



WCC Lite is a single-box device not require any vendor-specific power supply or other components and can work as a standalone device for applications such as protocol converting, mini RTU without I/O's, datalogger, etc. WCC Lite is ideal for retrofit projects – as its small footprint allows to fit it into any existing cabinet, while its wide variety of supported protocols and possibility for converting them to each other gives a perfect fit. Additional DI and relay output allow to send information to the SCADA system about power outages and indicate errors on cabinet doors or to use as a simple single command.

Due to the integrated modem feature, WCC Lite with the smallest in the market footprint allows to switch from existing cabling or radio infrastructure to mobile connectivity. WCC Lite has an ideal set of features to become a networking router for small sites including routing, firewall, and VPN features. The high bandwidth of Ethernet and 4G allows to integrate of video surveillance traffic or IED's remote access for configuration, COMTRADE files, and other needs.

Applications

- Power Grid
- Solar energy projects
- Wind energy projects
- Hydro energy projects
- Energy storage applications
- Factory resources supervision
- Substation automation solutions



Technical
documentation



Ordering

Features

- Protocol converter
- Data logger
- Industrial grade router and Ethernet switch
- Rule-based Firewall
- Mobile connectivity via integrated 4G LTE, 3G modem with dual SIM card support.
- VPN client and server (IPsec and OpenVPN).
- Web-based configuration.
- Remote Authentication Dial-In User Service (RADIUS)
- Cyber security:
 - IEEE 1686-2007
 - WEB SSL support for configuration
 - DoS, spoofing prevention
 - ICMP, Multicast, VPN filtering
 - IPsec
 - RADIUS

General

Functionality	<ul style="list-style-type: none"> - Reading Process events from the input/output modules - Send commands to the output modules - Communication with sub-devices to collect events and execute commands - Communicating with control systems and other IOT systems - Handling the configuration via WEB Browser and Elseta configuration tools - Monitor communication status with sub-devices - Sequence-of-Event (SOE) - Execute user scripts to enable custom automation and regulation algorithms - Connectivity: LAN/WAN, Mobile (4G LTE), VPN - Firewall (rules-based)
Data exchange	<p>WCCLite can support up to 16 host systems including hot-standby SCADA systems</p> <p>Every IEC 60870-5 protocol can have shared or independent buffers of events and support multiple SCADA communications at the same time</p>
Data collection	WCCLite series supports the collection of data from up to 50 sub-devices, e.g. IEDs, meters, IO's, and Inverters. Each sub-device connected to WCCLite is supervised and shown status on the diagnostic screen
PLC	<p>WCCLite support:</p> <ul style="list-style-type: none"> - Distributed PLC-based on IEC 61499 standard - Script execution engine (recommended) to write own programs based on LUA programming language
Data storage	WCCLite provides an archive of all data on non-volatile flash for events, measurements, counter values, and security events
Time management	WCCLite provides a multilevel time management solution CPU supports NTP, IEC 60870, and DNP3 time sync multi-sourcing and IOMOD devices have a time sync option with IEC 60870 protocol firmware
Time sync precision	The time base operates with a time resolution of 1 ms

Time sync sources	<p>Multi-time sync options (priority based):</p> <ul style="list-style-type: none"> - Internal RTC clock with battery-based memory up to >15 years of lifetime - NTP (Network Time Protocol) over TCP/IP - IEC 60870-5 time sync support - DNP3 time sync support - IEC 61850 time sync support
-------------------	---

Communication interfaces

Independent Ethernet ports	2x 10/100 Mbps 10/100Base-T compliance IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX
Serial ports	<p>2x RS485 (Standard ANSI/TIA/EIA-485-A)</p> <p>1x RS232 (Standard EIA/TIA-232-E)</p> <p>Switchable with RS485 port1</p>
Mobile communication	<p>4G (LTE) – Cat 4 up to 150 Mbps, 3G – Up to 42 Mbps, 2G – Up to 236.8 kbps</p> <p>2 SIM cards, auto-switch cases: weak signal, data limit, no network, network denied, data connection fail</p>
Other mobile info	Signal strength (RSSI), SINR, RSRP, RSRQ, RSCP, IMSI, ICCID, Signal strength LED indicators, SMS receive/send, APN management
LED indication	To indicate traffic on the interface every interface has an independent LED indication on the receive/send packet

Cyber security

Secure access	Secure access to all services (HTTPS, SSH)
RBAC	<p>Role-based access protection with login and password</p> <p>IEC 62351 by security standards is supported</p>
User administration	<p>Local user's administration with different access levels</p> <p>Central user administration via RADIUS</p>
Password complexity	<p>Fully customizable password policy:</p> <ul style="list-style-type: none"> - minimum password length - maximum password lifetime - usage of lowercase characters - upper case characters - numeric - special characters

Power supply

Auxiliary power supply	<p>9-33VDC (full range)</p> <p>3 kV insulation voltage</p>
------------------------	--

Supported protocols	
IEC 60870	IEC 60870-5-101 Master support IEC 60870-5-101 Slave support IEC 60870-5-103 Master support IEC 60870-5-104 Master support IEC 60870-5-104 Slave support (KEMA Cert.) + IEC 62351 (parts -3) security standard is supported by TLS encryption
DNP3	DNP3.0 TCP(LAN/WAN) Master support DNP3.0 TCP(LAN/WAN) Slave support DNP3.0 Serial Master support DNP3.0 Serial Slave support IEC 62351 (parts 3) security standard is supported by TLS encryption
Modbus	Modbus RTU Master support Modbus RTU Slave support Modbus ASCII Master support Modbus ASCII Slave support Modbus TCP Master support Modbus TCP Slave support
IEC 61850-8-1	Client (Master) support of Editions 1, 2, 2.1 – MMS client – Read services – Write services – Static data sets – Report Control blocks – Controls – Discovery Server (Slave) support of Editions 1, 2, 2.1 – MMS server – Read services – Write services – Static data sets – Report Control blocks – Controls – Discovery IEC 62351 (parts -3, -4, -5, and -6) security standard is supported for authentication and TLS encryption
Meter protocols	M-bus Master support DLMS/COSEM master support IEC 62056-21 master support IEC 62056-31 master support
Other protocols	MQTT RESTful API

Operating conditions	
Operating temperature	-40°C ... 85°C
Storage temperature	-40°C ... 85°C
Relative humidity	max. 95 % (non condensing)
Protection class	IP20
Dimensions	
Installation type	DIN Rail mounting
Case height x width x depth	119 x 22.5 x 101 mm

Order Codes	
<u>WCCLite v1.4</u> <u>without modem</u>	WCCLite without integrated modem for mobile connectivity and SIM cards
<u>WCCLITE v1.4</u> <u>4G/3G/2G</u>	WCCLite with integrated dual SIM cards slots and 4G modem with dual antenna connectors