

XCOM RAN XRRU Guide

Consolidated Architecture

Released 1/27/2026

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Audience

The audience for this guide is technical staff who will be installing and/or operating the XCOM RAN system.

Technical Support

For additional support, please email gsce@globalstar.com to submit tickets for documentation, feedback, and technical support.

Revision History

Revision	Date	Notes
1	11/19/2025	Initial Release
2	1/27/2026	Add Compliance Statement

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Related Documents

9150-0219-01 XCOM RAN Operational Guide

9150-0222-01 XCOM RAN Software Release-1.11 Release Notes

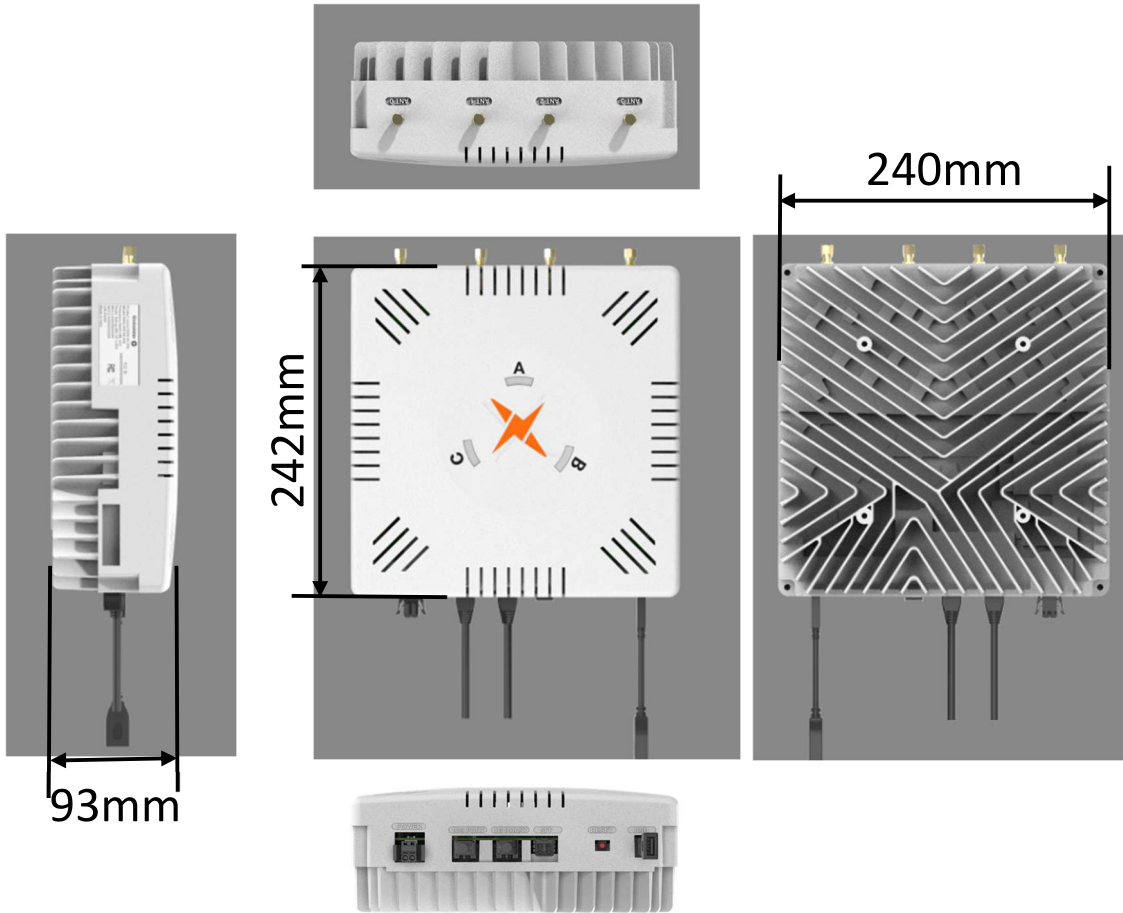
9150-0225-01 XCOM RAN Hardware Installation Procedure-Consolidated Architecture

Acronyms and Abbreviations

Term	Description
BBU	Base Band Unit
CBRS	Citizens Broadband Radio Service
CP	Control Plan
CPE	Customer Premises Equipment
CPRI	Common Public Radio Interface
C-RAN	Cloud-Radio Access Network
CU	Centralized Unit
DL	Downlink- 5G Network to the Device or UE
DU	Distributed Unit
FHC	Fronthaul Card
FTP	File Transfer Protocol
gNB	Next Generation NodeB or 5G Cell
iBLER	Initial Block Error Rate
L1	Layer 1
L2	Layer 2
L3	Layer 3
MCS	Modulation and Coding Scheme
MIMO	Multiple Input Multiple Output
NGC	Next-Generation Core
NIC	Network Interface Card
NR	New Radio
NUC	BBU Controller
O-RAN	Open-Radio Access Network
RRU	Remote Radio Unit
TDD	Time-Division Duplex
tput Value	Throughput Value
UDP	User Datagram Protocol
UE	User Equipment
UL	Uplink- From Device or UE to 5G Network
UP	User Plane
VLAN	Virtual LAN
XNS	XCOMP NR System

1 Technical Specifications

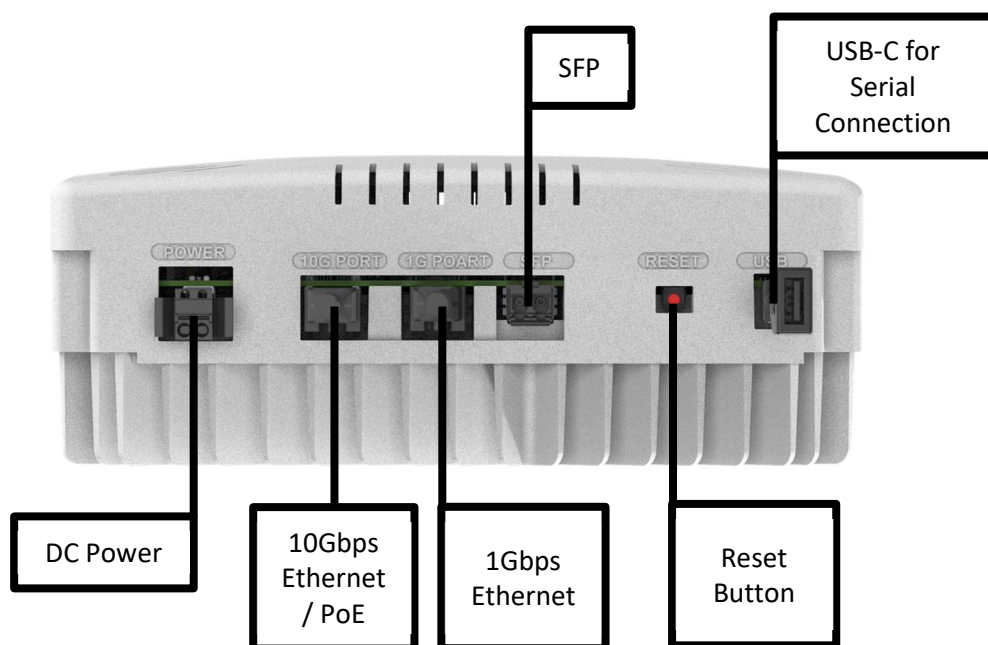
1.1 Indoor Unit



Description	Value
Product Dimensions	242x240x93mm
Product Volume	5.4L
Product Weight	4.5kg (approx..)

2 Connecting to the XRRU

2.1 Ports

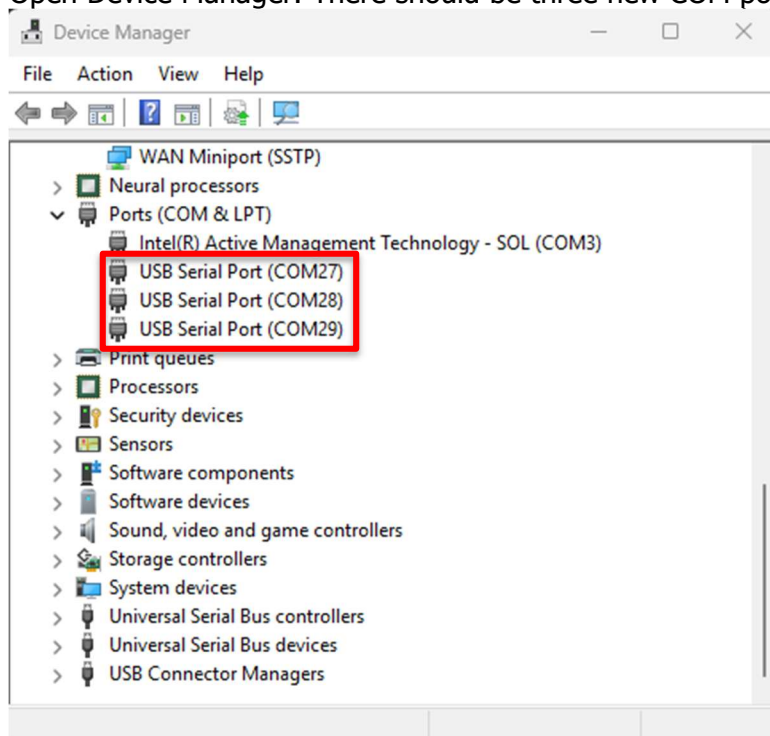


2.2 SSH Connection

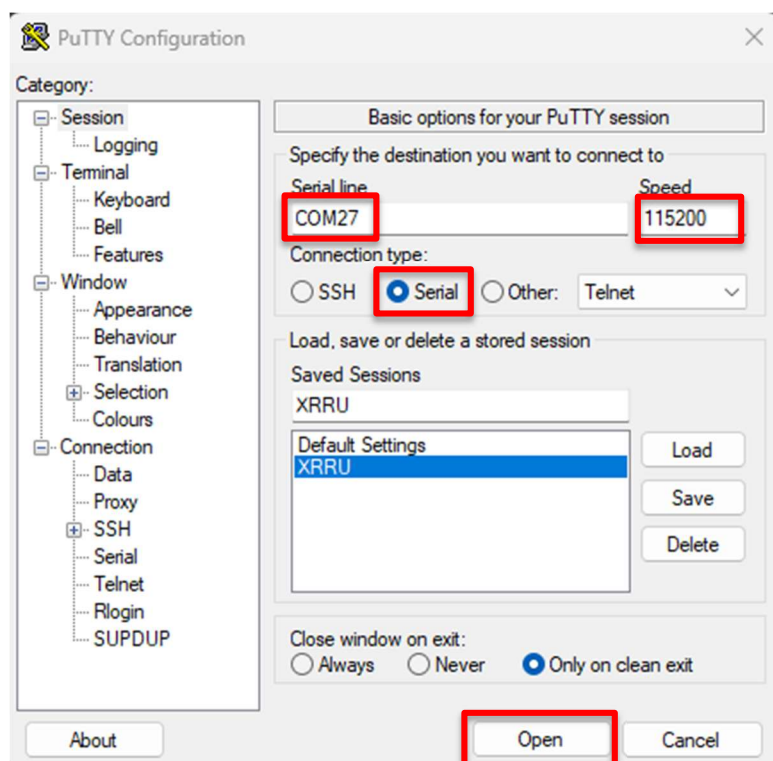
Port label	Interface	IP Address	SSH Access
10G PORT	eth1	192.168.2.10	N/A
1G PORT	eth0	192.168.1.10	Username: root Password: root
SFP	eth2	192.168.3.10	From BBU: ssh_rru #

2.3 USB Serial Connection

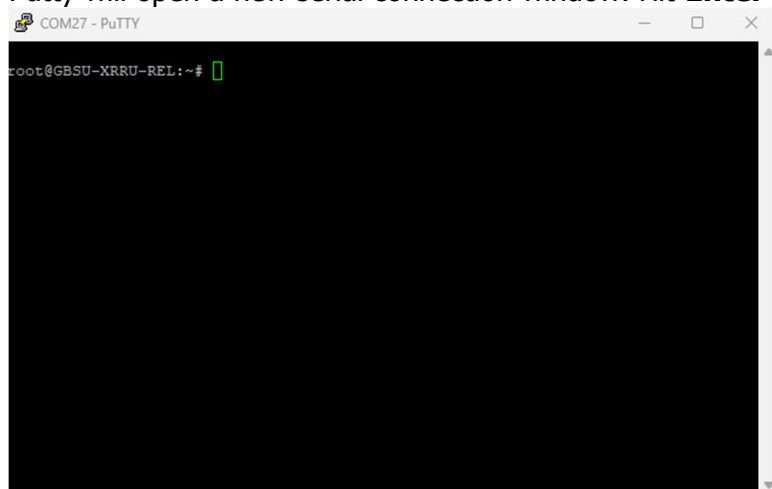
- 1) Connect a USB-C to USB-A cable from the XRRU to the local machine
- 2) Open Device Manager. There should be three new COM ports displayed



- 3) Open Putty
 - Under "Serial line", enter the lowest of the three COM ports
 - Under "Speed", enter **115200**
 - Under "Connection type", select **Serial**
 - Click **Open**



- 4) Putty will open a new serial connection window. Hit **Enter** to show the command prompt



3 Bringing up the XRRU

- 1) Connect power (either DC power on the POWER port or PoE power on the 10G PORT)
- 2) LED B will turn solid green
- 3) After approximately 20 seconds, LED C will flash red, then both LED A and LED C will slow flash green

4 Resetting the XRRU

To reset the XRRU, press and hold the RESET button for approximately 30 seconds.



5 Compliance Statement

REGULATORY WARRANTY SAFETY AND PRIVACY

This Guide contains safety, handling, disposal, regulatory, trademark, copyright, and software licensing information. Read all safety information below and operating instructions before using the XCOM RAN XRRU to avoid injury.

FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the antenna and your body. Under no circumstances should the XCOM RAN XRRU be used in any areas (a) where blasting is in progress, (b) where explosive atmospheres may be present, or (c) that are near (i) medical or life support equipment, or (ii) any equipment which may be susceptible to any form of radio interference. In such areas, the XCOM RAN XRRU **MUST BE POWERED OFF AT ALL TIMES** (since the modem could otherwise transmit signals that might interfere with such equipment). In addition, under no circumstances should the XCOM RAN XRRU be used in any aircraft, regardless of whether the aircraft is on the ground or in flight. In any aircraft, the XCOM RAN XRRU **MUST BE POWERED OFF AT ALL TIMES** (since the equipment could otherwise transmit signals that might interfere with various onboard systems on such aircraft).

Due to the nature of wireless communications, transmission and reception of data by the XCOM RAN XRRU can never be guaranteed, and it is possible that data communicated or transmitted wirelessly may be delayed, intercepted, corrupted, contain errors, or totally lost.

Warning: This product is only to be installed by qualified personnel.