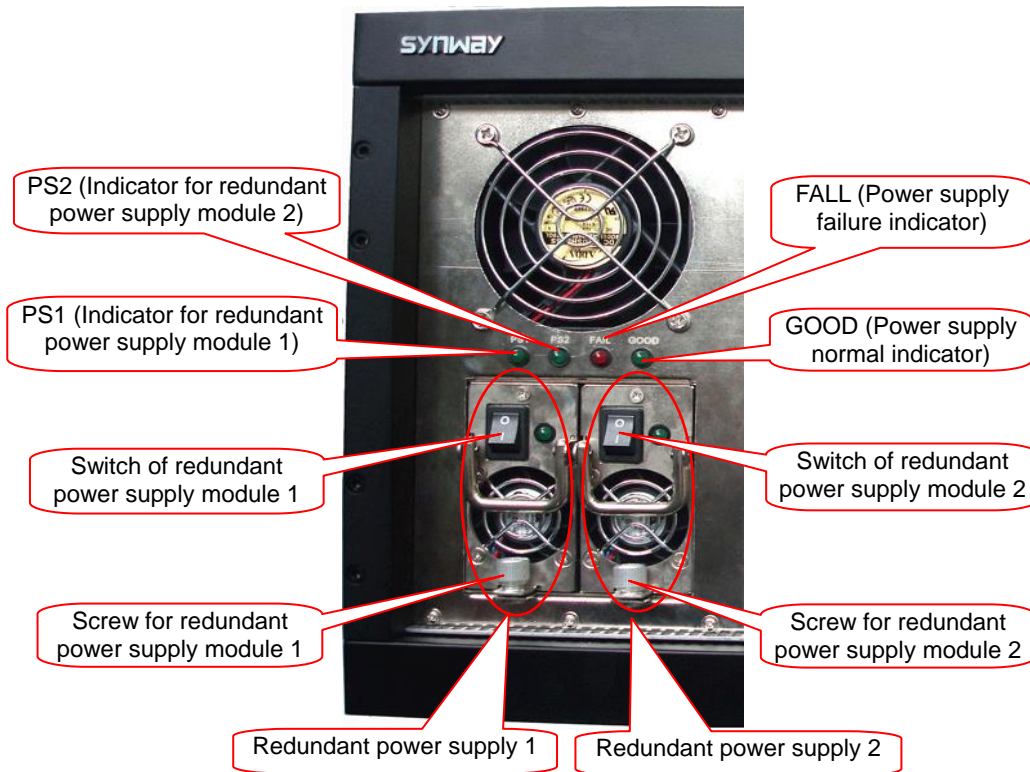


Figure 1-9 Redundant Power Supply

In the above Figure 1-9, the two screws are used respectively to fix the two redundant power supplies to prevent loose in running.

If both power supply modules work normally, the indicator marked Good lights up while the indicator marked Fall goes out; if either of these two power supplies becomes invalid, the Good indicator goes out and the Fall indicator lights up, meanwhile the corresponding PS1 or PS2 goes out and an alarm goes off. To stop the alarm, press the BUZZER RESET button on the rear panel as shown in Figure 1-8.

SSW080C supports both AC power and +48V DC power, where lies the difference from SSW080B. What's more, AC and DC power modules are allowed to work together to further guarantee the operating stability. The front panel of SSW080C is the same as that of SSW080A. See Figure 1-10 for the rear panel of SSW080C.

SSW080C supports a wide range of AC input, i.e. 100V~240V, 47~63Hz, with the maximum current of 6A. And the DC input range it supports is 42-60V DC.

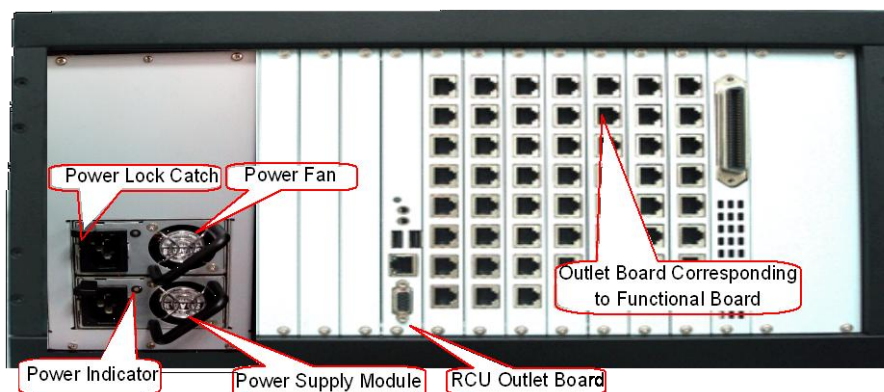


Figure 1-10 SSW080C Rear Panel

If the power supply module works normally, the indicator lights up green; if it goes abnormal, the indicator lights up orange and an alarm buzzes. To stop the alarm, pull out the abnormal power supply module.

The method to insert or extract the power supply:

To insert the power supply module, push it home into the slot until it can go no further. To extract the power supply module, open the power lock catch by pulling it toward the power fan and draw the power supply module until it is completely out.

SSW080C supports the 5" hard disk, but it requires SCU08 or above.

The method to install the HD:

- Disassemble the two vacant panels beside the RCU outlet board, and take out the HD installation bracket.
- Use the HD shock pad and screws to fix the hard disk onto the HD installation bracket.
- Connect the flat cable properly for the HD.
- Plug back the HD installation bracket and reinstall the two vacant panels. Now the HD installation finishes.

See Table 1-5 for the board models supported by SSW080A/SSW080B/SSW080C.

Series	Board Model	Available Ports per Board	Max. Inserted Boards	Note
SHD	SHD-30E-CT/PCI(SSW)	30	8	Up to 64 E1 digital interfaces configurable per system, with the maximum capacity of 1920 ports Up to 512 fax channels available per system
	SHD-30E-CT/PCI/EC(SSW)	30		
	SHD-60E-CT/PCI(SSW)	60		
	SHD-60E-CT/PCI/EC(SSW)	60		
	SHD-120E-CT/PCI(SSW)	120		
	SHD-120E-CT/PCI/EC(SSW)	120		
	SHD-240E-CT/PCI(SSW)	240		
	SHD-240E-CT/PCI/EC(SSW)	240		
	SHD-30E-CT/PCI/FAX(SSW)	30		
	SHD-60E-CT/PCI/FAX(SSW)	60		
	SHD-120E-CT/PCI/FAX(SSW)	120		
	SHD-240E-CT/PCI/FAX (SSW)	240		
SHT	SHT-16C-CT/PCI/EC(SSW)	16		Up to 128 analog trunk channels configurable per system
	SHT-16C-CT/PCI/FAX(SSW)			
SHN	SHN-8B-CT/PCI+(SSW)	8		Up to 960 VoIP channels available per system
	SHN-16B-CT/PCI+(SSW)	16		
	SHN-32B-CT/PCI+(SSW)	32		
	SHN-60B-CT/PCI+(SSW)	60		
	SHN-120B-CT/PCI+(SSW)	120		
DST	DST-24B/PCI(SSW)	24		Up to 192 channels available per system
TEJ	TEJ101P(SSW)	30		Up to 64 E1 digital interfaces configurable per system, with the maximum capacity of 1920 ports
	TEJ201P(SSW)	60		
	TEJ401P(SSW)	120		
	TEJ801P(SSW)	240		
FXM	FXM3201P(SSW)	32		Up to 256 voice channels per system, inclusive of 96 station channels at most for SSW080A/B and 256 station channels at most for SSW080C.

Table 1-5 Model List of Functional Boards

Chapter 2 Installation

2.1 Hardware Installation

Note: SSW020A, SSW020A(2.0), SSW030A, SSW080A, SSW080B and SSW080C are approximately the same in hardware architecture. Here we take the SSW030A switch for example to demonstrate the installation procedures.

Step1: Check if the packed board and modules are in good condition.

When taking apart the package, you will see a board as shown in Figure 2-1, Figure 2-2 below.

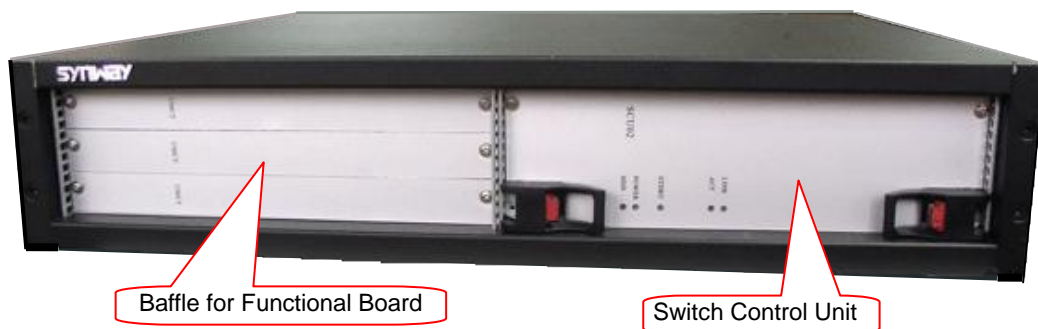


Figure 2-1 Front Panel

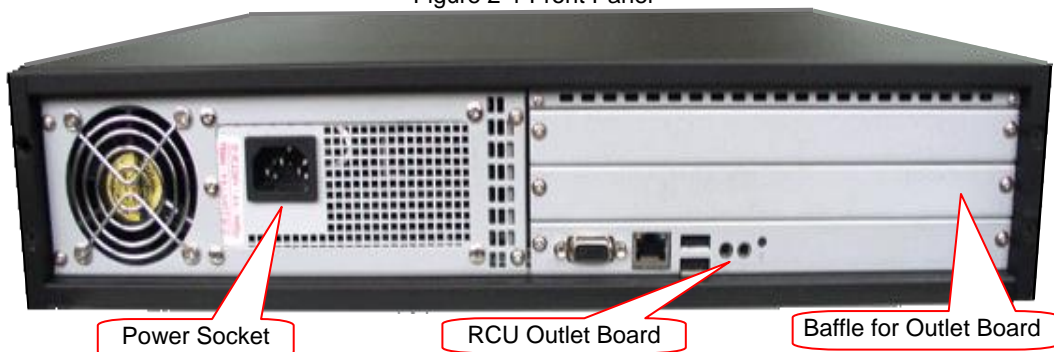


Figure 2-2 Rear Panel

Note: The SCU (switch control unit) is allowed to be pulled out. To do so, first loosen off the screws on the panel and press both red buttons on the board handle at the same time. Wait until the board breaks away from the locking hole on the chassis and draw it horizontally out.

Note: Pulling out the SCU during system runtime may result in such problems as system shut down or data missing. Therefore, don't forget to close the system before taking out the SCU.

Step2: Install the functional boards

Note: For the board models supported by the UMCT intelligent switch, refer to Table 1-2 and Table 1-4. All of them are composed of two parts: the mainboard and the outlet board. It doesn't matter to insert the mainboard first or insert the outlet board first. Just make sure to insert the mainboard and the corresponding outlet board to a right pair of vacant slots on the front and back panels of the chassis.

Remove the baffle for functional board as shown in Figure 2-1 before installing the functional board. Then you will see guide rails on both sides and slots inside on the functional board. See Figure 2-3 below.

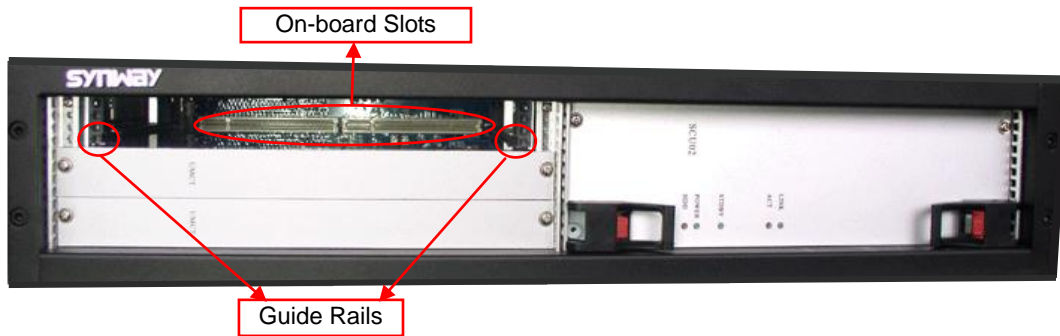


Figure 2-3 Guide Rails for Functional Boards



Figure 2-4 Board Insertion

Smoothly insert the functional board to the guide rails as shown in Figure 2-4. With the board completely inserted, push the upper and bottom handles inwards at the same time until a 'click' sound is heard. The board is now properly fitted.

Note: The board can be further fastened with screws on the handle for extended use and prevention of accidental removal. See Figure 2-4 above.

To pull the board out, first loosen off the screws on the panel and press both red buttons on the board handle at the same time. Wait until the board breaks away from the locking hole on the chassis and draw it horizontally out.

Step3: Install the outlet board.

Remove the baffle for outlet board as shown in Figure 2-2 before installing the outlet board. Then you will see guide rails on both sides and slots on the outlet board. See Figure 2-5 below.

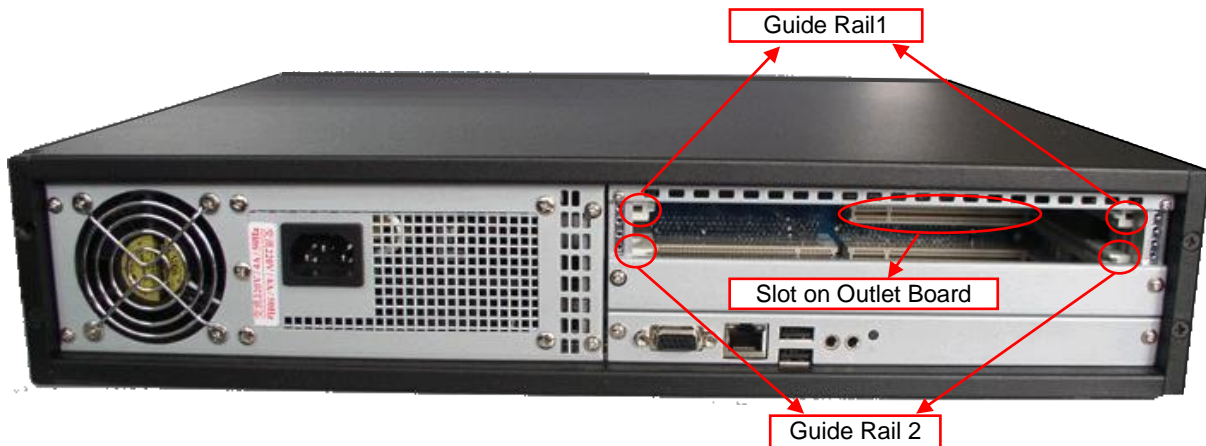


Figure 2-5 Rear Panel

Smoothly insert the outlet board to the guide rails.



Figure 2-6 Rear Panel

With the outlet board completely inserted, screw on the corresponding rear panel to fix it. Now the outlet board is properly fitted.

Note: To pull out the outlet board, just loosen off the screws on the rear panel and take it out by hand.

2.2 Turnon/Turnoff

2.2.1 Turn-on Operation

First of all, check if the power cord is connected properly, if the HD and the memory on the SCU is intact, if all necessary boards are well installed, and if the display, the keyboard, the mouse are all connected to right interfaces (see Figure 2-7).

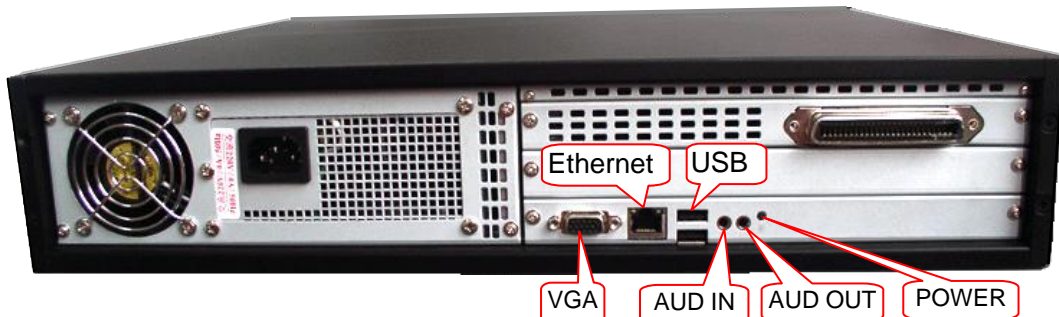


Figure 2-7 Interfaces to Display, Mouse, Keyboard and Network

When the intelligent switch is connected to the power, the STDBY indicator on the SCU keeps on all the time.

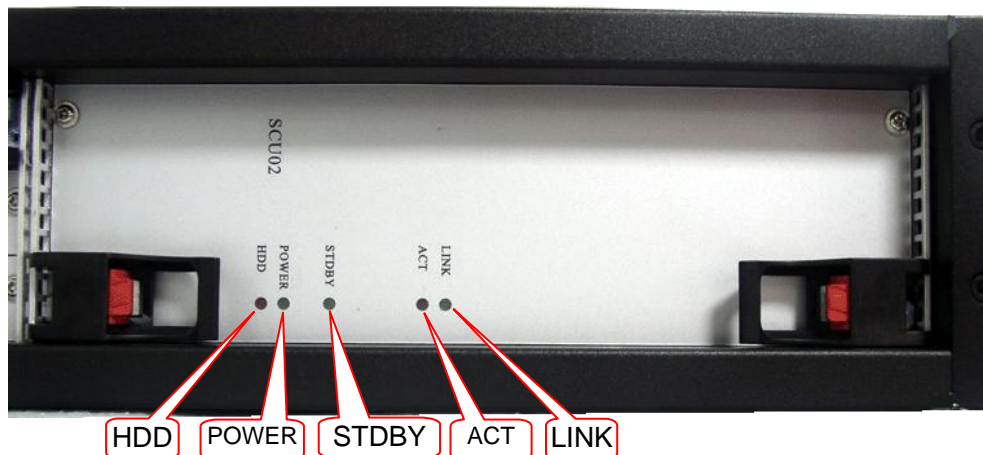


Figure 2-8 Indicators on SCU

Push the POWER button (see Figure 2-7) to start the switch. Then the STDBT indicator goes out while the POWER indicator lights up and keeps on all the time. During computer startup, the HDD indicator lights up and keeps winking. Meanwhile, there appears the normal boot screen on the computer. Now the switch is started up successfully.

2.2.2 Turn-off Operation

Except for using the system turnoff command, you can keep pressing the POWER button to turn off the switch. Once it is turned off, the POWER indicator goes out while the STDBY indicator lights up and keeps on all the time. Only after the switch is disconnected from the power will the STDBY indicator go out.

2.3 Hot Replacement

The UMCT intelligent switches support the feature of hot replacement which allows users to take out and replace the damaged components or boards during system runtime so as to improve the system capability of recovering from disasters as well as the system expansibility and flexibility. At present they do not support the hot-add operation.

To perform hot replacement during system runtime, stop the running boards first and pull out the one to be replaced. Insert the new board and start it in the system. This operation is now completed.

Note: Directly pulling out boards with relative applications unclosed may result in data loss or system malfunction.

The following operations are not supported so far.

- 1) Install a functional board after the system is started up.
- 2) During system runtime, pull out a functional board and install another one of new kind or move a functional board from one slot to another and reinstall it.

Notes:

- a) Push the board home into the slot until it can go no further, and ensure that it is not inclined at an angle before applying lever action on the handles to secure it. The contact may become loose or the on-board Hot-Swap indicator may turn to be blue (the Hot-Swap indicator keeps off when the board is working smoothly), or even the connecting parts on the mainboard of the switch may be damaged if:
 - (I) Handles are used too early
 - (II) Handles are used while the board is inclined
 - (III) Force on handles is not applied evenly.
- b) A board can be inserted when the computer is powered on. However, as strong static electricity may lead to damages, the operator should touch a grounded conductor to discharge the static electricity on him before inserting the board.

2.4 Fan Changing

Note: Usually the switch we provide has been installed with a fan in the chassis. Only when the fan is broken does it need to be changed.

2.4.1 Fans in 2U Chassis

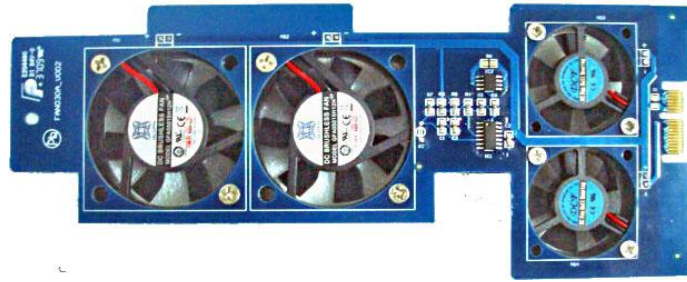


Figure 2-9 Fan Plate in 2U Chassis

Fans in a 2U chassis are shown in Figure 2-9 above. To change fans in a 2U chassis, follow the steps below.

Step1: Take the SCU out from the chassis and you can see the fans in the switch as shown in Figure 2-10.

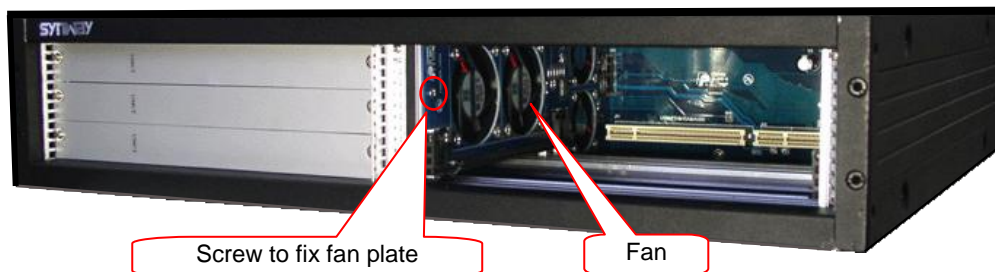


Figure 2-10 Fans Location in 2U Chassis

Step2: Loosen off the screws shown in Figure 2-10 and draw out the damaged fan plate.

Note: The fan plate can not be taken out vertically. Please incline it a little bit to right and then pull it out.

Step3: Insert a new fan plate to the corresponding slots on the chassis.

Step4: Tighten up the screws to fix the new fan plate.

2.4.2 Fans in 6U Chassis



Figure 2-11 Fan Plate in 6U Chassis

Fans in a 6U chassis are shown in Figure 2-11 above. To change fans in a 6U chassis, follow the steps below.

Step1: Open the upper cover of a 6U chassis to see the fan plate.

Step2: Loosen off the screws that fix the fan plate and tear down the broken fans. Replace them with new fans and tighten up the screw to fix the fan plate. See Figure 2-12 below.

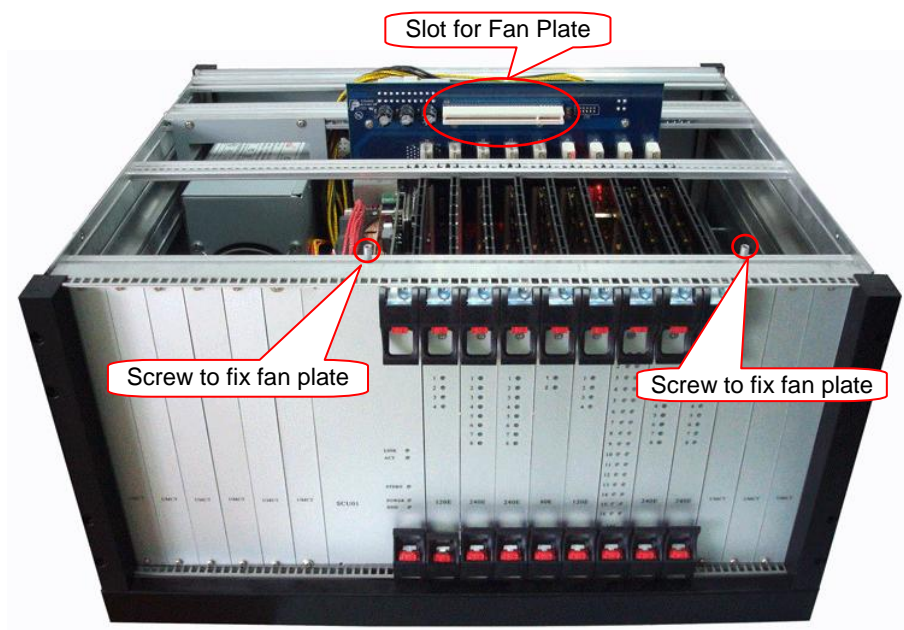


Figure 2-12 Fans Location in 6U Chassis

Appendix A Technical Specifications

SSW020A 1U Specifications

Safety

Lightning resistance: Level 4
Certification: FCC CE

Physical Size

Height: 44.2mm (1U)
Width: 442mm (19")
Depth: 362mm
Weight: 4~6kg

Power Requirements

AC: 220V/110V
Frequency: 50Hz/60Hz
Maximum power: 200W

Environment

Well ventilated

Relative humidity: 10%~85%

To prevent static: Ensure proper grounding

* Suggested temperature: 0°C~40°C

* Keep clean, get away from dust

* Standard 19" chassis recommended

RCU Interfaces

VGA: One VGA

Network: One 1000M Network Interface

USB: Two USB2.0

Audio: Two 3.5 Audio Interfaces

SSW020A(2.0) 1U Specifications

Safety

Lightning resistance: Level 4
Certification: FCC CE

Physical Size

Height: 44.2mm (1U)
Width: 442mm (19")
Depth: 362mm
Weight: 4~6kg

Power Requirements

AC: 220V/110V
Frequency: 50Hz/60Hz
Maximum power: 200W

Environment

Well ventilated

Relative humidity: 10%~85%

To prevent static: Ensure proper grounding

* Suggested temperature: 0°C~40°C

* Keep clean, get away from dust

* Standard 19" chassis recommended

RCU Interfaces

VGA: One VGA

Network: One 1000M Network Interface
One 100M Network Interface

USB: Two USB2.0

Audio: Two 3.5 Audio Interfaces

SSW030A 2U Specifications

Safety

Lightning resistance: Level 4
Certification: FCC CE

Physical Size

Height: 88.1mm (2U)
Width: 442mm (19")
Depth: 371mm
Weight: 9~10kg

Power Requirements

AC: 220V/110V

Frequency: 50Hz/60Hz

Maximum power: 200W

Environment

Well ventilated

Relative humidity: 10%~85%

To prevent static: Ensure proper grounding

* Suggested temperature: 0°C~40°C

* Keep clean, get away from dust

* Standard 19" chassis recommended

SSW080A 6U Specifications

Safety

Lightning resistance: Level 4
Certification: FCC CE
Equipped with EMI circuit to effectively hold back electromagnetic interference

Physical Size

Height: 266mm (6U)
Width: 442mm (19")
Depth: 373.5mm
Weight: 16~18kg

Power Requirements

AC: 220V/110V

Frequency: 50Hz/60Hz

Maximum power: 350W

Environment

Well ventilated

Relative humidity: 10%~85%

To prevent static: Ensure proper grounding

* Suggested temperature: 0°C~40°C

* Keep clean, get away from dust

* Standard 19" chassis recommended

SSW080B 6U Specifications

Safety

Lightning resistance: Level 4
Certification: FCC CE
Equipped with EMI circuit to effectively hold back electromagnetic interference

Physical Size

Height: 266mm (6U)
Width: 442mm (19")
Depth: 373.5mm
Weight: 16~18kg

Power Requirements

AC: 100V~240V

Frequency: 47Hz~63Hz

Maximum power: 250W

Environment

Well ventilated

Relative humidity: 10%~85%

To prevent static: Ensure proper grounding

* Suggested temperature: 0°C~40°C

* Keep clean, get away from dust

* Standard 19" chassis recommended

SSW080C 6U Specifications

Safety

Lightning resistance: Level 4
Certification: FCC CE
Equipped with EMI circuit to effectively hold back electromagnetic interference

Physical Size

Height: 266mm (6U)
Width: 442mm (19")
Depth: 373.5mm
Weight: 16~18kg

Power Requirements

AC: 100V~240V

Maximum input current: 8A

Frequency: 47Hz~63Hz

Maximum power: 480W

Environment

Well ventilated

Relative humidity: 10%~85%

To prevent static: Ensure proper grounding

* Suggested temperature: 0°C~40°C

* Keep clean, get away from dust

* Standard 19" chassis recommended

SSW080C(DC) 6U Specifications

Safety

Lightning resistance: Level 4

Certification: FCC CE

Equipped with EMI circuit to effectively hold back electromagnetic interference

Physical Size

Height: 266mm (6U)

Width: 442mm (19")

Depth: 373.5mm

Weight: 16~18kg

Power Requirements

DC: 42~60V;

Maximum power: 480W

Environment

Well ventilated

Relative humidity: 10%~85%

To prevent static: Ensure proper grounding

* Suggested temperature: 0°C~40°C

* Keep clean, get away from dust

* Standard 19" chassis recommended

Appendix B Troubleshooting

The table below lists some problems that may occur in using the UMCT intelligent switch.

No.	Issues	Possible Causes
1	Fail to boot up the computer	a) Power cord unconnected or power supply damaged, especially when the STDBY indicator does not light up. b) Poor connection of SCU board or RCU board. Clean the slot of the board. c) Power key not pressed. Find the key on the rear panel of the device and press it.
2	Successful to boot up but no display on the screen	a) Bad contact of SCU board. Clean the slot of the board. b) Loose connection of VGA line on SCU board.
3	Fail to start up the system	a) HD damaged or OS crashed. Don't power off the device while the system is running. b) Bad contact of HD. Reinstall the HD.
4	Display blue screen	a) Memory corruption. Check it with a memory inspection tool. b) Bad contact of SCU board or voice board. Clean the slot of the board.
5	Hot-Swap indicator always on	Improper board installation leads to abnormality in power supply.
6	System fails to find the board	a) Bad contact of board. Clean the slot of the board. b) Hot adding of board. Restart the system.
7	Power buzzer of SSW080B alerts	a) Only one of the two power sockets being plugged in or one of the power cords being abnormal. b) A power module damaged.
8	Cannot find HD	a) Poor installation or loose connection of HD. Reinstall HD and fix it with screws. b) Incorrect HD settings in BIOS.
9	Frequent HD damages	a) Fan excessive vibration. Change the fan if it is ageing, and replace the mechanical HD by an SSD HD. b) Abnormal power-down while the system is running. c) System HD overworked. Use an enterprise HD instead.
10	Neither transmit nor receive data with a good network card driver	a) A too quick restart of the device after abnormal power-off. After power-off, wait for at least 10s before powering on it again. b) The content of EERPOM on the network card has been changed. Retrieve the normal content by programming.
11	Cannot enter Windows OS, with the system hanging at the welcome screen	

Appendix C Technical/sales Support

Thank you for choosing Synway. Please contact us should you have any inquiry regarding our products. We shall do our best to help you.

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