TECHNICAL Data sheet

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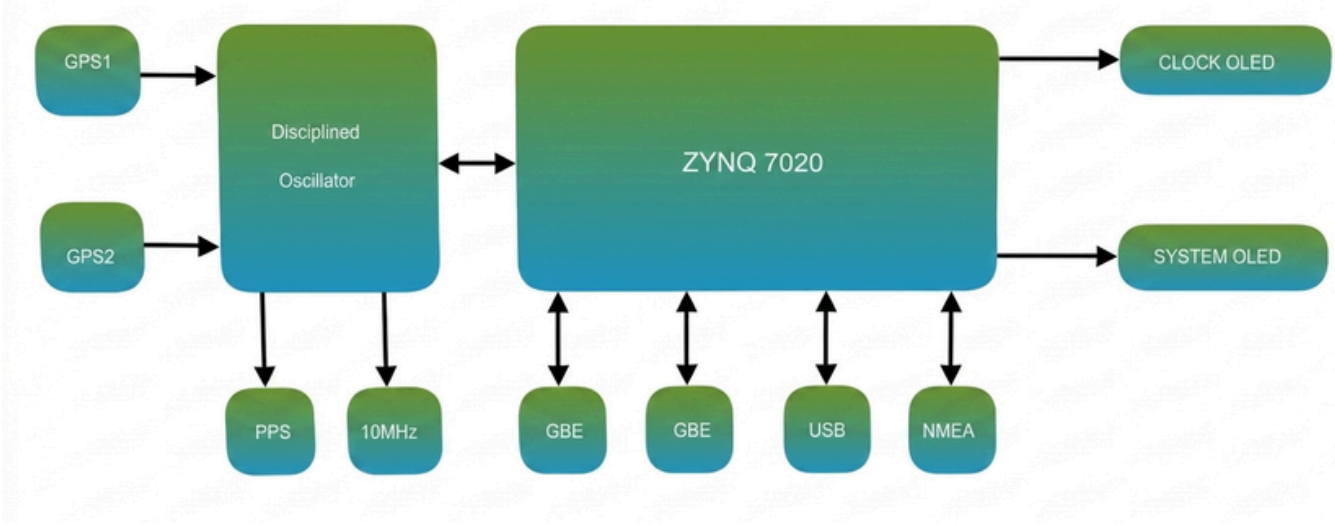
iCLOCK

GNSS TIME SERVER TR-1000



iClock Time server is a master clock for time synchronisation for electronic systems such as Telecommunication, Broadcasting, Air traffic management, Instrument, Banking. iClock system architecture base on Satellite time and OCXO to maintains a very precise timing if the PPS signal lost. iClock come with dual satellite receiver for reliable operation and also including the Network time protocol.

System block diagram



FEATURE

- GPS Stratum1 operation
- High-bandwidth NTP time server 1000 request/second
- Internal Oven control oscillator
- Dual satellite receiver
- Dual Gigabit ethernet
- Secure web-base control and management
- OLED for systems and clock display
- SNMPv3 for RCMS management software
- GPS and GLONASS are automatic synchronization BeiDou is optional

FOR MORE INFORMATION

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TIME SERVER SPECIFICATION

Internal oscillator	OCXO
Accuracy average after 24 ours with GPS signal	1x10^-10 / day
Stability average after 2 weeks with GPS signal	2x10^-8 / day
Holdover constant temp after 2 weeks of GPS lock	After 24Hr 1uS
Time protocol	NTP v2,v3,v4 , SNTP
Clock display	OLED GMT format "HH:MM:SS"
Network connection	RJ45 1GB x 2
Serial communication	DB9 female 1 x RS232 NMEA
Systems synchronization	GPS , GLONASS , BeiDou optional
Antenna connection	N-Type female x 2
Antenna voltage	5VDC / 12VDC
Systems display	OLED 256 x 64
Plus per second output	SMA female
Reference output	SMA female 10 MHz
Systems indication	Alarm, Operation , Synchronization , Network , Receiver
Hardware platform	Xilinx Zynq SoC
Operating systems	Petalinux
Power supply	100 - 240 VAC 50/60Hz & DC 12 - 32 V
Operating temperature	0 - 50 Celsius
Dimensions	1HU 19" Rack 420 x 300 x 44 mm

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SLAVE CLOCK SPECIFICATION

Clock display	OLED 6 digit separating for Hour : Minute : Second
Network connection	RJ45 1GB x 1
Free Running Time Reference	TCXO
Time Synchronization	NTP v2,v3,v4
Clock display format	24Hrs/12Hrs
Clock display	OLED 256 x 128
Display color	Green
Display digit height	52 mm
Display brightness control	10 - 100% (8 Bit)
Hardware platform	Jetson Nano
Operating systems	Linux
Power supply	24V PoE , DC 12 - 32 V , AC 220V Adaptor
Operating temperature	0 - 50 Celsius
Dimensions	Width 150 mm Height 90 mm Depth 100 mm with M4 locks.



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