

Datasheet: com.tom INDUSTRY 115.W

The com.tom INDUSTRY 115.W is a ready-to-use gateway and edge cloud controller for the rapid development of IoT applications.

The device includes a local web server for parametrization, programming logic (WEB-PLC, visual programming editor) and alarm functions.

With the WEB-PLC editor and the integrated com.tom PORTAL communication these devices offer turnkey solutions for process data acquisition, process automation and remote service.



Technical data

IPC@CHIP®	SC145 Embedded Controller 32-bit processor with 528 MHz 128 MB RAM (DDR3) 64 MB flash disk
Real-time clock	Backed by a lithium rechargeable battery
Ethernet interface	2 x 10/100BaseT RJ45 connectors Link and traffic LED indicators
Serial interface	1 x RS485 5.08/02 connector
SD card interface	1 x microSD card SD / SDHC Push/push slot
Supply voltage	24 VDC (-15%/+15%) 5.08/03 connector
Active current	50 mA (max)

Software

Operating System	IPC@CHIP® RTOS-LNX Real-time operating system
WEB-PLC editor and runtime	Visual programming editor running on the internal web server Quick I/O mapping editor Up to 1024 I/O values Up to 256 portal variables
WEB-PLC diagram	Up to 512 function units, I/O values, portal variables and constants IPO cycle time: 10 to 1000 ms

WEB-PLC function units

Data type converters:
Bool, Uint8, Sint8, Uint16, Sint16,
Uint32, Uint64, Sint32, Sint64,
Float32, Float64, String

Binary:
AND, OR, XOR

Bits and bytes:
Extract, Pack, Put Bit, Shift Register,
Unpack

Controllers:
On/Off, P, Shade

Messages:
Send, Receive

Numerical:
Addition, Subtraction, Multiplication,
Division, Minimum, Maximum, Min
Acc, Max Acc, Average, Counter,
Compare, Signal Limiter, Signal
Converter, Signal Smoother, Signal
Tracker

Special:
First Cycle, OpenVPN, Portal Status

Storage, Selection, Edge Detection:
Demultiplexer, Multiplexer, RS
Flipflop, T Flipflop, Trigger, Analog
Trigger, Load Profile, State Machines

Timing:
Local Clock, Local Clock Timer, UTC
Clock, UTC Clock Timer, Stop Watch,
TON, TOFF, TP, Timer, Compare
Time, Time Switches

WEB-PLC additional functions

Event log:
System events are logged to a circular
buffer in RAM with timestamp,
message and event type

Simple Network Time Protocol
(SNTP) synchronization of the system
clock

OpenVPN client:
Integrate the com.tom device into a
virtual private network

DHCP server:
Up to 100 clients, up to 20 static
leases

NAT:
Route traffic between a local (internal)
and a global (external) network, up to
1000 mappings, up to 50 static
mappings

Firewall:
Filter incoming traffic, up to 1000 rules
(including dynamic rules for outgoing
traffic), up to 50 static rules

Messages:

	<p>Send and receive short messages (up to 10 templates respectively)</p> <p>Modbus RTU master/slave: Up to 32 devices and 512 values (up to 1024 values including array members)</p> <p>Modbus TCP client/server: Up to 32 devices and 512 values (up to 1024 values including array members)</p> <p>CODESYS network variables: Up to 32 lists and 512 values</p> <p>SNMP manager: Up to 32 agents and 512 values Trap receiver</p> <p>COM server: According to RFC 2217</p> <p>Time switches: Up to 8 switches, crontab format</p> <p>MicroBrowser interface</p> <p>Local or remote installation of updates (firmware or configuration)</p> <p>Export: Export the diagram and/or the settings of the com.tom device as an update package</p>
OPC-UA server	<p>Micro Embedded Device Server Profile</p> <ul style="list-style-type: none"> - User Token – User Name Password Server Facet - SecurityPolicies – None, Basic128Rsa15, Basic256Sha256 - UA-TCP UA-SC UA-Binary - Embedded DataChange Subscription Server Facet <p>Up to 32 groups, 512 values, 1024 scalar values or array elements</p> <p>Up to 4 concurrent client connections</p>
com.tom PORTAL communication	<p>Transferred information:</p> <ul style="list-style-type: none"> - Device information - Portal round trip times - Update URL, trigger and status - OpenVPN activation and status - Event log messages - I/O values - Portal variables

Environmental data

Operating temperature (TA)	0°C to +55°C
Operating and storage humidity	5% to 95% relative humidity, non-condensing
Protection class	IP20

Mechanical data

Size (W x L x H)	37 x 97 x 62 mm
Material	Plastic housing
Mounting	DIN rail mounting

Compliance and Conformity

CE, RoHS/WEEE	
- EMC emission	IEC 61000-6-3
- EMC immunity	IEC 61000-6-2
- Low Voltage Directive	IEC 62368-1
- Protection Rating	IEC 60529: IP20