# RL256 Updating Firmware V1.04

(rev a 23/11/21)





Nixer Ltd 45 Evelyn Road Dunstable Bedfordshire LU5 4NG

Telephone +44 1582 343111

email

info@nixerproaudio.com

website www.nixerproaudio.com

# Contents

Checking the Current versions	4
Downloading the latest firmware(s)	4
Updating the CPU firmware	4
Updating the FPGA firmware	7
Support	8

# Checking the Current versions

Check the current version(s) of the firmware on each of the Ports on your product

Network Firmware	ZMAN Ravenna card S/W version : 1.2.0b46038 State Monitor version : May 28 2021 10:33:53 - Version 1.00					Jum	p to Boot-L	oader
Power System	CPU Jun 22 2021 16:08:05 - Version 1.01	FPGA 1.00	DSP 		Port 2	Port 3	Port 4	Х

Compare this to the latest firmware in the Downloads section of the Nixer website <a href="https://www.nixerproaudio.com/Downloads/">https://www.nixerproaudio.com/Downloads/</a>

### Downloading the latest firmware(s)

If there are updates available follow the steps below

- If you do not have the Nixer BLM.exe program download and install the latest version of Nixer BLM.exe (V1.5) from https://www.nixerproaudio.com/resources/Nixer-BLM V1.5.exe
- Next download the CPU firmware (.hex file)



• If it has also been updated download the (.hexout file)



#### Updating the CPU firmware

- Next attach the RL256 to the PC via a USB cable and turn it on
- You will have five new USB devices attached to your PC
- Navigate to the Update Menu in the System menus select Port 1 and press the button to enter Boot Loader Mode. You will see a countdown of dots before the screen goes blank ALWAYS update Port 1 first

• For Ports 2 through to 4 the screen will not go blank when the respective Port is put into Bootloader mode, instead once the countdown dots finish the screen will jump back to Port 1

Network Firmware	ZMAN Ravenna card S/W version : 1.2.0b46038 State Monitor version : May 28 2021 1	10:33:53 - V	ersion 1.00			Jum	p to Boot-L	.oader
Power System	CPU Jun 22 2021 16:08:05 - Version 1.01	FPGA 1.00	DSP 1.00	Port 1	Port 2	Port 3	Port 4	Х

- A new USB device called USB HID Bootloader #xx will connect to your PC
- Your RL256 is now ready to update Port 1
- Run the Nixer BLM program on your PC

Nixer BLM v1.5				×
Communication Settings USB VID P 0x4D8	ID DxF1FB	✓ Enable	1	
Commands Device Screen Flash	1 ×	Connect		
Commands Device Screen Flash Version/Tag L	oad Hex File	Connect Verify		

• Once the program is running change "Screen Flash" to "Main CPU" via the dropdown menu and click connect

Nixer BLM v1.5	;			×
Communication Set USB VID	ttings PID			
0x4D8 Commands	0xF1FB	Enable	Device connected	
Version/Tag Erase	Load Hex File	Verify Run Main		~

- You will now see that it says device connected in the status window
- Click on Load Hex File. Next navigate to and load in the .hex file that you downloaded from ww.nixerproaudio.com
- Note for Dante Ports load the firmware that has Dante in the name for example RL256\_CPU\_Dante\_V104.hex
- Note for Ravenna Ports load the firmware that has Ravenna in the name for example RL256\_CPU\_Ravenna\_V104.hex

6

 Loading the incorrect version into a Port will cause abnormal behaviour of the product

N N	ixer BLM v1.5	×
Cor	Nopen	×
	← → • ↑ 🖡 « 211119 » RL256 V1.4 • ひ 오 Sea	arch RL256 V1.4
_	Organise • New folder	· •
Co	3D Objects ^ Name	Date modified
	Desktop RL256_CPU_Dante_V104.hex Documents RL256_CPU_Ravenna_V104.hex Downloads Orive Music Pictures Videos Local Disk (C:) Dopopox for Bus	19/11/2021 16:53 19/11/2021 16:52
	🐷 Dropbox on 'Mai 🗸 <	>
	File name:   RL256_CPU_Z_211119c_unified.hex   CPU File (     Ope	(*.hex) ~ n Cancel

• Click the Erase-Program Button and your device will be reprogrammed. You will see the progress in the status window and by the status bar which will gradually fill as the device is programme

Nixer BLM v1.5			×
Communication Settings USB VID PID 0x4D8 0xF1FB	C Enable	Device connected Hex file loaded successfully Erasing Flash Frased	^
Commands Device Main CPU Version/Tag Load Hex File	Disconnect Verify	Programming	
Erase-Program	Run Main		~

• When the device has been programmed the status window will say "Programming completed. Click Run Main and your unit will reboot with its updated software

nnected
ea ing ing completed

• This procedure will now need to be repeated for Ports 2 through to 4 if fitted. The order of updating is not important for these Ports. First select the Port required then press Jump to Boot-Loader as noted earlier at the end of the countdown dots the screen will jump back to Port 1. The Nixer BLM program can now be used to update the firmware in the Port that has been put into Boot-Loader mode by following the instructions above

## Updating the FPGA firmware

• To update the FPGA firmware, start the Nixer BLM program

Network Firmware	ZMAN Ravenna card S/W version : 1.2.0b46038 State Monitor version : May 28 2021 1	0:33:53 - V	ersion 1.00		Jum	p to Boot-L	oader
Power System	CPU Jun 22 2021 16:08:05 - Version 1.01	FPGA 1.00	DSP 1.00	Port 1	2 Port 3	Port 4	Х

- Go to the firmware page and select Port 1 and Jump to Boot-Loader
- Select FPGA Flash from the pull-down menu and click connect

Nixer BLM v1.5			×
Communication Settings USB VID PID 0x4D8 0xF1FB	Enable	Hex file loaded successfully Erasing Flash Erased	^
Commands Device FPGA Flash 🗸	Disconnect	Programming Programming completed DONE Programming completed Device disconnected	
Version/Tag Load Hex File Erase-Program	Verify Run Main	Device connected Device disconnected Device connected	
			~

• Once connected click Load Hex File and navigate to and open the .hexout file you have downloaded

<b>O</b> pen					>
← → ✓ ↑ 🖡 « 211	119 » RL256 V1.4	ٽ v	⊘ Sear	rch RL256 V1.4	
Organise • New folder				•	?
3D Objects ^	Name			Date modified	
📃 Desktop	RL256_FPGA_V103.hexout			08/11/2021 10:29	)
Documents					
Downloads					
\land Drive					
🙋 Music					
Pictures					
🔲 Videos					
失 Local Disk (C:)					
🥪 Dropbox for Busi					
🛫 Dropbox on 'Ma 🗸 🗸	<				
File nan	ne:	~	FPGA File (	(*.hexout)	~
	r.		Open	Cance	el

• Click Erase-Program

		×
🗹 Enable	DONE Programming completed Device disconnected	^
Disconnect	Device connected Device connected Device connected Hex file loaded successfully Erasing	- 1
Verify	Flash Erased Programming	
Run Main	Programming completed	~
	⊡ Enable Disconnect Verify Run Main	DONE   Programming completed   Device disconnected   Device disconnected   Device connected   Device connected   Device disconnected   Device orange   Prisonnect   Hex file loaded successfully   Frash Erased   Programming   Programming completed

- Once the status window says Programming complete click Run Main and your RL256 will reboot
- When the Splash Window starts you will see confirmation of the Main CPU firmware followed by the FPGA version
- You will now need to repeat this procedure for Ports 2 through to Port 4 (where fitted)

#### Support

Additional information about Nixer products, updates, manuals etc can be found at

www.nixerproaudio.com

8