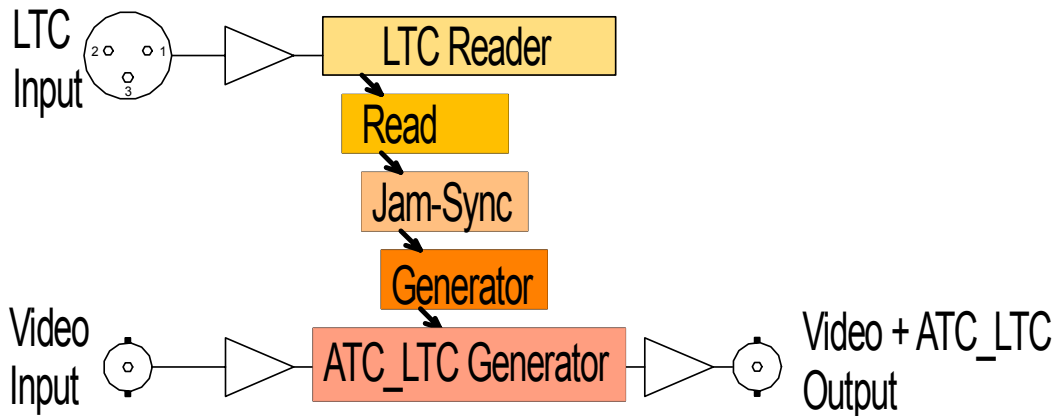


The following description walks you through the installation and the basic set-up process for your special application of a **DT** or **HT** or **XT** Rubidium module:

LTC to ATC_LTC Converter



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

- DT: SD digital video.
- HT: HD or SD digital video.
- XT: 3G or HD or SD digital video.

The external LTC can be received at the XLR3 female connector (if assembled) **or** at the DSUB9 female GPI/LTC IN – please refer to manual for pin assignment.

Step 1:**Load Factory Settings: Preset a Basic Configuration**

Activate the **Profile** page and select:
Click on the **OK** button.

Profile: **Factory Settings**

**Step 2:****Activate/Deactivate Functions**

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

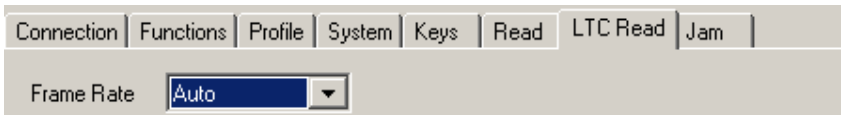
	Edit	Use
System	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Keys	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LTC Read	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D-VITC Read	<input type="checkbox"/>	<input type="checkbox"/>
ANC Read	<input type="checkbox"/>	<input 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 type="checkbox"/>
D-VITC Generate	<input type="checkbox"/>	<input type="checkbox"/>
ANC Generate	<input checked="" type="checkbox"/>	<input checked="" 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:
LTC Time Code Reader Configuration

Activate the **LTC 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 LTC will be detected automatically.



Step 4:
Time Code Reader Configuration

Activate the **Read** page and select:

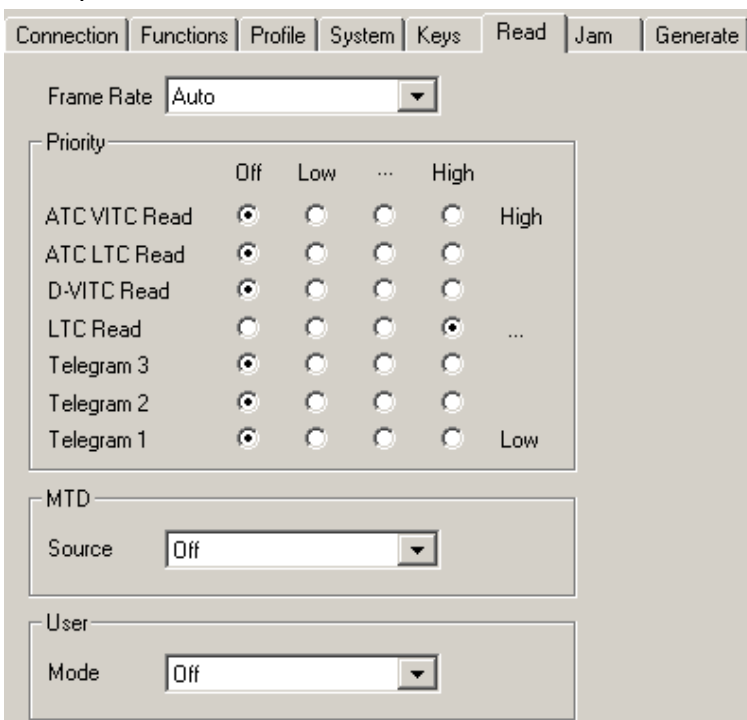
Frame Rate: If you have always the same frame rate at the input (24/25/30/30 drop), please fix it accordingly. Frame rate of time code input should be equal to the frame rate of time code output and equal to the picture rate of the video signal. If you are working with different video formats (NTSC,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

Priority: All “Off” except “LTC Read = High”.

MTD: “Source = Off”.

User: “Mode = Off”.

Example:



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 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 ATC_LTC output should continuously be generated in an up-counting manner.

"Cont. 1 Frame" or "Cont. Wheel" - if the ATC_LTC time should stop in case of an 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 'Offset' is set to 0:00:00. A 'Single Jam' button is visible.

Step 7:

Set/Verify the ATC_LTC Lines of the Generator

SMPTE 12M-2 recommendations:

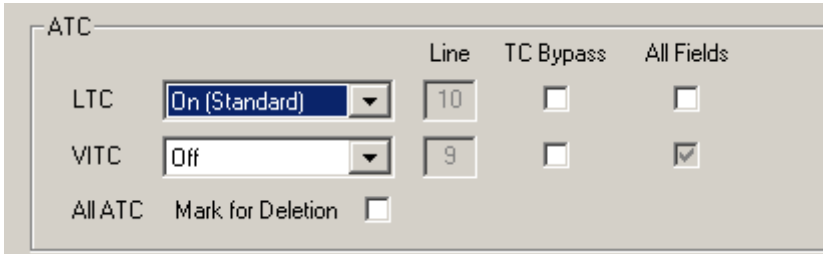
ATC_LTC, inserted on digital standard definition (SD) 525/60: V-ANC, line 13.

ATC_LTC, inserted on digital standard definition (SD) 625/50: V-ANC, line 9.

ATC_LTC, inserted on digital high definition (HD): H-ANC, line 10.

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

LTC: See recommendation above or select according to your application.



ATC		Line	TC Bypass	All Fields
LTC	On (Standard)	10	<input type="checkbox"/>	<input type="checkbox"/>
VITC	Off	9	<input type="checkbox"/>	<input checked="" type="checkbox"/>
All ATC	Mark for Deletion	<input type="checkbox"/>		

TC Bypass:

Checking **TC Bypass** will activate the following automatic: Only in case that there is no ATC_LTC present in the incoming video, the ATC_LTC generator will insert a new one. If there is already ATC_LTC, then no new ATC_LTC will be inserted. For this feature the ATC_LTC reader has to be enabled: At the **Functions** page click **Use** at **ANC Read** and select "LTC = enable" at the **ANC Read** page.

Step 8:

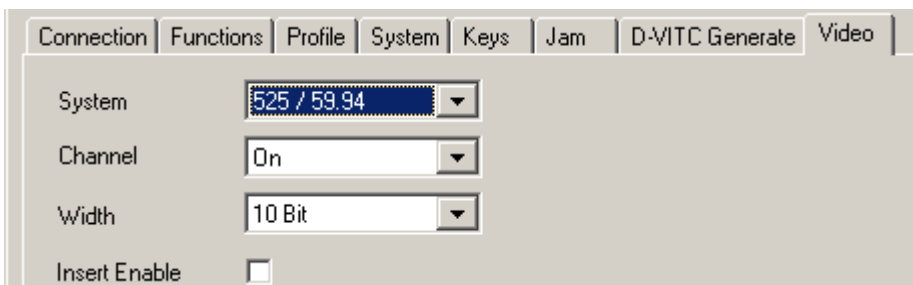
Configuration of the Video Channel

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.



Video	
System	525 / 59.94
Channel	On
Width	10 Bit
Insert Enable	<input type="checkbox"/>

Step 9:

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.

