

CC SSTV RX/TX Plugin User Manual

Receive, transmit, save and reply with SSTV pictures in HamSphere

For HamSphere operators

Quick workflow: Receive image, load TX image, double-click to add reply text, drag text into position, release to place, then transmit.

Introduction

The CC SSTV RX/TX plugin allows HamSphere operators to receive and transmit SSTV pictures directly inside HamSphere. SSTV stands for Slow Scan Television and is used to send images over radio using audio tones.

The plugin is designed to be simple, practical and close to the way SSTV is used on real radio.

What you can do

- Receive SSTV pictures.
- Transmit SSTV pictures.
- Use Martin M1, Scottie S1, Robot 36 and Robot 72.
- Automatically detect incoming SSTV mode with Auto VIS.
- Load an image for transmission.
- Save received images.
- Add quick reply text on top of a TX image.
- Use optional PTT control during transmission.
- Adjust TX modulation level.

Main Screen Overview

The plugin has two main areas: the image area on the left and the control panel on the right. The image area can show either the received image or the image prepared for transmission.

Image selector

At the bottom of the image area there are two small buttons: RX IMAGE and TX IMAGE. Use these buttons to switch between the received picture and the picture you want to transmit.

Supported SSTV Modes

The plugin supports these SSTV modes:

- Martin M1
- Scottie S1
- Robot 36
- Robot 72

Martin M1 and Scottie S1 are commonly used for good quality pictures. Robot 36 is faster and is often used when a shorter transmission time is preferred.

Selecting an SSTV Mode

1. Click Martin M1, Scottie S1, Robot 36 or Robot 72.
2. The selected mode is shown in the status line.
3. You cannot change mode while transmitting.

If Auto VIS is enabled and the plugin detects a valid incoming VIS code, the mode is selected automatically.

Receiving an SSTV Picture Manually

1. Select the SSTV mode you expect to receive.
2. Click Start RX.
3. Make sure the other station is transmitting on the same frequency.
4. Wait while the picture is decoded line by line.
5. When reception is complete, the image remains visible in the RX image window.

To stop receiving, click Start RX again.

Using Auto VIS

Auto VIS allows the plugin to listen for the SSTV VIS signal and automatically select the correct mode.

1. Click AUTO VIS.
2. The plugin listens for an incoming SSTV signal.
3. When a valid VIS code is detected, the correct mode is selected.
4. Reception starts automatically.

Auto VIS is useful when you do not know which SSTV mode the other station is using. To turn Auto VIS off, click AUTO VIS again.

Saving a Received Image

1. Make sure you are viewing RX IMAGE.
2. Click Save Image.
3. Choose a location and file name.
4. The image is saved as a PNG file.

If no image has been received, the plugin will show that there is nothing to save.

Clearing the RX Image

1. Switch to RX IMAGE.
2. Click Clear Image.

This clears the received picture area and prepares the RX window for a new picture.

Loading an Image for Transmission

To transmit an image, you first need to load it into the TX window.

1. Click Load Image.
2. Select an image file from your computer.
3. Supported image formats include PNG, JPG, JPEG and BMP.
4. The image is resized to the correct SSTV size automatically.
5. The image appears in the TX IMAGE window.

Recommended image size is 320 x 256 pixels, but the plugin will scale other image sizes automatically.

Viewing the TX Image

After loading an image, click TX IMAGE at the bottom of the image area. This shows the image that will be transmitted. Always check the TX image before transmitting.

Transmitting an SSTV Image

1. Load an image using Load Image.
2. Click TX IMAGE to check it.
3. Select the SSTV mode you want to use.
4. Adjust the modulation level if needed.
5. Click TX.

The plugin builds the SSTV transmission table and then begins transmitting the image. The status line shows the selected transmit mode. To stop transmission, click TX again or use Abort.

PTT Control

The plugin has an optional PTT button. When PTT is enabled, the plugin can key the transmitter automatically during SSTV transmission.

1. Enable PTT in the plugin.
2. Load a TX image.
3. Select a mode.
4. Click TX.

When transmission starts, PTT is activated. When transmission stops, PTT is released. If you prefer to control PTT manually, leave the PTT option off.

Modulation Level

The MOD control adjusts the transmit modulation level. Use this control to avoid overdriving the SSTV signal.

A good SSTV signal should be strong enough to decode but not distorted. If other operators report distorted SSTV audio, reduce the modulation level slightly.

Audio Codec and Best Results

The SSTV plugin works with the default HamSphere audio codec, but there are some limitations because the default Speex codec is made for speech and not for digital or visual signals.

- Martin M1 and Scottie S1 work with the default audio codec, but images may appear slightly distorted.
- Robot 36 and Robot 72 can be difficult to use through the default audio codec.
- For best SSTV results, we recommend using the CODEC SELECTOR plugin, available from the HamSphere Web Shop.
- CODEC OFF requires a 128 kbit stream for both RX and TX.

CODEC SELECTOR plugin: https://shop.hamsphere.com/product_info.php?products_id=40664

Quick Reply Text Function

The Quick Reply Text function lets you write text directly on top of a loaded TX image before transmitting. This is useful when replying to another SSTV station.

Example: NA1SS de SM7NHC

This lets the other station immediately see that the picture is a reply to them.

Adding Text to a TX Image

1. Load an image using Load Image.
2. Click TX IMAGE.
3. Double-click on the image where you want the text to appear.
4. A text window opens.
5. Enter the text you want to add.
6. Select font size.
7. Select text color.
8. Choose whether to use bold text.
9. Choose whether to use a black outline.
10. Click OK.

After clicking OK, the text appears on the TX image with a frame around it.

Moving the Text Before Placing It

After entering the text and clicking OK, the text is not yet permanently written into the image. A frame appears around the text.

1. Click and hold the framed text.
2. Drag it to the desired position.
3. Release the mouse button.

When you release the mouse button, the text is permanently placed onto the TX image. This allows you to position the text exactly where you want it before transmission.

Text Colors

The text dialog allows you to choose common colors such as:

- Yellow
- White
- Red
- Green
- Blue
- Black

Yellow or white text with black outline is often easiest to read on SSTV pictures.

Text Size

Small text may be difficult to read after SSTV transmission, especially if the signal is noisy.

Recommended sizes

- 18 to 22 for short callsign replies.
- 22 to 30 for stronger visible text.
- Larger sizes for titles or very short messages.

Avoid making the text too large if it covers important parts of the picture.

Black Outline

The black outline option makes the text easier to read on bright or mixed backgrounds. For most SSTV pictures, it is recommended to keep black outline enabled. This gives the text better contrast and improves readability after transmission.

Clearing Text from a TX Image

If you are viewing TX IMAGE and click Clear Image, the plugin restores the loaded TX image without the added text.

1. Click TX IMAGE.
2. Click Clear Image.

The original loaded image is restored. This does not clear the RX image while you are viewing TX IMAGE.

Difference Between RX Clear and TX Clear

Current view	Button	Result
RX IMAGE	Clear Image	Clears the received picture.
TX IMAGE	Clear Image	Removes added text and restores the original loaded TX image.

This makes it easy to clean up either the received image or the transmit image without affecting the wrong window.

Recommended Quick Reply Workflow

1. Receive an SSTV picture from another station.
2. Save it if desired.
3. Load the received or prepared image into the TX window.
4. Click TX IMAGE.
5. Double-click the image.
6. Type a reply such as: NA1SS de SM7NHC.
7. Select a clear color and size.
8. Click OK.
9. Drag the framed text into position.

10. Release the mouse button to place the text.
11. Select the desired SSTV mode.
12. Click TX.

This creates a fast and personal SSTV reply.

Abort Button

The Abort button stops current activity.

- Stop receiving.
- Stop transmitting.
- Cancel Auto VIS.
- Return the plugin to a safe idle state.

Practical SSTV Tips

- Use a clear picture with good contrast.
- Avoid very small text.
- Use yellow or white text with black outline for readability.
- Keep the frequency clear before transmitting.
- Make sure you use the same SSTV mode as the other station expects.
- Use Auto VIS when you are not sure which mode is being sent.
- Do not overdrive the modulation level.
- Let the full transmission finish before changing frequency or mode.

Troubleshooting

I do not receive any picture

Check that:

- You are on the correct frequency.
- The other station is transmitting SSTV.
- You selected the correct mode.
- Auto VIS is enabled if you do not know the mode.
- Receive audio is present in HamSphere.

The picture is slanted or unstable

This can happen if the signal is weak, noisy, or if the wrong mode is selected. Try using Auto VIS, selecting the correct mode manually, asking the other station to retransmit, or improving signal strength.

The transmitted picture is distorted

Try lowering the modulation level. Overdriven SSTV audio can make the picture difficult to decode.

I cannot transmit

Check that:

- A TX image has been loaded.
- You are not currently receiving.
- PTT is enabled if you want automatic PTT.
- HamSphere is ready to transmit.

I added text but want to remove it

Switch to TX IMAGE and click Clear Image. The plugin restores the clean loaded TX image.

The text is hard to read

Try increasing the font size, using yellow or white text, enabling black outline, or moving the text to a darker or less detailed part of the image.

Good Operating Practice

SSTV is a visual mode, but it still follows normal radio courtesy.

Before transmitting:

- Make sure the frequency is clear.
- Avoid interrupting an ongoing SSTV exchange.
- Keep replies short and readable.
- Use callsigns clearly.
- Allow time for the other station to receive and respond.

Good reply text examples:

- NA1SS de SM7NHC
- TNX NA1SS de SM7NHC

Summary

The CC SSTV RX/TX plugin gives HamSphere operators a practical way to receive, prepare and transmit SSTV images.

The Quick Reply Text function makes it easy to personalize a reply image directly inside the plugin. Load an image, double-click the TX picture, type your message, drag it into position, release the mouse button, and transmit.