SmartSDR+ v4.0.1 Release Notes

Version	Release Date	Release Theme/Title
4.0.1	2025-10-30	Noise Mitigation, DVK, CW Auto Tune & Panadapter Enhancement

SmartSDR Basic™ and SmartSDR+™ v4.0.1 is a software and firmware release for Aurora, FLEX-8000, and FLEX-6000 series of software defined radios (SDRs), and the Maestro™. This version supersedes all previous versions of SmartSDR.

Description of SmartSDR Basic, SmartSDR+, and SmartSDR+ Early Access Feature License Tiers:

SmartSDR v4 Basic is available **free of charge** and includes all bug fixes and select minor feature enhancements for all radio models. **We strongly encourage all customers to upgrade to SmartSDR v4 Basic.**

If you are currently running SmartSDR v2 and upgrade to SmartSDR v4 Basic, you will receive all prior bug fixes and minor enhancements from previous versions. However, please note that MultiFlex—the major feature introduced in SmartSDR v3—is not included in SmartSDR v4 Basic for radios licensed for SmartSDR v2. For radios licensed for SmartSDR v1, the SmartLink feature introduced in SmartSDR v2, along with the MultiFlex feature from SmartSDR v3, are not included in SmartSDR v4 Basic.

SmartSDR+ is an **optional one-year new feature license**. When you purchase a SmartSDR+ feature license, you gain or retain access to all prior SmartSDR v2 and v3 major features, as well as all new SmartSDR v4 major features released during your one-year license period. All new SmartSDR v4 features are only available immediately for SmartSDR+ Early Access feature license radios. Radios that have a SmartSDR+ feature license will gain access to the new features ~30 days later with a subsequent software release. To get the features immediately, a SmartSDR+ Early Access license is required.

When your one-year feature license expires, you **retain all features** received during that period—**you never lose them**. To gain access to **any new features** introduced after your license period ends, simply **renew your SmartSDR+ license for an additional year.**

SmartSDR+ Early Access is an optional one-year SmartSDR+ feature license that provides all the benefits of SmartSDR+, with the added advantage of early access to new features 30 days before they are available for standard SmartSDR+ license holders by a subsequent software release. As part of the Early Access Program, participants are invited to share feedback with the software engineering and product management teams based on their experience with the preview software. This collaboration helps shape and refine future SmartSDR releases.

Important Release Information

Before upgrading, please read all sections marked as **IMPORTANT** for upgrade prerequisites and other important information.

Important Notice: Beginning with **SmartSDR v3.10.10**, the **SmartSDR hardware license** installed on your radio must be **revalidated** by connecting to the **SmartSDR License Server**. To complete this process, ensure that your radio is connected to a network with **Internet access**. Once your SmartSDR license has been successfully validated, the radio will **not need to reconnect** to the License Server unless you **purchase a new SmartSDR+ feature license**.

SmartSDR+ v4.0.1

New Features:

As noted above, radios licensed for **SmartSDR+** have new features automatically activated **30 days after** each new SmartSDR version is released. However, for the **initial release of SmartSDR v4**, the following features have been **activated immediately** for radios licensed for SmartSDR+. Radios licensed for **SmartSDR+ Early Access** will have all new features **activated immediately** upon release.

- Relative Noise Floor Scaling
- Enhanced Signal Clarity (ESC)

Feature	Description	Supported Radio Models
SMART-11431	**New DSP Noise Mitigation**: We have updated and added a variety of new noise reduction/mitigation algorithms to the Aurora, FLEX-8000 and FLEX-8000 series radios. The new noise mitigation features are designed to cater to different types of noises, environments, and setups. Multiple Noise Mitigation functions can be used simultaneously. Toggle the various noise mitigation functions on and off to taste. NRF[1] - Spectral Subtraction Filtering Algorithm NRS[1] - Spectral Subtraction with Voice Detection RNN[1] - AI Noise Reduction NRL[1,2] - NR algorithm using LMS (Least Mean Squares) ANFL[1,2] - ANF algorithm using LMS ANFT[1,2] - ANF algorithm using FFT (Fast Fourier Transform)	[1] Aurora [1] FLEX-8000s [2] FLEX-6000s
SMART-3985	**Digital Voice Keyer:** Digital Voice Keyer (DVK) allows recording, playback, and transmission of up to 12 voice recordings stored on the radio.	Aurora FLEX-8000s FLEX-6000s
SMART-10570	**Enhanced Signal Clarity (ESC):** ESC is a unique diversity reception feature that is only available on dual SCU radios. Enhanced Signal Clarity (ESC) in diversity. ESC combines signals from multiple antennas to optimize audio receive capabilities via beamforming/nullforming. Used to accentuate desired signals (constructive interference patterns) or to remove undesired signals (destructive interference patterns) to improve signal quality. This does not affect the displayed panadapter or waterfall, but metering will be affected.	AU-520(M) FLEX-8600(M) FLEX-6700 FLEX-6600(M)
SMART-9958	**Relative Noise Floor Scaling:** This feature automatically adjusts the displayed noise floor to maintain a visually consistent reference level as you operate on different bands and antennas. This feature makes it easier to compare signal strengths and visually interpret band conditions.	Aurora FLEX-8000s
SMART-11332	**CW Auto Tune:** Introducing CW Auto Tune. CW Auto Tune automatically tunes the active slice receiver to CW signals within the passband, simplifying the process of locking onto CW transmissions. There are two modes of operation: One-Shot or Intermittent Mode. • **One Shot** - Autotunes once to the highest signal on the click of the AUTOTUNE button • **Intermittent** – Continuously autotunes to the highest signal every two seconds while the AUTOTUNE button remains enabled.	Aurora FLEX-8000s FLEX-6000s

How To Use SmartSDR+ v4.0.1 Features:

DSP - Noise Mitigation Features

SmartSDR offers a variety of noise mitigation features to cater to different types of noises, environments, and setups. Multiple Noise Mitigation functions can be used simultaneously. Toggle the various noise mitigation functions on and off to taste. The user interface has been simplified to on/off buttons for ease of use.

Noise Mitigation features available in previous versions of SmartSDR are available with the SmartSDR Basic license. New Noise Mitigation features require SmartSDR+ or SmartSDR+ Early access.

In SmartSDR for Windows, Noise Mitigation features are available in the Slice's DSP drop-down menu.

In Maestro/M-Model, Noise Mitigation features are available in the Slice menu.

SmartSDR Basic

- **NR** (Noise Reduction) - Same NR as before, but the algorithm has been improved - Useful for reducing uncorrelated "white" noise.
- **NB** (Noise Blanking) - Same NB as before - Useful for reducing fast rise time noise from sparks and other pulse-type sources
- **ANF** (Automatic Notch Filter) - Same ANF as before, but the algorithm is improved - Attenuates persistent unwanted signals.
- **WNB** (Wide Noise Blanker) - Same WNB as before, but this function is **now only located in the Antenna menus**.

SmartSDR+

- **NRF** - A Spectral Subtraction Filtering Algorithm - This algorithm continuously computes the probability of speech and noise for each frequency in the passband, along with a corresponding gain to remove the possible noise. This algorithm is intended for stationary noise that does not change rapidly. Only available on 8000 Series Radios.
- **NRS** - Spectral subtraction with Voice Activity Detection. Only available on 8000 Series Radios
- **RNN** - Noise suppression using a recurrent neural network, to remove noise from speech audio. Only available on 8000 Series Radios
- **NRL** - NR algorithm using the leaky normalized LMS Algorithm. This adapts to isolate correlated signals and eliminate uncorrelated audio like noise.
- **ANFL** - ANF algorithm using the leaky normalized LMS Algorithm, which adapts to isolate uncorrelated signals and eliminate correlated audio like loud hums and tones. If no hum or loud tone is present, this algorithm can remove the desired signal. It is useful to think of this as removing the output of NRL and keeping the uncorrelated noise, which could contain the desired signal if a really loud tone or hum is present.
- **ANFT** - ANF algorithm using FFT. ANFT is intended to remove tone noise caused by leaking power supplies, transformers, or unbalanced grounding. This filter can remove up to five tones from the passband greater than or equal to -110dB.

Digital Voice Keyer (DVK)

The **Digital Voice Keyer (DVK)** enables the recording and playback of up to **12 voice messages** stored directly on the radio. DVK simplifies contesting and repetitive voice operations by allowing quick transmission of pre-recorded messages.

Accessing the DVK Menu

- **SmartSDR for Windows:**
  Click **DVK** in the lower-left corner of the application to open the **DVK Menu**.
- **Maestro and M-Model Radios:**
  Open the **Menu**, then select **DVK** to access the **DVK Menu**.

Note: Upload and download of recordings are not supported on Maestro or M-Model interfaces. To manage WAV files, connect via **SmartSDR for Windows**.

DVK Controls

- **Record / Stop:** Begins recording on the highlighted slot. Select **Stop** to end the recording. Each slot supports recordings up to **10 seconds** in duration.
- **Preview:** Plays the highlighted slot's recording without keying the transmitter.
- **Upload:** Imports a previously recorded **WAV** file into the selected slot. Supports **2-track, 32-bit float, 48 kHz** WAV files up to 10 seconds. *(SmartSDR for Windows only.)*
- **Download:** Exports the selected slot's **2-track, 32-bit float, 48 kHz** WAV file. *(SmartSDR for Windows only.)*
- **Clear:** Deletes the highlighted slot's recording.
- **Playback:** Plays and transmits the selected slot's recording.
- **Shortcuts:** Enables or disables **F1–F12** key shortcuts. When enabled, each **F-key** triggers the playback and transmission of its assigned recording. *(SmartSDR for Windows only.)*

On the **Maestro** and **M-Model** radios, DVK recordings can be assigned to **F-Key** functions for quick access during operation.

Enhanced Signal Clarity (ESC)

Enhanced Signal Clarity (ESC) leverages diversity reception to combine signals from multiple antennas, optimizing receive performance through dynamic beam forming. This feature can be used to accentuate desired signals or suppress unwanted ones, improving overall signal clarity and intelligibility.

Controls:

- On **Maestro**, ESC is enabled in the **Slice Menu** when **DIV** (diversity) mode is active.
- In **SmartSDR for Windows**, ESC is accessed from the **Slice DSP** drop-down menu when **DIV** is enabled.

Operation:

- Toggle ESC **on or off** using the **ESC** button.
- Adjust the **Phase** fader to control the phase relationship between antennas.
- Adjust the **Gain** fader to set the contribution level of each antenna.
- Use the **180°** button to instantly invert the phase relationship.

Once you find the phase "sweet spot" for the signal you are trying to enhance, then change the amount of magnitude (gain) of the combined signals to reach an enhancement maximum. This may sound a bit complicated, but once you do it a few times, it becomes second nature, and you can null form or beam steer a signal of interest easily.

Relative Noise Floor Scaling

Relative Noise Floor Scaling automatically adjusts the displayed noise floor to maintain a visually consistent reference level as you navigate the radio and change bands. This feature makes it easier to compare signal strengths and visually interpret band conditions.

To enable **Relative Noise Floor Scaling**, open the **Display** menu and set **Floor** to **On**.
Use the **Floor** slider to position where the noise floor appears within the **Panadapter** view.

When Floor is set to On, the Panadapter display is vertically locked, ensuring the noise floor remains fixed at the chosen reference point regardless of band or frequency changes and stays fixed regardless of the noise floor level.

CW Auto Tune

CW Auto Tune automatically tunes the active slice receiver to CW signals within the passband, simplifying the process of locking onto CW transmissions.

CW Auto Tune controls are available in the **Active Slice panel** in SmartSDR and in the **Slice Menu** on Maestro.

Two operating modes are provided:

- **One Shot** – Tunes once to the strongest CW signal in the passband when the **AUTOTUNE** button is clicked.
- **Intermittent** – Continuously tunes to the strongest CW signal every two seconds while the **AUTOTUNE** button remains enabled.

SmartSDR Basic v4.0.1

Updates:

Feature	Description	Supported Radio Models
SMART-10956	Implemented SmartSDR+ Subscription in support of future v4.0 deployments.	Aurora FLEX-8000s FLEX-6000s
SMART-11431	**Updated DSP Noise** Mitigation - We have updated a variety of existing noise reduction/mitigation algorithms to the Aurora, FLEX-8000 and FLEX-68000 series radios. NR - The NR algorithm has been improved NB - Same as the previous NB ANF - The ANF algorithm has been improved WNB - Same as the previous WNB, controls located in the Antenna menu	Aurora FLEX-8000s FLEX-6000s

Bug Fix Highlights:

Please refer to the SmartSDR v4 Changelog for a complete listing of software and firmware changes.

Defect	Description
SMART-11309	Wide Noise Blanker (WNB) is now only accessible in the Antenna menu rather than in addition to the Slice DSP menu.
SMART-11597	Improved error logging when Tune Power is set higher than RF Power
SMART-11545	The Maestro Analog meter scale now matches other RF Power Out meters with 40, 80, 100, and 120 markings.
SMART-8466	SmartSDR now honors the locale settings and displays the appropriate date format.
SMART-11198	Fixed an issue where the PGXL Amp Temp was displayed in the wrong color
SMART-9596	Fixed an issue where the Network menu was not displayed correctly on some computers
SMART-11589	Fixed an issue where Diversity Slice did not persist configuration settings
SMART-11130	Fixed a false 10 MHz detection issue, which could result in clocking issues and a Slice being off frequency. *Note that External 10MHz will no longer be a source for the Auto option. When using an External 10 MHz as your clock reference, you will need to manually select the External 10 MHz option. The Clock Reference setting is now persisted over power cycles.*
SMART-11424	Fixed an issue where APF was not cloned properly with DIV enabled
SMART-11551	Fixed an issue where VOX could briefly trigger transmit on the wrong Slice when switching TX Slices
SMART-11556	Fixed an issue where FM Squelch would suddenly stop working
SMART-11505	Fixed APD API Status messages not changing between Active and Cal
SMART-11358	The ATU button no longer stays highlighted in the event of an ATU Tune failure.
SMART-11704	Fixed a DAX Unhandled Exception (UHE): Object not set to an instance of an object upon closing the application.
SMART-11735	Fixed an issue where the IQ Stream did not terminate after client disconnection
SMART-9103	The SmartLink Session Expired message is now worded more clearly.
SMART-11543	Fixed an issue where the peak hold meter segment would lag behind the peak meter
SMART-11734	Added percentage symbol to Max Power menu items for clarity
SMART-10948	Fixed Unhandled Error: Cannot animate the 'Text' property on a System.Windows.Controls.TextBlock
SMART-11720	Fixed the disconnect command to prevent a crash on invalid use
SMART-11773	Fixed a DotNetZip vulnerability
SMART-9084	Maestro changed the "Switch Radio" button to "Choose Radio" to be consistent with SmartSDR for Windows.
SMART-9661	Frequency range limits are now better handled by the client.
SMART-11880	ATU: 2-tone Tune option doesn't revert to single tone for ATU tune
SMART-11918	DAX IQ: Fixed the older version of the stream create command, causing incorrect byte orientation
SMART-11364	Fixed RTTY showing no RF carrier when using the TUNE feature.
SMART-9529	Tune Button no longer remains blue after Tune is deactivated due to a frequency change.
SMART-11507	APD does not recalibrate when going from TUNE to MOX at different power levels

SmartSDR v4 Best Practices

Best Practices for Installing SmartSDR

A*lways* back up your Global, TX (transmit), and Microphone Profiles. For detailed instructions on exporting your profiles to a file on your PC, refer to the SmartSDR for Windows Software User's Guide. It is recommended to export all profiles before upgrading to v4.0.1. Maintaining a good set of profile exports as backups is always a best practice. Moving back and forth between different versions of SmartSDR may result in data loss unless you have a backup (export) of your Profiles.

Ensure your Windows operating system is up to date before installing SmartSDR for Windows. The proper operation of SmartSDR for Windows and its associated drivers relies on having an up-to-date and supported Windows operating system, including the root security certificates. It is strongly recommended that you run Windows Update and install all mandatory and optional updates before installing SmartSDR for Windows.

Power cycle the radio before installing a new version of SmartSDR for Windows. To ensure a seamless upgrade, it is recommended that you power cycle your radio *before* installing the SmartSDR for Windows software on your PC and updating the radio firmware.

"Cold Boot" the radio after upgrading the radio firmware. Using the power button, shut down the radio, then disconnect it from DC power for approximately 30 seconds. This procedure "*cold boots"* the radio and helps ensure proper operation. Once DC power is restored to the radio, wait 2 minutes to ensure all internal processors have booted up completely before booting your radio.

Managing SmartSDR installed on other devices. If using Maestro or other PCs running SmartSDR for Windows, update all devices at the same time to ensure a consistent operating experience and to avoid radio firmware upgrade/downgrade delays.

Always perform a Factory Reset of your Radio when Downgrading the Radio Firmware: In general, downgrading to a previous version of SmartSDR is not recommended. The database in the Aurora, FLEX-8000 and FLEX-6000 is NOT backward compatible. This means if you downgrade the firmware in your radio, you *must perform a Factory Reset* to ensure the internal database is consistent with the version of SmartSDR firmware that is running on the radio.

The procedure for performing a Radio Cold Boot and Factory Reset is described below.

In addition to performing a Factory Reset on the radio, you mustn't import a database using a profile export that is *greater* than the version you are using with your radio. The profile export file name contains the version of SmartSDR that was running when the export was saved to your PC for easy version identification.

Best Practices for installing SmartSDR for an "M" Model or Maestro

The following best practices are applicable only when installing a new version of SmartSDR on a Maestro.

Both the Maestro and "M' Model radios must have network access that allows connectivity to the Internet to download the new SmartSDR software.

Ensure your Maestro has a reliable power source. Make certain the supplied AC adapter is used to power the unit. This prevents the Maestro from losing power during an update.

Ensure your Maestro has a reliable network connection. The Maestro and radio firmware are upgraded entirely through the network connection. When upgrading a Maestro, a wired Ethernet connection is recommended; wired Ethernet connections are faster and more reliable than Wi-Fi.

Uninstalling Previous Versions of SmartSDR for Windows – Is It Necessary?

In general, the answer is no, but there are considerations when more than one version of SmartSDR is maintained on your system.

Currently, every version of SmartSDR for Windows is installed independently of each other, permitting the use of previous versions and supporting convenient version switching of both software and radio firmware as long as there are no software or database dependencies that prevent backward compatibility.

SmartSDR for Windows Shared Components: The SmartSDR software employs shared components used by all versions of the software. When previous versions of SmartSDR for Windows are uninstalled, it may result in the removal of one or more of these shared components, which may make newer versions inoperable. ***Therefore, if you desire to uninstall an older version of SmartSDR, we highly recommend uninstalling all previous versions of SmartSDR before installing a new version of SmartSDR for Windows.***

Important: Removing the DAX and FlexVSP drivers **is not recommended** unless explicitly instructed in the Release Notes or by FlexRadio Support.

How to Perform a Radio Cold Boot and Factory Reset

NOTE: Before starting, shut down all programs that may interface with the radio, such as loggers, digital mode programs, and NodeRed devices.

NOTE: If you have anything connected to the REM ON connector on the back of the radio, please remove it before running the reset procedure. The REM ON device can be reconnected once the reset procedure is finished.

Before you get started, please note the "wait times" in the steps listed below. These are important to ensure the radio resets properly.

- Power off the radio by pressing and releasing the power button. Allow it to completely power down before continuing by waiting for the power LED to turn off (or amber if an FLEX-6000 GPSDO is installed). If pressing and releasing the power button does not shut down the radio, **press and hold** the power button until the radio shuts down. If this does not work, turn off the DC power supply to shut down the radio.
- Once the radio is powered off, **wait for 2 minutes** to allow all processors to shut down completely.
- Remove the power cable from the radio for **at least 30 seconds** and then reconnect it. It is important to remove the power cable from the radio and not just turn off the power supply.
- After reconnecting the DC power cable, turn the DC power ON and **wait for 2 minutes** to allow the internal PSoC processor to boot up completely before continuing.

For FLEX-6700 and FLEX-6500:

- Press and hold the **OK** button *while simultaneously pressing and releasing* the **Power button**.
- Release the **OK** button once the power LED turns white and allow the radio to continue booting normally. When the Power LED is solid green, the radio has completed the boot-up process.

For Aurora, FLEX-8x00(M), FLEX-6x00(M), and FLEX-6300:

- Press and hold the **Power button** for approximately 5 seconds until the Power button LED turns **white**. *After the power button turns white, release the **Power button*** and allow the radio to continue booting, indicated by a flashing green power button LED. When the Power button LED is solid green, the radio has finished booting.

Depending on several factors, it may take a few minutes for the radio to finish booting, so please be patient and allow it to boot up completely.

Known Issues:

Reverting to previous versions of SmartSDR is not recommended. **However, if you revert from any version of SmartSDR to a previous version, you must perform a factory reset of your radio**. Database incompatibilities may result in operational anomalies when reverting to previous versions of SmartSDR. It is recommended that a factory reset be performed after downgrading to ensure the database schema is 100% compatible with the version being used.

SmartSignal Beta

Important: The following caveats apply to the beta version of SmartSignal.

- **APD Generation:** The Automatic Adaptive Pre-Distortion is generated from the transmitting slice. In a multi-Slice scenario, this can become more complicated, but typically follows the Local PTT TX slice.
- **Internal Sampler Requirement:** Currently, SmartSignal can only be utilized alongside the internal sampler in the FLEX-8000.
- **Best Performance with Voice Signals:** The feature achieves the highest success rate when employed with voice transmissions.
- **Challenges with 6M Band:** Generating an equalizer on the 6-meter band can be more complicated and less reliable.
- **Challenges with AM Signals:** Similar to the 6M band, creating an equalizer with AM signals is also more challenging**.**
- **Limited Performance in multiFLEX Scenarios:** The feature exhibits quirks in multiFLEX scenarios and may not deliver the desired results.
- **Occasional APD Stuck in "Calibrating Mode"**: There are instances where the SmartSignal may become stuck in "calibrating mode." This can happen if it cannot identify a better solution than a previously stored one. If this occurs, rebooting the radio may be necessary to resolve the issue and enable SmartSignal to reattempt the calibration.

End of Windows 10 Support. Effective October 14, 2025, Microsoft will officially end support for the Windows 10 operating system. As a result, **FlexRadio will discontinue official software and technical support for Windows 10 after this date**. Customers who continue to use Windows 10 may experience compatibility, performance, or security issues. Our Support Team will no longer provide troubleshooting or technical assistance related to Windows issues for systems running Windows 10, and any software bugs specific to Windows 10 will not be addressed.

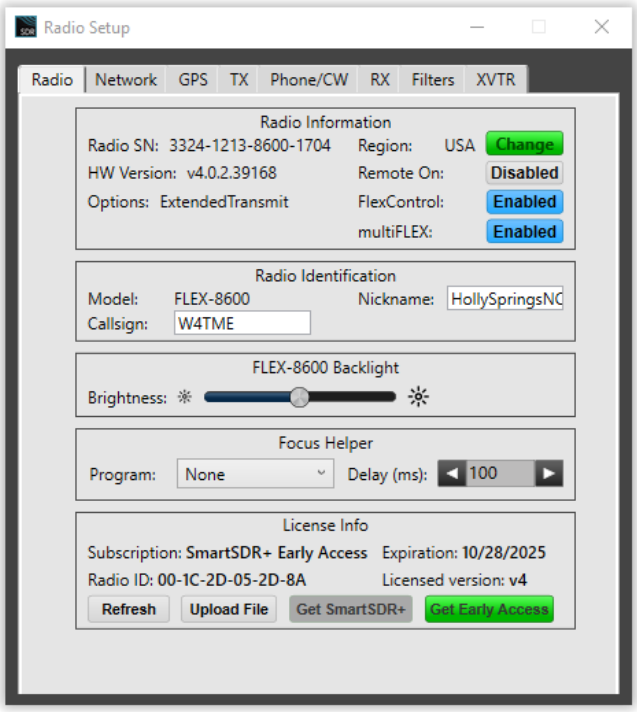
Purchasing SmartSDR+ Feature Licenses:

Starting with SmartSDR v4.0, you can choose to purchase a one-year SmartSDR+ or SmartSDR+ Early Release feature license to access the new SmartSDR v4 features. For more information about SmartSDR+ or the SmartSDR+ Early Release licenses, please see page 1 of this document.

Use the following procedures to purchase a feature license for your radio. Once purchased, the SmartSDR+ or the SmartSDR+ Early Release feature license is installed on the radio used to purchase the feature license. If you own multiple Aurora, FLEX-8000 or FLEX-6000 radios, each radio will need its own feature license.

SmartSDR for Windows

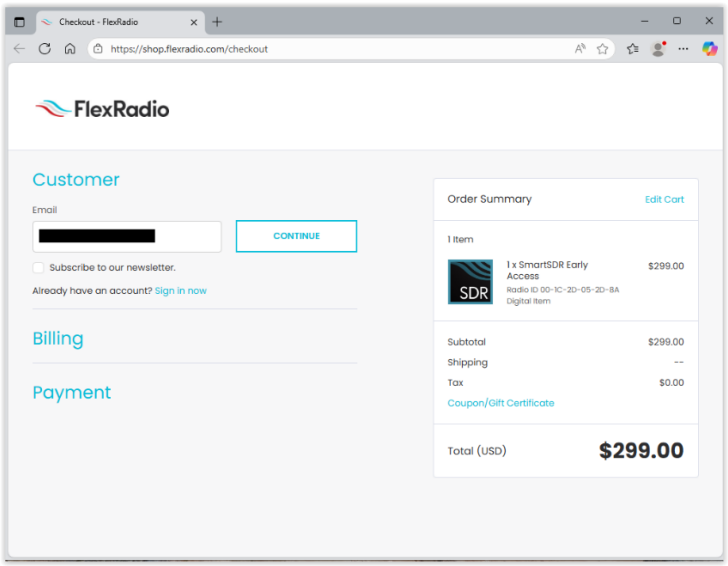
1. **Open SmartSDR v4 for Windows** on your PC.
2. **Connect to the radio** for which you want to install the feature license. *This step is mandatory before proceeding.*
3. From the **menu bar**, select the **Settings → Radio Setup → Radio** tab.
   The **Radio Setup** window will appear.



4. In the **License Information** area:
   - If the **Get SmartSDR+** or **Get Early Access** buttons are *grayed out*, the radio already has the corresponding feature license installed. The option(s) in green are available for purchase.

     (Note: In this example, even though the radio has a valid SmartSDR+ Early Access feature license that expires on 10/28/2025, the "Get Early Access" button was green because it is within 30 days of the feature license expiring.)
   - To **purchase a feature license**, click the appropriate button:
     - **Get SmartSDR+** – for a standard SmartSDR+ license.
     - **Get Early Access** – for the SmartSDR+ Early Access option.

5. The **Purchase** web page will appear.
    - Enter your **email address**.
    - Click **Continue**.
    (Note: the email address in the example image is redacted.)



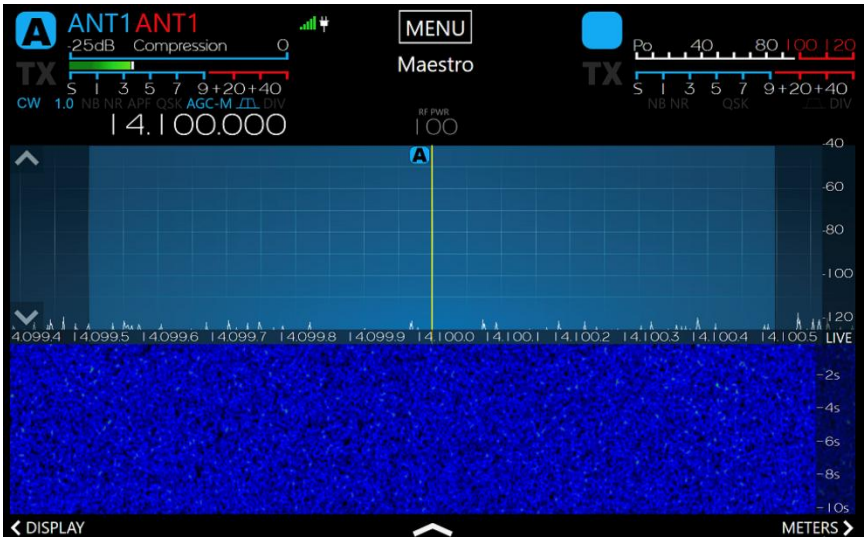
6. The **Billing** web page will appear.
    - Enter your **billing information**.
    - Click **Continue** when finished.

7. The **Payment** web page will appear.
    - Enter your **payment method**.
    - For the *Require Signature at Delivery* option, select **No**.
    - Click **Place Order** to complete your purchase.

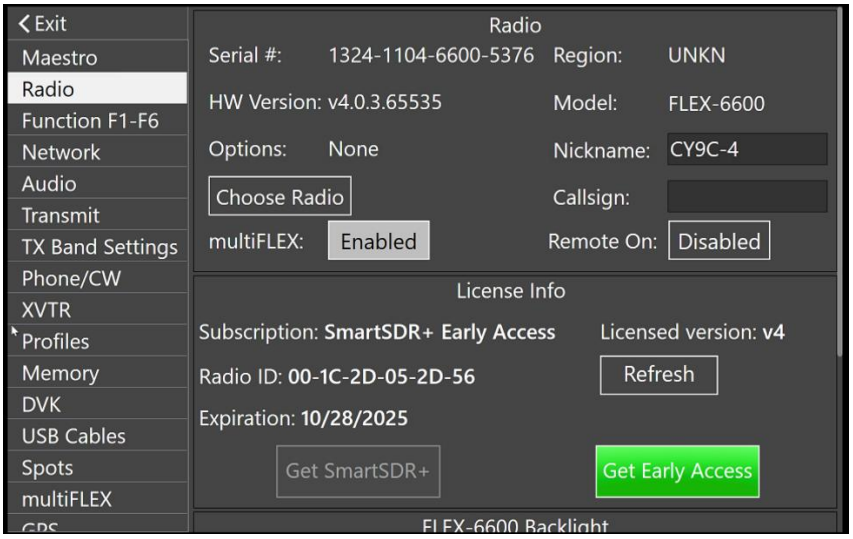
8. Once the license has been purchased, install the newly purchased license by clicking on the Refresh button in the **License Info** section of the **Radio Setup -> Radio** tab.

SmartSDR for Maestro and M Model Radios

1. From the main screen, tap the **MENU** button located at the top center of the screen.

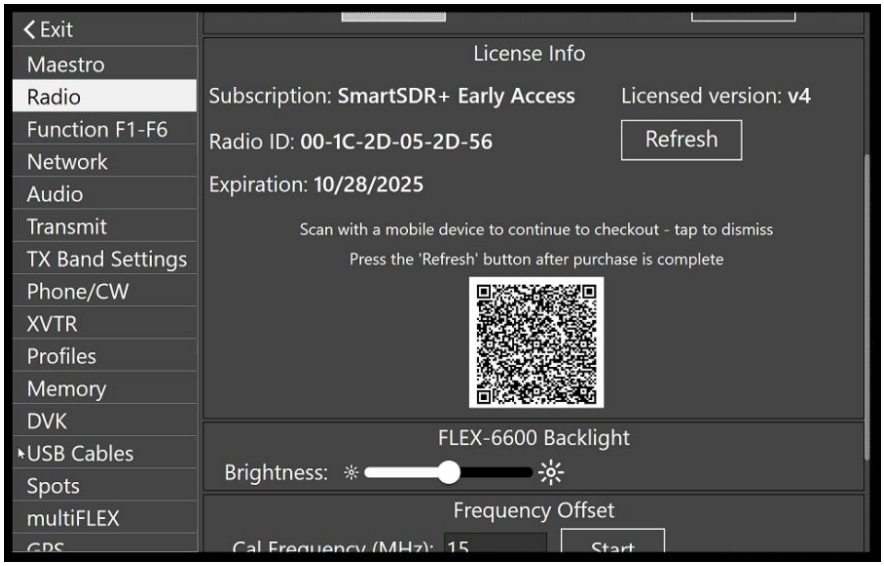


2. Select the **Radio** submenu located on the left-hand side bar, as shown below.

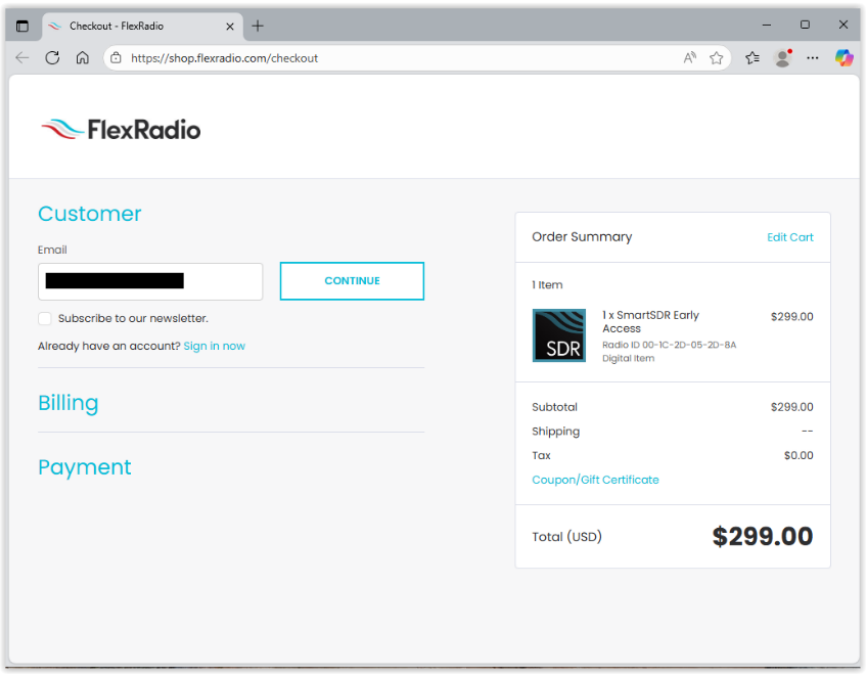


3. In the **License Information** area:
    - If the **Get SmartSDR+** or **Get Early Access** buttons are *grayed out*, the radio already has the corresponding feature license installed. The option(s) in green are available for purchase.
    - To **purchase a feature license**, click the appropriate button:
        - **Get SmartSDR+** – for a standard SmartSDR+ license.
        - **Get Early Access** – for the SmartSDR+ Early Access option.

      (In this example, "Get Early Access" was selected.)
4. The **Purchase** QR Code screen will appear.
    - Using a Smartphone or tablet, scan the QR Code. This presents a link (URL) that must be opened in a web browser to access the web page used to purchase the SmartSDR feature license, as shown below.



5. The **Purchase** web page will appear.
    - Enter your **email address**.
    - Click **Continue**.
    (Note: the email address in the example image is redacted.)



6. The **Billing** web page will appear.
    - Enter your **billing information**.
    - Click **Continue** when finished.

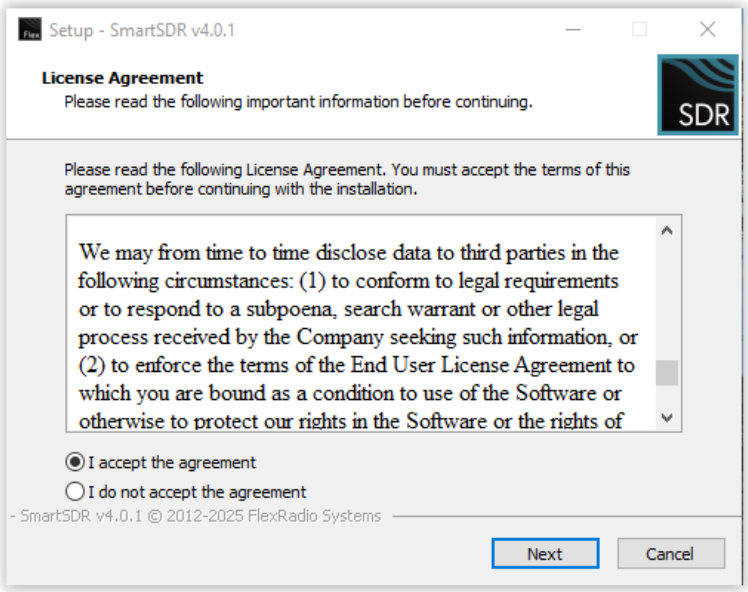
7. The **Payment** web page will appear.
    - Enter your **payment method**.
    - For the *Require Signature at Delivery* option, select **No**.
    - Click **Place Order** to complete your purchase.

8. Once the license has been purchased, install the newly purchased license by clicking on the **Refresh** button in the **License Info** section of the **Radio** submenu screen.

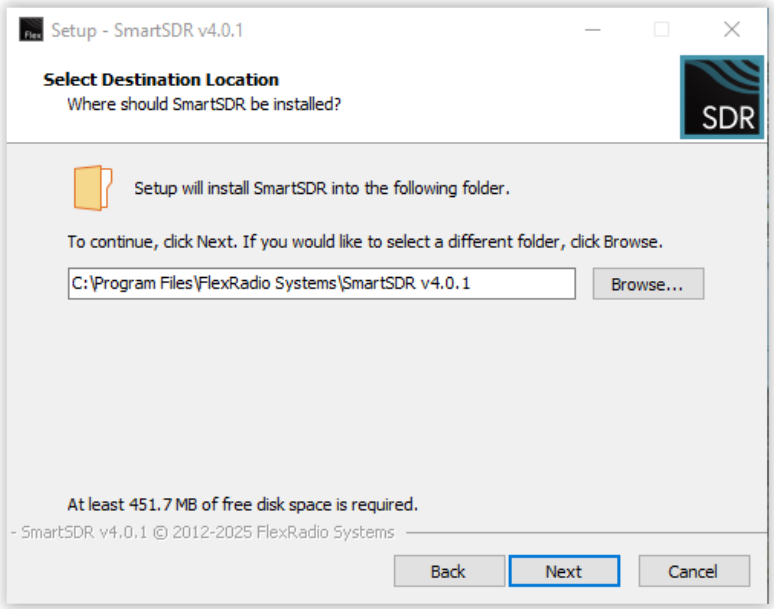
Installing SmartSDR and Updating the Radio Firmware:

Installing SmartSDR for Windows on a PC

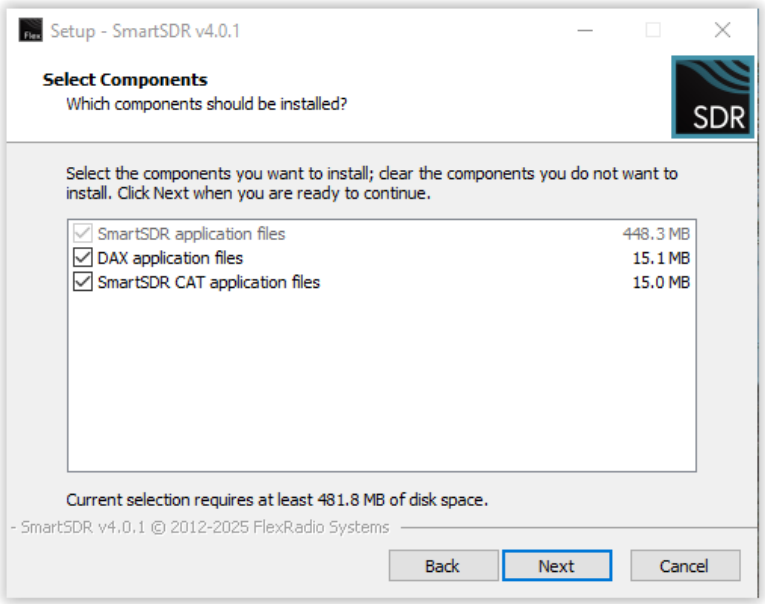
1. **Download SmartSDR for Windows**
   - Open a web browser and navigate to the **FlexRadio website**.
   - Locate the latest version of **SmartSDR for Windows** on the *Newest Releases* webpage.
   - Download the installer file to your PC.
2. **Start the Installer**
   - Double-click the downloaded **SmartSDR Installer** program to begin the installation.
   - If the **User Account Control** prompt appears asking, *"Do you want to allow this app to make changes to your device?"*, confirm that the app is **SmartSDR Setup** and click **Yes**.
3. **Accept the License Agreement**
   - When the **License Agreement** screen appears, select **I accept the agreement**, then click **Next**.



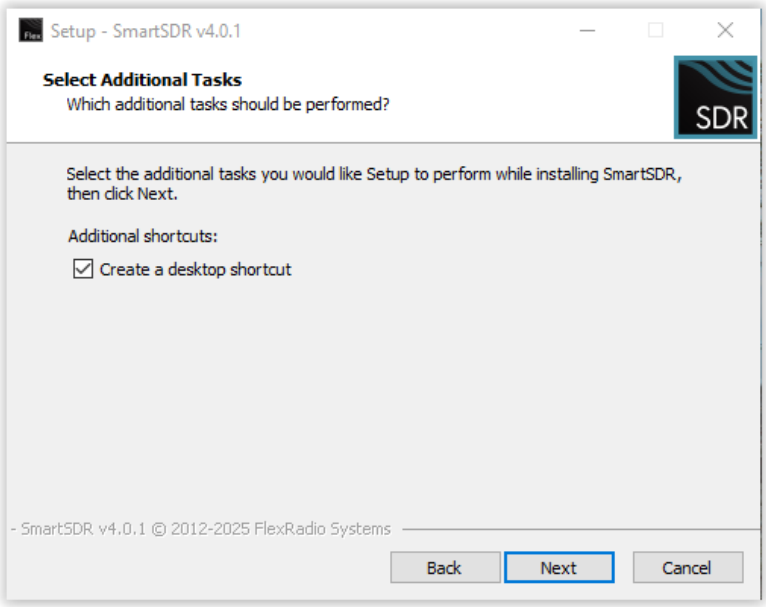
4. **Select Destination Location**
   - On the **Select Destination Location** screen, keep the **default installation path**.
   - Click **Next** to continue.



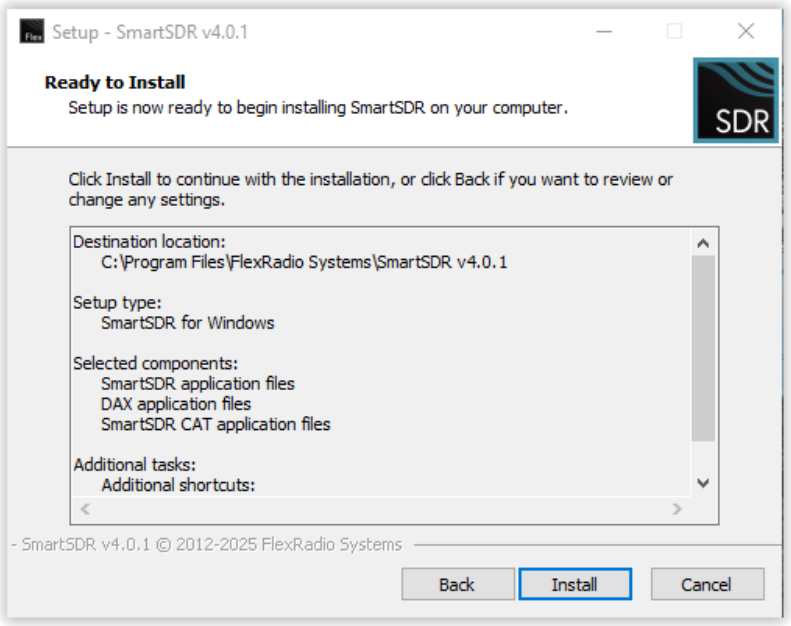
5. **Select Components**
    - On the **Select Components** screen, keep the **default options** selected.
    - This ensures that the latest versions of **DAX** and the **FlexVSP driver** are installed.
    - Click **Next** to continue.



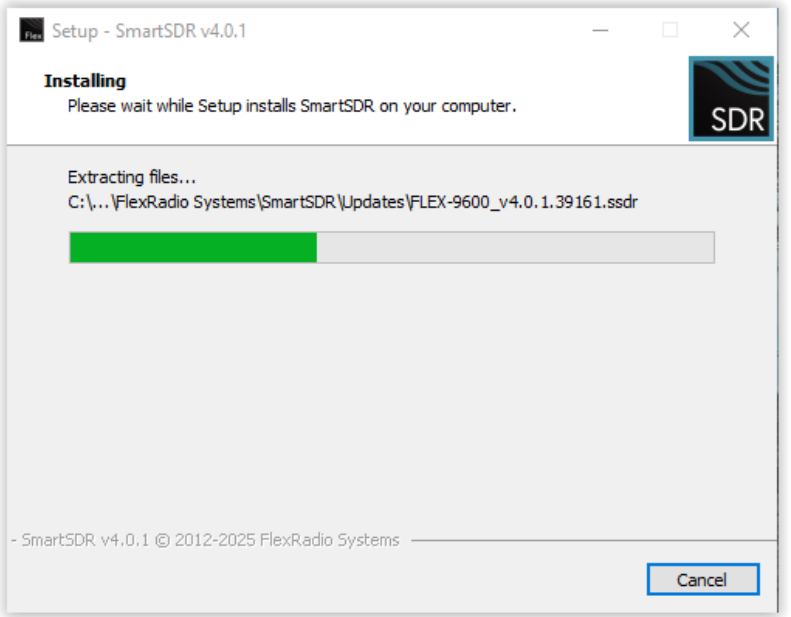
6. **Select Additional Tasks**
    - On the **Select Additional Tasks** screen, leave **Create a desktop shortcut** checked.
    - Click **Next** to continue.



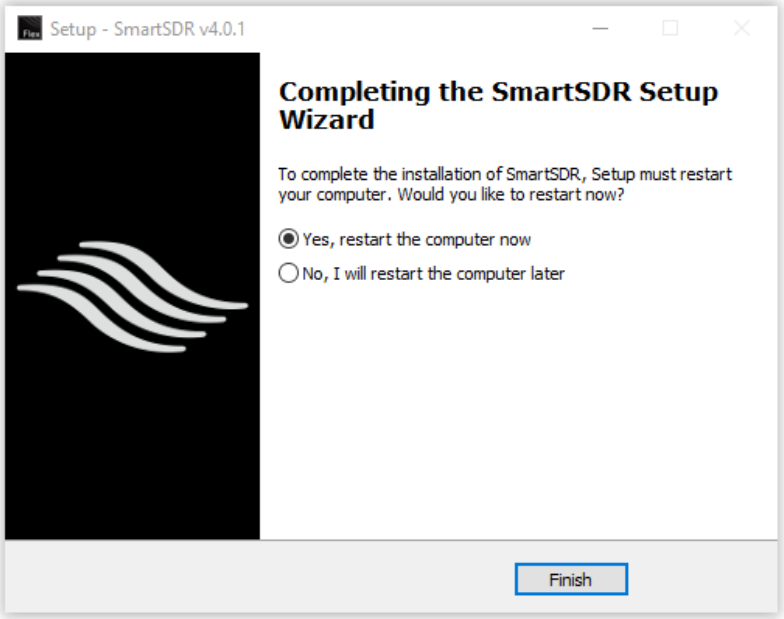
7. **Ready to Install**
    - Review your selections, then click **Install** to begin installation.



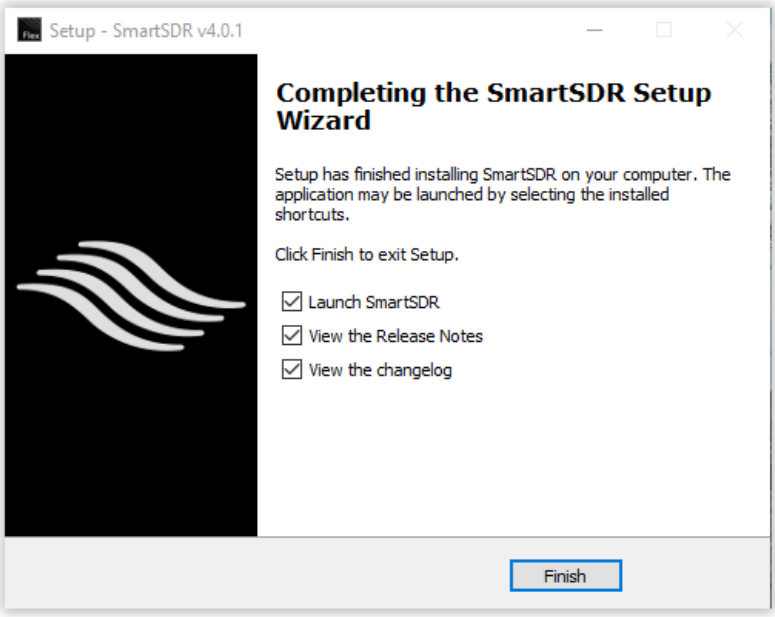
8. **Installation Progress**
    - The **Install** screen will display progress.
    - During this process, you may briefly see Windows Command Prompt windows appear while drivers are being installed.



9. **Restart Your Computer (if required)**
    - When installation finishes, if new drivers were installed, you will be prompted to restart your PC.
    - Leave **Yes, restart the computer** selected, and click **Finish**.
    - The PC will reboot after the installer closes.



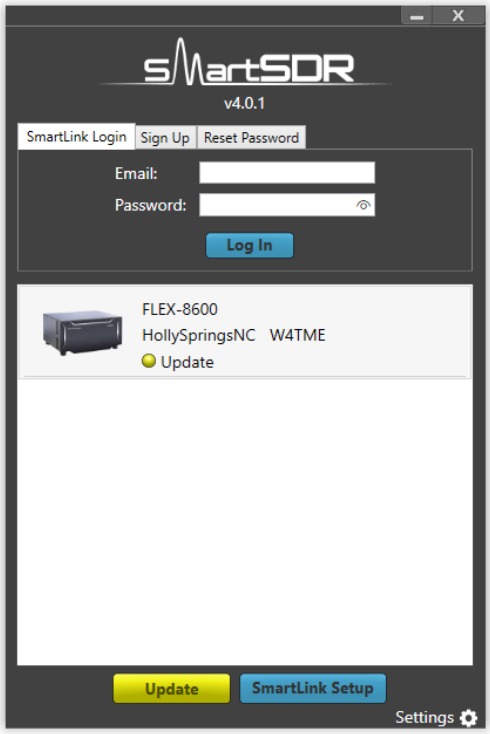
10. **Complete the Installation (no restart required)**
    - If no drivers were installed or updated, the **Completing the SmartSDR Setup Wizard** screen will appear.
    - Leave all options checked.
    - It is recommended to review the **Release Notes** and **Changelog** for information about new features and bug fixes.
    - Click **Finish** to complete setup.



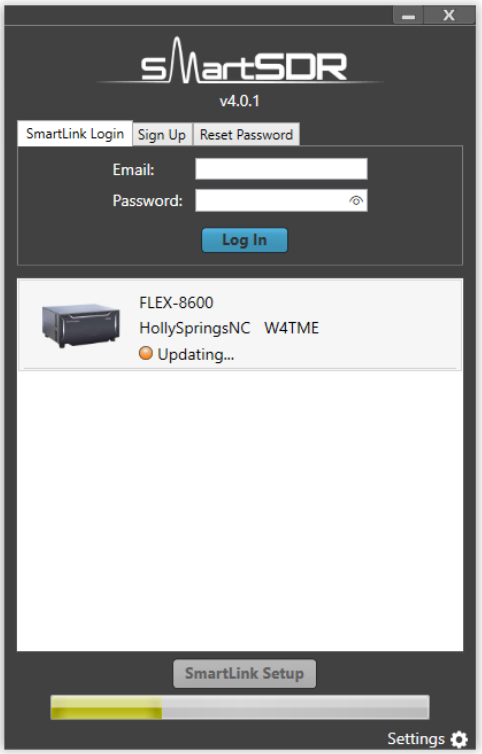
Updating the Radio Firmware

Once SmartSDR for Windows is installed, follow these steps to update your radio's firmware:

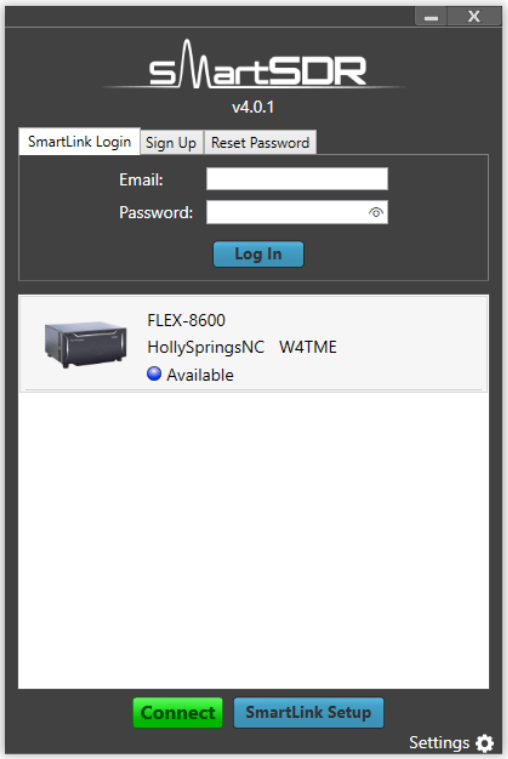
1. Launch **SmartSDR for Windows**.
2. In the **Radio Chooser** screen, highlight the desired radio showing the **Update** status indicator.



3. Click **Update** to begin the firmware update process.
    - The radio status will change to Updating…, and a progress indicator bar will be displayed.
    - The radio's **power button LED** will turn **purple** while the firmware update is in progress.



4. When the update completes, the radio will **automatically reboot**.
5. After rebooting, return to the **Radio Chooser** screen.
    - Highlight the radio with a status of **Available**, and click **Connect** to begin operation.



Documentation:

The following documentation and how-to guides for SmartSDR are available as a convenient download from the FlexRadio website.

- SmartSDR v4 Changelog
- SmartSDR for Windows Software User's Guide
- SmartSDR CAT User Guide
- FLEX-8000 Hardware Reference Manual
- FLEX-6400M and FLEX-6600M User's Guide
- FLEX-6000 Signature Series Hardware Reference Manual
- FLEX-6400 and FLEX-6600 Hardware Reference Manual
- SmartLink for SmartSDR Quick Start Guide
- USB Cable Interface Guide

Technical Support:

If you encounter any issues installing or operating SmartSDR for Windows with your FlexRadio Signature Series software defined radio, please use our online Community to search for information about SmartSDR and the Aurora, FLEX-8000 and FLEX-6000. Refer to the Community Message Board for assistance using the Community.

If you are unable to find an existing answer to your issue via the Community, please contact FlexRadio Technical Support by opening a HelpDesk support ticket online.

Refer to the HelpDesk article How to Submit a Request for Technical Support for details on how to submit a HelpDesk support ticket.

Hours of Operation: Our Technical Support engineers are available Monday through Friday from 7:00 AM to 4:00 PM Central Time. If you open a HelpDesk ticket after business hours, on a holiday, or weekend, we will respond to your request for assistance during regular business hours in the order your HelpDesk ticket was received.

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