# Service Bulletin
# SB-SDR-012
# SDR Software Release MOD M (1.11.0)

## Overview
This document outlines the upgrade of the SDR software to MOD M (1.11.0).

## Record of Revisions

| Revision | Date | Revised By | Description of Revision |
|---|---|---|---|
| A00 | Nov. 2019 | G. Horvath | Initial release |
| | | | |
| | | | |

**NOTES**:  This service bulletin can be accomplished by an authorized repair center approved by Satcom Direct or by owners/operators.

| CONFIDENTIALITY STATEMENT |
|---|
| This document is considered SD proprietary information, produced, or distributed with exclusive rights to SD. Neither this document nor its contents shall be reproduced or disclosed to a third party without the express written consent of SD. |

# Section 1: Planning Information

## A. Effectivity

| Part Number | Model | Serial Number |
|---|---|---|
| TN1021-100 or 1233-F-2191-10 | SDR | ALL |

## B. Approval

This software revision is a minor change that does not affect the qualification of the SDR.

## C. Concurrent Requirements

Software release MOD G (or later) must be installed in order to update the SDR to MOD M. SD recommends upgrading from MOD G or later releases directly to MOD M.

Service bulletins for previous software releases are available from SD.

Note: Some of the hardware supported by this release is available only with hardware rev P of the SDR or with LRUs that have TN1021-SB-005 incorporated. Contact SD for information about TN1021-SB-005.

## D. Compliance

Optional
It is highly recommended that this modification be accomplished at the next suitable maintenance period.

## E. Reason

This software release implements stronger security controls and adds support for networking and hardware features listed below.

Note: Some of the hardware supported by this release is available only with hardware rev P of the SDR or with LRUs that have TN1021-SB-005 incorporated. Contact SD for information about TN1021-SB-005.

## F. Description of Change

The MOD M release includes the improvements and fixes below.

Networking Support
- Cellular support to turn off high tier countries
- WiFi on/off option on VRRP backup SDR
- Resolved SDPN time out issue

Hardware Support
- Support for optional 4G LTE radio (the radio is installed only in hardware rev P)
- Support for optional 802.11ac Radio (the radio is installed only in hardware rev P)
- Support for optional larger 512GB storage (available only with hardware rev P)
- ModMan reset from SDR

Handset management support
- Outgoing trunk selection on handsets
- Ability to set SDRG trunk priority based on handset
- Ability to select and upload ringtones and background images for the handsets
- Phonebook and speed dial file support
- Hunt group support
- Analog handset conference calling
- Seat to seat calling, conferencing and call transfer support
- API for Available Outgoing Trunks (Aero V)

Security
- Stronger login password requirements
- Brute Force login protection with CAPTCHA
- Default WiFi password requirements
- Secure API handling of via the UI
- Fix implemented for Wi-Fi Krack vulnerability

Reporting
- VRRP status of backup for SDPro
- Adding unit serial number in homepage
- Added SDR hardware revision indicator to homepage
- Added ICCID number to the Log Files for 3G/LTE

GUI
- 3G settings moved to LTE Connections page
- The number of visible phone extensions in the GUI has been modified to show four extensions. Additional extensions can be added and extensions configured before an upgrade will be preserved.

NOTE: The software upgrade from previous releases to MOD M does not maintain network shares and these have to be configured again after the upgrade.

NOTE: The files on shared media are not accessible after upgrading to MOD M. The files are not deleted, but the file locations are not available because of changes to access requirements. SD suggests removing media from the SDR before upgrading to MOD M. Contact SD Support to set up media sharing after the upgrade to MOD M.

## G. Weight and Balance

No change.

## H. Form, Fit, and Function

No change.

## I. Electrical Load

No change.

## J. Cost

This software upgrade is available at no cost.

## K. Materials

For internal planning, the following materials are required to accomplish this service bulletin. Other floor stock items may be required but are not listed.

1.    540-00009, SDR Software, version 1.11.0

## L. Publications Referenced

IM-SDR-001 SDR Installation Manual by Satcom Direct

## M. Additional Data & Remarks

Contact SD Support if you require assistance with the accomplishment of this Service Bulletin.

Satcom Direct
1050 Satcom Lane
Melbourne, FL 32940, USA
PH: +1.321.777.3236
PH: +1.888.448.9003 (Toll Free)
E-mail: support@satcomdirect.com

If there is an issue that requires returning the unit to SD Avionics, contact SD to obtain an RMA.

Customers in the US, please return the units to:
SD Avionics c/o Strader-Ferris International
808 Commerce Park Drive
Ogdensburg NY 13669
United States

Customers in Canada and International customers, please return the unit to:
Satcom Direct
1682 Woodward Drive
Ottawa, ON  K2C 3R8
Canada
PH: +1-321-777-3000

# Section 2: Accomplishment Instructions

## A. Setup

The installation of the MOD M software requires administrative rights to your computer.

1. Download the software file SDR-Firmware-FB-1.11.0-23.bin from https://sdr.satcomdirect.com/MODM/.
   The file is approximately 80MB. Please allow sufficient time with a suitable internet connection to download the file before starting the update on the aircraft.
2. Connect a computer to the SDR Wi-Fi network or Ethernet port, or to any available Wi-Fi connection in the aircraft that provides access to the SDR.
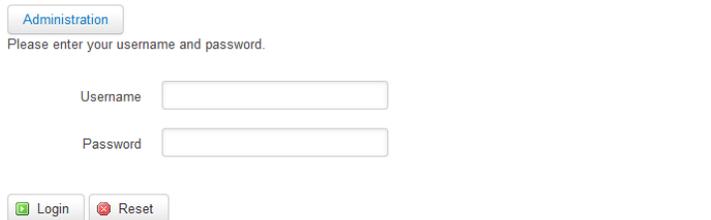   By default, the SSID is SDR-###, where ### is the serial number of the SDR. The SSID could have been changed by the installer or customer.

## B. Modification

To install the MOD M software:

1. Open a browser and navigate to https://sdr.aero or to the SDR IP address.
2. Click Administration.
   The Login screen appears.

   Administration
   Please enter your username and password.

   Username [                    ]
   Password [                    ]

   ▶ Login    ✖ Reset

3. Type the username and password, and then click Login.
   The username is "admin". The password was set during the initial setup and installation. If you do not know the current password, contact Satcom Direct support at +1.321.777.3236 or support@satcomdirect.com to recover the password.
4. Navigate to System > Backup/Restore.
   The Backup & Restore options appear.

   ### Backup & Restore

   To restore configuration files, you can upload a previously generated backup here.

   [Browse…] No file selected.   ☐ Reset password   ▶ Restore
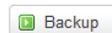
   ▶ Backup

5. Click Backup to back-up the current configuration file.
   The SDR creates the backup file and it appears in the list of backup files.
6. Click Download for the new backup file and save the file to your computer.
7. Navigate to Status > Diagnostics.
   The Diagnostic page appears.

8. Click Download Diagnostics.
   The SDR collects the diagnostic data and displays a link to the report. The report is encrypted and can be opened by SD Support.

Diagnostic Report is now available here. Note that it is encrypted, and only readable by Satcom Direct Support.

9. Click the link to save the encrypted diagnostic text file to your computer.
10. Navigate to System > Software Update.
    The Software Update page appears.

## Software Update

Select the firmware file from your system and click Update to install new software.

Image: Choose File No file chosen    ▶ Update

11. Click Choose File, browse to the location of the firmware image you downloaded from Satcom Direct, and click Open.
12. Click Update to continue.
    The SDR uploads the file and displays its progress at the bottom of the browser window.
13. The Flash Firmware – Verify page will appear after about 30 seconds. Verify that the checksum is as shown below.
    7cab21e3e471cded3d1e2decfb04b8fc
14. If the checksum number information matches the information above, click Proceed.

## System - Upgrading SDR...

The SDR software is being upgraded now.
DO NOT POWER OFF THE SDR!
This process will take 5-7 minutes. You may need to reconnect to the WiFi network, as your device may connect to another WiFi network in the interim.

☼ Waiting for changes to be applied...

The SDR loads the firmware. During the process the status LED will be Amber. When the firmware is loaded the SDR will reboot. Wait until the SDR status light turns green again before continuing.

15. When the SDR has rebooted, log in to the SDR user interface as outlined in steps 1-3. Contact Satcom Direct for the original factory password.
16. When the SDR has rebooted. from the Status menu, click Overview.
17. Verify that the Firmware Version is SDR 1.11.0 MOD M.

NOTE: During a software downgrade, the SDR performs a factory reset and erases the configuration settings of the unit.

## C. Disposition

None.

## Section 4: Record of Accomplishment

One of the two actions are required or a combination of them both upon completion of the Service Bulletin.

- Mark or blacken out  corresponding MOD dot on the SDR Software Modification Level label.
- Complete a copy of the form below for each unit (serial number).

Email all completed Record of Accomplishment forms (one per unit) to the RMA department at Satcom Direct.

Email: RMA@satcomdirect.com

ATTENTION: Support SDR Service Bulletin

Part Identification:

Part No. 1233-F-2191-10_____ Serial No._____

Aircraft identification:

Type: _____ Serial No._____ Registration (Tail) No._____

Customer:

Company: _____ Phone No. _____

Contact Name: _____ Signature: _____

Dealer:

Company: _____ Phone No: _____

Contact Name: _____ Signature. _____