

GNSS LEA-xT and GDK-2

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Introduction

Currently (2019), the GDK-2 is equipped with:

- The SRO-100
- The GNSS u-Blox LEA-6T

It is integrated in:

- GPSReference 2000.
- GPS PicoReference.

It is also sold by SpectraTime as designer kit to allow engineers to validate a GNSS Disciplined (Rb) Oscillator system

Hardware configuration

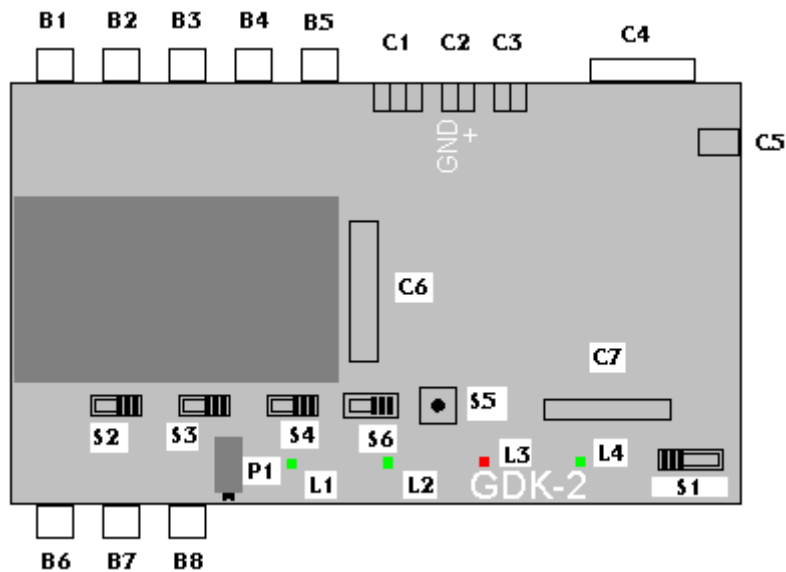


Figure 1

Name	Function	Comment
C2	Power supply	12V or 24V / 2A
C4	Serial RS232 interface	9600,n,8,1
B1, B6	10MHz out	--
B2, B7	PPS out	--
S2	Hardware tuning	Right
S3	Antenna voltage	Right (5V)
S4	PPSRef source	Right (GNSS)
S6	GNSS mode	Right(2)

Software configuration

Configuring the LEA-xT

There are 2 possibilities to configure the LEA-xT:

1. With the GNSS configuration module included in some iSyncMgr. Currently, (2019), such a module is not included in the iSyncMgr for the SRO-100, but in the iSyncMgr for the LNR. This software must be downloaded from the SpectraTime website.
2. With u-center.exe, the GNSS manager from u-Blox. For advanced user this software must be anyway downloaded from the website of the company. For GDK-2, it is better to cancel all messages. Doing that with u-center, CFG-MSG, is tedious. It is therefore recommended to make the configuration with the "GNSS configuration module" first and then to fine tune with u-center.

Preparations:

1. Because of a possible mix-up of the messages coming from the GNSS and the messages coming from the SRO-100, the SRO-100 must be disconnected during this operation. Take off the holding screws of the SRO-100, downside, and then pull it out.
2. Push the switch S6 to the left in order to establish the serial communication with the GNSS. After the configuration, it is better to set back S6 to the right side.

GNSS configuration module

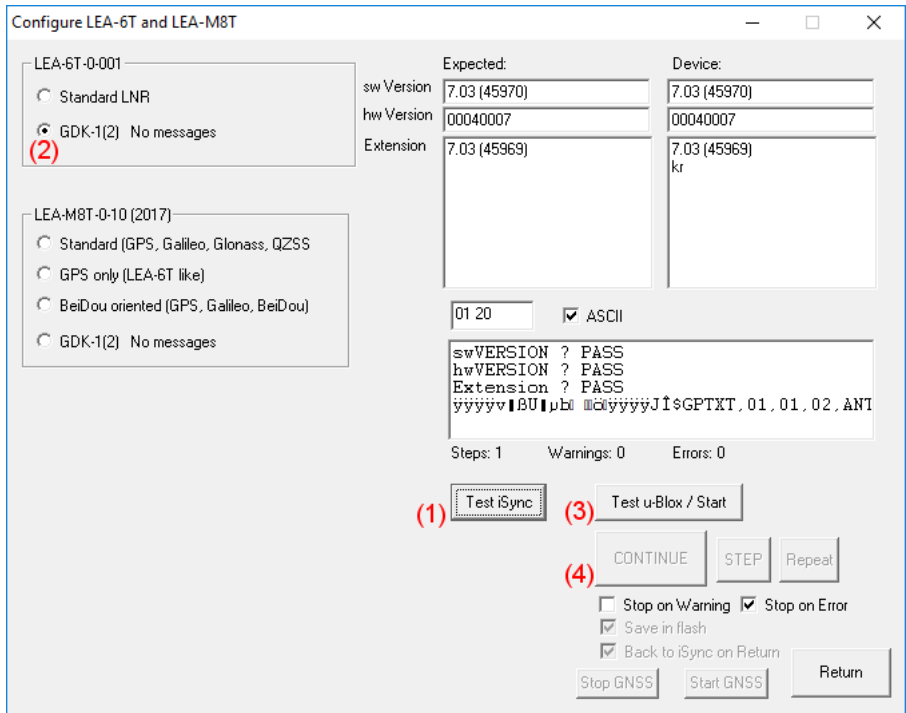


Figure 2

As mentioned before, this module is currently included in the iSyncMgr for the LNR. Click on (1). Choose (2). Click on (3) and then on (4). For the LEA-6T the information under "Device." should look like on Figure 2.

Configuring the SRO-100

Preparations:

1. Make sure the SRO-100 is correctly mounted
2. Make sure the switch S6 is to the right

The configuration of the SRO-100 is done with the iSyncMgr for this clock. Follow the User Manual. The LEA-xT doesn't need configuration messages from the SRO-100 at Power On. By default this messages are not active. If active, they can be cancelled with the command MCsxx..

Supporting information

- GDK-2 Designer Kit Manual
- SRO-100 User Manual
- LEA-xT Manual