ZB20

GPS Direct NTP Digital Clock

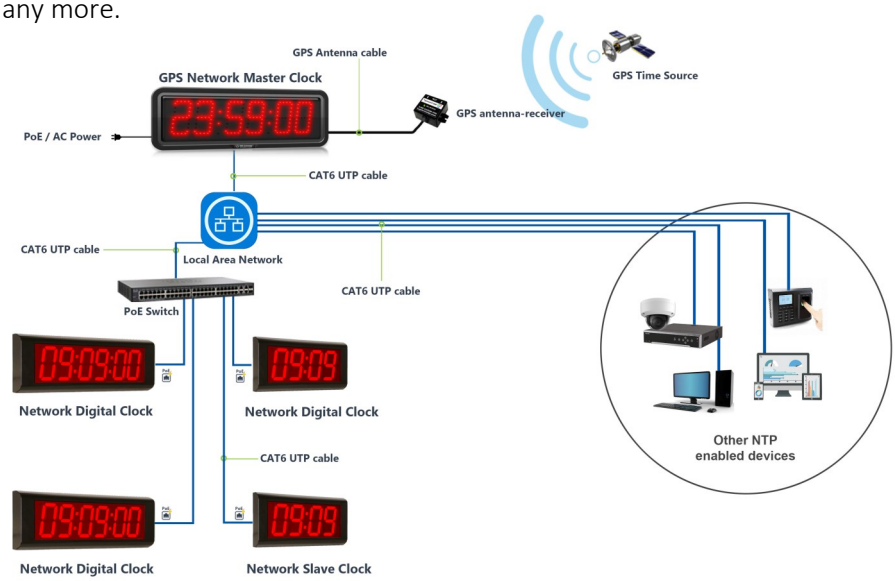
ADVANTAGES OF ZB20

- Time Display
- Date Display
- Temperature Display
- Automatic Brightness Control
- Readable Under Bright Sunlight
- High level of protection (IP66)
- Built-in Relay
- Master Clock NTP Server Function
- GPS Time Synchronization
- NTP Time Synchronization
- Remote Setting by IR Controller or web interface
- Low Power Consumption
- Low weight
- Easy to clean

STANDARD FEATURES

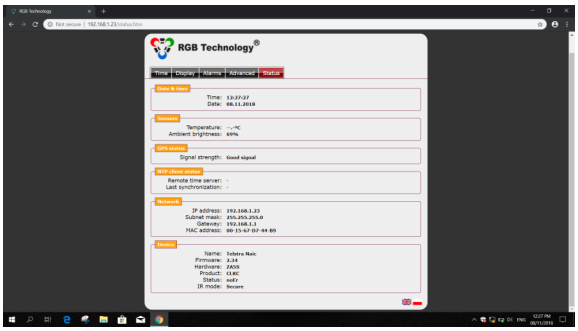
Master Clock Mode

Z series has a Master Clock Mode standard feature where it can act as a master clock for other clocks in the network or as an (S)NTP server which provides time to other NTP enabled IP devices in the facility, such as CCTV, biometric system, computer server/client and many more.



Built-in Web Interface

Z series has built-in web interface that is accessible when the device is equipped with Ethernet port. The web interface enables the user to manage the device via PC, smartphone, tablet or any device with web interface.



Management Software

With this simple and user-friendly management software, all the clocks in the network can be managed remotely. It allows you to check their status and access their configuration.

	Name	IP	Status	Firmware	Group	Manage
1	NoNameP	192.168.0.218		3.03	Office	
2	Clock	192.168.0.17		2.17	None	
3	No name	192.168.0.235		2.34	Hall	
4	NoName	192.168.0.182		2.35	Hall	

GPS Time Synchronization

Z series is equipped with an external GPS Module (receiver-antenna) that enables the device to receive precise time information from a GPS satellite. The GPS Module uses a 50-channelu-blox 6 positioning engine boasting a TTFF (Time-To-First-Fix) of under 1 second. The dedicated acquisition engine, with 2 million correlators, is capable of massive parallel time/frequency space searches, enabling it to find satellites instantly. A 10-meter GPS cable is bundled with GPS Module than can be extended up to 50 meters

Ethernet and NTP (Network Time Protocol)

Z series can be equipped with Ethernet port if you choose to manage it via PC, smartphone, tablet or any device with web interface. NTP time synchronization can also be utilized through this port.

Executive Relay Module

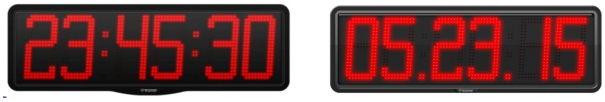
Z series has embedded executive relay that enables the device to provide time signal to separate system or activate devices such as building bell, lighting, aircon, etc. It can be programmed to enable signaling up to 30 alarms.

High Quality Enclosure

Z series are equipped with Thermo-moulded polycarbonate housing which is lightweight, 100% rust-proof, nearly unbreakable, has high UV and temperature resistance and meets the IP66 rating requirements which makes the device totally protected against dust and from high pressure water jets from any direction.

Time and Date Display

Z series is designed to display time, date, and optionally temperature. The device must be correctly configured for proper operation.



Elapse Timer

Z series is equipped with Elapsed Timer function that can be configured via IR Remote Control to display a count up or countdown timer.

Automatic Brightness Control

The device is equipped with a lighting sensor. Based on the measurement of ambient light the sensor ensures real adjustment of the display brightness to the current lighting conditions of the surroundings.

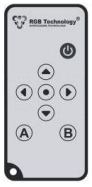
Eco Mode

Z series has ECO operation mode that enables the automatic deactivation of the device at preset time intervals.

OPTIONAL FEATURES

IR Remote Control Unit

Each remote control has a unique code, so there is no possibility of unauthorized changes by unauthorized persons. The remote control is assigned to one or more clocks. There is also the ability to assign multiple remotes into one clock. IR remote control unit enables entering the embedded user menu. The advantages of this solution is operating without a computer, no need of installing a computer network, & direct verification of the applied changes on the device display .



PoE Power Supply

Optionally, the clock can be powered-up through the LAN connector (PoE). Choosing this power supply option requires using a power supply device meeting the IEEE 802.3at standard.

Temperature Sensor

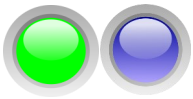
The display, apart from the standard time and date function, is able to show the temperature as well. The temperature is shown interchangeable with time and date on the LED display. The temperature sensor is available with two versions of a signal cable length 0.5m and 2m. The probe enables measuring and displaying temperature only in °C (Celsius). Temperature range from –50° C to +99° C.

Audible Signaling Device

The device can be equipped with an audible signaling device. The user may choose one of two signaling device versions: 1) volume of the audio signal at the level of 88dB or 2) volume of the audio signal at the level of 108dB.

LED Color

Standard available LED colors are yellow, amber and red. Green, blue and white colors are available with additional fee.



SPECIFICATIONS

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Model:	ZA20 (4-digit)	ZB20 (6-digit)
Dimensions	616x 288 x 45 mm (WxHxD)	900 x 288 x 45 mm (WxHxD)
Device Weight	3 kg	4 kg
Power consumption	14 W (average)	20W (average)
Display format	HH:MM (4-digit)	HH:MM:SS (6-digit)
Oscillator	RTC (Real Time Clock) quartz crystal oscillator (built-in)	
Accuracy	RTC quartz crystal oscillator: +/- 1 minute per month at 25°C opeating temperature NTP time server: depends on server, +/- 20 milliseconds (maximum) GPS : +/- 20 milliseconds (strong and stable signal), +/- 100 milliseconds (poor signal)	
LED Color	Standard: Red, yellow and amber Option (with additional charge): Green, blue and white	
Digit height	200 mm (7.88 inches)	
Viewing distance	300+ feet (100+ meters)	
Power	85-264 VAC /24 VDC or Power-over-Ethernet (ZA20-L-PoE+/ ZB20-L-PoE+ models)	
Signal input	GPS (Additional option module) and/or (S)NTP via RJ45 connector	
Network Communication	Internet Protocol (DHCP/Static), (S)NTP (not applicable for ZA20-R/ ZB20-R models)	
Control Method	Web Panel (ZA20-L/ ZB20-L models) and/or IR remote control unit (ZA20-R/ ZB0-R models)	
Operating temperature	-25°C ÷ 45°C (ambient) -25°C ÷ 60°C (device surface)	
Housing material	Thermo-molded polycarbonate	
IP rating	IP66 (casing tightness) - Totally protected against dust and protected from high pressure water jets from any direction.	
Compliance	PN-EN 55032:2015-09 Electromagnetic Compatibility of Multimedia Equipment - Emmission Requirements PN-EN 55024:2011/A1:2015-08 Information technology equipment - immunity characteristics - Limits and methods of measurement PN-EN 62368-1:2015-03/A11:2017-09 Audio/ Video, Information & Communication Technology Equipment - Part 1: Safety requirements 2014/35/EU Low voltage directive 2014/13/EU Electromagnetic compatibility directive ISO 9001: 2015 Quality Management Systems ISO14001: 2015 Environmental Management Systems RoHS Restriction of Hazardous Substances	
Additional Options	IR remote control, Air/ water temperature probe, buzzer (acoustic signaling device) Hanging bracket for single-sided or double-sided (wall mount or ceiling mount)	

ABOUT RGB TECHNOLOGY

RGB Technology Sp. z o.o. is the leading Polish manufacturer of LED displays and synchronized clock system. The seat of the company and its production plant are situated in Koszalin (Zachodniopomorskie Voivodeship).

The company was founded in 2005 as a response to the market demand connected with the development of LED technology for outdoor applications. Nowadays, the company employs more than 50 people.

Signage displays produced in Koszalin are purchased by customers in all Europe (almost 50% of the production is exported). RGB Technology brand products are present on the markets of more than 30 countries (EU and non-EU).

As a manufacturer, RGB Technology ensure fast delivery, full after-sales and post-warranty service along with the long-term availability of spare parts from the stock.

RGB Technology Sp. z o.o.
75-129 Koszalin, ul. Karola Mytnika 28

ISO 9001:2008
ISO 14001:2004