

Rubidium Series TCC70XS Series Standalone Systems

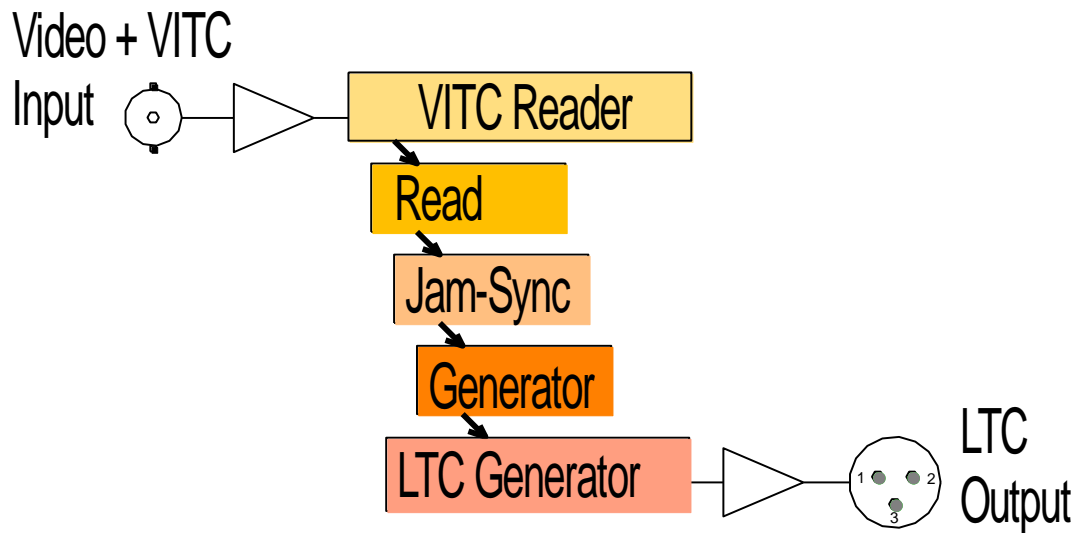


VITC to LTC Converter
D-VITC to LTC Converter
ATC_VITC to LTC Converter

Rubidium AT/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 **AT** or **XT** Rubidium module.



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

- AT: Analogue video (CVBS).
- 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:

RUB AT: VITC to LTC	RUB XT: D-VITC to LTC - SD video only!	RUB XT: ATC_VITC to LTC																																																																																																																																										
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- 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:

VITC/D-VITC/ATC_VITC: Time Code Reader Configuration

<p>VITC or D-VITC application: Select at the (D-)VITC Read page:</p>	<p>ATC_VITC application: Activate the ANC Read page and select:</p>
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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 VITC 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 "VITC Read = High".

MTD: "Source = Off".

User: "Mode = Off".

VITC application:

D-VITC application:

ATC_VITC application:



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.

XT modules only: 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 for XT modules:

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

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 VITC 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' tab of the software interface. The 'Mode' dropdown is set to 'Continuous', and the 'Values' dropdown is set to 'Time, User'. The 'Wheel' is set to 8. The 'Use Offset' checkbox is unchecked. The 'Offset' is set to 0:00:00, and there is a 'Single Jam' button.



Step 7:

Configuration of the Video Channel

Activate the **Video** page and select:

System: Fix it according to your application.

XT modules only: 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.

Connection	Functions	Profile	System	Keys	Jam	D-VITC Generate	Video
			System: 525 / 59.94				
			Channel: On				
			Width: 10 Bit				
			Insert Enable: <input type="checkbox"/>				

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.

Connection	Functions	Profile	System	Keys	Read	Jam	Generate
				Function Keys			
				F1: No Operation			
				F2: No Operation			
				F3: No Operation			
				F4: No Operation			
				GPI			
				GPI 1: No Operation	Mode: Button / Lamp		
				GPI 2: No Operation	Mode: Button / Lamp		
				GPI 3: No Operation	Mode: Button / Lamp		
				GPI 4: No Operation	Mode: Button / Lamp		
				GPI 5: No Operation	Mode: Lamp		
				Pulse Duration: 500ms			
				LED			
				OPER: OPER			
				SIGNAL: Gen Sync Status			
				SET: Jam			
				ERROR: ERROR			



Contact Us



Corporate Offices:
Plura Broadcast, Inc.
Ph: +1-602-944-1044
Sales@plurainc.com



Plura Europe GmbH
Ph: +49-6725-918006-70
Sales@plurainc.com

GERMANY



Plura MEA
Ph: +971-50-715-9625
Sales@plurainc.com



Plura Asia
Ph: +82-10-6688-8826
Sales@plurainc.com

S. KOREA

