

Rubidium Series TCC70XS Series Standalone Systems

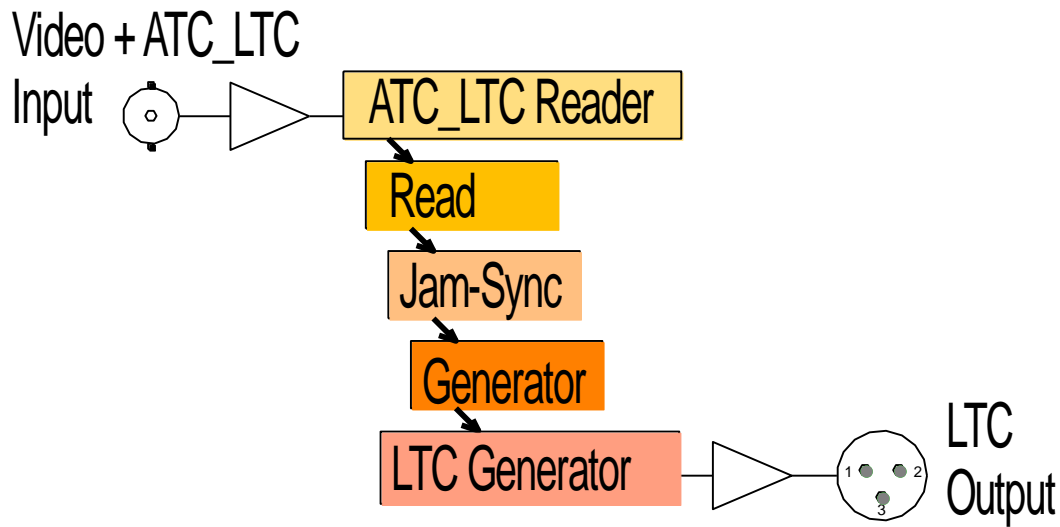


ATC_LTC to LTC Converter

Rubidium XT and TCC70XS Application Note
Revision: 2.3
February 7, 2024



The following description walks you through the installation and the basic set-up process for your special application of an **XT/XV** Rubidium module.



Select the module according to the video standard you are using:

XT: 3G or HD or SD digital video.

The LTC output is available at the XLR3 male connector (if assembled) **and** at the DSUB9 female SERIAL/LTC OUT – please refer to manual for pin assignment.



Step 1:

Load Factory Settings: Preset a Basic Configuration

Activate the **Profile** page and select: Profile: **Factory Settings**

Click on the **OK** button.

**Step 2:**

Activate/Deactivate Functions

Activate the "Functions" page and **activate/deactivate** as shown:

	Edit	Use
System	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Keys	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LTC Read	<input type="checkbox"/>	<input type="checkbox"/>
D-VITC Read	<input type="checkbox"/>	<input type="checkbox"/>
ANC Read	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jam	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Generate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LTC Generate	<input type="checkbox"/>	<input checked="" type="checkbox"/>
D-VITC Generate	<input type="checkbox"/>	<input type="checkbox"/>
ANC Generate	<input type="checkbox"/>	<input type="checkbox"/>
Link	<input type="checkbox"/>	<input type="checkbox"/>
Video	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Insert	<input type="checkbox"/>	<input type="checkbox"/>
Serial	<input type="checkbox"/>	<input type="checkbox"/>

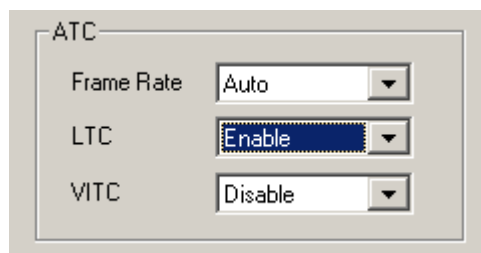
- We suggest that you deactivate the **Use** check-boxes of all functions you are presently not using.
- We suggest that you deactivate the **Edit** check-boxes of all functions after the installation process. That avoids unintentional operating and malfunctions.



Step 3:

ATC_LTC: Time Code Reader Configuration

Activate the **ANC Read** page and select:



Frame Rate: If you have always the same frame rate at the input (24/25/30/30 drop), please fix it accordingly. Frame rate of time code input should be equal to the frame rate of time code output and equal to the picture rate of the video signal. If you are working with different video formats (NTSC, PAL), select "Auto", in this case the frame rate of the incoming ATC_LTC will be detected automatically.

Step 4:

Reader Configuration

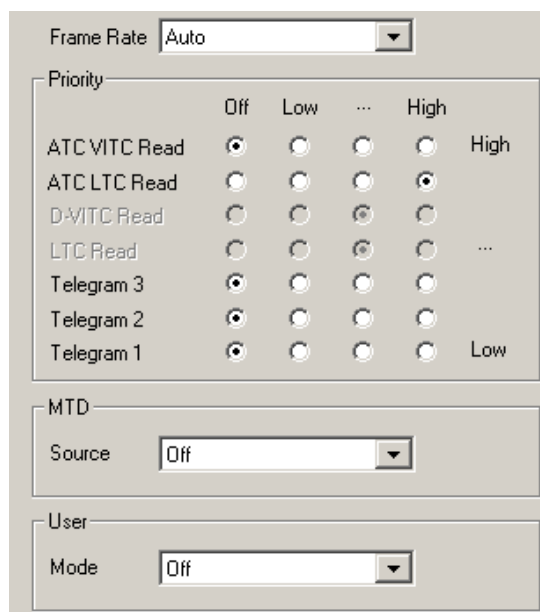
Activate the **Read** page and select:

Frame Rate: If you have always the same frame rate at the input (24/25/30/30 drop), please fix it accordingly. Frame rate of time code input should be equal to the frame rate of time code output and equal to the picture rate of the video signal. If you are working with different video formats (NTSC, PAL), select "Auto"; in this case the frame rate of the incoming time code will be detected automatically.

Priority: All "Off" except "ATC_LTC Read = High".

MTD: "Source = Off".

User: "Mode = Off".



Step 5:

Set Sync Mode and Frame Rate of the Time Code Generator

Activate the **Generate** page and select:

Frame Rate: If you are working with one frame rate only, please fix it accordingly. Frame rate of time code output should be equal to the picture rate of the video signal.

If you are working with different video formats, select "Follow Video"; in this case the frame rate of the time code output will follow the picture rate of the video.

Sync: "Video".

Example:

The screenshot shows the 'Generate' page of the software. The 'Frame Rate' is set to 25, and 'Automatic' is set to 'Follow Video'. The 'Sync' is set to 'Video' and 'Sec-Pulse' is set to 'Rising Edge'. The 'Generator' section shows 'Time' as 10:00:00:00 and 'User' as 00000000.

Step 6:

Activate the Jam-Sync Mode

Activate the **Jam** page and select:

Mode: "Continuous" - if the time addresses of the LTC output should continuously be generated in an up-counting manner.

"Cont. 1 Frame" or "Cont. Wheel" - if the LTC time should stop in case of an ATC_LTC failure or in case of a "still" time code input.

Values: "Time, User".

Use Offset: Not activated – unless you explicitly have to do an offset correction.

The screenshot shows the 'Jam' page of the software. The 'Mode' is set to 'Continuous', 'Values' is set to 'Time, User', and 'Wheel' is set to 8. The 'Use Offset' checkbox is unchecked, and the 'Offset' is set to 0:00:00:00. A 'Single Jam' button is visible at the bottom.

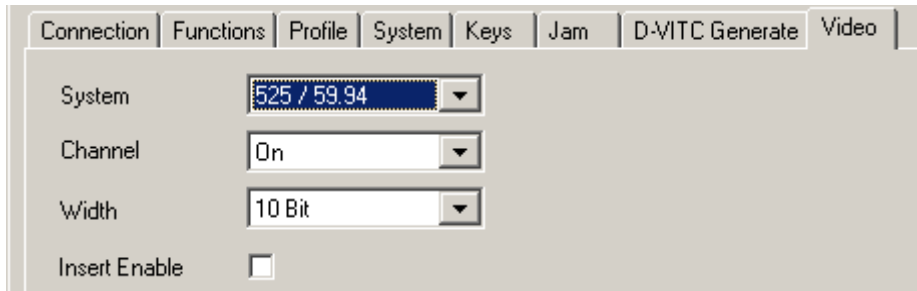


Step 7:

Configuration of the Video Channel

Activate the **Video** page and select:

- System:** Fix it according to your application.
If you are working with different video formats, select "Auto".
- Insert Enable:** Check this box only in case you want to have a visible window inserted onto the video screen.

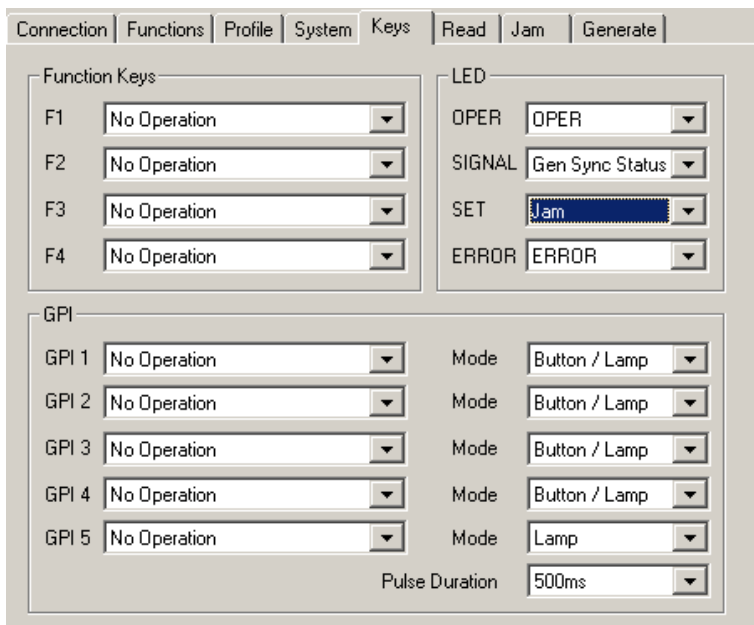


Step 8:

Optionally: Select LED Functions to Watch Status Information

Activate the **Keys** page and select:

- LED SIGNAL:** "Gen Sync Status" indicates the status of the video synchronization:
 - LED lights up during video lock.
 - LED flashes slowly during the fine trim procedure.
 - LED flashes fast if video synchronization is lost.
- LED SET:** "Jam" indicates the status of the Jam-Sync mode:
 - LED lights up = Generator accepts reader input time code.
 - LED flashes = Generator does not accept or receive the reader time code.



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