Katech GPSREC1LTC-D25 GPS Syncronized LTC Timecode Generator and Chronometer

Katech GPSREC1LTC-D25 receives realtime clock information from GPS (Global Positioning System) satellites having atomic clock with high accurate clock signal via GPS antenna. The time information received from GPS satellites is UTC time. Time difference is added or subtracted according to the time zone up to +- 12 hours by means of the Dipswitch . The resulting Local time information is converted into LTC (longitudinal time codel) information and output through the terminals.

DEVICE DESCRIPTION

1 - USB Charge output: It can be used to power and charge 1 x 2.1A and 1 x 1 A external devices.
2 - LED Clock display: HH:MM:ss format / segmented LED display (Brightness can be adjusted by the user.)
3 - LED Counter display: HH:MM:ss format / segmented LED display (Brightness can be adjusted by the user.)
4 - Counter Button: There are 3 buttons to control the Timer; Resets (00:00:00) Stops the Counter (STOP), Restarts the Counter (START). (The brightness can be adjusted by the user.)
5 - Power Input: AC 90 - 240 V
6 - Power Input Fuse Holder (2A)
7 - Remote DSUB: There are input and output terminals for device controls.
8 - Ethernet Option: Optional connection to manage device from wired network and use NTP (Network Time Protocol) features.
9 - Fuse: Fuse holder for 12V DC out output. (3Amps)
10 - DC OUT Terminal: 12V 3A DC output that can be used to power up LTC clock Diplays that would be
11 - USB Connector: This is the USB connector used to syncronize the computer's clock to the GPS clock.
12 - DIPSwitch : 8 bit, It is used for time difference adjustment and internal signal routing.
13 - LTC output terminal: 2 balanced LTC outputs.
14 - GPS Antenna connector (DSUB 9 pin Female). GPS antenna is supplied with the device.

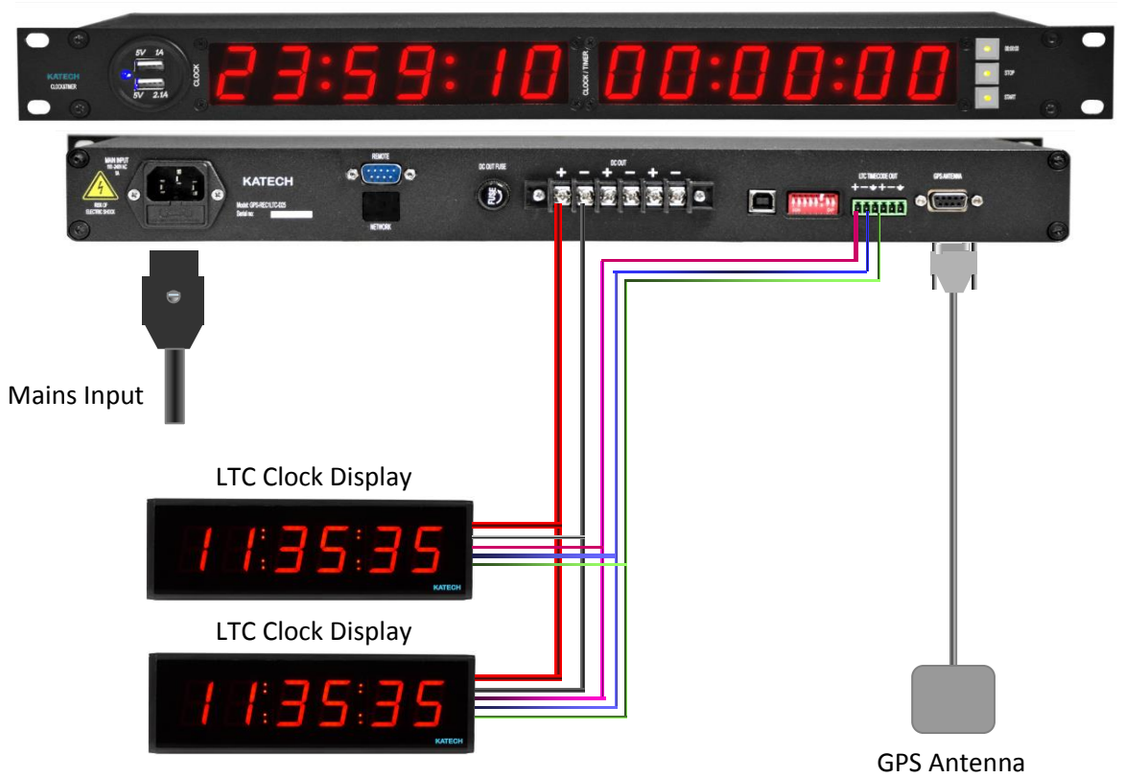
Connection and Operation

When the device is powered up, it starts from 23:59:00 and runs internally until the correct time information is received from the GPS satellites and the clock continues to work internally. When the GPS antenna is connected to the device, if the GPS antenna captures the signal from some of the satellites in the sky, it receives the time information from the satellites and updates the LTC output and the Clock display.

Local time can be adjusted according to the region you are in from the DIPSwitch on the back of the device.

00:00:00 with the device turned on. There are 3 buttons available on it; With "00:00:00" the time is reset, with " STOP" the counter is stopped, with "START" the counter continues to count from where it left off.

If "00:00:00"+ "STOP" keys are pressed, LED indicator and button brightness will increase, if "STOP"+"START" keys are pressed, LED indicator and button brightness will decrease. It continues the cycle when it reaches its lowest or highest level.



TECHNICIAL SPECIFICATIONS

Main unit Specifications

Parameters	***Values***
Dimensions	1U, 203mm depth
Weight	1.25kg
Supply Voltage	90-240V AC
Power consumption	60 VA max.
DC Out Voltage/Current	12V, 3A
LTC Out	Dual Balance Output
LTC Out Level	5 Vpp
USB connector	USB type B
GPS Antenna connector	DSUB 9pin female

GPS Antenna Specifications

Parameters	***Values***
Time-To-First-Fix1	Cold Start 26s
Sensitivity4	Cold Start (without aiding) -147 dBm
Accuracy for Timepulse signal	RMS 30 ns RMS 30 ns
Dimensions:	Outdoor type 50mm x 52mm x 35mm Indoor type 65mm x 35mm x 15.3mm
Cable Length:	3 meters
Connection connector:	DSUB 9pin Male
Cable Extension:	Total 100 meters

DIP Switch Settings

DIPSW	**Description**	**OFF**	**ON**
1	USB source selection	CPU	GPS
2	GPS Input Selection	USB	CPU
3	CPU Input Selection	USB	GPS
4	SW_INT_ON	Clock Run	Clock Stop if signal lost
5	SW_NEG	+ Time difference	- Time difference
6	Time difference BIT21	0	4
7	Time difference BIT1	0	2
8	Time difference BIT0	0	1

DIPSW

6	**7**	**8**	**Time difference**
OFF	OFF	OFF	0 Hour
OFF	OFF	ON	1 Hour
OFF	ON	OFF	2 Hours
OFF	ON	ON	3 Hours
ON	OFF	OFF	4 Hours
ON	OFF	ON	5 Hours
ON	ON	OFF	6 Hours
ON	ON	ON	7 Hours

CE Certified.
It complies with EN 55032:2015/A1, EN55035:2017/A11:2020, EN IEC 6100-3:2019/A1, EN61000-3-3:2013/A2:2021 standards.