Classification	UA-Series English FAQ-Upd-006						
Author	Eva Li	Version	2.0	Date	2024,04	Page	1/9

# FAQ-UPD-006: How to upgrade OS and firmware for the NAND Flash 512MB UA-2200/ UA-5200 series to V.1.4.0.0 or later version?

ICP DAS UA series provides new functions! Please upgrade the OS to provide more complete services.

#### When does the OS need to upgrade?

When the <u>UA-2200 or UA-5200 NAND Flash 512MB version</u> update the Firmware to a version above 1.4.0.0, but the current version is lower than 1.4.0.0, it needs to upgrade the OS and the Firmware.

## 1. Check the Firmware Version

Log in the UA-2200 or UA-5200 UI webpage, and click [System Setting].



Check the [Firmware Version] in [Version Information]. If it is lower than V.1.4.0.0 and you want to upgrade to V.1.4.0.0 or above, please go to the next step. If it is V. 1.4.0.0 or above, you can directly update the firmware without upgrading the OS.

Firmware Version	Version 1.4.0.0
Main Program	Version 1.1.73
Web Interface	Version : 6.6.0 Date : 2022/01/06
Install Information	2022/01/18-15:06:54_WebUpdate_InstallSuccess
Flash Information	eMMC Flash

Classification	UA-Series E	nglish FAQ-I	Upd-006				
Author	Eva Li	Version	2.0	Date	2024,04	Page	2/9
2. Check If t UA-2200 Series his package. UA-5200 Series (1) Check th	he UA-2200 s] All models a s] Follow the s ne casing mark	or UA-520 are NAND Flat teps below to a to confirm i	<b>0 Can Upgra</b> sh. If it is lower o check if to up <b>f it is the UA-5</b>	de the ( than V.: ograde vi 200 8GB Check 5200	<b>OS?</b> 1.4.0.0, upgrate this OS Firm <b>B eMMC Flas</b> is if the front of series with the	ade the OS Fir mware packag h hardware ve casing of the U	mware e. ersion. JA- <b>B</b> "?
(2) If there in the second sec	is no mark, ch he UA series L ation].	eck the UI W	<b>Vebpage to see</b> Slick 【System	If ther eMM or late => Fir the firm Setting	re is, its Hard C Flash, firmv er. <b>mware can k</b> ware and Fla . Check the	ware version 1 ware version 1 <b>be updated di</b> <b>ash informatio</b> [Flash Inform	is 8GB 1.4.0.0 rectly on. ation] in
ICP .	JA-2200/5200	N.	ersion Informati	on			
DAS .	CP DAS CO,. LTD.	server	Firmwar	e Version	Version 1.4.0.5		
System S	Setting Module Set	etting IoT	Main	Program \	/ersion 1.1.73		
I/O S' 1	s File Setting		Web	Interface	Version : 6.8.0 Date : 2022/05/18		
System	ng	ersion Info	Install In	formation	2022/06/23-11:14:55	_WebUpdate_InstallSu	ccess
Time Setti	ing		Flash In	formation	NAND Flash		

If the [Flash Information] is NAND Flash (512MB), you can upgrade this OS and Firmware to the v1.4.0.0 or later version by this burning package.

Time Setting

ICP DAS Co., Ltd. Technical Document

Classification	UA-Series Er	alish FAO-I	Jpd-006								
Author	Eva Li	Version	2.0	Date	2024,04	Page	3/9				
					- ,-	- 5 -	- , -				
3. How to U	pdate Firmw	are by Re-	burning the	OS?							
This method needs to update the bottom layer OS. If there is a project in the UA-2200 or UA-5200											
controller, pleas	se backup and s	save the pro	oject before re-	burning	the OS.						
3.1. How to Ba	ack-up the Proj	ect File?									
After logging in	the IIA web III	click the	[ File Setting ]	functio	n						
Arter logging in	the OA web OI,			Tunction	1.						
Su	stom Sotting	Module S	atting IoT P	latform S	Setting Co	overt Setting					
Sy	stern Setting	Would St	eung iorr	lauonn c	setting Col	Iven Setting					
I/C	) Status File	e Setting									
Click the 【 Dow	nload 】button	as below. a	nd save the pro	piect file	to the folder v	ou want.					
					,						
	Remove	the Eile									
	Remove	uie riie Droio	et File	1		_					
		Proje	Remove								
	Upload t	he file to th	e controller								
		Proje	ct File Select Fil	е	Uploa	ad					
	Downloa	d the file f	om controllor								
	Downloa										
		Proje	ot File Download	1							
			Ital Taskala	Deerror							
		ICP DAS CO.	, Liu. Technical	Docume	ent -						

Classification	UA-Series Engl						
Author	Eva Li	Version	2.0	Date	2024,04	Page	4 / 9

## 3.2. How to burn the Upgrade File into a MicroSD Card

(1) After powering off, remove the MicroSD card of the UA-2200 or UA-5200 series (the location of the MicroSD card is as shown below)





Put the MicroSD card into the card reader on PC/NB, delete all files, and format to the FAT32 system. (Note: Please use UA-2200 or UA-5200 series MicroSD card.)

🥌 USB Drive	(G:) Pro	perties		$\times$
Sharing General		ReadyBoost Tools	Customize Hardware	
~				
Туре:	USB Dri	ve		_
File system:	FAT32			
Used spa	ce:	115,490,816 byte	s 110 MB	_
Free space	ce:	3,919,884,288 bytes	s 3.65 GB	
Capacity:	1	4,035,375,104 bytes	s 3.75 GB	_
		Drive G:		

(2) Download the **FAQ attached file**, that is the UA-2200 or UA-5200 series (512MB NAND Flash) **burning file (zip file of OS and firmware)**, or download the file from the following webpage:

UA-2200: <u>https://www.icpdas.com/en/download/show.php?num=7996&nation=US&kind1=&model=&kw=ua-</u>UA-5200: <u>https://www.icpdas.com/en/download/show.php?num=1135&nation=US&kind1=&model=&kw=ua-</u>

ICP DAS Co., Ltd. Technical Document

Classification	UA-Series Eng	ish FAQ-I	Upd-006				
Author	Eva Li	Version	2.0	Date	2024,04	Page	5/9
(3) copy the burn	ing files into the	MicroSD	card (as the pic	ture belo	ow)		
(4) Put the burne	<ul> <li>This PC &gt; USB Dri</li> <li>Name</li> <li>MLO</li> <li>rootfs.ubi</li> <li>u-boot.img</li> <li>uEnv.txt</li> <li>uImage</li> <li>version</li> </ul>	ive (G:) into the c	Date modified 2022/7/4 下午 04:0 2022/7/4 下午 04:0 2022/7/4 下午 04:0 2022/7/4 下午 04:0 2022/7/4 下午 04:0 2022/7/4 下午 04:0	Siz 7 22 7 7 7 7 7 JA series	e Type 82 KB File 99,008 KB UBI F 473 KB Disc 1 KB Text 3,583 KB File 1 KB File	ひ	
If there is a M	licroSD card in t	he card sl	ot, take it out fi	USH Of of UA	VGA SIM card	36/4C X CE	
(5) Connect <b>both</b> Or Connect the	LAN1 and LAN2	of the U	A-2200 series to A-5200 series to	o the Inte	ernet		
	IC	P DAS Co.	, Ltd. Technical	Docume	nt		

Classification	UA-Series English FAQ-Upd-006						
Author	Eva Li	Version	2.0	Date	2024,04	Page	6 / 9

(6) Burn and check the status via the software Putty

Please download the Putty version that matches your system from the official Putty website. <u>https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html</u>

Preparations:

- One USB to RS-232 adapter cable
- The CA-0910 Cable in UA-5231/UA-2241 Accessories
- Putty software



 a. Connect the CA-0910 Cable to the UA according to the following figures, then connect it to the USB to RS-232 adapter cable, and connect it to the computer.
 If the product's pin assignment layout is blurred or different, please refer to the pin assignment diagram in chapter 1.5 of the manual. The manual webpage: https://www.icpdas.com/tw/download/show.php?num=3798&model=UA-5231



The wiring of UA-2200



The wiring of UA-5200

b. Check whether the PC has captured the RS-232-related driver. Please right-click on "**This PC**" or "**My Computer**" and click "**Manage**", as follows.



### ICP DAS Co., Ltd. Technical Document



Classification	UA-Series Eng	lish FAQ-I	Upd-006				
Author	Eva Li	Version	2.0	Date	2024,04	Page	8 / 9
f. Run the softwinto the "Seri	vare Putty. Click fal line", in this construction Putty Config Category: Session Category: Session Category: Session Category: Session Freminal Features Window Appearanc Behaviour Translation Selection Colours Connection Data Proxy Telnet Riogin SSH Serial	"Serial" a ase "COM guration	nd enter 18". And e B Specify the d Serial line COM8 Connection t Raw Load, save o Saved Sess Default Sett	the COM po enter Speed asic options for yo estination you want ype: Telnet © Rlo r delete a stored se ions ings	rt number get f "115200", press ar PuTTY session to connect to gin SSH Seed 115200 gin SSH Seed Load Save Delete	from the prest of the prest of the prest of the prest of the presence of the p	vious step
g. A black scree (7) Connect the L (WARNING! cause hardw	n will pop up.	Help and turn	on the po g the burn	ower, it will s	Cance	e OS.	<u>vill fail and</u>
(8) Check the me	ssages of the Pu	itty, when	the mess	age below a	appears, it mea	ns the burni	ng process is
complete.         2.187900         2.187928         2.187944         2.187959         2.187974         2.187989         2.187989         2.188055         2.188035         2.188049         2.188071         2.188089	Please append 1f00 1f01 1f02 1f03 1f04 1f05 1f06 1f07 b300 3 b301 Kernel panic -	a correct 256 mt 256 mt 256 mt 3840 mt 5120 mt 514048 mt 3886080 not sync	: "root=" dblock0 dblock1 dblock2 dblock3 dblock3 dblock5 dblock6 dblock7 ncblk0 df mmcblk0p2 ing: VFS	<pre>boot option (driver?) (driver?) (driver?) (driver?) (driver?) (driver?) (driver?) river: mmcb 00000000-0 Unable to</pre>	l; here are the lk 0000-0000-0000- mount root fs	e available 000000000000 on unknown-	partitions: 0 block(179,2)
(9) <u>Power off the</u> <u>remove the</u> on PC/NB, de	e UA series, and burning card wi elete all the files	then take Il result in , and ther	e out the repeated n put it ba	<mark>OS MicroSD</mark> d burning.) ack into the	card (burned). Put the MicroSI UA card slot.	(WARNING D card into tl	<u>If forgot to</u> ne card reader
	IC	P DAS Co.	, Ltd. Tecl	hnical Docu	nent		

Classification	UA-Series Eng	lish FAQ-I	Upd-006		-		
Author	Eva Li	Version	2.0	Date	2024,04	Page	9/9
3.3. How to kno After burnin Default web Default web	ow the UA-2241 g, <u>Default IP is 2</u> page Account: I page Password	or UA-52 192.168.2 Toot troot	31 IP address a 55.1	after the	OS burning?		
3.4. How to Re	store the Backu	p Project	File?				
After logging in t	o the UA-2200/!	5200 UI w	ebpage, click th	ne 【File	e Setting 】 fu	nction.	
		IIoT Com	munication Se	erver			
	System	Setting	Module Settin	ig lo	T Platform Sett	ing	
	I/O Statu	us File	e Setting				
Click 【Select Fi	le】, select the	previously	v backed up pro	oject file,	and click 【 Up	bload】.	
Remov	e the File						
	Pro	ject File	Remove				
Upload	the file to t	he con	troller				
	Pro	ject File	Select File		Upl	oad	
Downle	oad the file	from co	ontroller				
	Pro	ject File	Download				
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