

Document Number: 24-HL-UT-0152 (R17) / H71410 (Rev M)
Date: May 12, 2026
Classification: External
Attention: All OneWeb Customers
Related Products: HL1120W, HL1100W
Subject: **HL-Fixed-3.0.47 Release bulletin**

1 Introduction

This release bulletin pertains to the software release bundle HL-Fixed-3.0.47 for Hughes® Low Earth Orbit (LEO) Electronic Steering Antenna models *HL1120W* and *HL1100W*, which is collectively referred to as *HL-Fixed*, developed by Hughes Network Systems (Hughes).

| Release | Model Type | Model Number |
|-----------------|------------|------------------|
| HL-Fixed-3.0.47 | HL-Fixed | HL1120W, HL1100W |

Section 1.1 provides an overview of the HL1120W and HL1100W User Terminals (UTs). Section 2 lists the software packages that are included in this bundle, while Sections 0 and 5 describe the software changes and known issues.

Hughes and OneWeb have approved this release for use with HL1120W and HL1100W UTs operating on the OneWeb network. Units can be upgraded using the procedures listed in Section 7:

- **Online:** Use the OneWeb Device Hub to install the latest bundle.
- **Offline:** Use the Hughes LEO Mobile App or Local User Interface (LUI), as described in the UT Installation Guide (1043630).

1.1 **UT Overview (HL1100W and HL1120W)**

The HL1100W and HL1120W are UTs with Wi-Fi support for fixed installations. User equipment connects to the UT via Gigabit Ethernet (GigE) or Wi-Fi through the indoor equipment. Each UT connects to the OneWeb LEO satellites using a tracking antenna and provides a user gateway to the OneWeb Ground Network (GN). User traffic is then routed to the Core Network (CN) to provide Internet access. The OneWeb Device Hub provides specific UT management functions.

1.1.1 System Composition

Each UT consists of three Field Replaceable Units:

- Outdoor Unit (ODU)
- Indoor Unit (IDU)
- Power Supply Unit (PSU)

The ODU is mounted outdoors, while the IDU and PSU are installed indoors. **Figure 1** shows the fully assembled UTs.

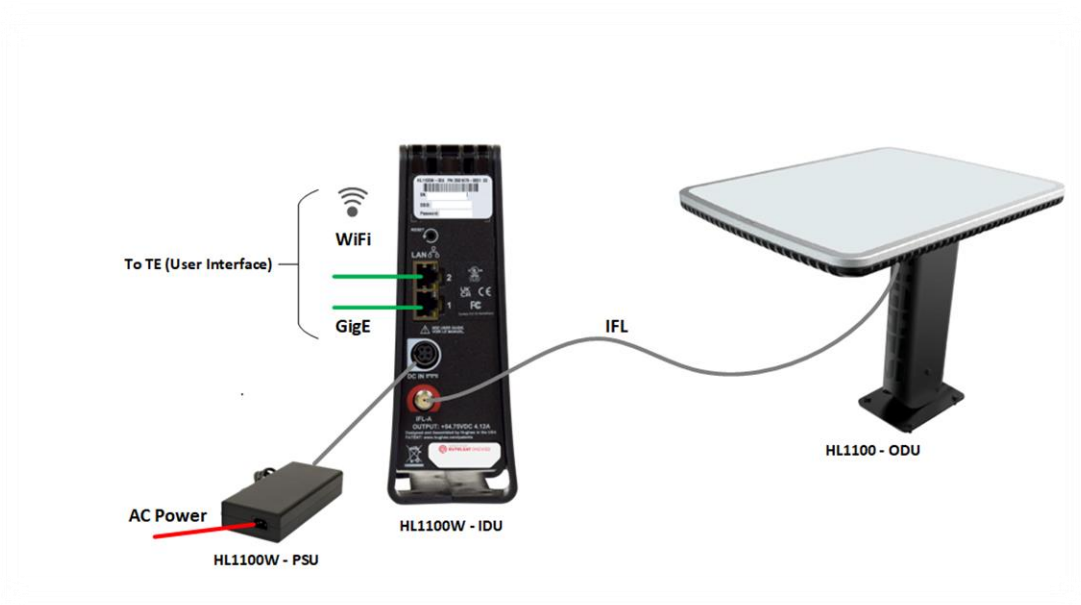
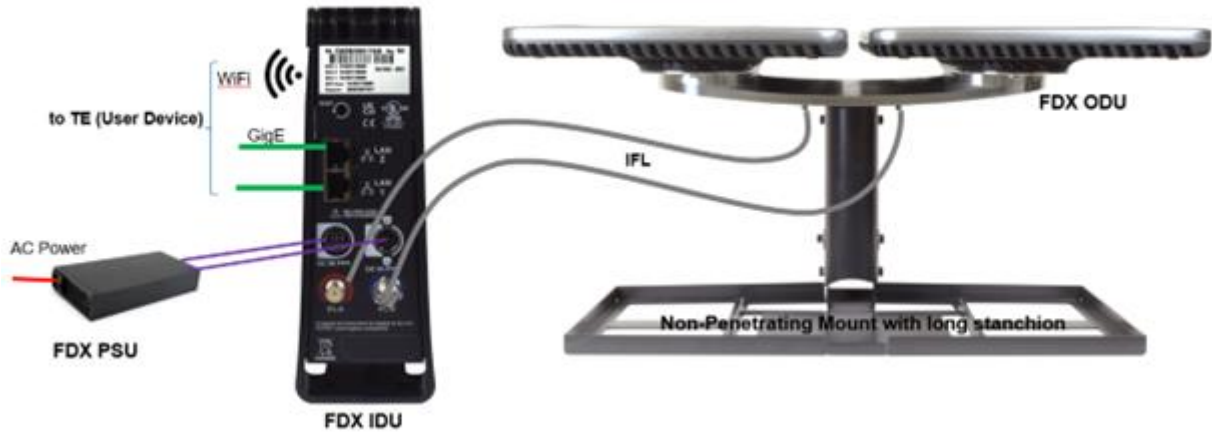


Figure 1. HL1120W and HL1100W User Terminal

- Outdoor Equipment:
 - ODUs are electronically steerable antenna assemblies comprising a Common Control Module (CCM), Radio Frequency Conversion Module (RCM), and a Beam Former Array (BFA). The CCM hosts the UT software for control, management, and network services and includes the satellite modem that communicates with the OneWeb ground network via Receive and Transmit (Rx/Tx) tracking antennas.
- Indoor Equipment:
 - IDUs host a Wi-Fi Router that provides two GigE ports and Wi-Fi access to the user data network. The Wi-Fi Router also provides access to the UT's local management interface.
 - PSUs are an Alternating Current/Direct Current (AC/DC) power supply providing DC power to the IDU and ODU. A load-sensing circuit prevents the UT from powering on until the IDU and ODU are connected via IFL cabling.
 - IDUs connect to ODUs via Intra-Facility Link (IFL) cabling. The arrangement is model-dependent (see differences below).

- Model-Specific Differences

Table 1. HL1100W and HL1120W Differences

| Category | HL1100W | HL1120W |
|--------------------|--|--|
| Antenna and Duplex | ESA/HDX: single electronically steered panel that seamlessly switches between Rx/Tx paths | FDX: two electronically steered panels: FDX-A (Rx) and FDX-B (Tx) |
| ODU Modules | The panel includes CCM, RCM, and BFA; CCM hosts the UT control software and the satellite modem. | Each panel includes a CCM, RCM, and BFA; CCM-A (on the FDX-A panel) hosts the UT control software and satellite modem. |
| IFL Cabling | Single IFL connecting the IDU to the ODU | Dual IFLs: IFL-A carries DC power and data between IDU's Wi-Fi Router and CCM-A, IFL-B carries DC power only |

1.2 Hughes LEO App

The HL1120W UT and HL1100W have a companion installer app (Hughes LEO app) that can be used on smartphones to aid in commissioning, local software upgrades, and status checks of the UT. Refer to the UT Installation Guide (1043630) for more details.

2 Release Software

Table 2 and **Table 3** list the software release files that are part of this delivery.

Table 2. R3.0.47 Software Bundle File

| Software Bundle File Name | Version | Notes |
|---|---------|-------|
| HL-Fixed_3.0.47_CCM_6.15.94_CCM_BSP_6.15.24_MDM_4.1.3_EGR_2.20_CNX_1.01.67.tar.gz | R3.0.47 | |

Table 3. R3.0.47 Software Packages in Software Bundle

| UT Component | Version | Notes |
|---------------------|---------|----------------------------|
| CCM BSP | 6.15.24 | |
| CCM APPS | 6.15.94 | Includes AIM/ARC functions |
| MDM | 4.1.3 | |
| OGR (GNSS Receiver) | 2.20 | |
| IDU (CNX-H) | 1.01.67 | |

3 Release Summary

This release is used for HL1120W and HL1100W UT-type approval. It supports all features listed in the HL1120W Hughes LEO Terminal Data Sheet (H69698) and the HL1100W Hughes LEO Terminal Data Sheet (H69697).

3.1 Bug Fixes

The release R3.0.47 includes the fixes and enhancements that are listed in

| Item | Description | Component |
|-------------|--|-----------|
| Enhancement | APN configuration should not allow OAM APN to be used as user network | CCM |
| Major | The SSM shall ensure that only root user can access the OAM network | CCM |
| Moderate | Reduce excessive eMMC read operations | CCM |
| Minor | Addressed edge case where UTs are getting bricked as LUI displays wrong message to reboot the UT whereas the FPGA is upgrading in background | CCM |
| Minor | Prevents unnecessary CNX port flapping by skipping port reset during WAN attach avoiding port bounce | CCM |
| Enhancement | Resolves /misc/download cleanup conflicts during local bundle upgrades | |
| Moderate | Enhancement in SDL busy timer logic to allow successful FPGA/CPLD upgrade or downgrade. | CCM |
| Minor | Fix incorrect "ConnType" | IDU |
| Minor | Fixes incorrect MAC reporting caused by invalid characters in IDU API responses | IDU |
| Enhancement | CCM report Host Processor & Event Logs should report in UTC Time | CCM |
| Enhancement | Enhances diagnostics with PMAX/EPFD logging and temperature data in state codes, and fixes PPS errors under extreme thermal conditions | CCM |
| Enhancement | <ul style="list-style-type: none"> Prevents rollback to expired main software when revert partition uses a different modem type Ensures automatic reboot if BSP update fails Adds safe mount handling for BSP updates to improve update reliability Improves robustness by handling umount and mkfs.ext4 failures in both SDL and BSP application launch flows | CCM |
| Enhancement | Remove wireless nodes that are inactive for one minute. The original value was 5 minutes. | IDU |

Table 4. R3.0.47 Bug Fix List

4 Hardware and Software Dependencies

4.1 UT Release Dependencies

1. The R1.0.21 release is being loaded on all newly built UTs at the Hughes factory. Both */factory* and */main* partitions of the FDX-A and FDX-B sides have been upgraded to R1.0.21.
2. All the UTs that were delivered earlier (may have R1.0.5 or R1.0.8) need to be sent back to the Hughes factory for the hydrophobic coating application and software upgrades to R1.0.21 (both */factory* and */main*) on both FDX-A and FDX-B sides.
3. R3.0.47 can be directly upgraded on UTs that are running release R3.0.x, R1.0.60.4A (FDX), R1.0.62 (HDX) or higher. Follow the instructions listed in Section 7 for upgrades of FDX UT to 3.0.47 based on the current software version running on the UT.

4.2 Hughes LEO App

Table 5 lists the Hughes LEO app software releases that have been verified as compatible with the R3.0.47 UT software release.

Table 5. Compatible Hughes LEO App Release Versions

| UT Component | Version |
|----------------------------|----------------|
| Hughes LEO App for iOS | 2.00.14 Rev 04 |
| Hughes LEO App for Android | 2.00.14 Rev 07 |

5 Known Issues

1. Firmware upgrades on UTs with a non-default ODU Internet Protocol (IP) address configuration require additional steps. Please refer to Appendix Section 8.1
2. Do not perform a Local LUI Bundle Update while the UT is connected to the device HUB. For any Local LUI updates, first consult ETLOW support or ensure that the UT is offline.

6 Operational Considerations

1. Multiple User Access Point Names (APNs) are disabled by default. Coordinate with OneWeb Support to use multiple user APNs and routed modes.
2. If LUI login authentication is required, coordinate with OneWeb Support or Hughes Support.
3. The Low Minimum Elevation Angle (MEA) event 'QMI_OW_EXT_MODEM_BELOW_MEA_TRACK' is generated by the Qualcomm modem when it computes an elevation angle that falls below the minimum elevation angle threshold as defined by OneWeb and configured by the SSM software. It has no impact to the service.

7 Installation/Upgrade

The HL1120W UT is factory-loaded with the baseline software bundle HL-Fixed-1.0.21 and the HL1100W UT is factory-loaded with HL-Fixed-1.0.62. Both the factory and main partitions are programmed with their respective baseline bundles during production.

- The UT software including CCM, MDM (FDX-A), and IDU (CNX-H) is field upgradeable.
- To determine the software or the hardware revisions of the UTs, please refer to Section 8.2.

7.1 Software Installation/Upgrade Methods

Two methods available to update HL1120W UT or HL1100W UT to this software release are:

- Recommended normal procedure for upgrade via Device Hub (Section 7.1.1)
- Local upgrade using the UT's Local User Interface (LUI) (Section 7.1.2)

7.1.1 Preferred UT Software Bundle Upgrade from the Device Hub

The Device Hub allows new software bundles to be uploaded to its platform and approved for use in upgrading UTs. Then the Device Hub allows the upgrade of an approved UT software bundle on a UT. When the UT is online, the Device Hub will interact with the UT via a new release notification API call for UT to download the new bundle from the Device Hub and initiate an upgrade after a configurable timer expiry.

Additionally, when UTs send a UCR message to the Device Hub (e.g., after restart), the Device Hub will then send a UCM message, which will trigger the given UT to download the new bundle from the Device Hub and initiate an upgrade after a configurable timer expiry.

Coordinate with OneWeb Support for the procedure to upgrade HL1120W or HL1100W UTs from the Device Hub. Follow the software upgrade instructions listed in **Table 6**.

Table 6. Software Upgrade Instructions for R3.0.47.

| Current UT release | Prerequisites and Checks | Intermediate Step(s) | Final Step | Notes |
|---|-------------------------------------|---|--|--|
| R1.0.21 or R1.0.36 or 1.0.48 | UT must be online in the Device Hub | <ol style="list-style-type: none"> Upgrade to R1.0.60.1B <ol style="list-style-type: none"> Check firmware: FPGA=ccm_fpga_5_0_39, BFA CPLD=bfa_cpld_5_0_7 (wait ~15–20 minutes if needed) Upgrade to R1.0.60.4C (FDX) & 1.0.62.1D (HDX) | Upgrade to R3.0.47 from the Device Hub | Firmware verification is mandatory before proceeding past R1.0.60.1B |
| R1.0.50 or R1.0.56 (FDX) | UT must be online in the Device Hub | Upgrade to R1.0.60.4C from the Device Hub; verify that the UT is online and shows R1.0.60.4C | Upgrade to R3.0.47 from the Device Hub | Hotfix step is required before the first upgrade (DH will take care) |
| FDX - R1.0.60.4A or higher; HDX - R1.0.62.1A or higher | UT must be online in the Device Hub | — | Direct upgrade to R3.0.47 | Direct upgrade also allowed (per sec. 4.1) |
| R3.0.x (any 3.0.x version) | UT must be online in the Device Hub | — | Direct upgrade to R3.0.47 | Direct upgrade also allowed (per sec. 4.1) |

7.1.2 UT Software Bundle Upgrade using LUI

Note: Use this procedure only for troubleshooting. Keep the modem offline and ensure that the UT is not connected to the Device Hub. For upgrades, reach out to Hughes Support and complete the process through the LUI listed in **Table 7**.

Table 7. Troubleshooting Procedure

| Current UT Release | Prerequisites and Prep | Steps (LUI) | Checkpoints | Final Step/Result | Notes |
|---|---|---|--|------------------------------------|--|
| R1.0.21 or R1.0.36 or 1.0.48 | <ul style="list-style-type: none"> LUI reachable and AAA Fixed UT Installation Guide [1043630-0001] Bundle files for R1.0.60.1B, R1.0.60.4C, R3.0.47 | <ol style="list-style-type: none"> Upgrade to R1.0.60.1B via LUI (AAA guide) Verify that the terminal is up on R1.0.60.1B; per Section 7.2 and Figure 3, wait until the Modem firmware version is displayed Per Section 7.4, check the Field Programmable Gate Array (FPGA) and BFA CPLD versions (expected below). If not updated, repeat steps a)–c) Upgrade to R1.0.60.4C (FDX) or 1.0.62.1D HDX via LUI (AAA guide); revert configurations so the modem does not come online Verify that the terminal comes up on R1.0.60.4C Upgrade to R3.0.47 via LUI (AAA guide) | <ul style="list-style-type: none"> Expected firmware after 60.1B path: <ul style="list-style-type: none"> FPGA: ccm_fpga_5_0_39 BFA CPLD: bfa_cpld_5_0_7 Modem firmware version is visible in LUI prior to proceeding | R3.0.47 installed via LUI | Do not proceed until FPGA and BFA CPLD versions are confirmed |
| R1.0.50 or R1.0.56 (FDX) | <ul style="list-style-type: none"> SSH access to UT LUI reachable and AAA Fixed UT Installation Guide [1043630-0001] Bundle files for R1.0.60.4C and R3.0.47 Ability to revert configurations to prevent modem from coming online | <ol style="list-style-type: none"> SSH to UT and run: touch /misc/nowdog.dat && sync && reboot (disables watchdog) Reboot the terminal Using the AAA guide, perform a LUI bundle upgrade to R1.0.60.4C; revert configurations so the modem does not come online Verify the UT is running R1.0.60.4C Using the AAA guide, upgrade to R3.0.47 via LUI; revert configurations so the modem does not come online | <ul style="list-style-type: none"> UT online locally and LUI responsive Post-upgrade, confirm software version shows R1.0.60.4C before proceeding to R3.0.47 | R3.0.47 installed via LUI | Command 'nowdog.dat' ensures watchdog is disabled for local upgrade path |
| R1.0.60.4A/4B/4C (FDX) or R1.0.62.1A/1B/1D (HDX) | <ul style="list-style-type: none"> LUI reachable and AAA Fixed UT Installation Guide [1043630-0001] Bundle file for R3.0.47 | <ol style="list-style-type: none"> Perform a direct LUI bundle upgrade to R3.0.47 per AAA guide | <ul style="list-style-type: none"> Confirm LUI shows target version R3.0.47 after upgrade | R3.0.47 installed via LUI (direct) | No intermediate is version required |
| R3.0.x (any 3.0.x version) | <ul style="list-style-type: none"> LUI reachable and AAA Fixed UT Installation Guide [1043630-0001] Bundle file for R3.0.47 | <ol style="list-style-type: none"> Perform a direct LUI bundle upgrade to R3.0.47 per AAA guide | <ul style="list-style-type: none"> Confirm LUI shows target version R3.0.47 after upgrade | R3.0.47 installed via LUI (direct) | No intermediate is version required |

8 Appendix

8.1 Upgrading UT Firmware with a Non-Default ODU IP Address

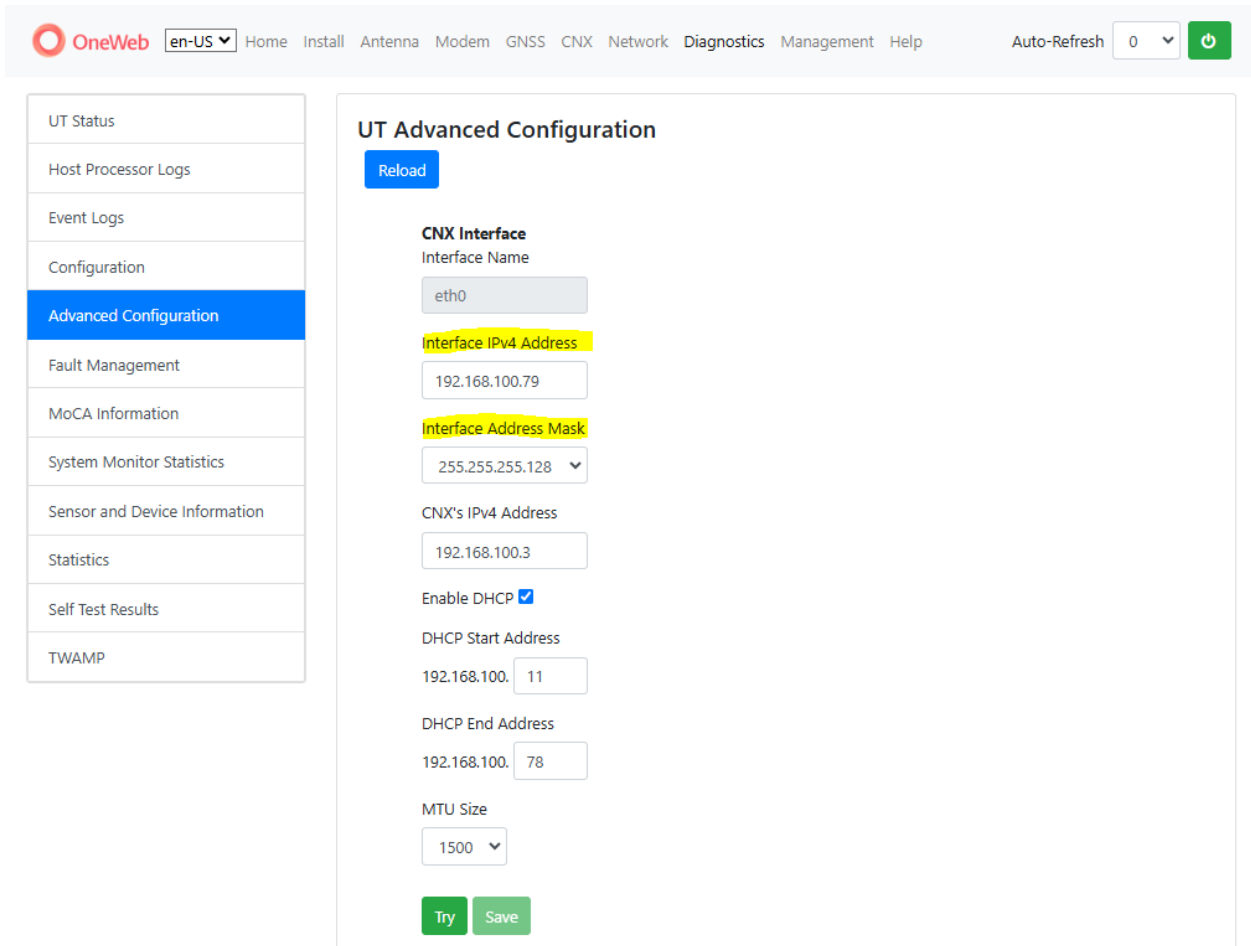
This section explains the process of upgrading a UT with an ODU that is configured with a non-default IP address. These steps apply to UTs that are being upgraded to HL-Fixed_3.0.47 or higher from a release version earlier than HL-Fixed_1.0.60.4A.

Note: If the UT is already running HL-Fixed_1.0.60.4A or higher, these steps are not required.

The default IP address of the ODU is 192.168.100.1. If it has been configured to a different IP address, please follow the steps below before proceeding with the UT firmware upgrade:

1. Update ODU to Default IP Address:

- a. Navigate to Advanced Configuration on the LUI and change the ODU's IP address back to the default value, **192.168.100.1**.
- b. Refer to the provided screenshot to identify the fields that need to be updated. Click **Try** to temporarily change the ODU's IP address.
- c. Open the LUI on a new address on a different tab/browser and then click Save to apply the changes.
- d. Reboot the UT.



The screenshot shows the OneWeb LUI interface for 'UT Advanced Configuration'. The left sidebar contains a navigation menu with 'Advanced Configuration' selected. The main content area displays the following configuration fields:

- Reload** button
- CNX Interface** section:
 - Interface Name: eth0
 - Interface IPv4 Address: 192.168.100.79
 - Interface Address Mask: 255.255.255.128
 - CNX's IPv4 Address: 192.168.100.3
 - Enable DHCP:
 - DHCP Start Address: 192.168.100.11
 - DHCP End Address: 192.168.100.78
 - MTU Size: 1500
- Try** and **Save** buttons

2. Verify CNX Managed Setting:

- a. Ensure the **CNX Managed** setting is set to **True**.
- b. Refer to the screenshot below to identify the necessary fields to check.

The screenshot shows the OneWeb LUI interface. At the top, there is a navigation bar with 'OneWeb en-US' and various menu items like Home, Install, Antenna, Modem, GNSS, CNX, Network, Diagnostics, Management, and Help. An 'Auto-Refresh' control is also present. On the left, a sidebar menu lists various system pages, with 'Configuration' highlighted in blue. The main content area is titled 'UT Configuration' and includes 'Save' and 'Reload' buttons. Below these is a search input field containing 'cnx_is'. A table displays configuration data:

| Group | Name | Value | Source |
|--------------|----------------|-------|--------------|
| ut_component | cnx_is_managed | true | cfg_ces.json |

- c. If it is not set to **True**, click the value, select **Delete**, and save the changes. This will reset the configuration to **True**.
- d. Reboot the UT.

3. Check CNX Information:

- a. Navigate to **Home > CNX > CNX Information** on the LUI. Confirm that the CNX Information is correctly populated.
- b. If it is not populated, contact Hughes Support for assistance.

4. Perform Firmware Upgrade:

- a. Complete the Software Upgrade on the UT per Section 7.

5. Restore ODU IP Address to Non-Default IP:

- a. After the software upgrade, return to Advanced Configuration on the LUI and restore the non-default IP address for the ODU interface as outlined in Step 1.

8.2 Determining Current Hardware/Software Versions of the UT

Before installing or upgrading software on an HL-Fixed UT, verify that the current hardware and software versions are using the LUI. Based on this information, select the appropriate UT software bundle for the upgrade.

8.2.1 Determining Current Hardware Versions of the UT

Log in to the CCM LUI at <http://192.168.100.1>, and navigate to the *Antenna → Hardware Product Information* link to view HW information for the FDX antenna, two FDX-A/B antenna panels, and their BFA, RCM, and CCM modules.

Note: For HDX antennas, only one antenna panel will be displayed.

192.168.100.1/antenna/hardwareinfo

OneWeb en-US Home Install Antenna Modem GNSS CNX Network Diagnostics Management Help Auto-Refresh 1

- Antenna Information
- Message Statistics
- Modem <-> Antenna Latency
- Blockage Zones
- Hardware Status and Configuration
- Sensor Information
- Antenna Pointing Status
- Hardware Product Information**
- Calibration File Versions
- Beam Forming Array Chip Status
- AIM Logs

| Antenna Hardware Information | | |
|---------------------------------|--------------------|--------------------|
| Model Type | HL1120-ODU | |
| Part Number | 1508517-0001 | |
| Revision | H | |
| Serial Number | G1A2330400163 | |
| Manufacture Date | 2025-06-20 | |
| Antenna Panel Information | | |
| | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
| Model Type | FDX-A | FDX-B |
| Part Number | 1508336-0001 | 1508336-0002 |
| Revision | K | K |
| Serial Number | G7AVA200C5 | G8AYA200B5 |
| Manufacture Date | 2025-06-20 | 2025-06-20 |
| Beam Forming Array Information | | |
| | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
| Model Type | BFA-2 | BFA-2 |
| Part Number | 1508083-0001 | 1508083-0001 |
| Revision | 09 | 09 |
| Serial Number | G6AM920CD4 | G6AM9210AX |
| Manufacture Date | 2023-09-25 | 2023-09-25 |
| BFA CPLD Revision | bfa_cpuid_5_0_7 | bfa_cpuid_5_0_7 |
| Frequency Converter Information | | |
| | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
| Model Type | UT_RCM | UT_RCM |
| Part Number | 1508286-0001 | 1508286-0001 |
| Revision | 1b | 1b |
| Serial Number | G5AW92100W | G5AW9205D6 |
| Manufacture Date | 2023-10-04 | 2023-10-04 |
| CCM Information | | |
| | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
| Model Type | CCM | CCM |
| Part Number | 1508105-0001 | 1508105-0002 |
| Revision | D | 08 |
| Serial Number | G2AM534D3Z | G3A2A20123 |
| Manufacture Date | 2024-05-24 | 2023-10-30 |
| Software Version | CCM_6.15.94 | CCM_5.4.98.1 |
| Linux BSP Version | CCM_BSP_6.15.26 | CCM_BSP_5.4.15 |
| FPGA Version | ccm_fpga_5_0_41 | ccm_fpga_5_0_41 |

CCM_6.15.94 (main) Uptime 1.06:02:53 System Time: May 14, 2026, 00:14:07 (UTC)

Figure 2. HL1120-ODU Hardware Information

Navigate to the *Modem* → *Modem Information* link to determine modem information:

192.168.100.1/modem/modeminfo

OneWeb en-US Home Install Antenna **Modem** GNSS CNX Network Diagnostics Management Help Auto-Refresh 1

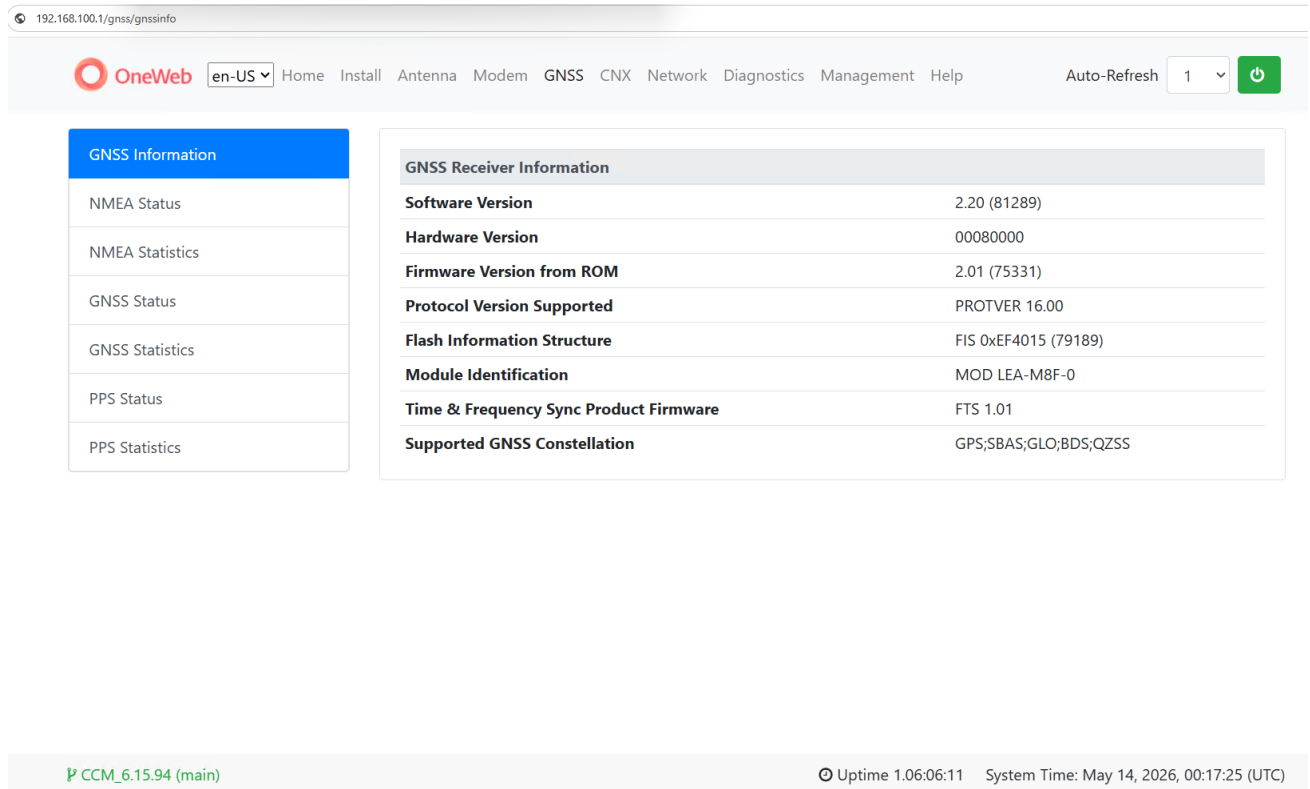
- Modem Information**
- APN Information
- Modem Status
- Modem Control Panel
- OneWeb Extension

| About This Modem | |
|--------------------------|---|
| Manufacturer | QUALCOMM INCORPORATED |
| Revision ID | OW_MPSS.AT.4.1-00025-9655_GEN_PACK-1 1 [Jun 26 2024 12:00:00] |
| EID | 89033023821300000000034186840036 |
| Hardware Revision | 10001 |
| ICCID | 89901600000000563160 |
| IMEI | 355866000453568 |
| IMSI | 901600000056316 |
| Current Software Version | "Ver": "4.1.3" |

CCM_6.15.94 (main) Uptime 1.06:04:48 System Time: May 14, 2026, 00:16:02 (UTC)

Figure 3. HL1120-ODU Modem Information

Navigate to the *GNSS* → *GNSS Information* link to determine OGR information:



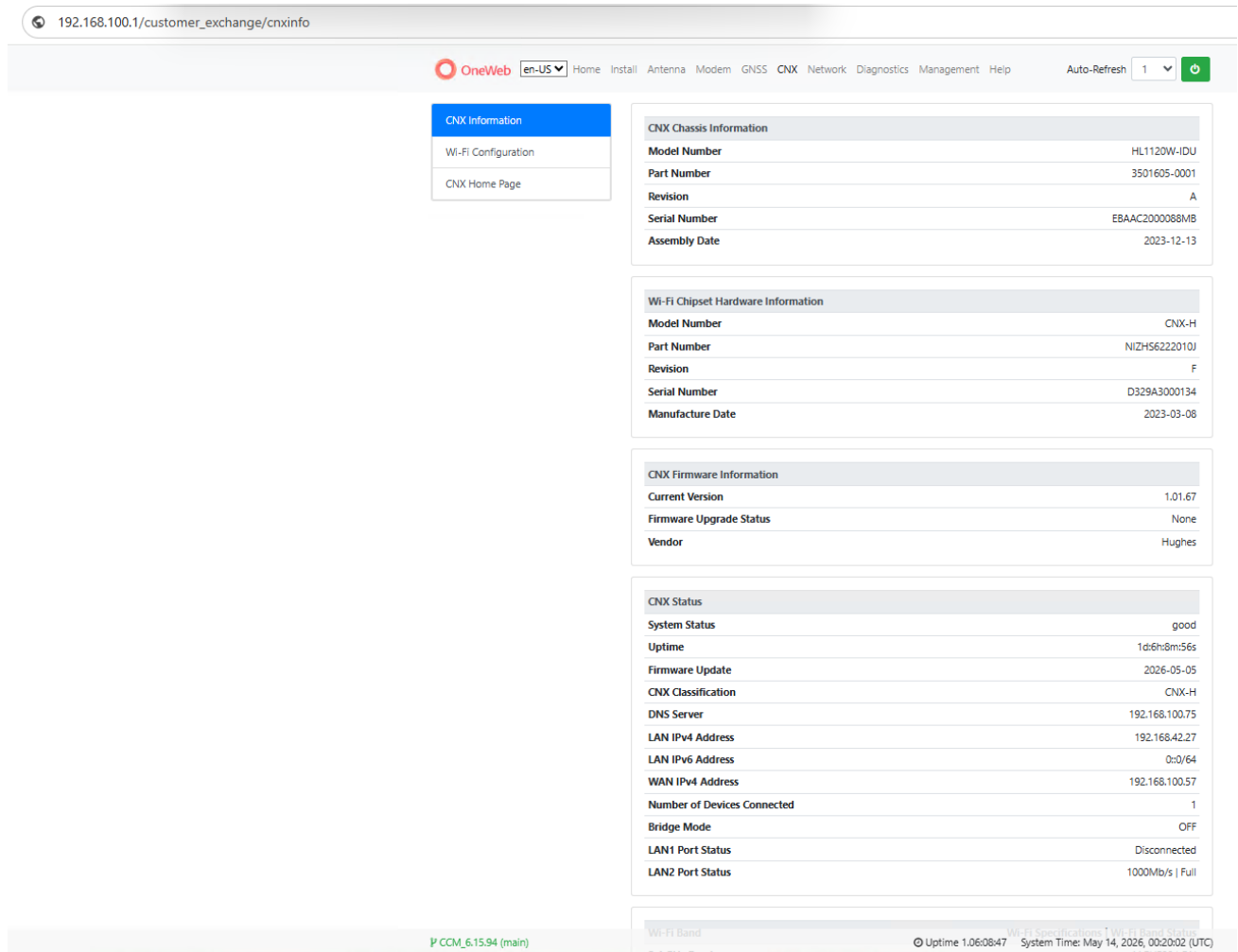
The screenshot shows the OneWeb web interface for GNSS information. The browser address bar shows `192.168.100.1/gnss/gnssinfo`. The navigation menu includes: OneWeb, en-US, Home, Install, Antenna, Modem, GNSS, CNX, Network, Diagnostics, Management, Help. There is an Auto-Refresh control set to 1 with a refresh button. A sidebar on the left lists: GNSS Information (selected), NMEA Status, NMEA Statistics, GNSS Status, GNSS Statistics, PPS Status, and PPS Statistics. The main content area displays GNSS Receiver Information in a table:

| GNSS Receiver Information | |
|--|-----------------------|
| Software Version | 2.20 (81289) |
| Hardware Version | 00080000 |
| Firmware Version from ROM | 2.01 (75331) |
| Protocol Version Supported | PROTVR 16.00 |
| Flash Information Structure | FIS 0xEF4015 (79189) |
| Module Identification | MOD LEA-M8F-0 |
| Time & Frequency Sync Product Firmware | FTS 1.01 |
| Supported GNSS Constellation | GPS;SBAS;GLO;BDS;QZSS |

At the bottom of the page, there is a status bar showing: CCM_6.15.94 (main) on the left, and Uptime 1.06:06:11 System Time: May 14, 2026, 00:17:25 (UTC) on the right.

Figure 4. HL1120-ODU OGR Information

Navigate to the *CNX* → *CNX Information* link to determine IDU information:



192.168.100.1/customer_exchange/cnxinfo

OneWeb en-US Home Install Antenna Modem GNSS CNX Network Diagnostics Management Help Auto-Refresh 1

CNX Information

- Wi-Fi Configuration
- CNX Home Page

CNX Chassis Information

| | |
|---------------|----------------|
| Model Number | HL1120W-IDU |
| Part Number | 3501605-0001 |
| Revision | A |
| Serial Number | E8AAC2000088MB |
| Assembly Date | 2023-12-13 |

Wi-Fi Chipset Hardware Information

| | |
|------------------|---------------|
| Model Number | CNX-H |
| Part Number | NIZH56222010J |
| Revision | F |
| Serial Number | D329A3000134 |
| Manufacture Date | 2023-03-08 |

CNX Firmware Information

| | |
|-------------------------|---------|
| Current Version | 1.01.67 |
| Firmware Upgrade Status | None |
| Vendor | Hughes |

CNX Status

| | |
|-----------------------------|-----------------|
| System Status | good |
| Uptime | 1d6h8m:56s |
| Firmware Update | 2026-05-05 |
| CNX Classification | CNX-H |
| DNS Server | 192.168.100.75 |
| LAN IPv4 Address | 192.168.42.27 |
| LAN IPv6 Address | 0::0/64 |
| WAN IPv4 Address | 192.168.100.57 |
| Number of Devices Connected | 1 |
| Bridge Mode | OFF |
| LAN1 Port Status | Disconnected |
| LAN2 Port Status | 1000Mb/s Full |

CCM_6.15.94 (main) Wi-Fi Band 2.4 GHz Band © Uptime 1.06:08:47 System Time: May 14, 2026, 00:20:02 (UTC)

Figure 5. HL1120W-IDU (CNX-H) Information

8.2.2 Determining Current Software Versions of the UT

Log in to the CCM LUI at <http://192.168.100.1> and navigate to the *Diagnostics* → *UT Status* link to view the current software versions on the CCM */factory*, */main* and */backup* partitions, Modem, OGR, and IDU (CNX-H):

- UT Status**
- Host Processor Logs
- Event Logs
- Configuration
- Advanced Configuration
- Fault Management
- MoCA Information
- System Monitor Statistics
- Sensor and Device Information
- Statistics
- Self Test Results
- TWAMP

Restart Panel

[Antenna Reset](#)
[Modem Reset](#)
[GNSS Reset](#)
[CNX Reset](#)
[MoCA Reset](#)

Heat Assist

Heat Assist ON
 Always On

[Apply](#)

UT Hardware Information

| | |
|---|---------------|
| Model | HL1120W |
| Model Type/Platform Type/Classification | HL-Fixed |
| Part Number | 1508517-0001 |
| Hardware Revision | H |
| Serial Number | G1A2330400163 |
| Manufacturing Date | 2025-06-20 |

CCM Hardware Information

| | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
|--------------------|--------------------|--------------------|
| Model Type | CCM | CCM |
| Part Number | 1508105-0001 | 1508105-0002 |
| Hardware Revision | D | 08 |
| Serial Number | G2AM534D3Z | G3A2A20123 |
| Manufacturing Date | 2024-05-24 | 2023-10-30 |
| FPGA Revision | ccm_fpga_5_0_41 | ccm_fpga_5_0_41 |

UT Components Software Report

CCM Software Information

Active Software Partition: main

| | Factory | Main | Backup |
|-------------------------|-------------------------|-------------------------|--------------------------|
| Software Version | CCM_5.4.54.2 | CCM_6.15.94 | CCM_6.15.85 |
| Software Bundle Version | HL-Fixed-1.0.21 | HL-Fixed_3.0.47 | HL-Fixed_3.0.37 |
| Software Release Date | Sat Mar 2 03:57:44 2024 | Fri Apr 3 16:30:34 2026 | Thu Dec 11 22:46:33 2025 |

CCM BSP Software Information

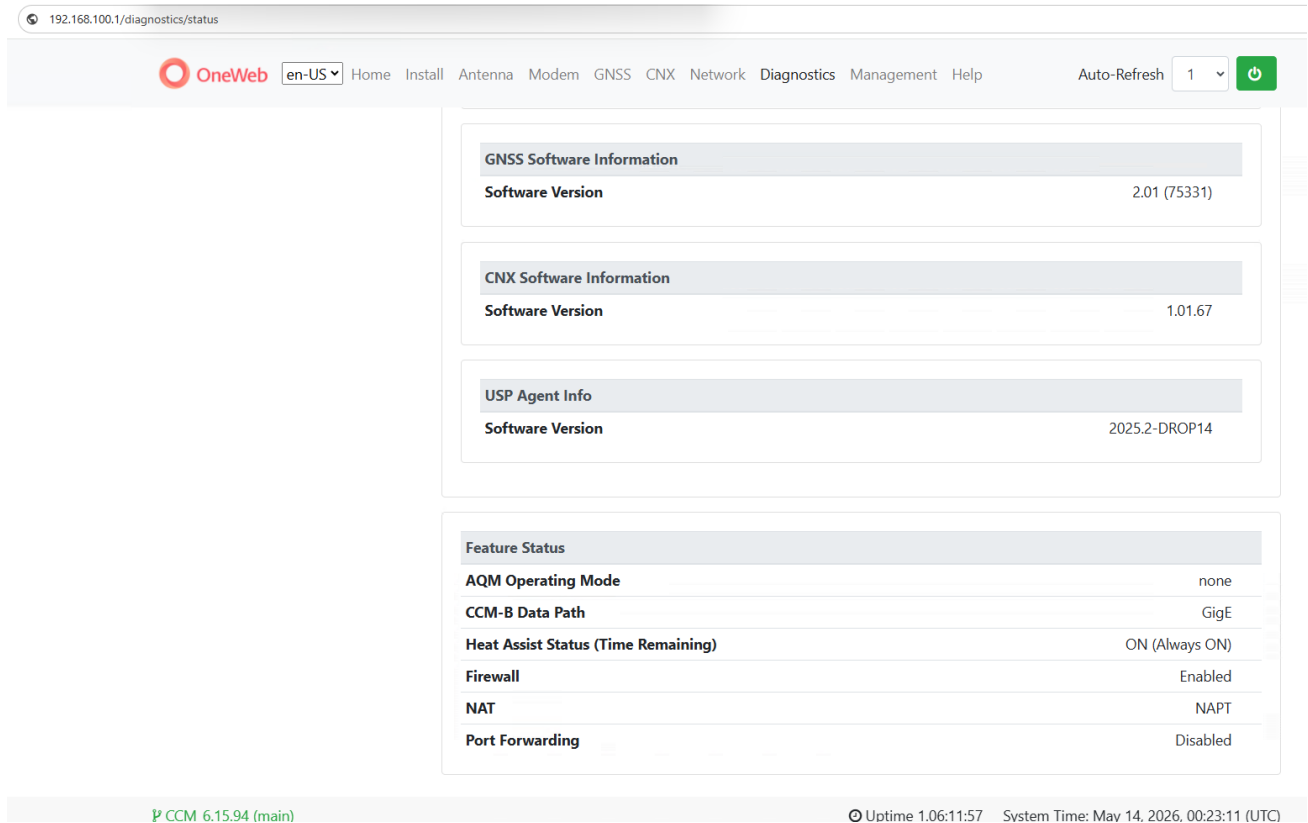
BSP Version: CCM_BSP_6.15.26

MoCA Software Information

Driver Version: 3.11.26
 SoC Version: 02.2
 Kernel Version: 5.15.71

Modem Software Information

Software Version: "Ver":4.1.3"



192.168.100.1/diagnostics/status

OneWeb en-US Home Install Antenna Modem GNSS CNX Network Diagnostics Management Help Auto-Refresh 1

| GNSS Software Information | |
|---------------------------|--------------|
| Software Version | 2.01 (75331) |

| CNX Software Information | |
|--------------------------|---------|
| Software Version | 1.01.67 |

| USP Agent Info | |
|------------------|---------------|
| Software Version | 2025.2-DROP14 |

| Feature Status | |
|-------------------------------------|----------------|
| AQM Operating Mode | none |
| CCM-B Data Path | GigE |
| Heat Assist Status (Time Remaining) | ON (Always ON) |
| Firewall | Enabled |
| NAT | NAPT |
| Port Forwarding | Disabled |

CCM 6.15.94 (main) Uptime 1.06:11:57 System Time: May 14, 2026, 00:23:11 (UTC)

Figure 6. HL1120-ODU, HL1120W-IDU Software Information

8.2.3 Determining Current firmware versions

To access the ODU Hardware Information, navigate to: Antenna → Hardware Product Information Under Beam Forming Array Information, the BFA CPLD firmware revision is displayed.

Under CCM Information, the FPGA firmware version is shown.

In the snapshot below:

- The green box under Beam Forming Array Information highlights the BFA CPLD firmware version.
- The red box under CCM Information highlights the FPGA firmware version.

192.168.100.1/antenna/hardwareinfo

OneWeb en-US Home Install Antenna Modem GNSS CNX Network Diagnostics Management Help Auto-Refresh 1

- Antenna Information
- Message Statistics
- Modem <-> Antenna Latency
- Blockage Zones
- Hardware Status and Configuration
- Sensor Information
- Antenna Pointing Status
- Hardware Product Information**
- Calibration File Versions
- Beam Forming Array Chip Status
- AIM Logs

| Antenna Hardware Information | | |
|------------------------------|---------------|--|
| Model Type | HL1120-ODU | |
| Part Number | 1508517-0001 | |
| Revision | H | |
| Serial Number | G1A2330400163 | |
| Manufacture Date | 2025-06-20 | |

| Antenna Panel Information | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
|---------------------------|--------------------|--------------------|
| Model Type | FDX-A | FDX-B |
| Part Number | 1508336-0001 | 1508336-0002 |
| Revision | K | K |
| Serial Number | G7AYA200C5 | G8AYA200B5 |
| Manufacture Date | 2025-06-20 | 2025-06-20 |

| Beam Forming Array Information | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
|--------------------------------|--------------------|--------------------|
| Model Type | BFA-2 | BFA-2 |
| Part Number | 1508083-0001 | 1508083-0001 |
| Revision | 09 | 09 |
| Serial Number | G6AM920CD4 | G6AM9210AX |
| Manufacture Date | 2023-09-25 | 2023-09-25 |
| BFA CPLD Revision | bfa_cp1d_5_0_7 | bfa_cp1d_5_0_7 |

| Frequency Converter Information | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
|---------------------------------|--------------------|--------------------|
| Model Type | UT_RCM | UT_RCM |
| Part Number | 1508286-0001 | 1508286-0001 |
| Revision | 1b | 1b |
| Serial Number | G5AW92100W | G5AW9205D6 |
| Manufacture Date | 2023-10-04 | 2023-10-04 |

| CCM Information | Antenna Rx (FDX-A) | Antenna Tx (FDX-B) |
|-------------------|--------------------|--------------------|
| Model Type | CCM | CCM |
| Part Number | 1508105-0001 | 1508105-0002 |
| Revision | D | 08 |
| Serial Number | G2AM534D3Z | G3A2A20123 |
| Manufacture Date | 2024-05-24 | 2023-10-30 |
| Software Version | CCM_6.15.94 | CCM_5.4.98.1 |
| Linux BSP Version | CCM_BSP_6.15.26 | CCM_BSP_5.4.15 |
| FPGA Version | ccm_fpga_5_0_41 | ccm_fpga_5_0_41 |

P CCM_6.15.94 (main) O Uptime 1.06:12:54 System Time: May 14, 2026, 00:24:08 (UTC)

Figure 7. HL1120-ODU Firmware Information

192.168.100.1/antenna/hardwareinfo

OneWeb en-US Home Install Antenna Modem GNSS CNX Network Diagnostics Management Help Auto-Refresh 0

- Antenna Information
- Message Statistics
- Modem <-> Antenna Latency
- Blockage Zones
- Hardware Status and Configuration
- Sensor Information
- Antenna Pointing Status
- Hardware Product Information**
- Calibration File Versions
- Beam Forming Array Chip Status
- AIM Logs

| Antenna Hardware Information | |
|---------------------------------|-----------------|
| Model Type | HL1100-ODU |
| Part Number | 1508336-0013 |
| Revision | 1F |
| Serial Number | GEAG43005P |
| Manufacture Date | 2024-05-03 |
| Beam Forming Array Information | |
| Model Type | BFA-2 |
| Part Number | 1508694-0001 |
| Revision | B |
| Serial Number | GAAP335A62 |
| Manufacture Date | 2024-03-30 |
| BFA CPLD Revision | bfa_cpld_5_0_7 |
| Frequency Converter Information | |
| Model Type | UT_RCM |
| Part Number | 1508286-0001 |
| Revision | 1b |
| Serial Number | G5AN33143P |
| Manufacture Date | 2024-04-01 |
| CCM Information | |
| Model Type | CCM |
| Part Number | 1508105-0003 |
| Revision | 13 |
| Serial Number | G4A12304FC |
| Manufacture Date | 2024-03-12 |
| Software Version | CCM_6.15.94 |
| Linux BSP Version | CCM_BSP_6.15.26 |
| FPGA Version | ccm_fpga_5_0_41 |

CCM_6.15.94 (main) Uptime 0.00:01:03 System Time: May 13, 2026, 18:15:19 (UTC)

Figure 8. HL1100 ODU Information