NA3&NA3S
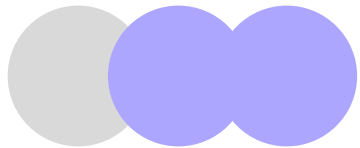
Wireless AP Topology(V1.0)

CelAudio   2025.06

Key Elements for Wireless Terminals to Access WiFi
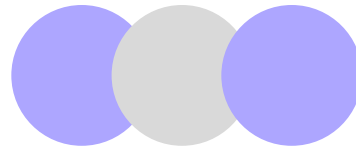
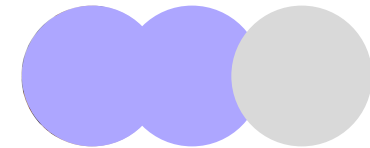## SSID&Password

SSID and password must be provided.

DHCP Server

IP addresses must be assigned to wireless terminals ,otherwise the terminals will disconnect from the wireless network.
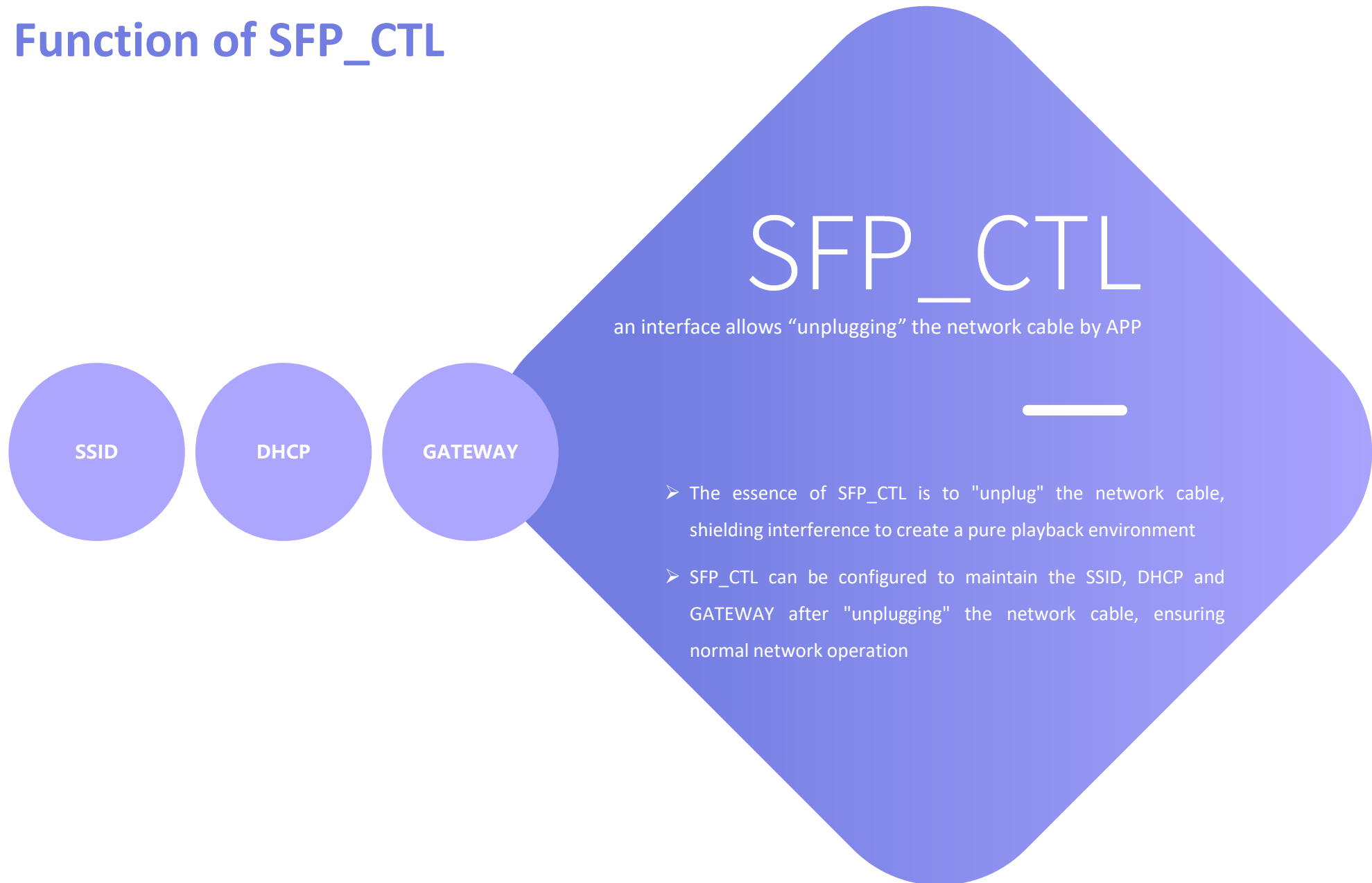
Gateway

Wireless terminals must know to whom to send data when accessing the Internet, otherwise they will disconnect from the wireless network.

The Function of SFP_CTL

SSID

DHCP

GATEWAY

SFP_CTL

an interface allows "unplugging" the network cable by APP

➢ The essence of SFP_CTL is to "unplug" the network cable, shielding interference to create a pure playback environment

➢ SFP_CTL can be configured to maintain the SSID, DHCP and GATEWAY after "unplugging" the network cable, ensuring normal network operation

Choose NA3 or NA3S

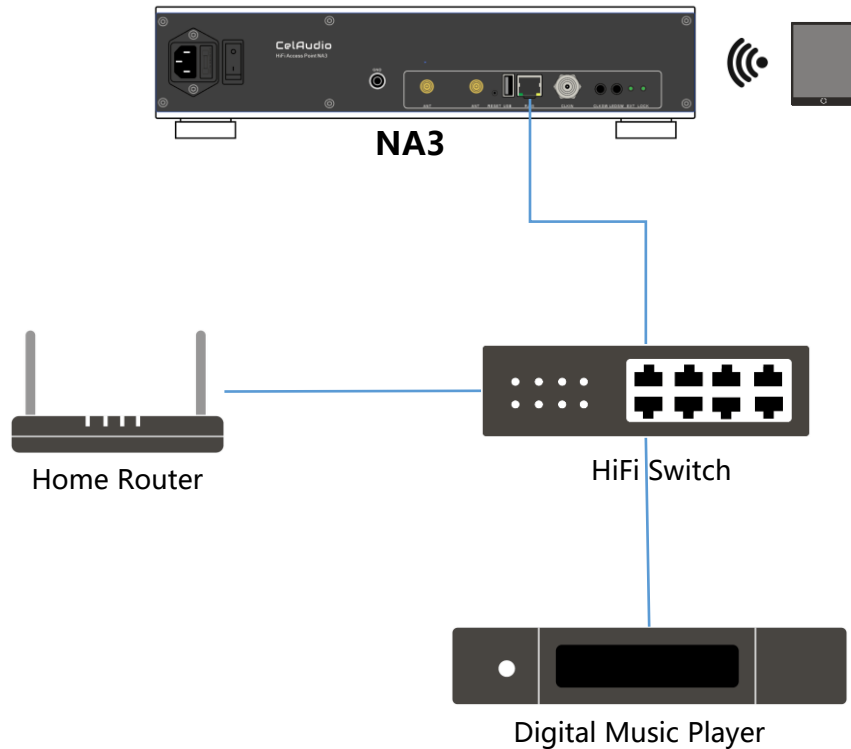| Mode	Scenario	Network/Device/Audio Source Requirements	NA3	NA3S	SFP_CTL Function	Topology
AP	Scenario1	• Network cable near the digital music player • Listen to both internet music and LAN music • With a HiFi switch	✓	✓ **(Scenario2/3)**		▶
AP	Scenario2	• Network cable near the digital music player • Listen to both internet music and LAN music • HiFi switch (Optional)		✓	Disconnect SFP_CTL to block interference from the home main router	▶
AP	Scenario3	• Network cable near the digital music player • Listen to both internet music and LAN music • HiFi switch (Optional)		✓	Disconnect SFP_CTL to block interference from wireless terminals and home networks	▶
AP+DHCP	Scenario4	• No network cable near the digital music player • Only listen to LAN music (no internet connection) • With a HiFi switch	✓	✓ **(Scenario6)**		▶
AP+DHCP	Scenario5	• No network cable near the digital music player • Only listen to LAN music (no internet connection) • No HiFi switch, but only digital music player connected	✓	✓ **(Scenario6)**		▶
AP+DHCP	Scenario6	• No network cable near the digital music player • Only listen to LAN music (no internet connection) • HiFi switch (optional), can connect multiple devices		✓	Disconnect SFP_CTL to block interference from wireless terminals	▶
AP+STA	Scenario7	• No network cable near the digital music player • Listen to both internet music and LAN music • With a HiFi switch	✓	✓ **(Scenario9)**		▶
AP+STA	Scenario8	• No network cable near the digital music player • Listen to both internet music and LAN music • No HiFi switch, but only digital music player connected	✓	✓ **(Scenario9)**		▶
AP+STA	Scenario9	• No network cable near the digital music player • Listen to both internet music and LAN music • HiFi switch (optional), can connect multiple devices		✓	Disconnect SFP_CTL to block interference from wireless terminals	▶

AP Mode: Scenario1

NA3

Home Router

HiFi Switch

Digital Music Player

Scenario1

- Network cable near the digital music player
- Listen to both internet music and LAN music
- with a HiFi switch

- Similar to USB product, purify the network signals of wireless terminals and reduce interference
- The acoustic signature of NA3 can enhance sound quality

Default Mode, PnP

SSID&Pwd	DHCP	Gateway
NA3	Home Router	Home Router

AP Mode: Scenario2
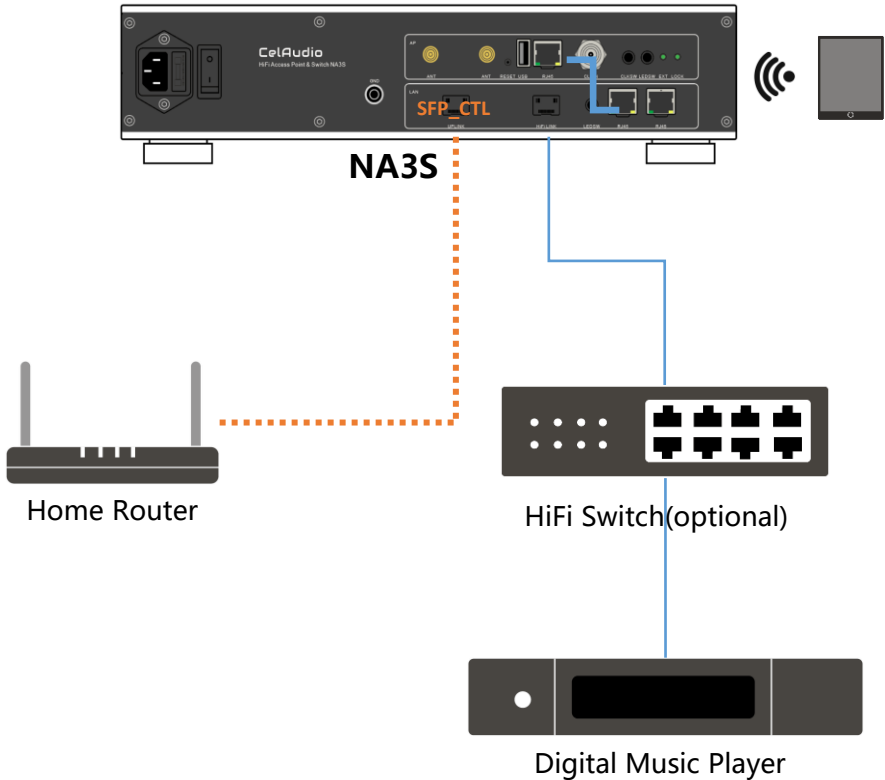
NA3S

Home Router

HiFi Switch(optional)

Digital Music Player

Scenario2

- Network cable near the digital music player
- Listen to both internet music and LAN music
- HiFi switch (Optional)

- Disconnect SFP_CTL to cut off connection between NA3S and home main router, blocking interference from the home main router to the digital music player and enhancing playback sound quality
- When SFP_CTL is disconnected, only LAN music can be played

Connect SFP_CTL

SSID&Pwd	DHCP	Gateway
NA3S	Home Router	Home Router

Disconnect SFP_CTL

Unplugging the network cable from the router will lose DHCP/gateway, NA3S will take over, the IP of NA3S will change, requiring a restart of nManager

SSID&Pwd	DHCP	Gateway
NA3S	NA3S	NA3S

AP Mode: Scenario3
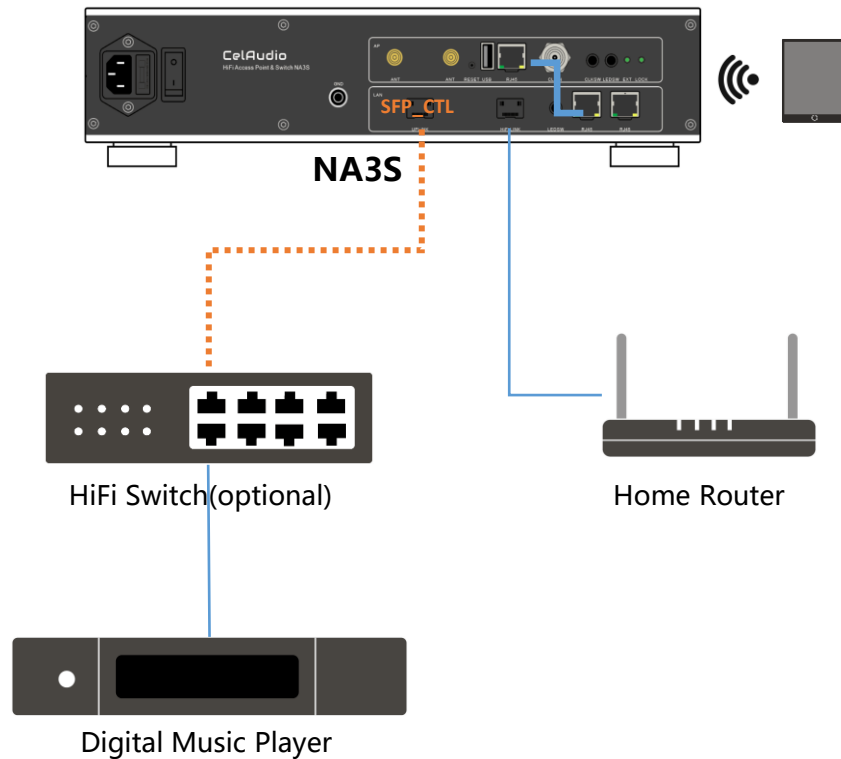
NA3S

HiFi Switch(optional)

Digital Music Player

Home Router

Scenario3

- Network cable near the digital music player
- Listen to both internet music and LAN music
- HiFi switch (Optional)

- Disconnect SFP_CTL to cut off NA3S from HiFi switch/digital player, blocking wireless terminals and home networks from interfering with the digital player
- When SFP_CTL is disconnected, only LAN music can be played

Connect SFP_CTL

| SSID&Pwd NA3S | DHCP Home Router | Gateway Home Router |

Disconnect SFP_CTL

Wireless terminals can no longer access the digital player, which will operate in a purer playback environment

| SSID&Pwd NA3S | DHCP Home Router | Gateway Home Router |

AP+DHCP Mode: Scenario4

NA3

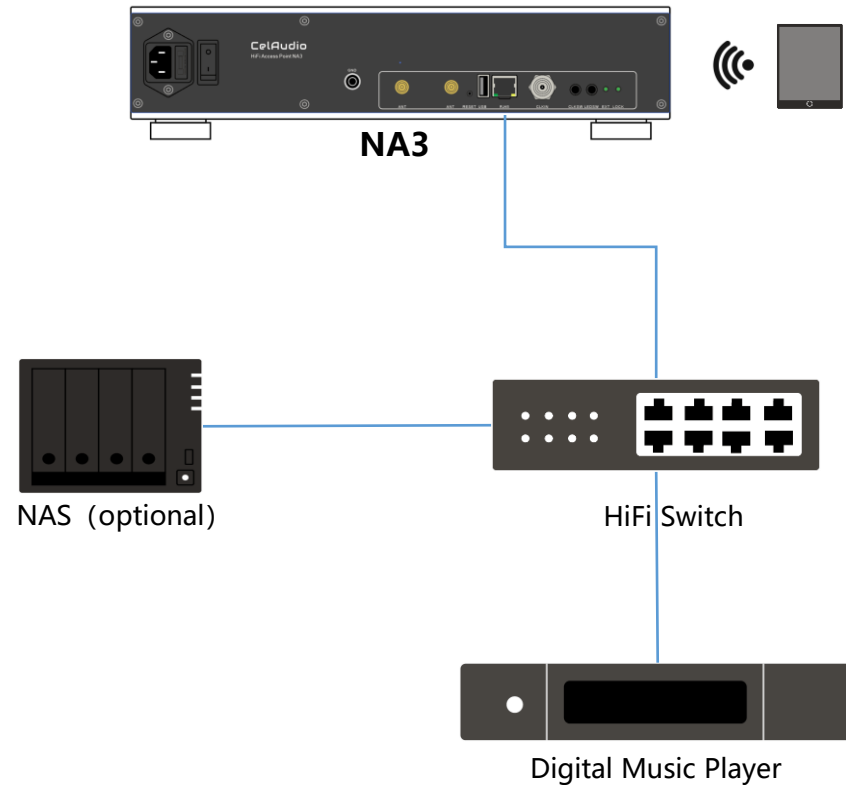NAS (optional)

HiFi Switch

Digital Music Player

Scenario4

- No network cable near the digital music player
- Only listen to LAN music (no internet connection)
- With a HiFi switch

- NA3 provides SSID/DHCP/gateway services, replacing ordinary routers and high-grade linear power supplies to completely eliminate the impact of home main routers on sound quality
- Similar to USB product, purify the network signals of wireless terminals and reduce interference
- The acoustic signature of NA3 can enhance sound quality

NA3 provides AP+DHCP services

SSID&Pwd	DHCP	Gateway
NA3	NA3	NA3

AP+DHCP Mode: Scenario5

NA3

Digital Music Player

Scenario5

- No network cable near the digital music player
- Only listen to LAN music (no internet connection)
- No HiFi switch, but only digital music player connected

- NA3 provides SSID/DHCP/gateway services, replacing ordinary routers and high-grade linear power supplies to completely eliminate the impact of home main routers on sound quality
- Similar to USB product, purify the network signals of wireless terminals and reduce interference
- The acoustic signature of NA3 can enhance sound quality
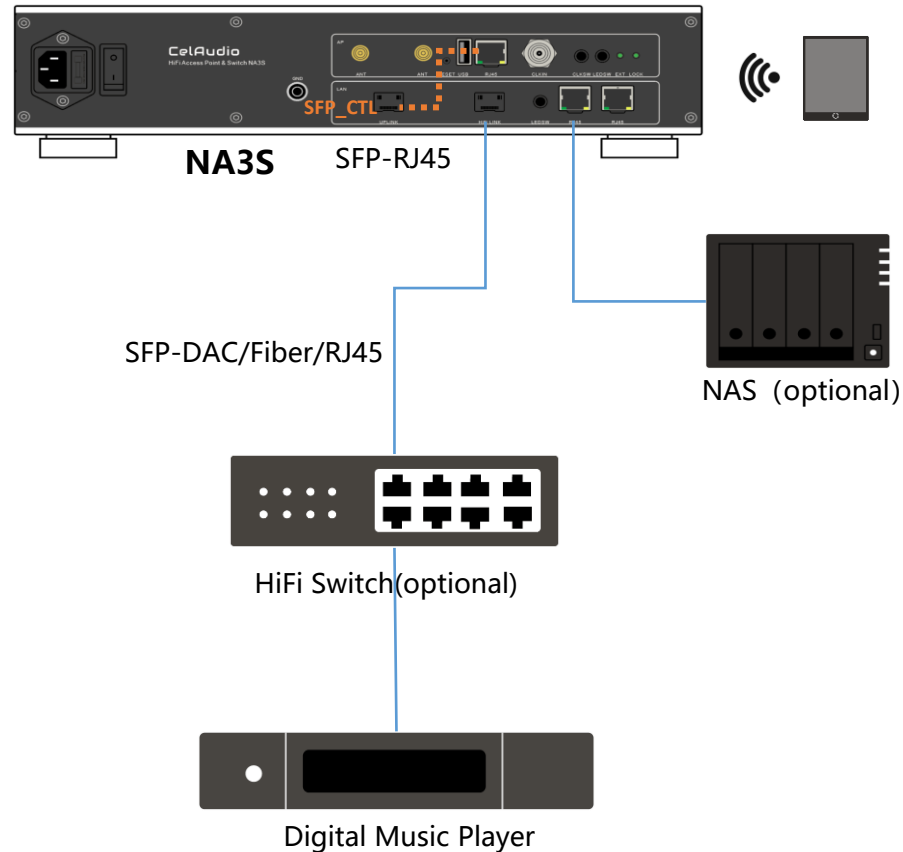
NA3 provides AP+DHCP services

SSID&Pwd	DHCP	Gateway
NA3	NA3	NA3

AP+DHCP Mode: Scenario6

NA3S

SFP-RJ45

SFP-DAC/Fiber/RJ45

NAS (optional)

HiFi Switch(optional)

Digital Music Player

Scenario6

- No network cable near the digital music player
- Only listen to LAN music (no internet connection)
- HiFi switch (optional), can connect multiple devices

- Disconnect SFP_CTL will remove the wireless connection from the HiFi network . Wireless terminals will be unable to access the digital player, and with the interference from wireless terminals shielded. The digital player can still play LAN music normally

Connect SFP_CTL
Wireless terminals can access the digital player for management

SSID&Pwd	DHCP	Gateway
NA3S	NA3S	NA3S

Disconnect SFP_CTL
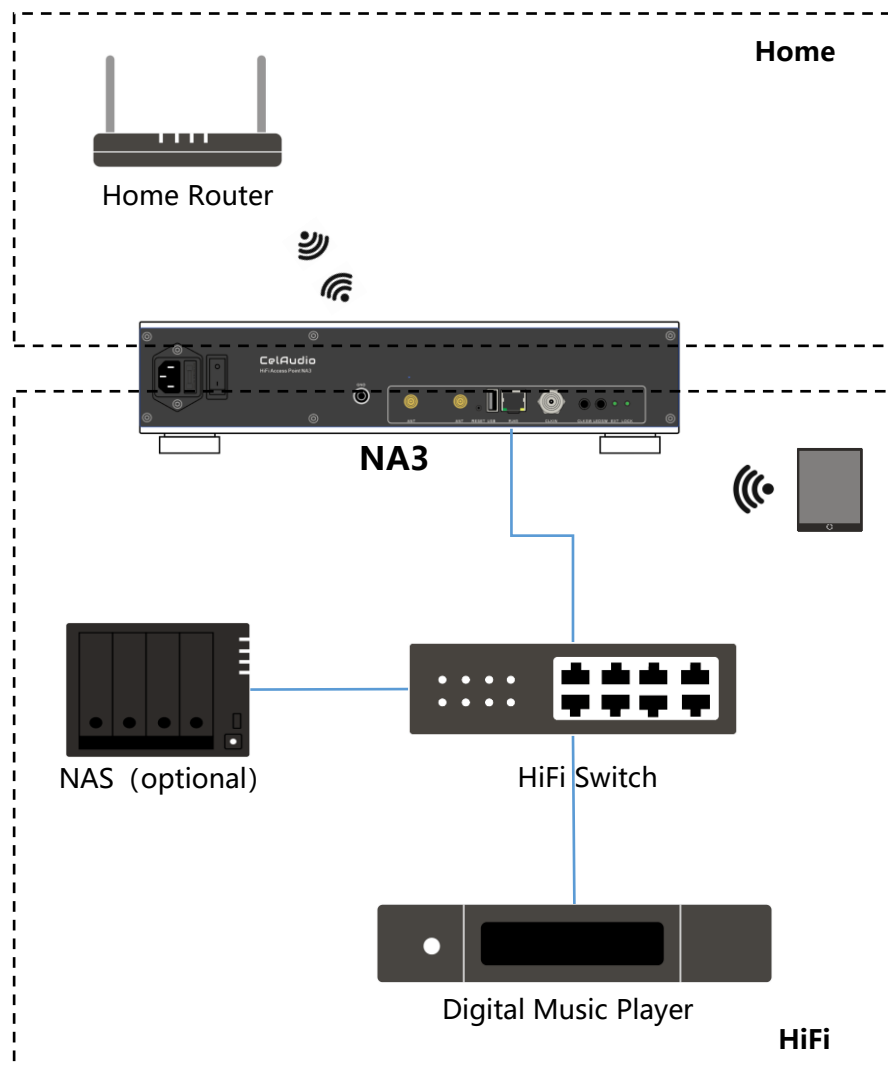Wireless terminals can no longer access the digital player, which will operate in a purer playback environment

SSID&Pwd	DHCP	Gateway
NA3S	NA3S	NA3S

AP+STA Mode: Scenario7

Home

Home Router

NA3

NAS (optional)

HiFi Switch

Digital Music Player

HiFi

Scenario7

- No network cable near the digital music player
- Listen to both internet music and LAN music
- With a HiFi switch

- The wireless part of NA3 accessing the Home network is called STA, which is used for upstream Internet access, enabling the HiFi network to connect to the Internet so that the digital player can stream online music
- In this scenario, the STA requires a static IP, which can be set via the configuration interface

STA side connects to the Home network

| **SSID&Pwd** Home Router | **Static IP** NA3 | **Gateway** Home Router |

AP side connects to the HiFi network

| **SSID&Pwd** NA3 | **DHCP** NA3 | **Gateway** NA3 |

AP+STA Mode: Scenario8

Home

Home Router

NA3

Digital Music Player

HiFi

Scenario8

- No network cable near the digital music player
- Listen to both internet music and LAN music
- No HiFi switch, but only digital music player connected

- The wireless part of NA3 accessing the Home network is called STA, which is used for upstream Internet access, enabling the HiFi network to connect to the Internet so that the digital player can stream online music
- In this scenario, the STA requires a static IP, which can be set via the configuration interface

STA side connects to the Home network

SSID&Pwd	Static IP	Gateway
Home Router	NA3	Home Router

AP side connects to the HiFi network

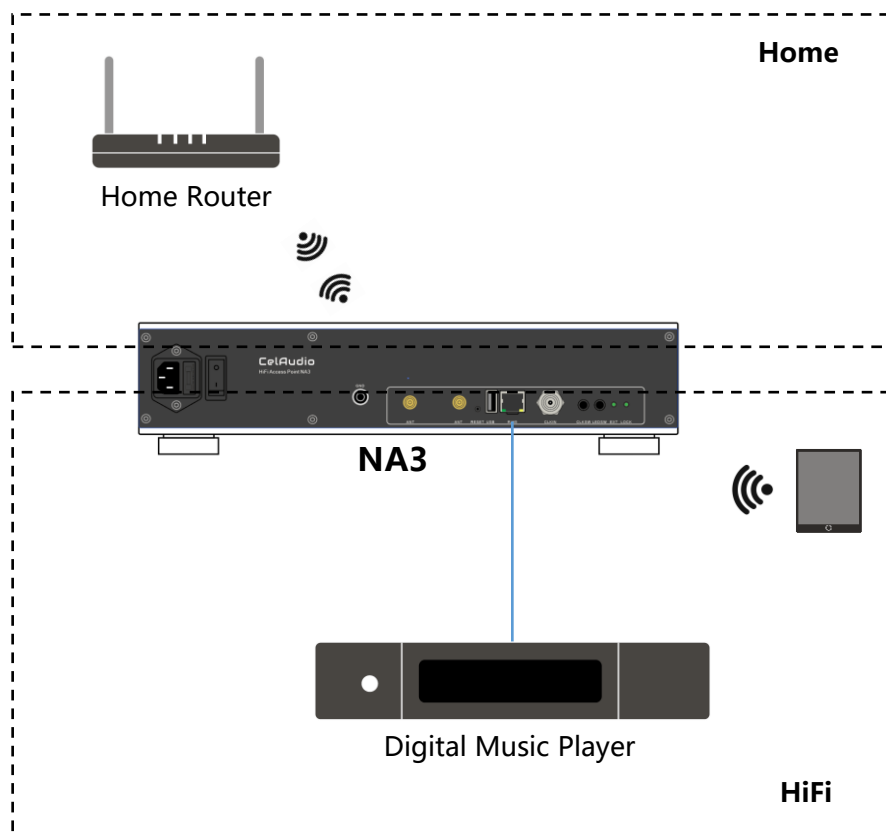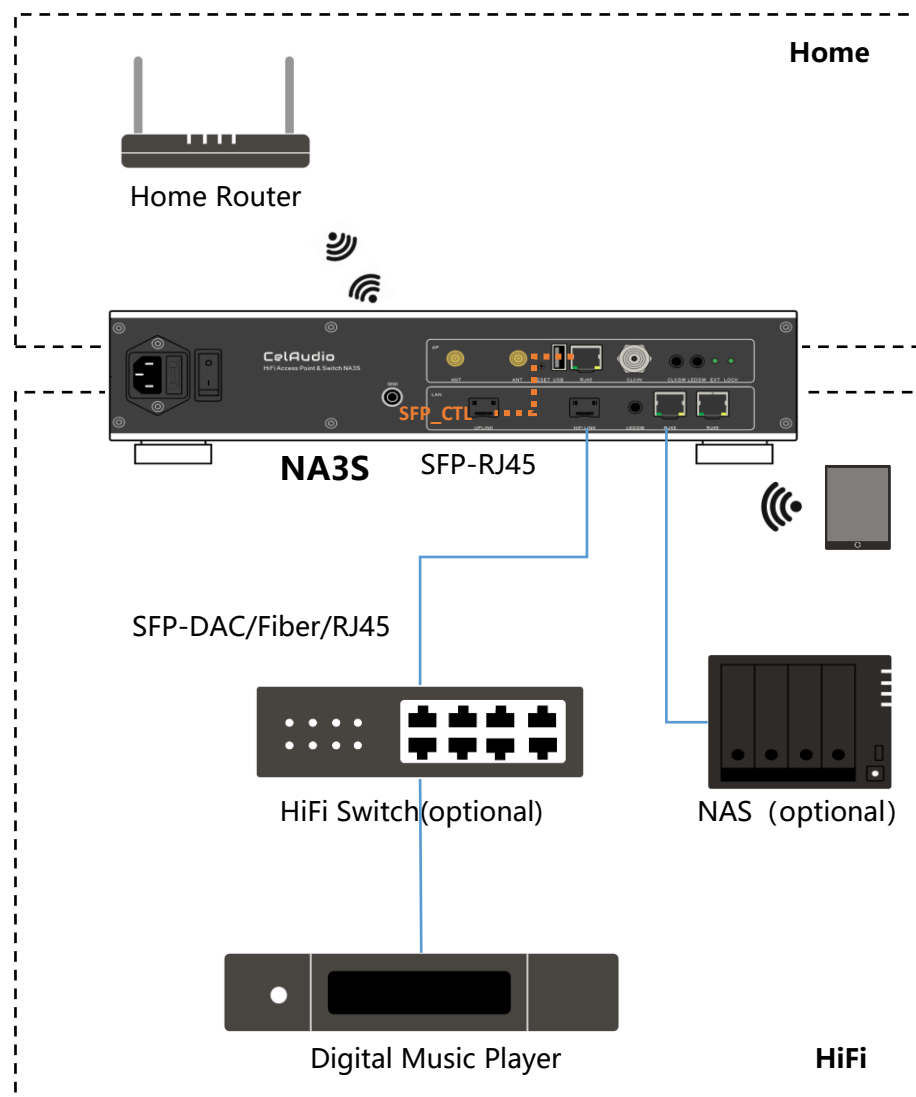| SSID&Pwd	DHCP	Gateway
NA3	NA3	NA3

AP+STA Mode: Scenario9

Scenario9

- No network cable near the digital music player
- Listen to both internet music and LAN music
- HiFi switch (optional), can connect multiple devices

- The wireless part of NA3S accessing the Home network is called STA, which is used for upstream Internet access, enabling the HiFi network to connect to the Internet so that the digital player can stream online music
- In this scenario, the STA requires a static IP, which can be set via the configuration interface
- Disconnect SFP_CTL will remove the wireless connection from the HiFi network . Wireless terminals will be unable to access the digital player, and with the interference from wireless terminals shielded. The digital player can still play LAN music normally

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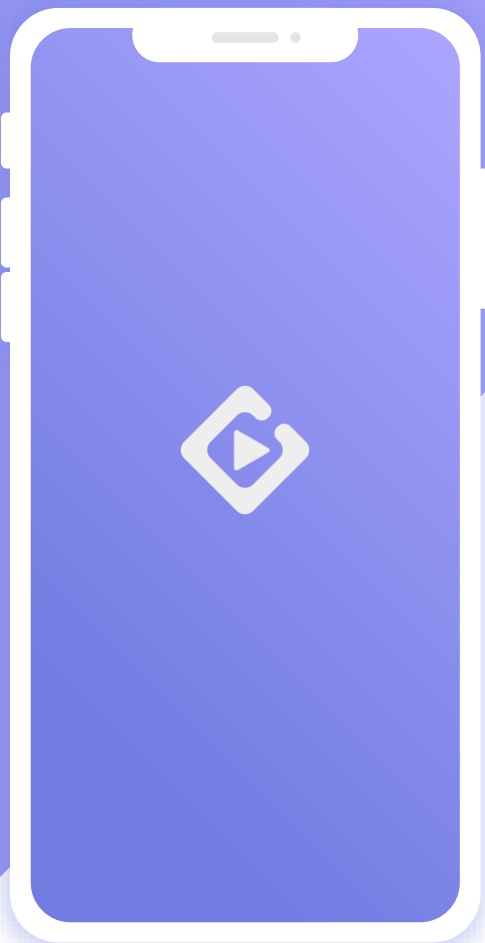### STA side connects to the Home network

SSID&Pwd	Static IP	Gateway
Home Router	NA3S	Home Router

AP side connects to the HiFi network

SSID&Pwd	DHCP	Gateway
NA3S	NA3S	NA3S

Thanks for watching