worldtime
SOLUTIONS

» Syncbox GPS Time Server

SECURE AND ACCURATE TIMING FOR YOUR NETWORK

» KEY BENEFITS

Accurate timing across your Ethernet network

Reliable performance, even in weak signal and hostile RF environments

Synchronise legacy systems

Three output configurations (Ethernet and/or serial)

High accuracy PPS output

The Syncbox is the ideal timing solution for industrial control, CCTV and IT systems. Available with a high bandwidth NTP port and multi-format RS-232 and RS-485 outputs, the Syncbox provides the solution to your time synchronisation needs.

ACCURATE NETWORK TIMING

The high bandwidth NTP/SNTP port provides synchronisation to a large number of devices, enabling secure and accurate timing across your network.

SYNCHRONISE LEGACY SYSTEMS

Synchronise industrial control systems, legacy CCTV systems and other third-party devices using the RS-232 and RS-485 outputs. With user-programmable outputs and support for more than 25 serial data formats, the Syncbox provides a flexible solution to your timing needs.

PPS OUTPUT

High accuracy timing of third-party equipment can be achieved via the PPS (pulse per second) output. Class leading performance provides a PPS accuracy of 1 μsec and jitter of 30 nsec.

RELIABLE PERFORMANCE

The Syncbox has been engineered to ensure reliable performance. The high sensitivity design allows for operation in the most demanding weak signal and hostile RF environments. The optional anti-jam antenna and lightning arrester further increase system reliability.

Model Variations and Options:

Syncbox-S:	RS-232 and RS-485 level serial outputs and PPS output
Syncbox-N:	NTP/SNTP Ethernet
Syncbox-SN:	NTP/SNTP Ethernet, RS-232 and RS-485 serial outputs and PPS output
AJKIT-1:	Optional anti-jam antenna upgrade kit (incl. anti-jam antenna, lightning arrester, stainless steel antenna mount and 25m cable)

Typical Performance Specifications:

NTP timestamp accuracy:	Typically within 30 µsec of UTC
NTP client accuracy:	Dependent on network architecture, utilisation, delays and jitter. Clients typically synchronised to within 200 µsec to 2 msec of UTC on a LAN.
NTP performance:	5000 NTP requests per second
RS-232/RS-485 output accuracy:	50 µsec
PPS output accuracy:	1 µsec (30 nsec jitter)

Supported Protocols:

Ethernet protocols:	NTP v2 (RFC 1119), NTP v3 (RFC 1305), NTP v4 (RFC 5905), SNTP v3 (RFC 1769), SNTP v4 (RFC 4330), DHCP
Serial protocols:	More than 25 serial data formats

I/O Connections:

Ethernet connection:	10BASE-T / 100BASE-TX auto-sensing
RS-232/RS-485/PPS:	DB-9 (DE-9) female D-Sub
Setup:	USB 2.0 (full-speed)
GPS antenna:	SMA (supplied with active patch antenna and 3m captive cable)
Power input:	5V DC power input, supplied with external power adapter

Warranty & Support:

Warranty:	5 years
Support:	Free-of-charge lifetime technical support

Standards Compliance:

Electrical Safety:	BS EN 60950-1:2006
Radio Disturbance:	BS EN 55022:2006 (class B)
Immunity Characteristics:	BS EN 55024:2003
RoHS:	RoHS-Compliant

Mechanical and Electrical Specifications:

Dimensions:	112 x 33 x 92mm (4.4" x 1.3" x 3.6") (excluding removable wall fixings)
Weight:	0.5 kg
Power consumption:	0.5 AMPS (@ 5 VDC)
Operating temperature:	0 to 50 ºC
Relative humidity:	0% - 95%, noncondensing

Front view

Rear view

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