

iClock TIME SERVER

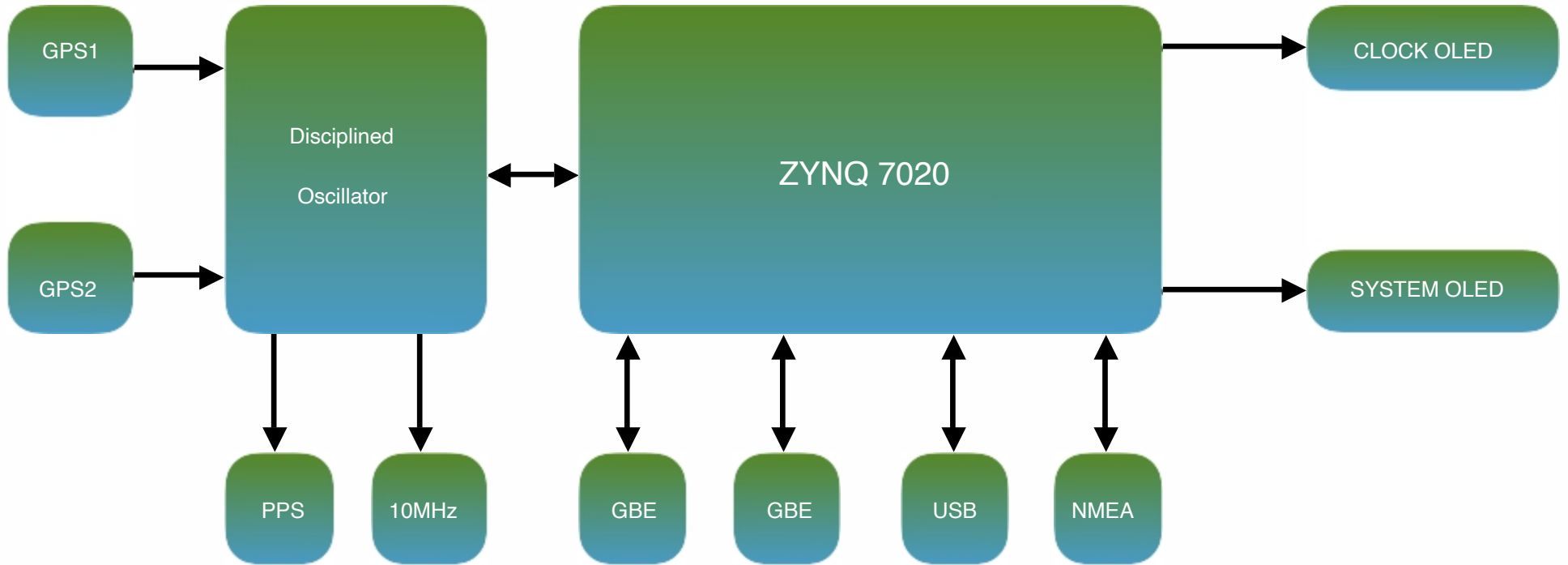
***iClock Time server** is a master clock for time synchronisation for electronic systems such as Telecommunication , Broadcasting , Air traffic management , Instrument , Banking. iClock system architecture base on Satellite time and OCXO to maintains a very precise timing if the PPS signal lost.iClock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



## KEY FEATURES

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

# Systems Block Diagram



## Time server Specification

Internal oscillator	OCXO
Accuracy average after 24 ours with GPS signal	$1 \times 10^{-10}$ / day
Stability average after 2 weeks with GPS signal	$2 \times 10^{-8}$ / 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

# 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.

IFZ Innovative

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