

IDA8[™]

Highly Integrated, Networked Public Address and Voice Alarm System

Installation Guide

Revision History

v1.01

Hardware installation & connection

Rack mounting

Mount the IDA8C/IDA8C-SW/IDA8SAB/IDA8SL unit in any standard 19-inch 2U audio equipment rack using the supplied mounting brackets and screws. Installing a IDA8S unit is similar to installing a IDA8C, except the IDA8S unit is installed in 19-inch 1U rack-mounting.

Consider leaving enough ventilation space above and below the unit. Do not mount the controller directly above the heat generating devices like power supplies or power amplifiers.



Power supply

Use the supplied AC power cable to connect the IDA8C/IDA8C-SW/IDA8SAB/IDA8SL unit to he power outlet, and IDA8S unit by 24VDC. The Power LED on the front panel will glow green when power is applied.

If 24VDC power and AC mains power are connected at the same time, IDA8C/IDA8C-SW/ IDA8SAB/IDA8SL will use AC power first, and switch to DC power if there AC mains is not present.

Ethernet (RJ45)

Use the supplied Ethernet cable (CAT5/6) to connect the IDA8C processor to a computer.

The PC-based Ateis Studio software shall provide all the necessary tools to setup, configure, control and monitor the entire system.





ATEIS network

Local-net

Connect 1 IDA8C with another IDA8SAB unit via Ateis local-net.



Connect 1 IDA8C and 2 IDA8SAB units via Ateis local-net.



Global-net

Connect 2 IDA8C units together via Ateis globalnet and each IDA8C connects to another 1 IDA8SAB unit via Ateis local-net.



External power amplifier

Connect the power amplifiers and loudspeakers on IDA8C processor, see the picture below.



In a case of IDA8C processor, it has 8 speaker zone outputs (Z1 to Z8). Each zone output consists of 2 redundant loudspeaker lines (line A and line B). Normally, the paging calls and BGM are distributed to a

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zone over both loudspeaker lines. If one of the loudspeaker lines of a zone fails, it is still possible to distribute the paging calls and BGM to the zone over the remaining loudspeaker line.

Digital paging console

To connect one or several remote devices such as PPM-AS/CD-8AS/CD-16AS on IDA8C, they require to add an external power supply via Junction Box (JB). For the first three remote devices and/or the first 300m of cable run, the power can be delivered by IDA8C. If the distance between IDA8C and JB is more than 300m, the JB requires to add an external power supply.

Connect with one device

- 1. Connect the JB to IDA8C processor via 8-pin STP CAT5/6 cable.
- 2. Connect the PPM-AS to JB via 10-pin CAT5/6 with metal shielded connector.
- 3. Switch to [MASTER] switch on JB.



Connect the PPM-AS/CD-8AS/CD-16AS to multiple JB for longer distance:

- 1. Connect the JB to IDA8C processor via 8-pin STP CAT5/6 cable.
- 2. Connect the PPM-AS to JB via 10-pin CAT5/6 with metal shielded connector.
- 3. Switch to [MASTER] switch on JB which is connected to the PPM-AS, and switch to [SLAVE] switch on the rest of JB.
- 4. If using the additional power supply, switch the [Power Switch] selection to the [External Power].



Cascade with multiple devices

Cascade with multiple PPM-AS/CD-8AS/CD-16AS/URC-150AS devices:

To know the 8-pin STP CAT5/6 pinout using on URC-150AS, see <u>8-pin STP CAT5/6 cable</u> for details.

Up to ten PPM-AS units can be connected via junction boxes on one IDA8.



8-pin STP CAT5/6 cable

8-pin STF	P CAT5/6 cable with metal s	shie	lde	ed (col	nne	ect	or	
Pin1	RS-485 B	1	2	3	4	5	6	7	8
Pin2	RS-485 A								
Pin3	Line in -								
Pin4	24VDC								
Pin5	Ground								
Pin6	Line in +								
Pin7	Line out -								
Pin8	Line out +								

IDA8C LCD panel

The LCD touch panel on IDA8C processor provides system programming, control, paging, monitoring and system status display.

Login & network settings

1. Set the IP, subnet mask and gateway address from LCD touch panel of IDA8C.

The default factory setting of the IP address is 192.168.100.236.

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- 2. You need to login the menu on IDA8C first, then continue to set the IP/Subnet Mask/Gateway.
- 3. Press [SYSTEM SETTING] in [MAIN MENU] page.
- 4. Press [LOGIN] in [SYSTEM SETTING MENU-1] page.



- 5. Press [USER NAME] in [LOGIN] page.
- 6. Enter the ID "ADMIN" which is the default user ID of IDA8C, keep the password field empty and click "OK".

L1	LOGIN		ID:		ADMIN_			BACKS	SPAC
			А	В	С	D	E	F	G
USER NAME	NO LOGIN		Н		J	К	L	М	N
PASSWORD			0	Р	Q	R	S	Т	U
2000	MON 1	T	V	W	X	γ	Z	1	2
A 1 2 4 1			3	4	5	6	7	8	9
ОК	EXIT		0		ENTER	R E	XIT		

- 7. And there will be a message indicates as "Login successful".
- 8. Go back to [SYSTEM SET MENU-2] page and click [ETHERNET].

L4	WARNING	L1	SYSTEM SETTING MENU-2	ATEIS
			DATA/TIME	
	Login successful		AUTO LOGOUT	
	11/01		ETHERNET	
	EXIT			N.

9. There are three fields: [IP ADDRESS], [SUBMASK] and [GATEWAY]. Change the settings to fit your network. In this example, we changed the IDA8C's IP to 192.168.100.79.

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The settings will be applied after the rebooting the system.

Ateis Studio software

Ateis Studio is a user-friendly GUI software designed for intuitive system setup. The PC-based software allows hardware update, full system configuration and generates the user interface for day-to-day system operation.

Step 1: network settings

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Install and operate the Ateis Studio software, and assign the network card on Ateis Studio.

Click [Tools > Communication] to open the Network Adapter Setting window	Тоо	Window Help				
		Language > Skin >				
	e	Communication				
	鬯	Route Table				
	鬯	Search Local Version Machine				
Select the network card in your PC/laptop, then click "OK".	Network Adapter Setting					
		OK Cancel				

Step 2: search devices

Search the Ateis device and connect to It.

- Before searching the Ateis devices in LAN, the device list will be shown in blank.
- Now click [Auto Search] button under the Devices tab, then click [Clear] button, the device list will
 appear after few seconds.

Device Management										÷Χ
🔛 3rd Party Control Comman	nd 🛄 Grd Party Co	ontrol List 😤 Devic	x Management							
Devices	Type	Serial Number	Identifier	Mapping	Redundancy	Fault	Connection	ATEIS Net Status		
 Messenger Pro(s) 										 _
MessengerG3-1	Messenger Pro	13579	(1, 1)				# Connect			
 IDASC(s) 										
Abels	IDA8C	0000005588	(1, 1)				# Connect			
Abeis	IDASC	0000344662	(1, 1)				# Connect		-	
- Stes									1	
Abeis	Site									
- Ateis	NetWork									
IDASC (1, 1)	IDASC	0000011187	(1, 1)				# Connect	🖉 Net Backup \cdots		
PPM	PPM AS	01032	PDC:1ID:1						- U	
URC	URC AS	00223	PDC:4ID:1							
PPM	PRIMAS	4 01071	PDC:4ID:2							
1DA85A8 (1, 2)	ID SA8	400000245	(1, 2)				# Connect	# Connect ····	*	
Add Remove	Cear	Auto Search								

 The gird on the left side shows which device has been connected, and the grid on the right side shows the system function items the user can configure.

										.0 .
🔄 3rd Party Control Comman	d 🔛 Ord Party Co	ntrol List 🖷 Devic	e Management							
Devices	Type	Serial Number	Identifier	Mapping	Redundancy Fault	Connection	ATEIS Net Status			
Messenger Pro(s) MessengerG3-1 IDA8C(s)	Messenger Pro	13579	(1, 1)			# Connect			Deploy Front Panel Language	
Atais Atais	ID49C	0000344662	(1, 1)			Connect			Health Source Marthine Elle Surters	
- Sites - Ateis	Site		1.7.4						Machine Log Machine Setting	
DAGE (1, 1) PPM	IDWIC PPM AS	0000011187 01032	(1, 1) PDC:1ID:1			# Connect	∯NetBackip …	ш	Read Version Remote Picture Store	L
URC PPM IDA85AB (1, 2)	URIC AS PPM AS IDARSAB	00223 01071 0000000245	PDC:4 ID:1 PDC:4 ID:2 (1, 2)			# Connect	@ Connect		Remote Reset Remote Search	
⊡ IDA9C (1, 1) РРМ ЦПС РРМ IDA85AB (1, 2)	IDVBC PPM AS URC AS PPM AS IDA85AB	0000011187 01032 00223 01071 000000245	(1, 1) PDC:1ID:1 PDC:4ID:1 PDC:4ID:2 (1, 2)	10 10 10 10		# Connect	Ø NetBackup ····	•	Read Version Remote Picture Store Remote Reset Remote Search	

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Step 3: check/update firmware version

Click [Read version] button to check the compatibility between IDA8C and Ateis Studio. Click [Read] to see the information about the firmware version.

🔀 Version						- = X
Device Name	ATEIS Net ID	Telephone Card	MCU	DSP	Net Card	Read
 IDA8C(s) 		1.3.1.0	3.1.0.9	2.7.6.0	2.1.1.12	
Ateis	(1, 1)					

• If all the firmware units are compatible (shown in black text) with Ateis Studio, please go to <u>step 4</u>, otherwise continue the following steps to update the firmware. The figure below shows an incompatible version of the firmware which is marked in red.

Version 🔨						- = x
Device Name	ATEIS Net ID	Telephone Card	MCU	DSP	Net Card	Read
 IDA8C(s) 		1.3.1.0	3.1.0.9	2.7.6.0	2.1.1.12	(
Ateis	(1, 1)	-	3.1.0.6	2.7.4.0	2.1.1.12	

To update the firmware, go back to [Device Management] window, and click [Update] button.

Devices	Type	Serial Number	Identifier	Mapping Redur	Keset Paging
IDA8C(s)					Reset System Fault
Ateis	IDA8C	000005588	(1, 1)		Reset machine
Ateis	IDA8C	0000344662	(1, 1)		Reverse
					System Backup
					System Restore
					Update
	н			• • •	

 After its setting window appears, select the IDA8C and choose the firmware file (.asu) from IDA8 directory. See the picture as below,

			2. Choos	e firm <u>ware</u>
Type	Serial Number	ATEIS Net ID	Status	
IDA8C	000005588	(1, 1)	-	
				1. Select
	None sel	ect file		8D÷
	Type IDA8C	Type Serial Number IDA8C 0000005588 None sel	Type Serial Number ATEIS Net ID IDA8C 0000005588 (1, 1) None select file	2. Choos Type Serial Number ATEIS Net ID Status IDA8C 0000005588 (1, 1) - None select file

• Please find the update file from C:\Program Files\ATEIS\ATEIS Studio vx.x.x.x\Update file. This path



shall include the firmware update file of all the IDA8 units.

• When the Update process has completed, please follow the indication on the pop-up window to reboot the IDA8C, click [Yes] to restart the device.

Step 4: system building-create a new file

✤ Create a new file.

• Create a new file by clicking the button on the upper-left of the Ateis Studio software.



- Connect the device and create an IDA8C block in the device editor window.
- Now 'Drag N Drop' the device/system into the configuration window.
- And honored a state of a state of
 - Set Audio Module x Input Audio Module A Output Audio Module B ÷ ÷ Amount of Zone Board Module Matrix -Type of Monitor Module V Site Pin V Network Pin Create Cancel
- The [Set Audio Module] window will appear, click [Create] button to continue.

• Then a IDA8C block will be created.

eration Tools Window Help Image: Constraint of the second sec

Step 5: system building-DSP compoment

- Add a Tone component and connect it to the Output component.
- Double click the IDA8C icon to open the [IDA8C DSP Configuration IDA8C1].
- Users can drag and drop the DSP components which are listed on the left to the DSP configuration window.
- And start to design the internal signal paths for each component via "drag and drop".



Element adjustment

- Set the element of Tone Generator:
 - Level (dB) = -10
 - Tone Button = On
 - $_{\odot}$ Tone freq. (Hz) = 2.00k
- Now you can see the channel 1 meter and hear a 2k tone from the speaker connected to the Amplifier Zone Output (zone1) on the rear panel of the IDA8C.



Step 6: system building-compile and store

* Compile and Store System IDA8C 1 - Master Preset Master Preset - 🖾 🕮 📰 🕾 🐯 📢 帐

- Once the design is done, click [Compile All] icon, then the Compiling window will be appeared afterwards.
- Click [Store All] to store your design into the IDA8 system.
- Meanwhile, the system will ask you to turn on the audio, click [Yes].
- Then the system will ask you whether the system shall go online, click [Yes]. The settings could be modified and activated under Online mode.

Cor	mpiling										X
Sta	atus										
	The used	i tabk	e sizi	e of I	DA8	C 1i	s 2.27	796.			
	Info	: 61				Wa	ırn: O			Error: 0	
						,					-
		• •	• •	• • •	•	• • •	• •	• • •			
tore											
System	Serial Number	ATEIS Net	Drivilege	Dre-Chark	Prog	ess Statu	s Confin ratio	Durant Terfer	Progress	Store Status	
DABC 1	0000001988	(1, 1)	®	() TE-Chebk	®	®	®	(Event 2110	100 %	Store event information finish.	
			•	Do you	want to	tum on Yes	the audio aff	No			
itore											- 0
System	Serial Number	ATEIS Net	Privilege	Pre-Chark	Progr	ess Statu	s Confinention	Event Info	Progress	Store Status	
DABC 1	0000001988	(1, 1)	۲	۲	۲	۲	۲	۲	100 %	Store event informatioin finish.	
				Question	Do ye Yes	iu want b	o online? No	×			

- Please read the IDA8 global-net user manual to know the advanced configuration such as audio routing, event and bell scheduler, master/sub-preset, 3rd party control, EVAC paging, paging with priority management, monitor, DSP parameter adjustment, level control, fault list, user management etc. on <u>www.</u> <u>ateis.com</u>.
- Data are subject to change without notice. For latest update, please refer to the English online version available on <u>www.ateis.com</u>.

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