

UfiSpace S9500-30XS Disaggregated Cell Site Gateway Router Installation Guide

Home » UfiSpace » UfiSpace S9500-30XS Disaggregated Cell Site Gateway Router Installation Guide



Contents

- 1 UfiSpace S9500-30XS Disaggregated Cell Site Gateway
- **Router**
- **2 Product Usage Instructions**
- 3 Overview
- 4 Preparation
- **5 Package Contents**
- 6 Identifying Your System
- 7 Installing Fan Modules
- 8 Installing Power Supply Units
- 9 Grounding the Router
- **10 Connecting Power**
- 11 Verifying System Operation
- 12 Initial System Setup
- 13 Cable Connections
- 14 Cautions and Regulatory Compliance Statements
- 15 Documents / Resources
 - 15.1 References
- **16 Related Posts**



UfiSpace S9500-30XS Disaggregated Cell Site Gateway Router



Product Specifications

• Model: S9500-30XS

• Type: Disaggregated Cell Site Gateway Router

• Version: R1.5

• Weight: 22.58lb (10.24kg)

Dimensions: 17.32 x 11.89 x 1.71 inches (440 x 302 x 43.5mm)
 Power Supply: DC PSU: 1.48lb (672.2g) / AC PSU: 1.58lb (716g)

Product Usage Instructions

Installation Tools Required

- Phillips #2 Screw Driver
- · Crimping Tool
- 14-AWG wire with ring terminal for DC power supply
- 6-AWG green-and-yellow wire for grounding
- Wire-stripping tools for stripping 6-AWG copper wire
- · Console cable

Installation Environment Requirements

Height: 1RU (1.75/4.5cm)Width: 19 inches (48.3cm)Depth: 18.89 inches (47.9cm)

Package Contents

Accessory List:

- Grounding Lug
- Screw Kit (for Grounding Lug)
- Rack Mount Bracket

Component Physical Information:

• Total package contents: 22.58lb (10.24kg)

• Chassis without FRU: 10.49lb (4.76kg)

Frequently Asked Questions (FAQ)

Q: What are the power voltage and electric current requirements for the S9500-30XS?

A: The DC version requires -36 to -75V DC, maximum 16A x2 or the AC version requires 100 to 240V, maximum 6A x2.

Overview

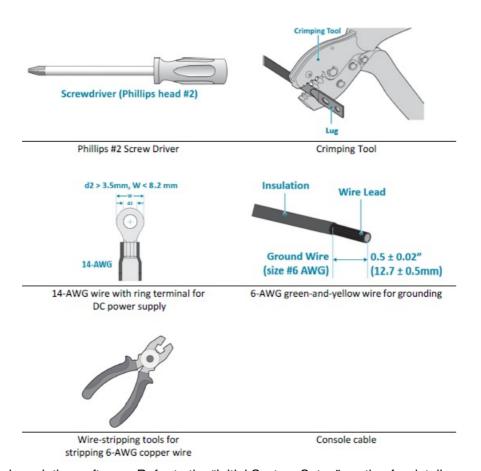
The UfiSpace S9500-30XS is a high-performance, versatile open networking white box router that is designed to address the changing needs of backhaul transport requirements as Telecoms make the transition from legacy technologies towards 5G.

It enables telecoms and service providers to deploy disaggregated open network infrastructure to lower costs and rapidly scale existing services for edge computing, mobile backhaul, and broadband access applications. The S9500-30XS is future-proofed with a powerful 4-core processor, 10GE/25GE/100GE high-speed interfaces, and full timing features supporting IEEE 1588v2 and SyncE, which enables service providers to easily migrate from 2G, 3G, 4G BBUs to 5G RAN. It is suitable for both indoor and outdoor deployments with redundant, hot swappable components for convenience, increased availability, reliability and lower costs of maintenance. This document describes the hardware installation process for S9500-30XS.

Preparation

Installation Tools

•



PC with terminal emulation software. Refer to the "Initial System Setup" section for details.

Baud rate: 115200 bps

Data bits: 8Parity: NoneStop bits: 1

· Flow control: None

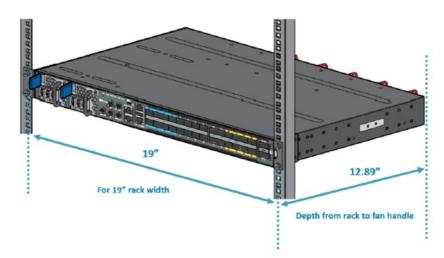
Installation Environment Requirements

Power Reserve: The S9500-30XS power supply is available with:

- 1. DC Version: 1+1 active-active -36 to -75V DC power supply field replaceable unit or;
- 2. AC Version: 1+1 active-active universal 100 to 240V AC power supply field replaceable unit.

To ensure the active-active feed power design functions properly, a field with dual power circuit is recommend with a reserve of at least 400 watts on each power circuit.

• Space Clearance: The S9500-30XS width is 17.32 inches (44cm) and shipped with a rack mount brackets suitable for 19 inch (48.3cm) wide racks and adjustable mounting rails are provided for rack depths of 22 inches (55.9cm) to 33 inches (83.8cm). The depth of the S9500-30XS chassis is 11.89 inches (30.2cm) without the field replaceable units (FRUs). The handle for the fan units will extend outwards by 1 inch (2.5cm) and the handle for the power supplies will extend outwards by 1.06 inches (2.7cm). To accommodate the air inlet and front cabling, a recommended minimum space clearance of 6 inches (15.2cm) for the front of the unit. To accommodate the fan handle, it is recommended that a minimum space clearance of 1 inch (2.5cm) for the back of the unit. A total minimum reserve depth of 18.89 inches (47.9cm) is required.



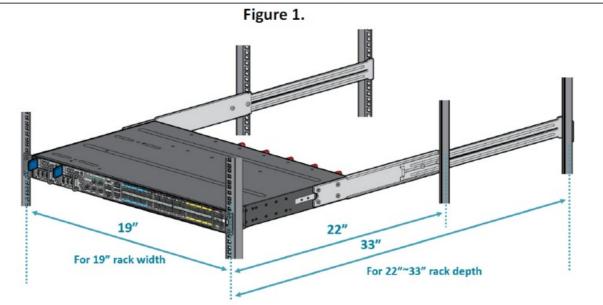


Figure 2.

• Cooling: The S9500-30XS airflow direction is front-to-back. Make sure the equipment on the same rack have the same airflow direction.

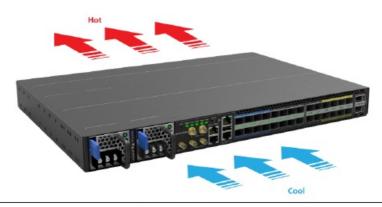


Figure 3.

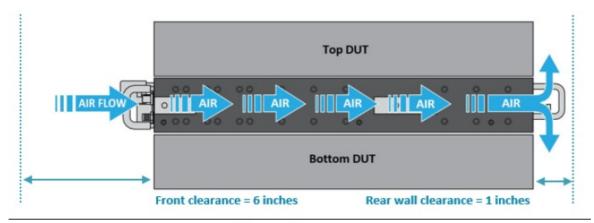


Figure 4.

Preparation Check List

| Task | Check | Date |
|---|-------|------|
| Power voltage and electric current requirement DC version: -36 to -75V D C, 16A maximum x2 or; AC version: 100 to 240V, 6A maximum x2 | | |
| Installation spacing requirement S9500-30XS spacing requires a height of 1RU (1.75"/4.5cm), a width of 19" (4 8.3cm) in width, and a depth of 18.89 inches (47.9cm) | | |
| Thermal requirement S9500-30XS working temperature is -40 to 65°C (-40°F to 149°F), airflow dire ction is front-to-back | | |
| Installation tools required #2 Philips Screwdriver, 6-AWG wire stripper, and crimping tool | | |
| Accessories required PC with terminal emulation software, console cable, 14-AWG wire with ring terminal for power, 6-AWG wire for grounding | | |

Package Contents

Accessory List

| Item | Description | Spec. & Dimensions | Qty. | Weight |
|------|--|--|-------|---|
| 1 | Grounding Lug | 1.97" x 0.44" x 0.3" (#6 AWG) (50 x 11.1 x 7.5mm) | 1 pcs | 0.022lb (10.0g)/pcs |
| 2 | Screw Kit (for Grounding Lug) | 2 x Screws M4*L8.0mm 4 x M4 Lock Washers | 1 set | 0.008lb (3.5g)/set |
| 3 | Rack Mount Bracket | 1.98" x 1.69" x 0.79" (19" width rack) (50.4 x 43 x 20mm) | 2 pcs | 0.14lb (65.4g)/2pcs (0.07lb (32.7g)/pcs) |
| 4 | Screw Kit (for Rack Mount Bracket) | 8 x Screws M4.0*L6.5mm | 1 set | 0.02lb (7g)/set |
| 5 | Adjustable Mounting Rail (for 4 posts) | 16.02" x 1.69" x 0.83" (406.8 x 43 x 21mm) (for 22" to 33" rack depth) | 2 set | 1.39lb (630g)/2 set (0.69lb (315g)/set) |
| 6 | Screw Kit (for Adjustable Mounting Rail) | 8 x Screws M4.0*L6.5mm | 1 set | 0.02lb (7g)/set |
| 7 | USB 2.0 Type A Cable | 7.87" (200mm) | 1 pcs | 0.02lb (10.5g)/pcs |
| 8 | AC Power Cord (AC version only) | 72.05" (1830mm) | 2 pcs | 1.03lb (468g)/2 pcs (0.52lb (234g)/pcs) |
| 9 | RJ45 to DB9 Female Cable | 95.98" (2438mm) | 1 pcs | 0.23lb (105g)/pcs |

Component Physical Information

| Specification | Item | Description |
|---------------|---|--|
| | Total package contents | 22.58lb (10.24kg) |
| | Chassis without FRU | 10.49lb (4.76kg) |
| | Power Supply Unit (PSU) | DC PSU: 1.48lb (672.2g) |
| | | AC PSU: 1.58lb (716g) |
| | Fan | 0.2lb (90g) |
| | Ground lug | 0.022lb (10g) |
| Weight | Rack mount bracket | 0.07lb (32.7g) |
| Weight | Adjustable mounting rail | 0.69lb (315g) |
| | USB cable | 0.02lb (10.5g) |
| | AC Power cord (AC version only) | 0.52lb (234g) |
| | RJ45 to DB9 Female Cable | 0.23lb (105g) |
| | Screw kit for ground lug | 0.008lb (3.5g) |
| | Screw kit for rack mount bracket and adjustable mounting rail | 0.02lb (7g) |
| | S9500-30XS (W x D x H) | 17.32" x 11.89" x 1.71" (440 x 302 x 43.5mm) |
| Dimension | PSU (W x D x H) | 1.99" x 8.31" x 1.58" (50.5 x 211 x 40.2mm) |
| | Fan (W x D x H) | 2.03" x 2.28"x 1.66" (51.5 x 57.8 x 42.2mm) |

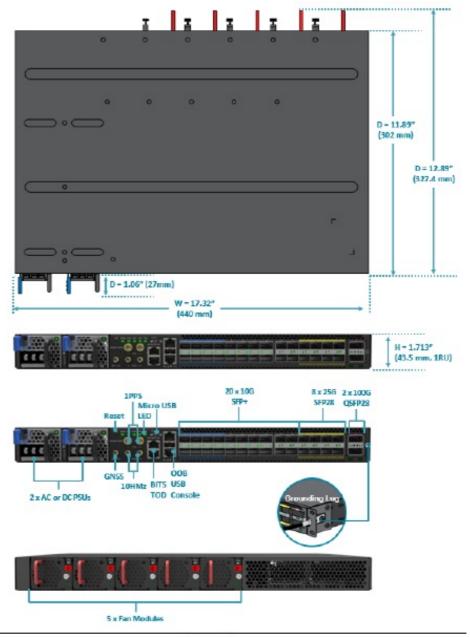
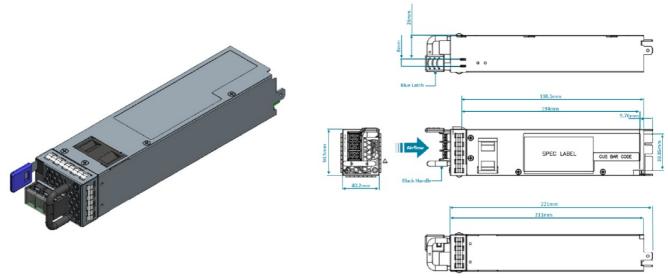


Figure 5.

DC Version PSU Overview

Power supply unit (PSU) with 1+1 redundancy. Hot swappable, field replaceable unit (FRU).



AC Version PSU Overview

Power supply unit (PSU) with 1+1 redundancy. Hot swappable, field replaceable unit (FRU).

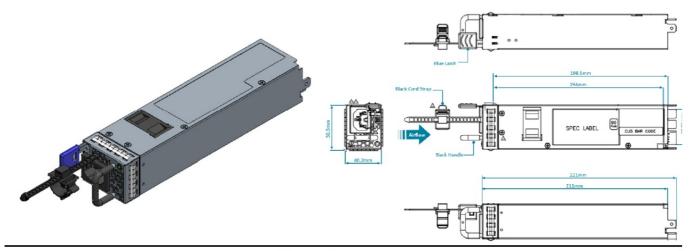


Figure 7.

Fan Overview

4+1 Redundant, hot swappable, field replaceable unit (FRU).



Figure 8.

Port Overview

| Port ID | Form Factor | Maximum Support Distance | Support Speed |
|---------|-------------|--------------------------|---------------|
| 0 ~ 1 | QSFP28 | 24.85mi (40km) | 40/100G |
| 20 ~ 27 | SFP28 | 24.85mi (40km) | 10/25G |
| 0 ~ 19 | SFP+ | 49.7mi (80km) | 1/10G |



Figure 9.

It is recommended that installation be done by two trained professionals. One individual should hold the equipment in position on the rack while the other secures it in place.

1. Secure the rack mount brackets onto the router.

Align the rack mount brackets with the holes provided on the both sides of the case and secure the brackets using the 8 M4.0*L6.5mm screws provided with the package.

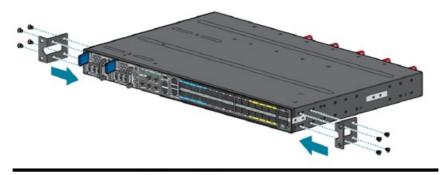


Figure 10.

2. Secure the router onto the rack posts.

Mark the location on both posts to ensure it is leveled before securing the router onto the rack. (See Figure 11). For a 4 post rack, first secure the adjustable mounting rail to the back of the router using the M4.0*L6.5mm screws provided in the package. Then secure the adjustable mounting rail to the rack posts. (See Figure 12). Illustrations are for reference purposes only. Actual scenario may differ. Screws for rack posts not included.

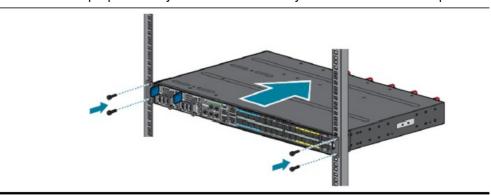


Figure 11.

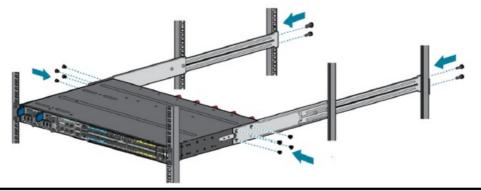


Figure 12.

Installing Fan Modules

The fan modules are hot swappable field replaceable units (FRUs), which can be replaced while the router is operating as long as all the remaining modules are installed and in operation. The fans come pre-installed and the following steps are instructions on how to install a new fan module.

- 1. Loosen the captive screw located on the fan module.
- 2. Grip the fan's handle and firmly pull it out of the fan bay.

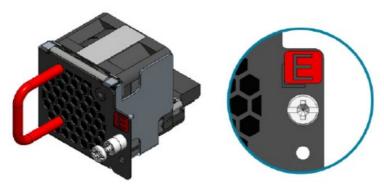


Figure 13.

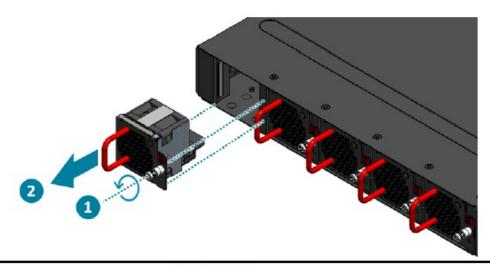


Figure 14.

- 3. Align the new fan module with the fan bay.
- 4. Carefully slide the new fan module into the fan bay and gently push until it is flush with the case.
- 5. Secure the captive screw on the fan module to lock the fan in place.

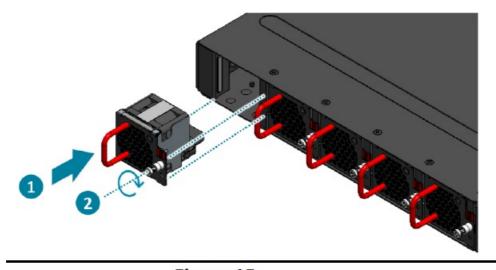


Figure 15.

The power supply unit (PSU) is a hot swappable field replaceable unit (FRU) and can be replaced while the router is operating as long as the remaining (second) PSU is installed and in operation. The PSUs comes pre-installed and the following are instructions on how to install a new PSU.

DC Version:

AC Version:

Figure 16.

Shock hazard!

DC Version:

For safety, please disconnect all power inputs from the power supply unit before servicing the router.

- 1. Locate the release tab on the PSU. Then press and hold down the release tab to unlock the PSU from the power bay.
- 2. While holding down the release tab, grip the PSU's handle and firmly pull it out of the power bay.

AC Version:

Figure 17.

- 3. Align the new PSU with the power bay, ensuring the PSU's power connector is in the correct position.
- 4. Carefully slide the new PSU into the power bay and gently push until it is flush with the case.
- 5. An audible click will be heard when the PSU is installed correctly. The PSU will not go in all the way if it is in the wrong direction. Illustrations are for reference purposes only. Actual scenarios may differ.

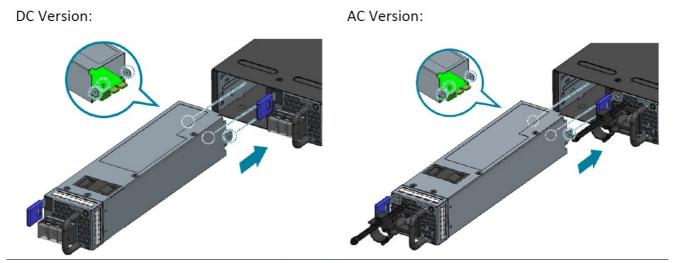


Figure 18.

Grounding the Router

- It is recommended that equipment changes be done on a grounded rack system. This will reduce or prevent the risk of shock hazards, equipment damage, and potential of data corruption.
- The router can be grounded from the router's case and the power supply units (PSUs). When grounding the
 PSUs, ensure that both PSUs are grounded at the same time in case one of them is removed. A grounding lug,
 M4 screws and washers are provided with the package contents, however, the grounding wire is not included.
 For convenience, there are two locations on the case in which the grounding lug may be fixed.
- The following instructions are for grounding the router.

This equipment must be grounded. Do not defeat the ground conductor or operate the equipment without correctly grounding the equipment. If there is any uncertainty about the integrity of the equipment's grounding, please contact the electrical inspection authority or a certified electrician.

- 1. Before grounding the router, ensure that the rack is properly grounded and in compliance with local regulatory guidelines. Ensure that there is nothing that can obstruct the connection for grounding and remove any paint or materials that may prevent good grounding contact.
- 2. Strip the insulation from a size #6 AWG grounding wire (not provided within the package contents), leaving 0.5" +/-0.02" (12.7mm +/-0.5mm) of the exposed grounding wire.
- 3. Insert the exposed grounding wire all the way into the hole of the grounding lug (provided with package contents).
- 4. Using a crimping tool, firmly secure the grounding wire to the grounding lug.

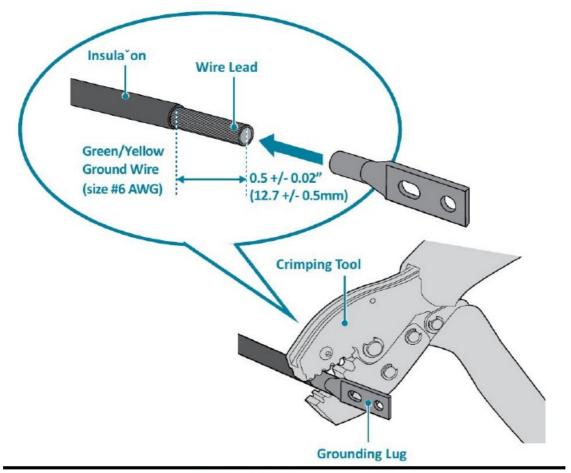


Figure 19.

- 5. Locate the designated location for securing the grounding lug, which is located on the side of the router.
- 6. Using 2 M4 screws and 4 washers (provided with the package contents), firmly lock the grounding lug to either of the designated grounding locations on the router.

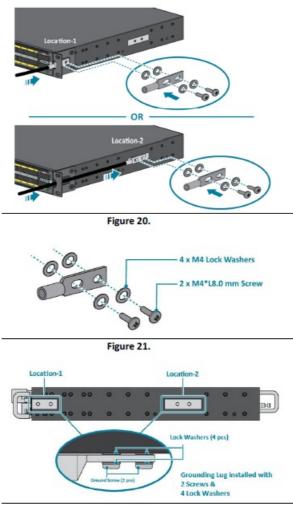


Figure 22.

Connecting Power

DC Version

1. Ensure there is enough power to supply the system.

The maximum system power consumption is 229 watts. It is recommended to ensure that enough power is reserved from the power distribution system before installation. Also, please ensure that both PSUs have been properly installed before powering up the equipment, as the S9500-30XS is designed to support 1 + 1 power redundancy.

2. Attach the power cable.

Locate the DC power screw-type terminal block on the DC PSU. Attach the UL 1015, 14 AWG DC power cable (not provided within the package contents) to the DC inlet connector on the PSU.

Dangerous voltage!

- Must be powered off before removing!
- · Verify that all electrical connections are grounded before powering on
- The DC power source must be reliably grounded
- 3. Tighten the screws to the specified torque.

Tighten the screws to a torque value of 7.0+/-0.5kgf.cm. If the torque is not enough, the lug will not be secure and may cause malfunctions. If the torque is too much, the terminal block or lug may be damaged.





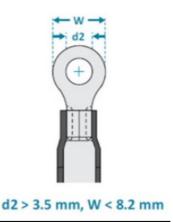


Figure 23.

4. Feed DC power into the system.

The PSU will immediately output 12V and 5VSB to the system when a -36V to -75V DC power source is applied. The PSU has a built in 20 amperes, fast acting fuse based on the PSU maximum capacity, which will act as a second tier system protection in case the power distribution unit's fuse is not functioning.

Verify that the power supply is operating.
 If connected correctly, when turned on, the LED on the PSU will light up with a Green color designating normal operation.

AC Version

1. Ensure there is enough power to supply the system.

The maximum system power consumption is 223 watts with an input voltage of 100-240V AC. It is recommended to ensure that enough power is reserved from the power distribution system before installation. Also, please ensure that both PSUs have been properly installed before powering up the equipment, as the S9500-30XS is designed to support 1 + 1 power redundancy.

2. Attach the power cable.

Plug the power cord into the AC PSU and secure it tightly.

3. Verify that the power supply is operating.

If connected correctly, when turned on, the LED on the PSU will light up with a Green color designating normal operation.



Figure 24.

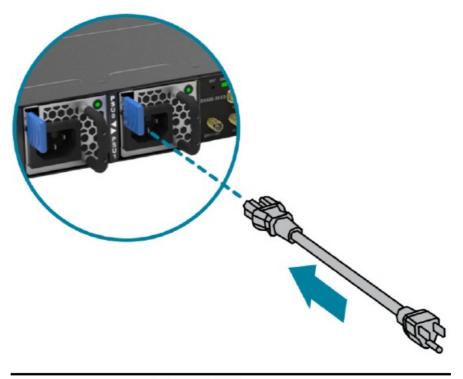


Figure 25.

Verifying System Operation

Front Panel LED

Verify basic operations by checking the system LEDs located on the front panel. When operating normally, the PWR, FAN, and STAT LEDs should all display green.



Figure 26.

| LED Condition | Equipment Status |
|------------------|---|
| GNSS | |
| Off | GNSS is not configured. |
| | NOTE: Need NOS to activate this feature. |
| Solid Green | GNSS is in normal state. Self-survey is complete. |
| | NOTE: Need NOS to activate this feature. |
| Blinking Green | GNSS is in learning state. Self-survey is not completed. |
| billiking Green | NOTE: Need NOS to activate this feature. |
| Solid Yellow | Power up. GNSS is not tracking any satellite. |
| Blinking Yellow | GNSS antenna is short to ground. |
| billiking fellow | NOTE: Need NOS to activate this feature. |
| SYNC | |
| Off | System timing synchronization is disabled or in free-run mode. |
| OII | **Note: need NOS to activate this feature |
| | System timing core (1588 and SyncE) is synchronized to external |
| Solid Green | timing source (ex: GNSS, 1PPS, PTP, BITS, etc.) |
| | **Note: need NOS to activate this feature |
| Blinking Green | System is synchronized in SyncE mode. |
| billiking dreen | **Note: need NOS to activate this feature |
| Solid Yellow | System timing core is in acquiring state or holdover mode. |
| Blinking Yellow | System timing synchronization fail. |
| billiking fellow | **Note: need NOS to activate this feature |
| STAT | |
| Off | System (X86 & BMC) is initializing or not powered |
| Solid Green | System boot complete |
| John Green | **Note: need NOS to activate this feature |
| Blinking Green | System is booting |

| LED Condition | Equipment Status |
|----------------------|---|
| FAN | |
| Off | System (X86 & BMC) is initializing or not powered |
| Solid Green | All FAN modules work well |
| Blinking Yellow | One or more FAN module(s) fail or no FAN module present |
| PWR | |
| Off | No power or in shutdown mode. |
| Solid Green | System power good & BMC heating done |
| Blinking Green | System power good & BMC is heating |
| Solid Yellow | System power good but BMC heating fail |
| Blinking Yellow | System power fail |

PSU FRU LED

| LED Condition | Equipment Status |
|----------------------|---|
| Off | No DC power to all PSUs |
| Flashing Red | No DC power to this PSU |
| Flashing Green | DC present, only standby output on. Poor contact |
| Green | PSU DC output ON and OK |
| Red | PSU failure. |
| Flashing between | Warning. Working condition not satisfied. Please check the voltage, |
| Green and Red | electric current, and temperature. |

Fan FRU LED

| LED Condition | Equipment Status |
|----------------------|---|
| Off | Main board 3.3V power fail or Fan is not present. |
| Solid Green | Fan is present and interrupt de-assert |
| Blinking Green | N/A |
| Solid Yellow | N/A |
| Blinking Yellow | Fan is present but interrupt assert. |

Management port LED

| LED Condition | Equipment Status |
|----------------|-------------------------|
| Left LED | |
| Off | 1G no link |
| Solid Green | 1G link-up |
| Blinking Green | 1G TX/RX activity |
| Right LED | |
| Off | No activity |
| Solid Amber | 10M/100M link-up |
| Blinking Amber | 10M/100M TX/RX activity |

Initial System Setup

Establishing a first-time serial connection.

To assign an IP address, you must have access to the command line interface (CLI). The CLI is a text-based interface that can be accessed through a direct serial connection to the device.

Access the CLI by connecting to the console port. After you assign an IP address, you can access the system through Telnet or SSH by Putty, TeraTerm or HyperTerminal.

Perform the following steps to access the device through a serial connection:

- 1. Connect the console cable.
 - The console can be connected either with the RJ45 port or the micro USB port, both ports are labelled IOIO. If connecting with micro USB, drivers will need to be installed.
 - To connect the console using the RJ45 port, locate the RJ45 port labelled IOIO, then plug a serial cable into the console port and connect the other end to the computer. Cable types may vary depending on the model.

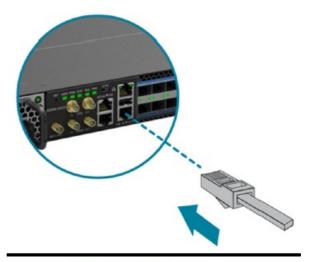


Figure 27.

- To connect the console using the micro USB port, locate the port on the front panel of the router, then connect your computer using the micro USB cable provided in the packaging contents. Download the suitable driver for your operating system (OS) using the URL below:
- https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers
- https://www.silabs.com/ and search for CP210X

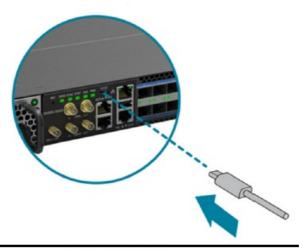


Figure 28.

- 2. Check for serial control availability.
 - Disable any serial communication programs running on the computer such as synchronization programs to prevent interference.
- 3. Launch a terminal emulator.

Open a terminal emulator application such as HyperTerminal (Windows PC), Putty or TeraTerm and configure the application. The following settings are for a Windows environment (other operating systems will vary):

• Baud rate: 115200 bps

Data bits: 8Parity: NoneStop bits: 1

· Flow control: None

4. Login to the device.

After the connection is established, a prompt for the username and password displays. Enter the username and password to access the CLI. The username and password should be provided by the Network Operating System (NOS) vendor.

Cable Connections

Connecting the USB Extender Cable

Connect the USB 2.0 A Type plug (male connector) into the USB port (female connector) located on the front panel of the router. The USB port is a maintenance port.



Figure 29.

Connecting a Cable to the ToD Interface

The maximum length of the straight-through Ethernet cable should not be more than 3 meters.

- 1. Connect one end of a straight-through Ethernet cable to the GNSS unit
- 2. Connect the other end of the straight-through Ethernet cable to the port marked "TOD" located on the front panel of the router.



Figure 30.

Connecting a Cable to the BITS Interface

The maximum length of the BITS cable should not be more than 3 meters.

- 1. Connect one end of a shielded RJ48 cable to the port labelled "BITS" located on the front panel of the router.
- 2. Connect the other end of the cable to the BITS patch or demarcation panel.



Figure 31.

3. Below is the pinout for the BITS port.

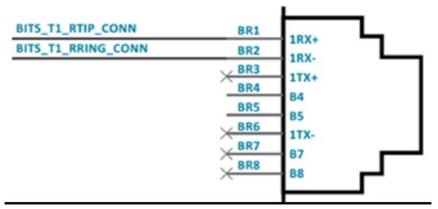


Figure 32.

Connecting the GNSS Interface

Connect an external GNSS antenna with an impedance of 50 ohms to the port marked "GNSS ANT" located on the front panel of the router.



Figure 33.

Connecting the 1PPS Interface

The maximum length of the 1PPS coaxial SMB/1PPS Ethernet cable should not be more than 3 meters. Connect an external 1PPS cable with an impedance of 50 ohms to the port labelled "1PPS".



Figure 34.

Connecting the 10MHz Interface

The maximum length of the 10MHz coaxial SMB cable should not be more than 3 meters. Connect an external 10MHz cable with an impedance of 50 ohms to the port labelled "10MHz".



Figure 35.

Connecting the Transceiver

• To prevent over tightening and damaging the optic fibers, it is not recommended to use tie wraps with optical cables.

Read the following guidelines before connecting the transceiver:

- Before installing the router, take into consideration rack space requirements for cable management and plan accordingly.
- It is recommended to use hook-and-loop style straps to secure and organize the cables.
- For easier management, label each fiber-optic cable and record its respective connection.
- Maintain a clear line of sight to the port LEDs by routing the cables away from the LEDs.
- Before connecting anything (cables, transceivers, etc.) to the router, please ensure to discharge any static electricity that may have built up during handling. It is also recommended the cabling be done by a professional who is grounded, such as by wearing an ESD wrist strap.

Please follow the steps below for connecting a transceiver.

- 1. Remove the new transceiver from its protective packaging.
- 2. Remove the protective plug from the transceiver port.
- 3. Place the bail (wire handle) in the unlocked position and align the transceiver with the port.
- 4. Slide the transceiver into the port and use gentle pressure to secure it in place. An audible click can be heard when the transceiver is secured in the port.

Installing an Antenna

Make sure the satellite signal strength is greater than 30db, when using a GNSS simulator for testing. Read the following guidelines before installing your antenna.

- The S9500-30XS supports various types of receiver frequency types, including GPS L1C/A, GLONASS L1OF, BeiDou B1, and Galileo E1B/C.
- The minimum sensitivity of the receiver frequency (RF) is -166dBm.
- The S9500-30XS supports both passive and active GNSS antennas, and will automatically detect which type of antenna is installed.
- If the received signal strength is lower than 30db, the GNSS receiver will fail to produce accurate location estimates.

To optimize antenna performance, it is highly recommended to choose a roof or top floor that is free from any signal blockage or obstruction.

Read the following guidelines before installing an active antenna:

- When an active antenna is installed, the S9500-30XS can supply up to 5V DC/150mA on the GNSS port.
- If any GNSS amplifier, DC-blocked or cascaded splitter is inserted, the GNSS detection function might be affected, resulting in GNSS satellite clock errors.
- We recommend that you use an active antenna equipped with 50 ohm impedance matching, 5V DC power supply capable, max. NF 1.5dB and 35~42dB internal LNA gain to get a strong enough signal strength in various weather conditions.
- To prevent damages caused by power surges or lightning strikes, ensure a surge protector is attached to the GNSS antenna.

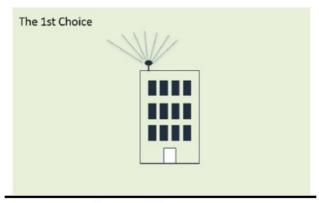


Figure 32.

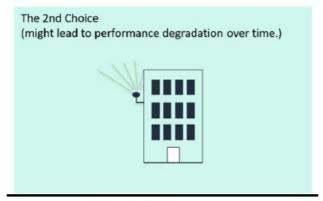


Figure 33.

Cautions and Regulatory Compliance Statements

Safety Notices

Caution! Shock hazard!
TO DISCONNECT POWER, REMOVE ALL POWER CORDS FROM UNIT.

- Electrical Hazard: Only qualified personnel should perform installation procedures.
- Warning: Network Switch power supplies do not have switches for turning the unit on and off. Before servicing, disconnect all power cords to remove power from the device. Make sure that these connections are easily accessible.
- Caution: Before mounting the device, ensure that the rack can support it without compromising stability.

 Otherwise, personal injury and/or equipment damage may result. Caution: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- Caution: Only Laser Class 1 optical transceivers shall be used.
- Warning: Do not use optical instruments to view the laser output. The use of optical instruments to view laser output increases eye hazard. Use only UL/CSA, IEC/EN60825-1/-2 recognized pluggable modules.

Warning

- The equipment should only be used within a restricted access area.
- The equipment should only be operated by skilled or instructed persons.
- The equipment and its modules should only be repaired, maintained or replaced by skilled personnel.
- Instructed person is a term applied to persons who have been instructed and trained by a skilled person, or who

The following are NEBS GR-1089-CORE cautions, regulatory compliance statements and requirements:

Caution: This product is DC-I type (Isolated DC return) of DC power supply. The DC return line must be grounded to protective earth ground at the power source.

Caution: The intra-building ports listed below are suitable for connection to intra-building or unexposed wiring or cabling only. These intra-building ports of the equipment or subassembly must not be metallically connected to interfaces that connect to the OSP or its wiring for more than 6 meters (approximately 20 feet). These interfaces are designed for use as intra-building interfaces only (Type 2, 4, or 4a ports as described in GR-1089) and require isolation from the exposed OSP cabling. The addition of Primary Protectors is not sufficient protection in order to connect these interfaces metallically to an OSP wiring system.

- · OOB port
- · Type A USB port
- · Console port
- · BITS port
- TOD part

Caution: The intra-building ports listed below must use shielded intra-building cabling/wiring that is grounded at both ends.

- 1PPS In/Out port
- 10MHz In/Out port

This product can be installed in Outside Plant (OSP), network telecommunication facilities or locations where the National Electric Code applies.

Under room temperature environment, the system takes about 2.5 minutes to boot into Diagnostic Operating System since system is powered on. In lower temperature environment, due to extra heating time of BMC, the system boot up time is around 7 minutes.

Warranty label

Lost of warranty repairs, if removed or ripped the warranty sticker. The warranty sticker as shown in the following illustration.

Class A ITE Notice

This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

VCCI Notice

This is Class A equipment. Operation of this equipment in a residential environment could cause radio interference. In such a case, the user may be required to take corrective actions.

Documents / Resources



<u>UfiSpace S9500-30XS Disaggregated Cell Site Gateway Router</u> [pdf] Installation Guide S9500-30XS Disaggregated Cell Site Gateway Router, S9500-30XS, Disaggregated Cell Site Gateway Router, Cell Site Gateway Router, Router

References

- **II** Home UfiSpace, 5G Open Networking Solution
- Silicon Labs
- User Manual

Manuals+, Privacy Policy

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