Comba

CriticalPoint™

PUBLIC SAFETY

700/800MHZ V3 BDA/DAS

Firmware Upgrade Guide

RX78V3 / RH78V3 / RHFOUV2

QE: 1-0-0

Comba Telecom Limited

This Guide describes the procedure to perform firmware upgrades for the Comba CriticalPoint™ V3 700/800MHz Public Safety series of RF products. The products included are the V3 BDA/Master Unit (BDA/MU), the V3 Remote Unit (RU), and the V2 Fiber Optic Expansion Unit (FOU). The firmware mentioned throughout this manual is under continuous development to provide improvements and/or new features. As a result, there may be minor differences between the information found in this guide and the firmware received by the operator. Any specifications, GUI images, or other statements mentioned in this guide are subject to change without notice.

It is recommended to download the latest firmware before commissioning.

www.combausa.com/downloads

BDA/MU or RU Login

- Set the computer IP address to 192.168.8.xxx (except 101) / 255.255.255.0. (e.g. 192.168.8.100)

- Connect the computer to the **OMT Port** on the device using a regular Ethernet RJ45 Cable.

- Use the default device IP address of **http://192.168.8.101** in the browser to login to the device. Enter full address with the <http://> all the time. Some browsers will default to use <https> and not be able to access the device if just typing 192.168.8.101.

- Use username **admin** and password **admin** for general web operation.

- There is an additional LAN port located on the BDA/MU only. The LAN port can be used for local access but more commonly used for remote access after being configured to connect to an external Modem / Router / Switch or a Gateway, etc.
  The LAN port IP can be configured in WEB –> Management –> Network.
  The LAN port default IP address is 192.168.0.101 / 255.255.255.0, and the Gateway is 192.168.0.1.

- **Note: If the device is configured for remote connection using the LAN port, all the firmware upgrades for the BDA/MU, FOU, and RUs can be completed remotely through the BDA/MU without the need to send anyone to the site.**

FOU Login

- Set the computer IP address to 192.168.8.xxx (except 101) / 255.255.255.0. (e.g. 192.168.8.100)

- Connect the computer to the **OMT Port** on the device using a regular Ethernet RJ45 Cable.

- Use the default device IP address of **https://192.168.8.101** (**Must use https://**) in the browser to login to the device. Enter full address with the <https://> all the time for the FOU. If you receive any security warnings from the web browser, they can be ignored.

- First time login: Use username **admin** and password **admin** for general web operation. The system may prompt you to set a new password. Change the password and notate accordingly.
  Note: use admin/Admin12345678, if admin/admin does not work.

BDA/MU Local Firmware Upgrade:

Note: When using the device in Fiber DAS mode, always perform the firmware upgrade on the BDA/MU first and then proceed to upgrade the FOUs and RUs.

1. Login to the OMT or LAN port and go to Management -> Firmware Upgrade.
2. Click <Select File> and select the firmware file. Then click <Upgrade>.
3. A progress window will pop up. Once the upgrade has been completed you will receive a success message. Click <Finish> after completion.
4. The device will take approximately 2-4 minutes to reboot after the upgrade.
5. NOTES:
   - Upgrading the firmware will only terminate the RF service during the final reset after firmware is deployed (RF is restored within approximately 30 seconds after reset).
   - Upgrades can also be done from the web using a remote IP connection.
   - There is slave module firmware that is packed within the same main firmware. Slave module upgrades will start automatically in the background. The table below will show the slave module version and the upgrade progress. While they are still upgrading, some features may not function properly. Other functions such as <Slaver Upgrade> is only for Comba Support to use.
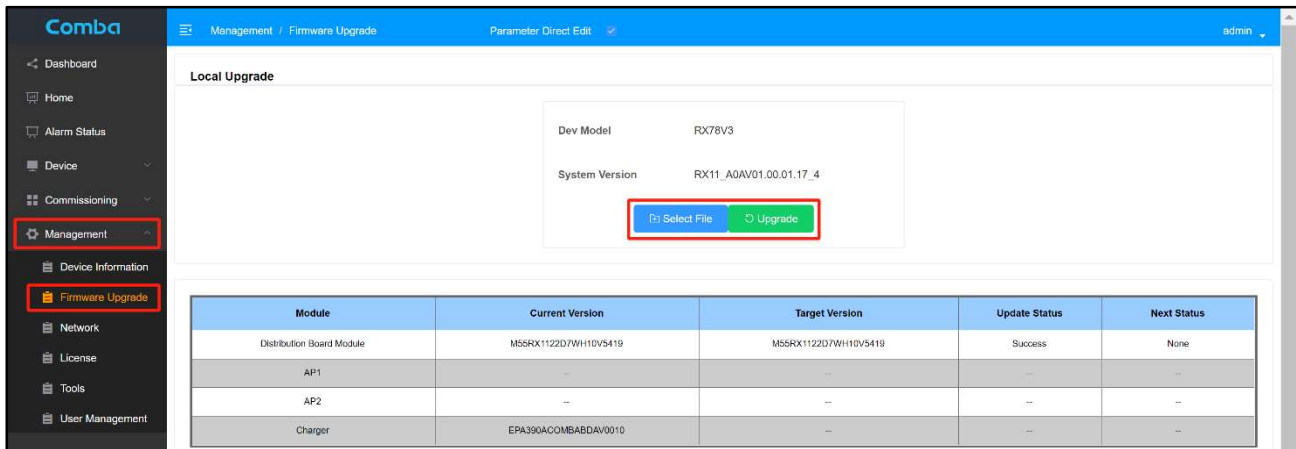

Figure 1: BDA/MU Local Firmware Upgrade Process

FOU and RU Firmware Upgrades:

For the FOU and RU, firmware can be upgraded locally or can be deployed over the fiber from the Master Unit.

- Performing a local upgrade to an FOU or RU is the same basic process as described above for the BDA/MU and must be performed by connecting directly to the device OMT port with a computer and ethernet RJ45 cable. Any urgent firmware upgrade is recommended to be done locally as deploying the firmware over fiber from the BDA/MU takes a longer time.

- To upgrade the FOU or RU firmware from the BDA/MU, the FOU and/or the Remote Unit must first be discovered by the Master Unit by performing a scan in the Dashboard screen Dashboard -> Graphic -> Scan. While the FOU upgrade is quite fast (5-10 minutes), the firmware upgrades for RUs are much slower due to deploying the firmware data over the fiber link. Each RU can take approximately 25-35 minutes to upgrade. Furthermore, when deploying new firmware to multiple RUs using the Centralize Upgrade feature, the firmware is deployed one RU at a time in series. The total upgrade time can become quite long. See figure below.

Figure 2: BDA/MU Dashboard Scan for FOUs and RUs

FOU Local Firmware Upgrade:

1. Login to the FOU OMT port.
2. In Management -> Upgrade, switch OFF <Centralized Download Switch>.
3. Click <Select File> and select the firmware file. Then click <Upgrade>.
4. A progress window will pop up. Once the upgrade has been completed you will receive a success message. Click <Finish> after completion.
5. The device will take approximately 2-4 minutes to reboot after the upgrade.
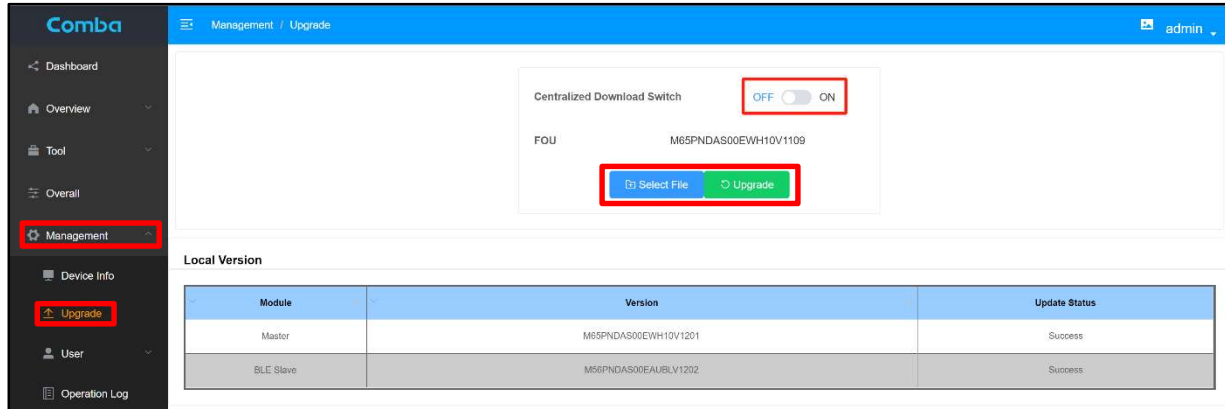

Figure 3: FOU Local Firmware Upgrade

RU Local Firmware Upgrade:

1. Login to the RU OMT port and go to Management -> Firmware Upgrade.
2. Click <Select File> and select the firmware file. Then click <Upgrade>.
3. A progress window will pop up. Once the upgrade has been completed you will receive a success message. Click <Finish> after completion.
4. The device will take approximately 2-4 minutes to reboot after the upgrade.
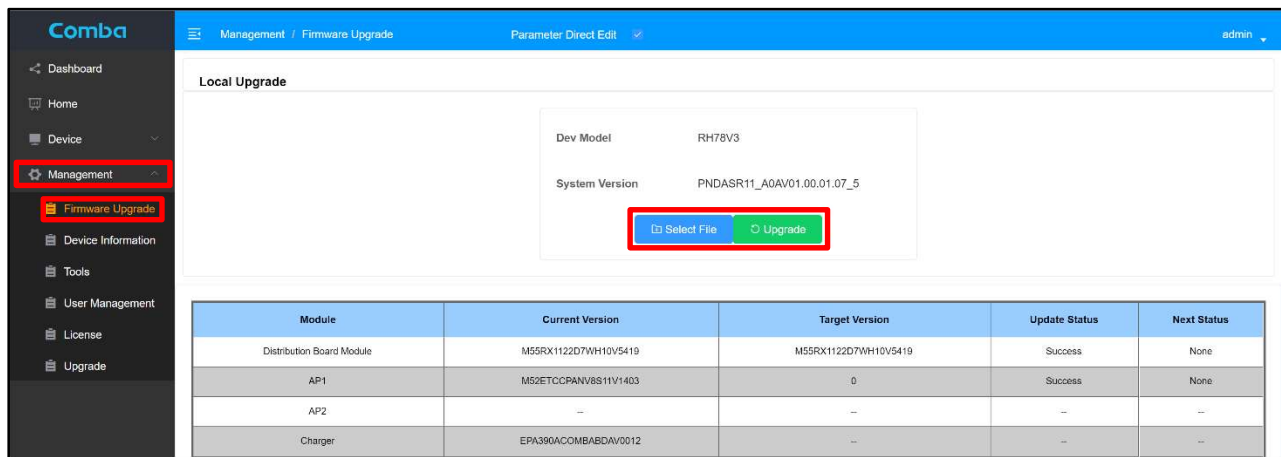

Figure 4: RU Local Firmware Upgrade

FOU and RU Firmware Upgrade from BDA/MU:

You must use <Centralized Upgrade> feature to upgrade FOU and RU firmware from the BDA/MU.

(Attempting to upgrade the firmware from FOU or RU device pop-up pages by clicking the device in Table Style will <u>NOT</u> work.)

Preparation – Turn ON <Centralized Download Switch> on ALL devices, skip if they are already ON

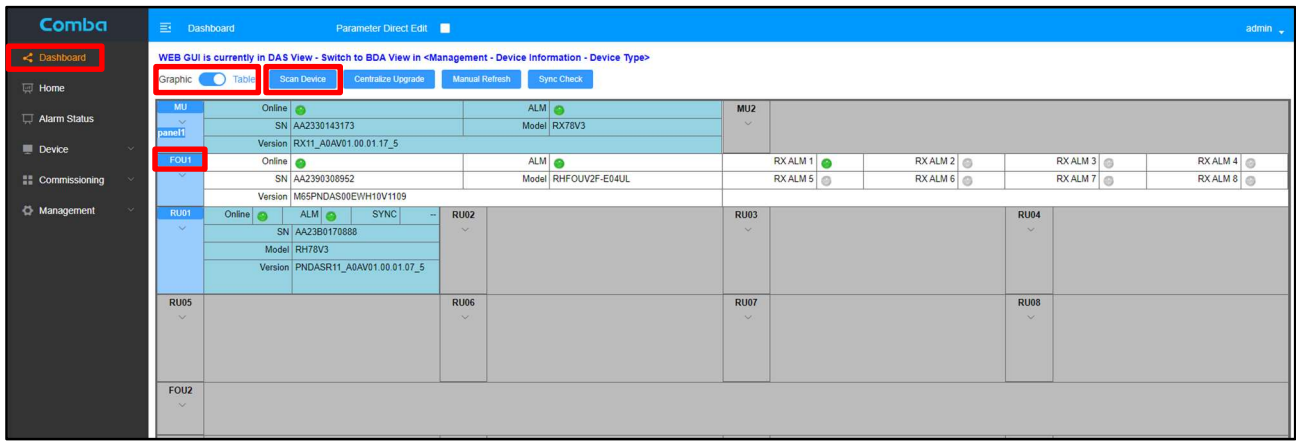1. Complete scan and discover all devices. Dashboard -> Table > Scan
2. Click on FOU to access FOU pop-up window.

Figure 5: BDA/MU Dashboard Scan and FOU Access

3. In the pop up FOU page, go to Management -> Upgrade, and **turn ON <Centralized Download Switch>**. If there is multiple FOU, complete this step one by one for each FOU. Then exit the FOU page.
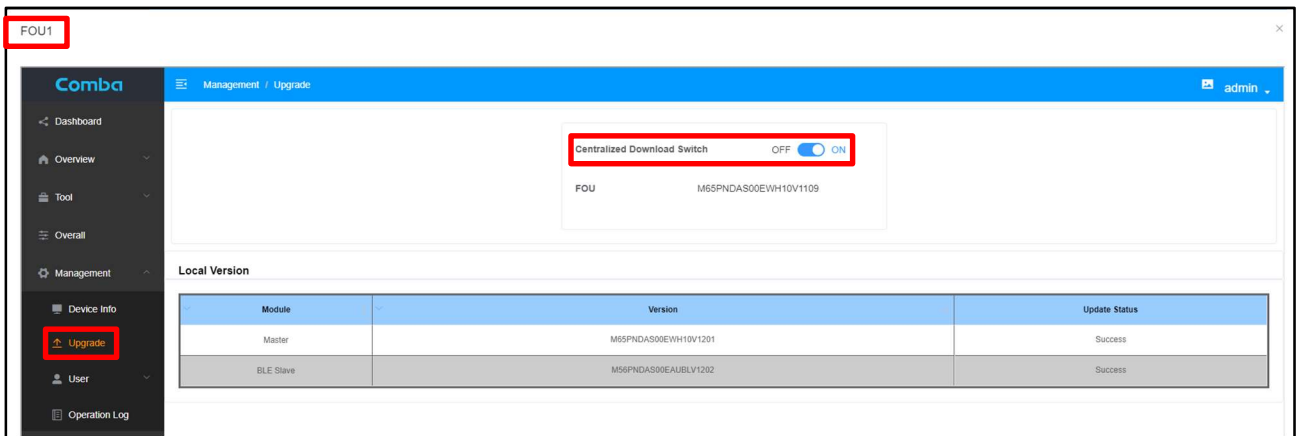

Figure 6: FOU Centralized Download Switch

4. In the BDA/MU main menu, go to Device -> Batch Setting, turn ON <Centralized Switch>. Make sure to select the devices that need to be upgraded at the top table, and the <Centralized Switch> is checked. Then click on the <Batch Setting> button. There is a pop-up that indicates the operation is successful.
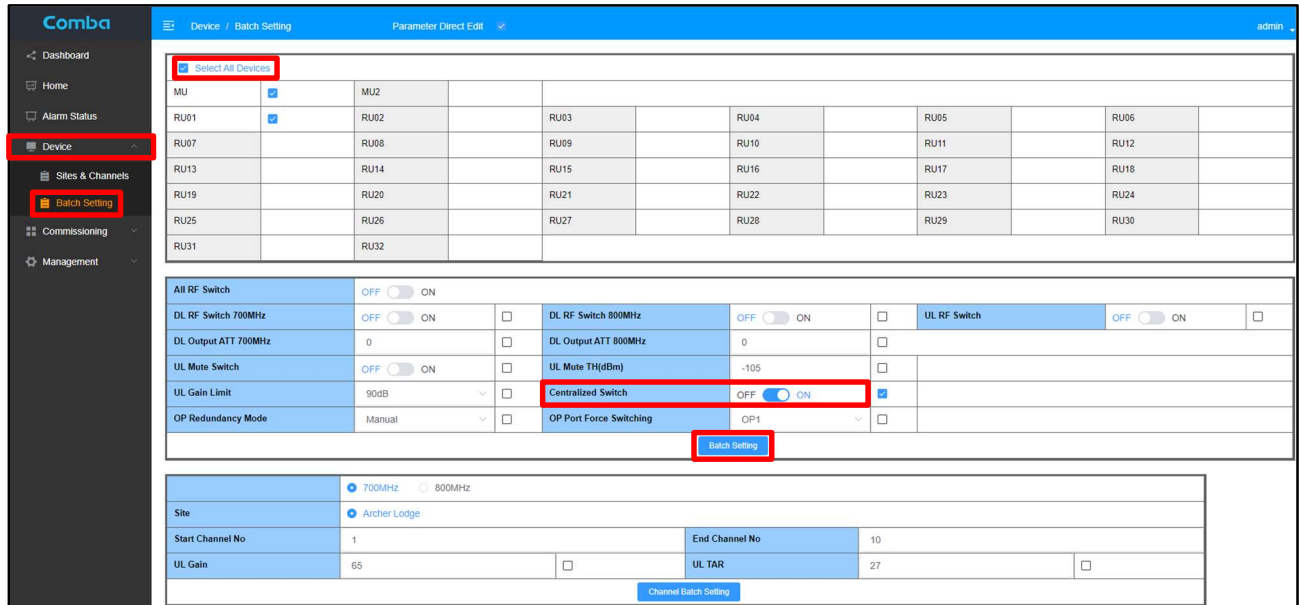

Figure 7: Batch Setting RU Centralized Download Switch

FOU and RU Centralized Upgrade

In the <Dashboard> Page, click <Centralize Upgrade> button. Both the FOU and RU can be upgraded here. You can only upgrade FOUs or RUs, but not both devices at the same.
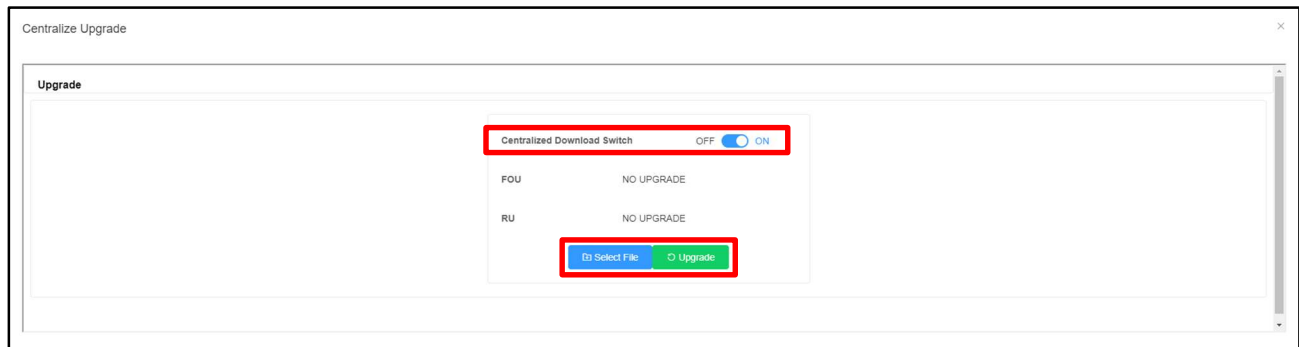

Figure 8: BDA/MU Dashboard Centralize Upgrade Pop-up Window

1. Upgrade FOUs

Click <Select File>, select the FOU firmware and then click the <Upgrade> button. This will upgrade all FOU automatically. After a few seconds, you will receive a success message. Click <confirm> and wait while the firmware is deployed in the background. The firmware can take 10-15 minutes to deploy to the FOUs. It is recommended to validate that all FOUs have been upgraded before performing the centralized upgrade for the RUs.

2. Check Upgrade Progress

It is recommended to complete the FOU upgrades first, which normally takes a short time. Confirm all FOUs have been upgraded to the expected version. Then apply the upgrades to the RUs.
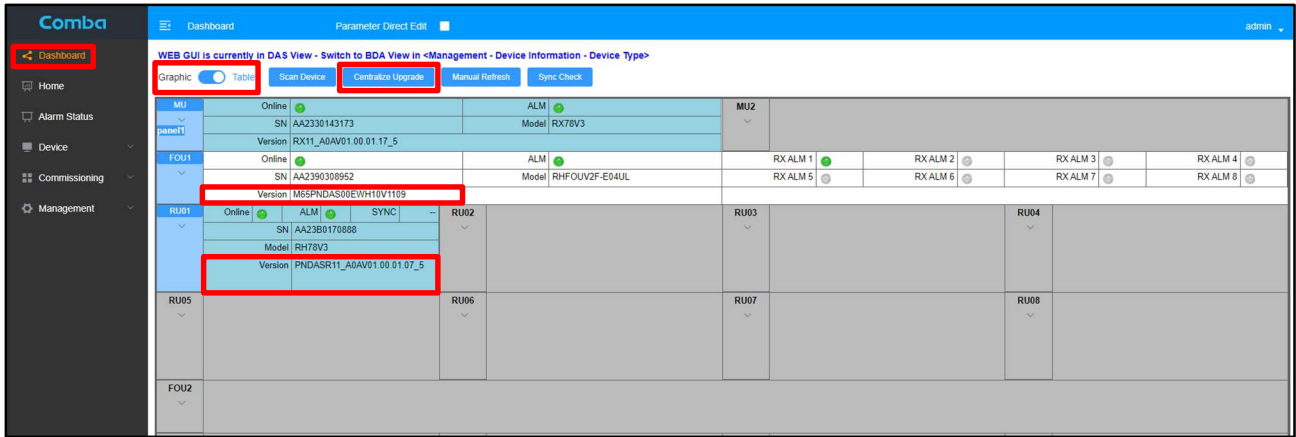

Figure 9: BDA/MU Dashboard Firmware Validation

3. Upgrade RUs

The upgrade for each RU is done over fiber and in series and the system will skip the upgrade if the target device already has the same firmware. Large systems of RUs can take a long time to upgrade.

Note: Once you have started the centralized upgrade process for the RUs, local upgrades to RUs can still be completed at the same time. In other words, the system will automatically deploy firmware to RUs while a user at the site can deploy firmware locally to the same system of the RUs. This can reduce the overall time to upgrade a large system of RUs.

- Dashboard -> Centralize Upgrade. Click <Select File>, select the RU firmware and then click the <Upgrade> button. This will upgrade all RU automatically. After a few seconds, you will receive a success message. Click <confirm> and wait while the firmware is deployed in the background. Each RU firmware upgrade will take approximately 25-35 minutes to complete.
- Check progress in the Dashboard -> Table view by validating correct firmware versions.

End of Section

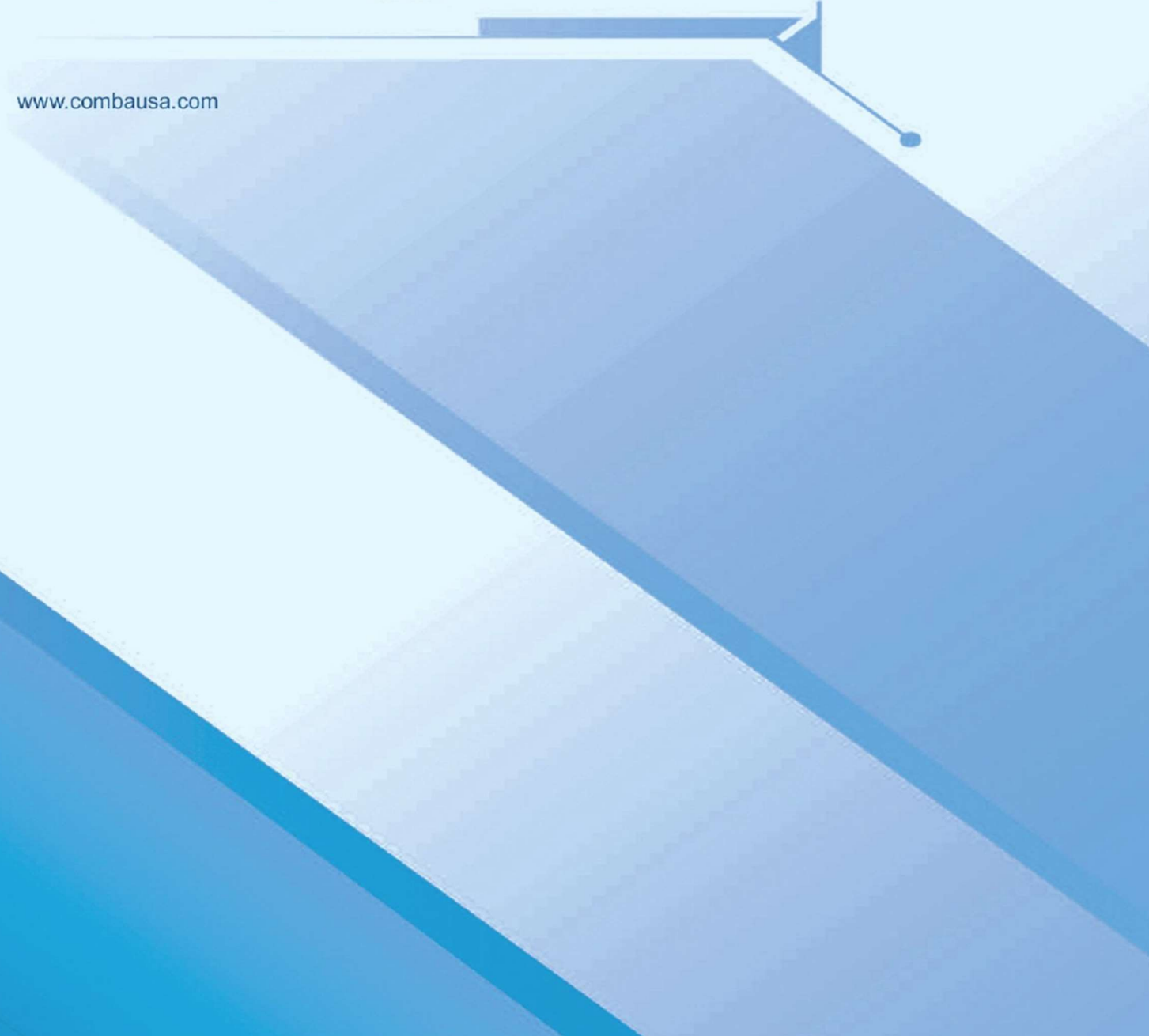| Rev. No.	ENU	Release Date	Author	Details Of Change
1	1-0-0	7/2/2024	MRD	First Release

End of Document

Comba

Comba Telecom Inc.

568 Gibraltar Drive, Milpitas, CA 95035
Tel: +1 866 802 7961
Fax: +1 408 526 0181
Email: customer.nam@comba-telecom.com

www.combausa.com