UTC70 Core V1.0

Product Brief (March 2014 - Rev A)

Description

The UTC70 core is a drop in module in charge of processing multiple formatted input date/time to translate it into "Coordinated Universal Time" value with a reference starting from 1st of January 1970 at 00h00m00s.

The UTC70 core can be connected to a GPS UART and processes GPRMC frame from NMEA message or sends a request to a NTP server (with the use of the MVD UDP/IP stack and its NTP option) and processes the NTP date/time to convert it into a 32 bit UTC time value.

The UTC70 core initial date/time can also be programmed by the way of a CPU interface.

Once date/time are programmed, the UTC70 core increments seconds from external GPS PPS pulse or in autonomous mode with the FPGA clock signal.

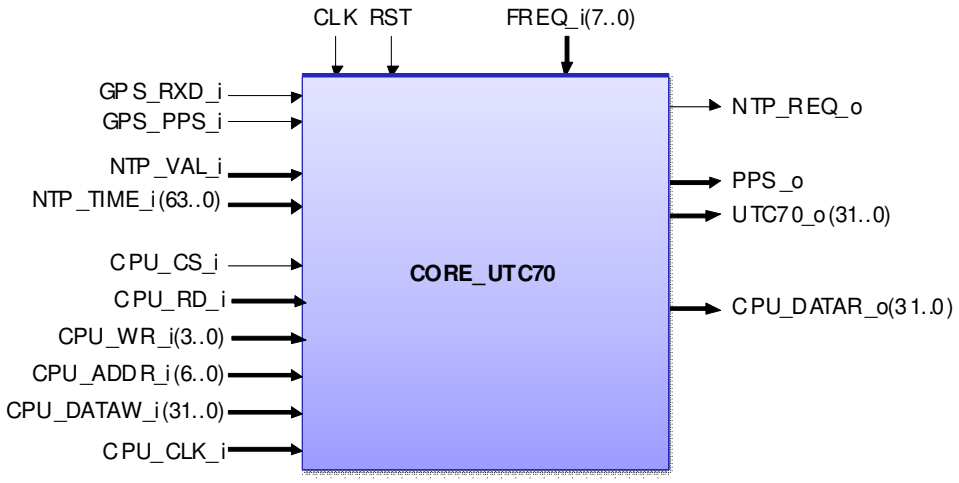
According to its configuration, the UTC70 core can automatically switch to autonomous mode in case of connection lost with the GPS

Features

- **Drop-in module for 6 Series, 7 Series and later Xilinx FPGAs**
- **GPS interface**
- **NTP interface**
- **CPU interface**
- **Full synthesizable RTL VHDL design (not delivered) for easy customization**
- **Design delivered as Netlist**

Applications

The UTC70 core can be used with the MVD Remultiplexer core to provide it reference time. This reference time will then be automatically inserted in TDT/TOT or STT respectively for DVB or ATSC remultiplexer firmware.



Resource Utilization

	Slices	BRAMs 18k	DSP48
Spartan-6	**200**	**1**	**0**
7 Series	**200**	**1**	**0**

Ordering information and related cores

Designation
MVD_UTC70_NET

VHDL source code: can be delivered as an option under NDA and other specific clauses

Related cores: DVB Remultiplexer, ATSC modulator

Documentation and support: Datasheet. In addition MVD can provide on site or remote coaching.