

prod.tech

Nexus

User Manual

REV 1.1

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1. Hardware SPEC

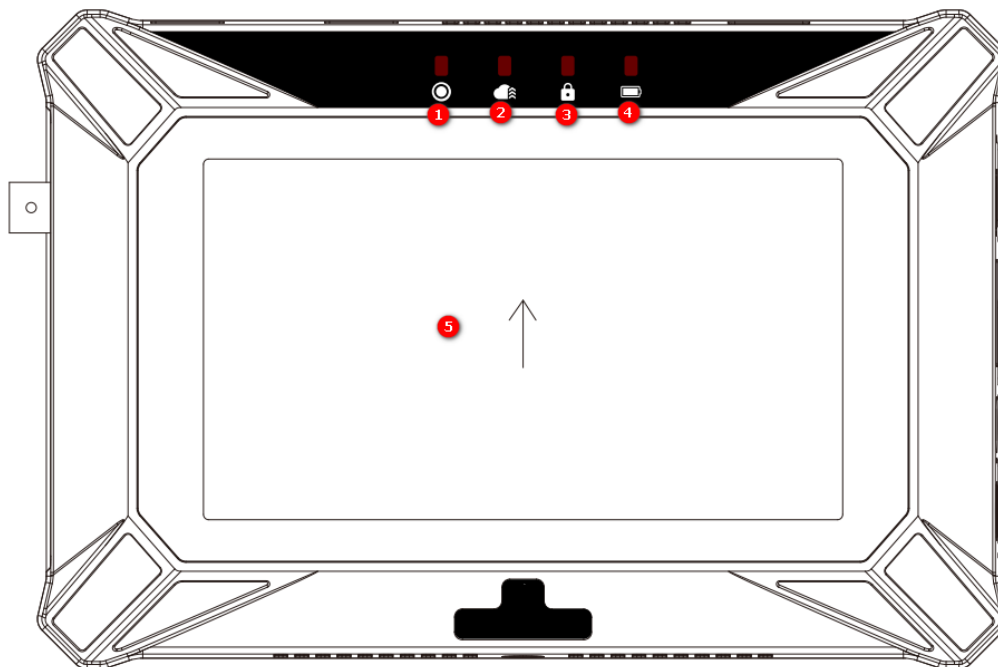
1.1 Packing List

Name/Model	Packaging	SPEC	Quantity	Actual Quantity	Note
Unit	Carton	Nexus	1	1	
Power cord	Carton	International standard	1	1	
Adapter	Carton	International standard	1	1	
Manual			1	1	Electronic Download

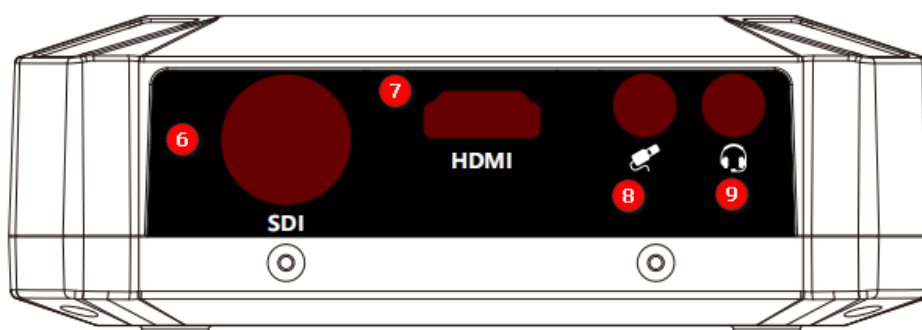
1.2 Device Parameter

Chip	Hayes 3521D
RAM	2GB
Storage	512MB SPI nano flash, 1 TF card interface, external TF card
Bonding Function	7 Channels: 3 channels 4G LTE, 2 channels USB, 1 Gigabit Ethernet 1 channel Wi-Fi
Extended Function	<ul style="list-style-type: none">● Kernel level bonding algorithm, super efficient multiplexed bandwidth stack, transparent to the application layer.● Efficient bandwidth detection and congestion control algorithm, fully mining each route bandwidth.● Supports port forwarding, providing the public IP.● Data dynamic split, encrypted transmission● Restore factory settings with one button● Downloadable firmware upgrades
Bonding Bandwidth	Up to 300Mbps
Network Type	4G
RJ45 Interface	Gigabit interface
Wi-Fi Frequency	2.4G/5.8G
Antenna	Internal Wi-Fi & 4G Antenna
Power Supply	External 10-20V DC input via supplied 19V DC adapter Built-in 6000mAh lithium battery, 2~3 hours of battery life
Screen	5" 1920x1080 MIPI LCD Touch Screen
USB	USB 3.0 * 2
Size	L18.44 x W12.5 x H4.19 cm
Operating Temp	0° C ~ +60° C
Weight	Net weight: 650g

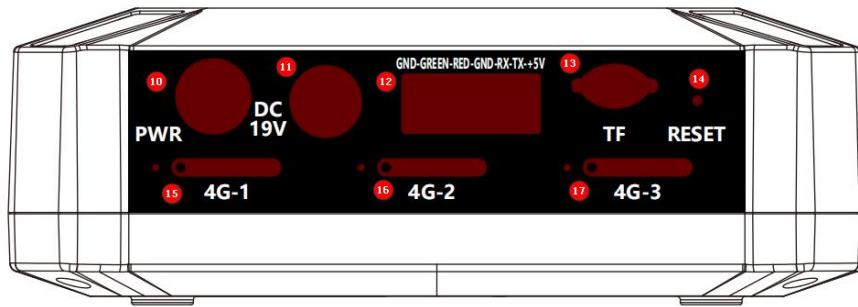
1.3 Interface Indication



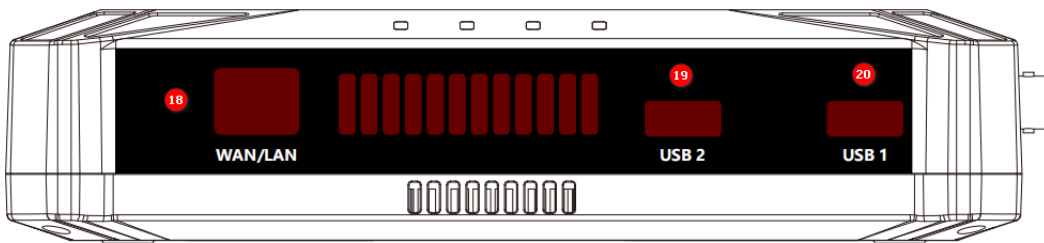
- ① Record indicator
- ② Stream indicator
- ③ Lock screen indicator
- ④ Power indicator
- ⑤ Touchscreen



- ⑥ SDI signal capture port
- ⑦ HDMI signal capture port
- ⑧ 3.5MM line input
- ⑨ Speaker port




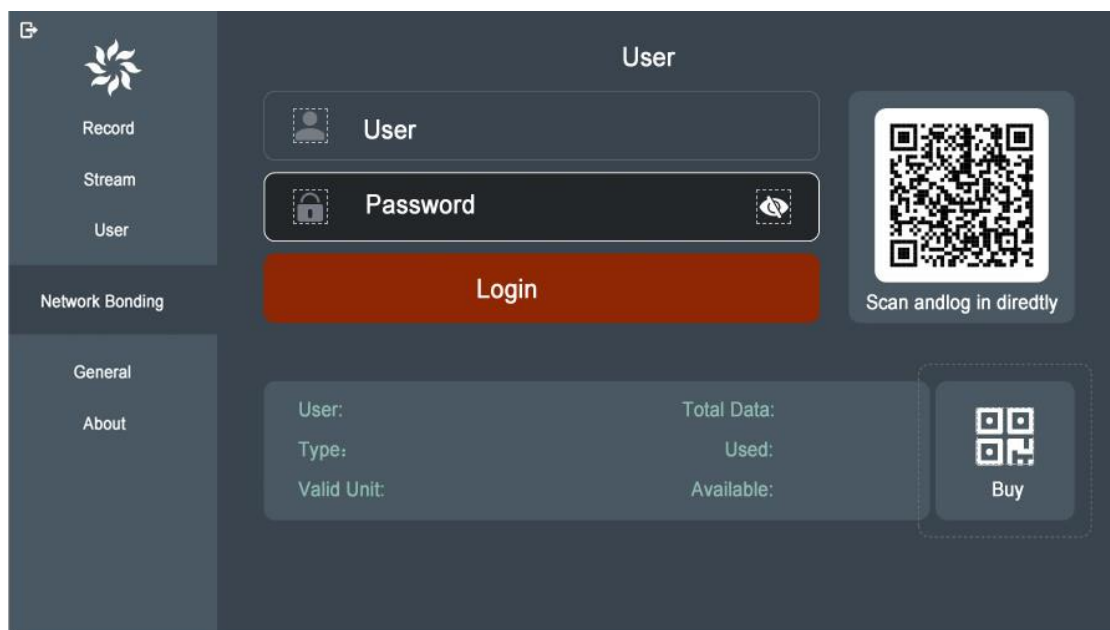
- ⑩ Power button
- 11 DC 19V Power port
- 12 7-PIN Phoenix interface for camera PTZ and TALLY lamp control
- 13 TF card interface, supports FAT32, exFat, & NTFS formats
- 14 RESET Restore Factory Settings button
- 15 4G SIM 1
- 16 4G SIM 2
- 17 4G SIM 3



- 18 RJ45 Network port. Supports WAN/LAN mode switchover
- 19 USB 3.0
- 20 USB 3.0

2. Installation and Settings

1. Remove the Nexus from the packaging.
2. Take out the power adapter and connect it to the DC 19V power port, or use the built-in battery directly.
3. Insert the 4G SIM card(s) into the corresponding SIM card port(s).
4. Connect the USB 4G network card to any USB port.
5. Connect an Ethernet cable to connect to the RJ45 network port CAT5 or higher.
6. Press the power button to turn on the device.
7. To enter the main interface, touch "  " in the upper right corner to enter the system setting interface
8. Touch the "User" icon, enter the User/password or scan the QR code to login, and then you can use the network bonding function, as pictured below:

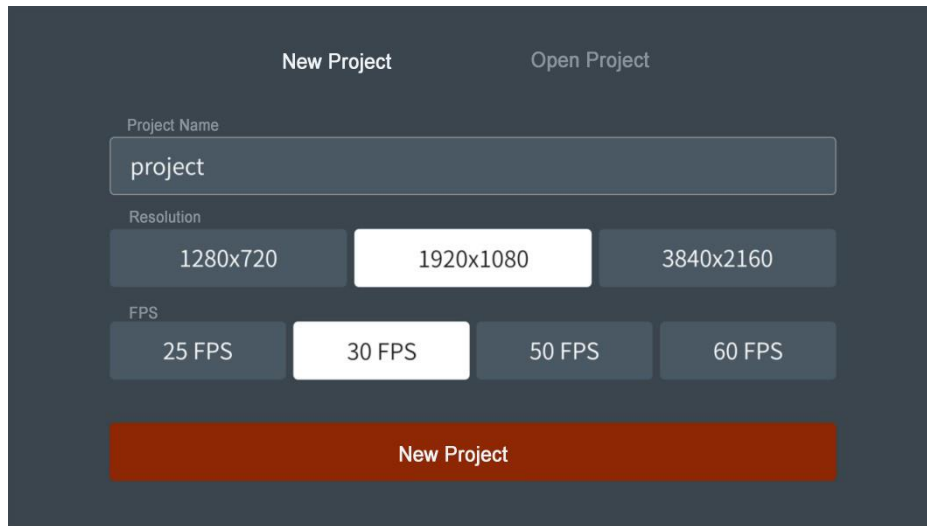


9. Touch "Network Bonding—Ethernet—Switch to LAN", to switch the RJ45 network port to the WAN or LAN mode. In WAN mode, an external IP address can be automatically assigned or manually assigned.
10. Touch "Network Bonding—WiFi", and the 2.4G/5.8G WiFi network can be scanned and connected to.
11. Touch "Network Bonding—LAN", to manually set the IP address.
12. To store Nexus, turn off the power and disconnect the DC 19V power supply. Store the connected network cables, 4G network USB cards, 4G SIM cards, Nexus, and power adapter back in the protective case.

3. Software Functions

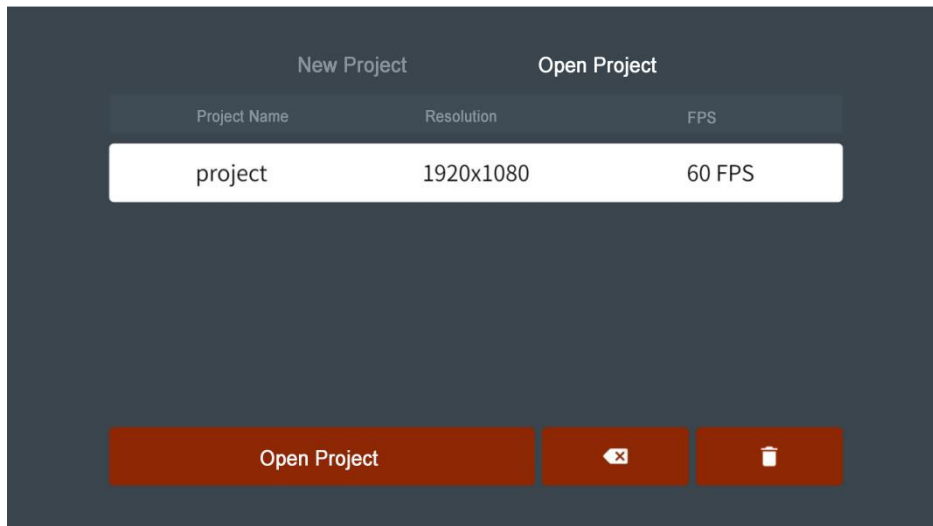
3.1 Startup Interface


Create a new project, as the pictured below:



Here, you can set the resolution and frame rate: 720p25, 30, 50, 60, 1080p25, 30, 50, 60, 2160p25, 30 to create a project.

Open Project, as the pictured below:



On this interface, you can choose to open a newly created project or a saved project with the saved settings. Touch “

5

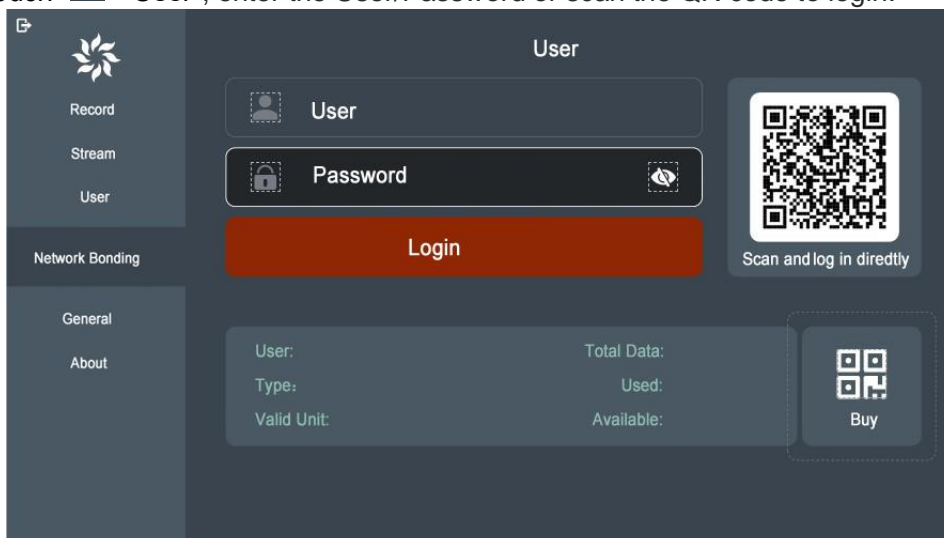
3.2 Main Interface




- | | |
|--------------------------|------------------------------|
| 1. Network Bonding | 9. HDMI Capture Feed |
| 2. Ethernet | 10. Main Output Gain Control |
| 3. WiFi | 11. Stream Indicator |
| 4. 4G | 12. Record Indicator |
| 5. Micro-SD (TF) Card | 13. Screen Lock |
| 6. Battery level display | 14. Menu Selection Bar |
| 7. Program Monitor | 15. System Settings |
| 8. SDI Capture Feed | |


3.2.1 Network Bonding

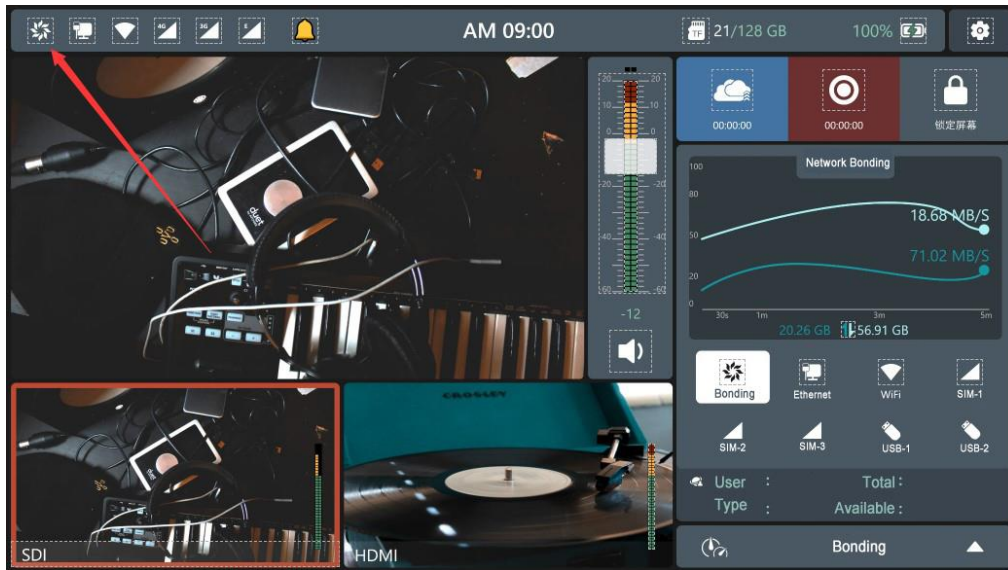
Touch "⚙️—User", enter the User/Password or scan the QR code to login.



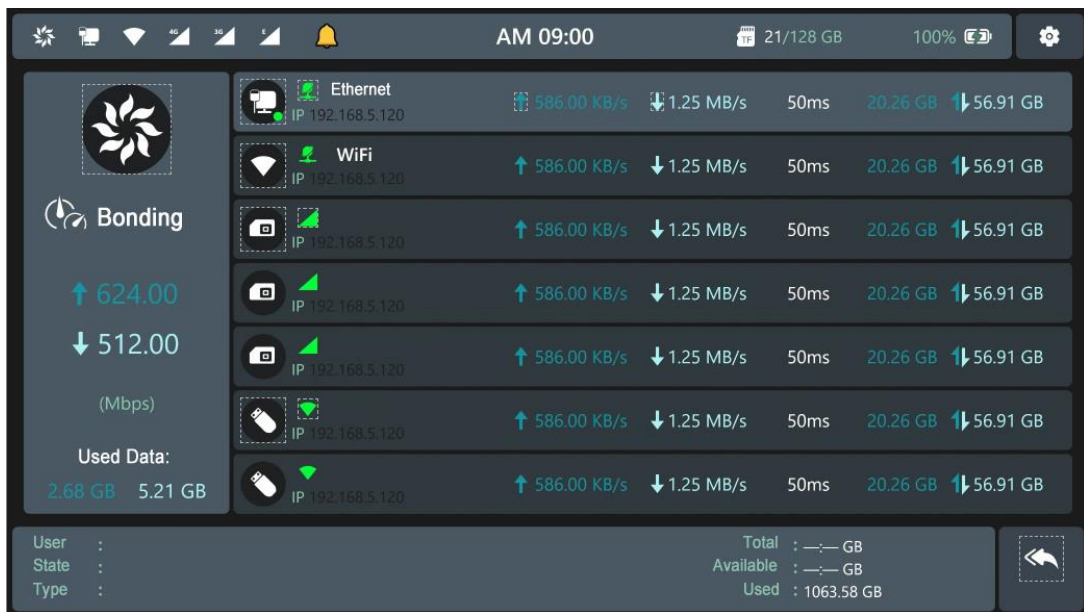
Traffic purchase: Touch the "Buy" icon to purchase traffic for the User by scanning the code on a mobile phone.

After login, you can obtain the User type and traffic usage information. Touch the top left icon “”, return to main interface.

On the main interface, touch the icon in the top left corner “” (as the picture below):




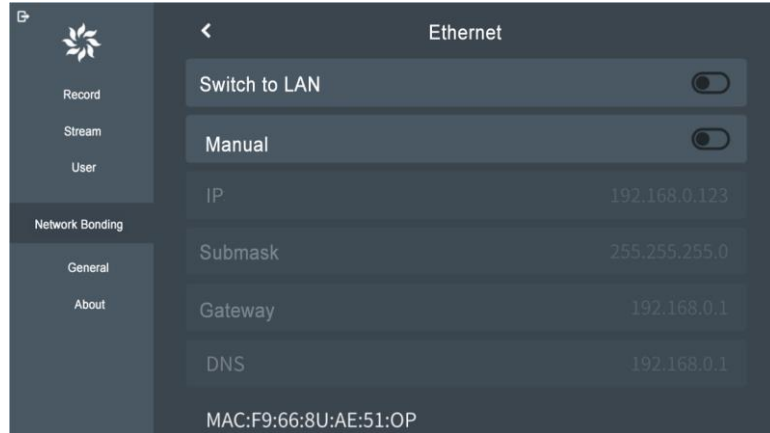
To enter the Bonding monitoring interface:



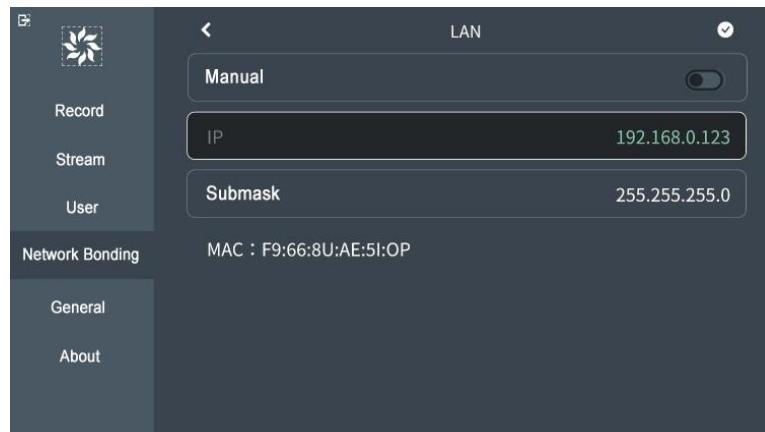
1. Bonding: Network bonding speed real-time monitoring
2. Bonding state: Monitor the bonding account state and account traffic information
3. Ethernet: Wired network speed real-time monitoring
4. WiFi: WiFi network speed real-time monitoring
5. 4G : 3*4G network speed, traffic real-time monitoring
6. USB: 2*USB 4G network speed, traffic real-time monitoring

3.2.2 Ethernet


Touch “--Network Bonding--Ethernet”, to switch the RJ45 network port to the WAN or LAN mode. In the WAN mode, an external IP address can be automatically assigned or manually assigned.

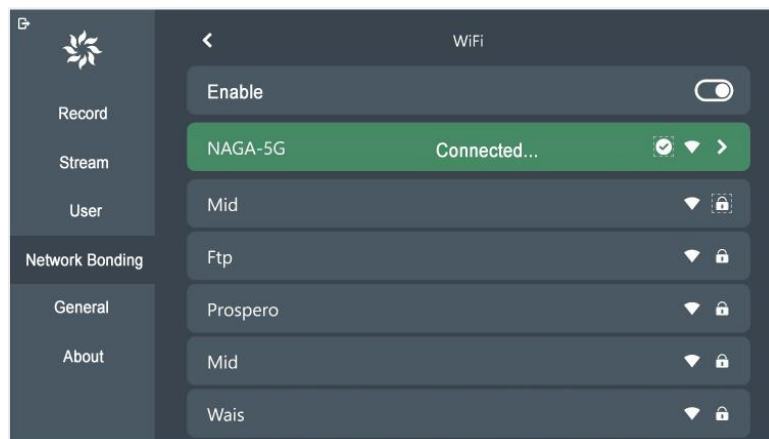


RJ45 Network ports are in LAN mode, touch “--Network Bonding--LAN”, manually set the IP address, as the picture below:




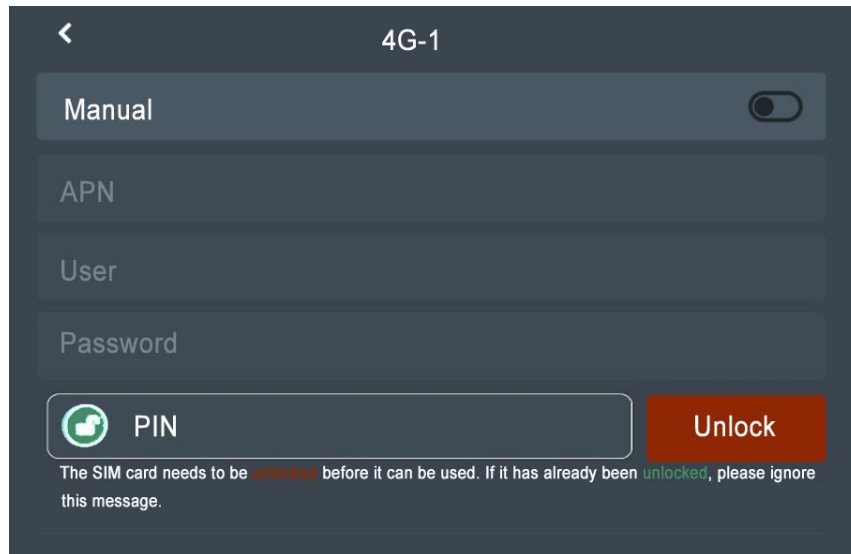
3.2.3 WiFi Network

Touch “--Network Bonding--WiFi”, enable WiFi to scan for 2.4G/5.8G WiFi networks, then enter the WiFi password to connect:



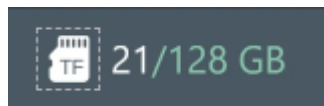
3.2.4 4G Network

The 4G-1, 4G-2, and 4G-3 ports support full Network-style SIM cards. Touch “ Network Bonding—4G-SIM—4G-1”, and enable the SIM card's APN function:



3.2.5 Micro-SD Card Capacity Display

As pictured below: Nexus displays the written data and total capacity of card



3.2.6 Battery Level Display

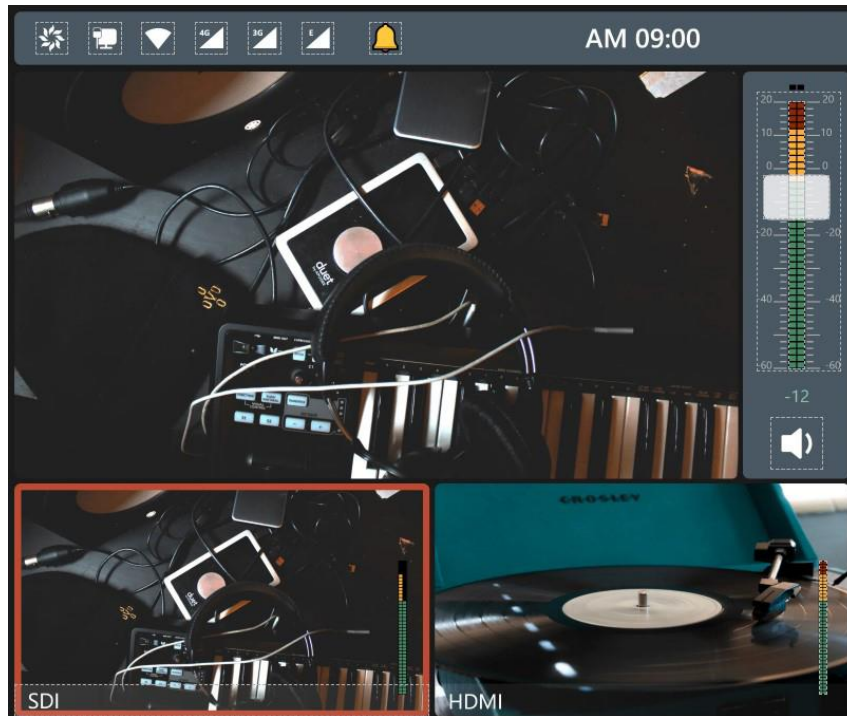
As pictured below: Nexus displays the remaining battery power



- When the power level is below 10%, the power indicator will flicker.
- Connect the DC 19V power adapter and charge it to more than 10%, and the power indicator will stay on.
- The power indicator displays the corresponding status only when the device is on. When the device is powered off and charging, the indicator light will not be displayed.

3.2.7 Master Monitor

Touch the SDI or HDMI channel to switch the channel to master monitor output, as pictured below:



3.2.8 SDI Capture Channel

Switch to the SDI feed to display on the Program Output

3.2.9 HDMI Capture Channel

Switch to the HDMI feed to display on the Program Output

3.2.10 Total mixing output gain control

As pictured below:




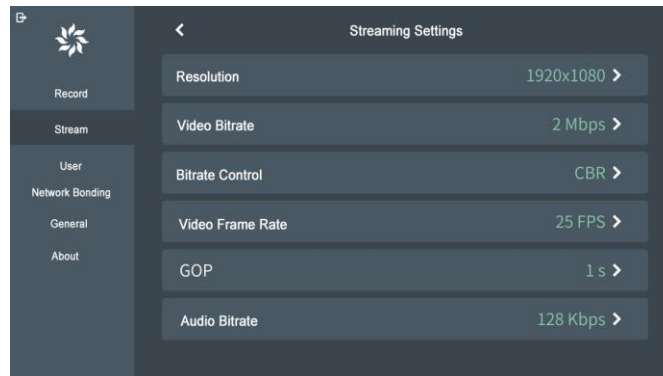
Icon Legend:

- 1) : Audio Out Enabled
- 2) : Mute Audio
- 3) : Gain Level Adjustment

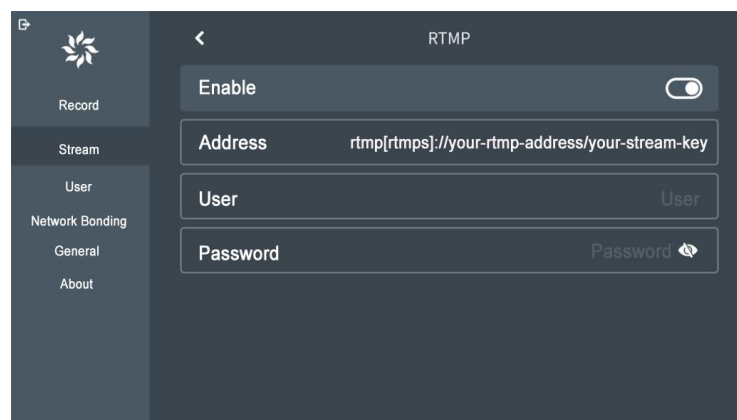
3.2.11 PGM Stream

PGM push streams to your RTMP protocol-based platforms.

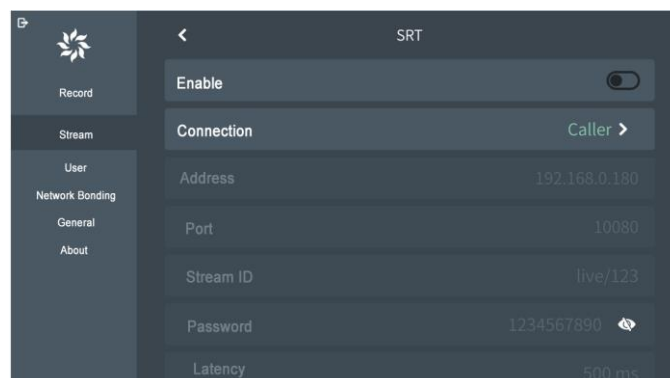
Touch  on the main interface to start the stream and touch again to stop transmission. The settings can be customized as follows:



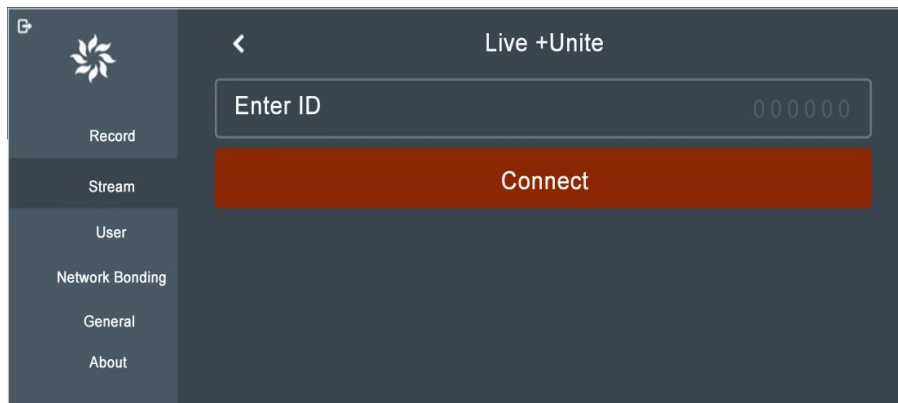
- 1) Touch "Stream—Stream Platform—RTMP" to assign the destination address.
PLEASE NOTE!
Ensure your RTMP address is set in this format: "rtmp://**your-rtmp-address**/**your-stream-key**". Nexus does not provide separate RTMP URL & Stream Key fields.
User and Password: only enter if the destination is protected; If not, leave blank:



- 2) Touch "Stream—Stream Platform—SRT", to output a SRT stream. Settings can be customized as shown below:



- 3) Select "Live+ Unite" as the destination and enter the ID to enable interaction between Live+ devices, as picture below:



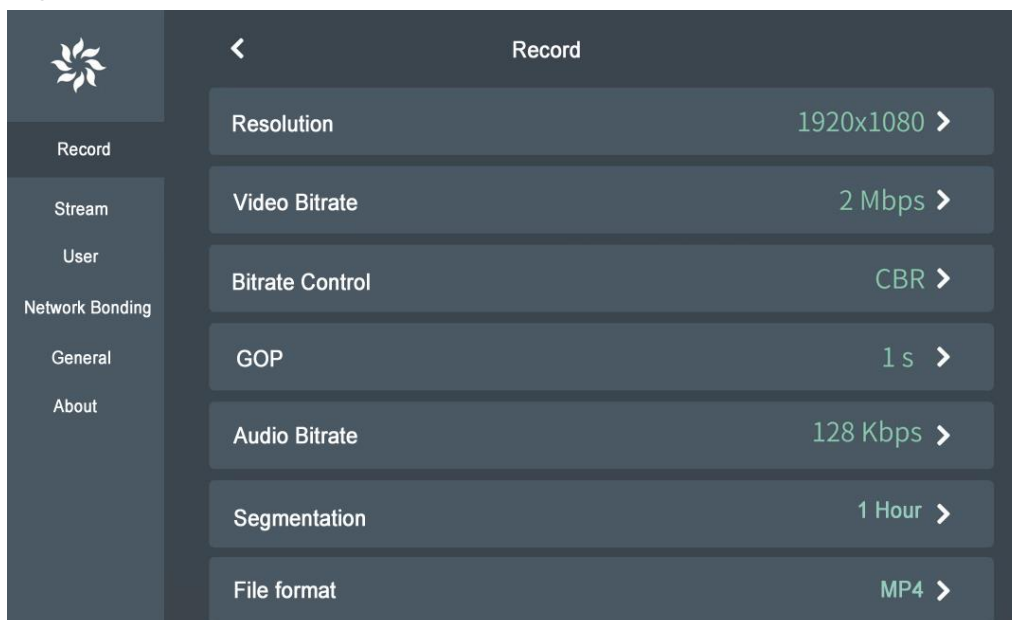
Enter the director ID of other Live+ access devices to link with the main device.

- Once a stream is started, the stream indicator will be lit. The stream indicator will turn off once the stream is ended.

3.2.12 PGM Record


Touch  on the main interface to start recording the PGM feed and touch again to stop.

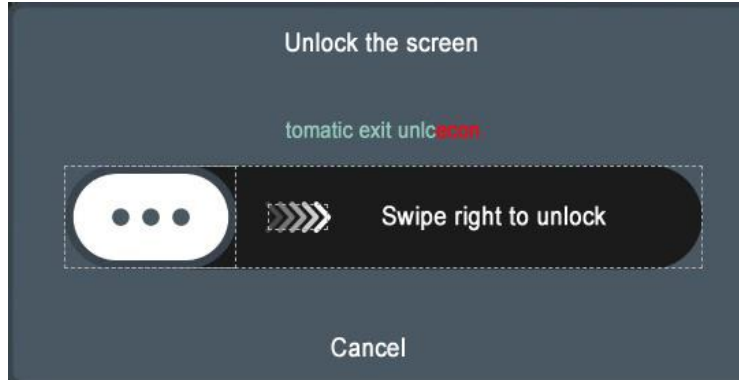
Settings can be customized, as pictured below:




- Once recording has started, the record indicator will be lit. The record indicator will turn off once the record has stopped.

3.2.13 Screen Lock Icon

Touch “” icon, to lock the screen. An unlock gesture is displayed, as shown below:



The default time is 5 seconds. If no operation is performed within 5 seconds, the prompt automatically disappears. Touch “” again and the unlock prompt will be displayed again.

- Once the screen has been locked, the indicator will be lit. The indicator will turn off once unlocked.

3.2.14 Menu Selection Bar

Touch the menu bar at the lower right corner of the main interface to pop up the following menu options:

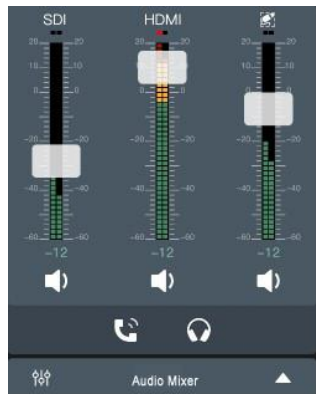


- 1) Touching “”, will display:








With this interface, you can view the network traffic usage of network ports such as the bonding network, Ethernet, WiFi, SIM cards, and USBs in real time, and display the bonding account type and traffic usage information.

2) Touch "  ", to display:





The mixer is used to control the gain and mixing of all incoming audio.

- : Audio Output Enabled
- : Muted
- : Gain Level Adjustment
- : Speaker mixing
-  icon: Speaker monitoring

3) Touch "  ", to display:








PIP can display multiple channels on the PGM monitor. Touch  to display the selected PIP mode on the Program monitor, "A" indicates the SDI channel, "B" indicates the HDMI channel, "P" indicates that a background image can be added. Touch  to select a background image from the media storage.

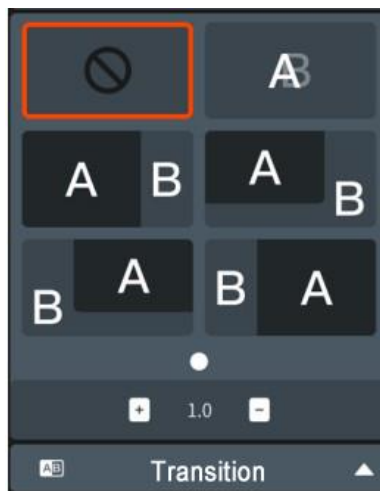
4) Touch "🖼️", to display:



Add a PNG graphic to the PGM feed.


-  Add a Graphic
-  Take the selected Graphic to Program. Tap again to remove.
-  Image Editing
-  Delete the selected Graphic
-  Clear all Images

5) Touch "AB", to display:



Select the transition effect and set the time with the +/- icons, then tap the video feed that you wish to transition to.

3.2.15 System Setup

Touch the upper right corner of the main interface icon “” to enter the system settings
Such as Record, Stream, User, Network Bonding, General, and About.