AFLAK

IRANIAN NATIONAL
NTP TIME SERVER

Time server AFLAK 3tt: NTP Server in 1U Case for Server

[1] AFLAK time server provides accurate time to networks of any size. It synchronizes all NTP compatible systems. AFLAK time server uses as a reference time source either any compatible external or built-in AFLAK reference clock (Stratum 1 mode) or up to 7 NTP servers (Stratum 2 mode).
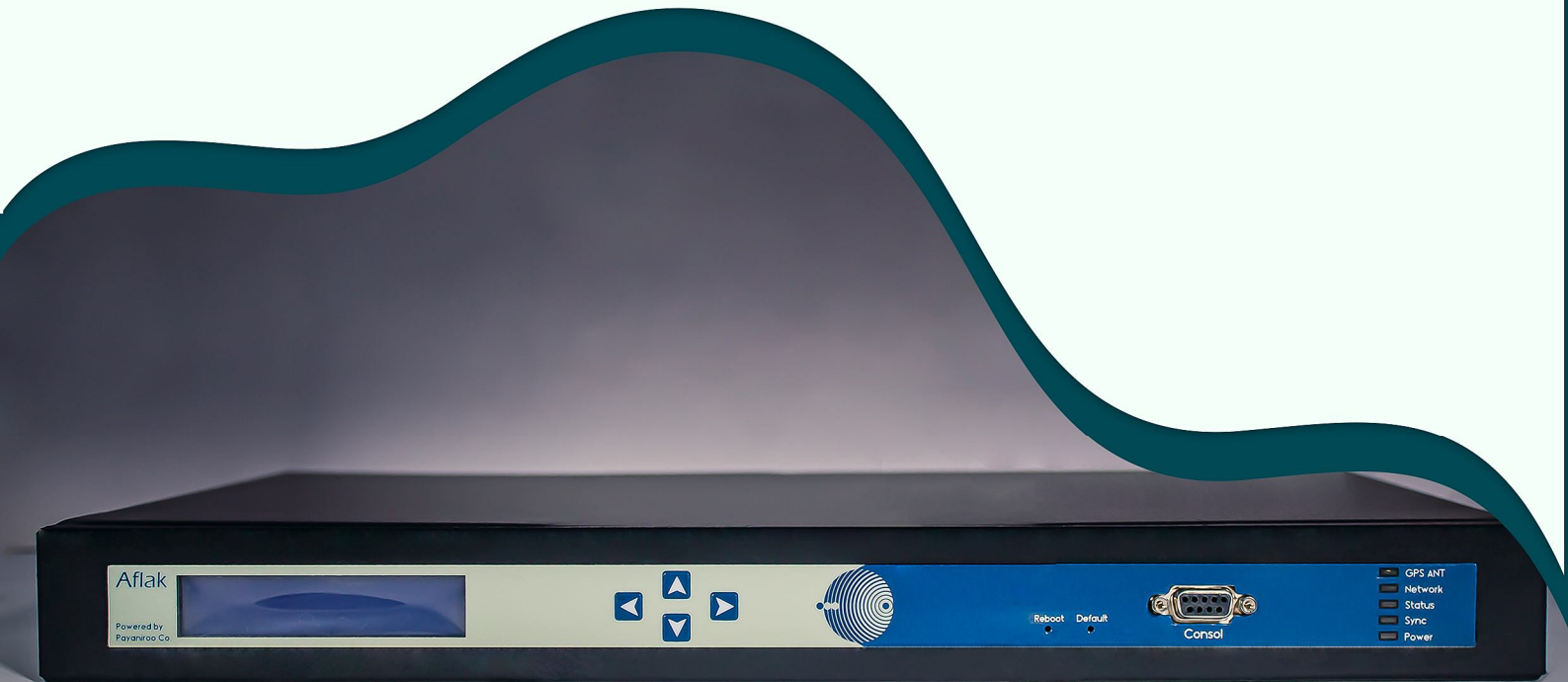
Key Features

- Selectable Reference Time Sources: GPS: Satellite receiver for the Global Positioning System GNS:
Combined GPS/GLONASS/Galileo/BeiDou satellite receiver (L1 frequency band), can also be used for
Synchronization of NTP compatible clients
- Web-based status and configuration interface (Demo) and console-based graphical configuration utility
- Supported net protocols: IPv4, IPv6, NTP, (S)NTP, DAYTIME, DHCP, HTTP, MQTT, SSH, SYSLOG, SNMP, TIME, TELNET
- Alert-Notification system of status change by Web services , MQTT protocol or an external connected display
- AFLAK GPS Antenna/Converter Unit connected with up to 100m of standard coaxial cable RG58
- AFLAK time server is available with a variety of additional output options: frequency synthesizer and programmable pulse outputs
 illustrate some of the many expansion
options for your NTP server
- Two (standard) or optional up to six independant RJ-45 ethernet interfaces 10/100 MBit
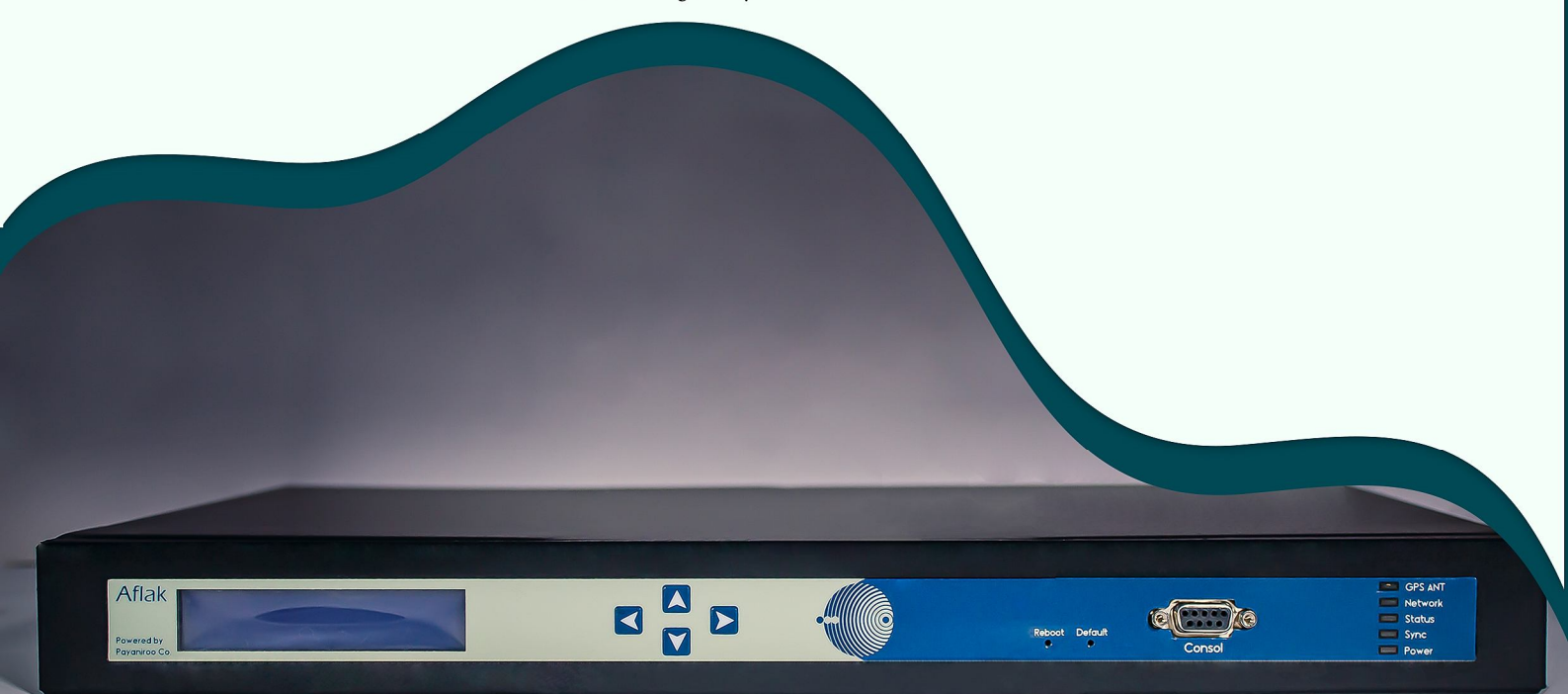
Description

A charactery display shows the state of the NTP subsystem.
The configuration of the system can be done by using a standard web browser to access the extensive but
straightforward html interface. Alternatively a text based and menu driven setup utility can be started from the shell
prompt after logging into the unit.
sensitive relays to user-defined errors.

Characteristics

Display	LC-display, 2 x 20 characters, with backlight
Control elements	Eight push buttons to set up basic network parameters and to change receiver settings
Status info	Four bicolor LEDs showing status of: - GPS Antenna - sync - network - status
Frequency outputs	1 MHz via female BNC connector, TTL into 50 Ohm Accuracy depends on oscillator (standard: TCXO), look at Delete

Pulse outputs	Pulse Per Second (PPS), TTL level, pulse width: 200ms
Accuracy of pulse outputs	Depends on oscillator option: < ±500ns (OCXO SQ, OCXO MQ, OCXO HQ, OCXO DHQ)
Interface	Two independent serial RS-232 interfaces, menu configurable (in case of RDT models without internal receiver - the serial interfaces will be used as reference input). RS485 interface.
Data format of interfaces	COM 0: Baudrate: 300, 600, 1200, 2400, 4800, 9600, 19200 Baud Data Format: 8E1, 8E2, 8N1, 8N2, 8O1, 7E1, 7E2, 7N2, 7O1, 7O2
Network Interface	Standard: 2 x 10/100 MBit with RJ45 connector Available Options: * 2 additional 10/100 MBit with RJ45 * 1 x 10/100 MBit and 1 x 10/100 MBit (1GE) with RJ45 Two completely independent network ports with independent parallel processing.
Power supply	Standard: 100-240 V AC (50/60 Hz) available DC variants: 100-200 V DC, 12 V DC and 20-60 V DC two power supplies as redundant.
CPU	Espressif 32bit , 2Core *2
Network protocols OSI Layer 4 (transport layer)	TCP, UDP
Network protocols OSI Layer 7 (application layer)	TCP, UDP
Internet Protocol (IP)	IP v4, IP v6
Network Autoconfiguration Support	IPv4: Dynamic Host Configuration Protocol - DHCP (RFC 2131) IPv6: Dynamic Host Configuration Protocol - DHCPv6 (RFC 3315) and Autoconfiguration Networking - AUTOCONF (RFC 2462) two-step configure web page for higher security and robot detection mechanism to prevent cyber attacks.
Network Time Protocol (NTP)	NTP v2 (RFC 1119), NTP v3 (RFC 1305), NTP v4 (RFC 5905) SNTP v3 (RFC 1769), SNTP v4 (RFC 4330) MD5 / SHA-1 Authentication and Autokey Key Management UTC time sending ability with Timezone

Parallel Redundancy Protocol (PRP)	PRP (IEC 62439-3)
Time Protocol (TIME)	Time Protocol (RFC 868)
Daytime Protocol (DAYTIME)	Daytime Protocol (RFC 867)
Hypertext Transfer Protocol (HTTP)	HTTP (RC 2616)
Secure Shell (SSH)	SSH v1.3, SSH v1.5, SSH v2 (OpenSSH)
Telnet	Telnet (RFC 854-RFC 861)
Form Factor	19 inch multipac metal case 1U/84HE
Ambient temperature	-10 ... +60°C / 32 ... 122°F
Humidity	Max. 85%
Technical Support	AFLAK offers free lifetime technical support via telephone or e-mail.
Scope of supply	Included in delivery is a AFLAK outdoor antenna incl. mounting kit, pre-assembled antenna cable (except MRS, TCR and RDT models) and product documentation on USB storage.
Warranty	Three-Year Warranty
Firmware Updates	Firmware is field-upgradeable, updates can be installed directly at the unit or via aremote network connection. Software updates are provided free of charge, for the lifetime of your AFLAK product.
RoHS-Status of the product	This product is fully RoHS compliant
WEEE status of the product	This product is handled as a B2B category product. In order to secure a WEEE compliant waste disposal it has to be returned to the manufacturer. Any transportation expenses for returning this product (at its end of life) have to be incurred by the end user, whereas AFLAK will bear the costs for the waste disposal itself.