


# Z-PASS2-RT-S

## 4G IIoT Edge Controller

## Highlights

- **SoftPLC based controller StratON IEC 61131-3**
- **Nr. 2 Fast Ethernet ports10/100Tx on front RJ45**
- **Nr.1 switchable serial port RS232 / RS485**
- **Nr.2 RS485 serial ports**
- **Nr.1 USB host 2.0 port**
- **Nr.1 4G LTE modem**
- **Nr.6 digital I/O channels , 2 analog inputs**
- **Supported protocols : ModBUS TCP Server, ModBUS RTUMaster /Slave, FTP/ SFTPServer, HTTP /HTTPS Server,OpenVPN , SSL, MQTT, OPC UA, http post, SNMP**
- **Energy Protocols: IEC60870 101, IEC 60870 104, IEC61850**
- **Cybersecurity certificate (penetration testing) OWASP,NIST 800 115, Risk Analysis,IEC 62443**

Z-PASS2-RT-S is a high performance multifunction controller combining PLC with routing and remote access functions. It is in fact based on StratON softPLC with built in web server, VPN and 4 G LTE modem/router with GPS/Glonass Equipped with 2 Fast Ethernet ports manageable in Switch and LAN/WAN mode), 3 serial ports and 1 USB host 2 0 port, Z-PASS2-RT-S supports ModBUS TCP Server, ModBUS RTU Master/ Slave, FTP/SFTP Server HTTP /HTTPS Server, SNMP, OpenVPN, SSL, IoT protocols (OPC UA http post) and the optional Energy Management protoctos (IEC 60870 101 IEC 60870 104 IEC 61850. The controller has 6 digital channels and 2 configurable analog inputs The device is configurable via Z-NET4, web server and programmable in IEC 61131 3 enviroment. It also makes use of 512 MB RAM, 4 GB Flash Memory and slots for Micro SD up to 32 GB. Integrated into the remote assistance and telecontrol LET'S platform, Z-PASS2-RT-S can support Point-To-Point or Single LAN connections. The device complies with the highest IT security standards starting from the compliance with penetration testing conducted according to OWASP, NIST 800 115 Risk Analysis and IEC 62443.

4G · OPC UA · MQTT · straton · LET'S VPN CONNECTIVITY SOLUTIONS · Penetration Test passed

100% Made & Designed in Italy

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# Z-PASS2-RT-S



## 4G IIoT Edge Controller

## TECHNICAL DATA.

### GENERAL DATA.

| | |
|---|---|
| Power supply | 11..40 Vdc |
| Power consumption | 2.5..10 W @ 24 Vdc |
| Isolation | 1,500 Vac |
| Status indicators (LEDs) | Ready to use; I/O status; RX/TX serial communication; Ethernet link and traffic; Modem power; Network power; Data transfer |
| Protection degree | IP20 |
| Flash Memory (data) | ≥4 GB |
| RAM | 512 MB |
| Micro SD | Max 32 GB |
| I/O Channels | Nr.6 configurable DI/DO and Nr.2 AI (mA, V) |
| Operating temperature | -25..+65°C |
| Dimension (lxhxp) | 52.5 x 112 x 100 mm |
| Weight | 270 g |
| Case | Black PA6 glass-filled plastic |
| Mounting | For 35 mm rail IEC EN 60715 |
| Approvals | CE, UKCA |

### COMMUNICATION

| | |
|---|---|
| Ethernet ports (ETH1, ETH2) | Nr. 2 Fast Ethernet 10/100Tx on front RJ45 |
| Serial ports (COM1, COM2, COM4) | Nr. 1 RS232 / 485 serial selectable via software, max baud rate 115kbps<br>Nr. 1 RS485, max baud rate 115kbps on IDC10 connector and terminals<br>Nr. 1 RS485, max baud rate 115kbps on terminals |
| USB ports | Nr. 1 USB host type A side connector ; No. 1 Micro USB (debug) |
| CAN port | Nr. 1 CAN port on terminals |
| Modem | Multiband M2M/IoT, 4G / LTE World Wide |
| Gelocalization | GPS / GLONASS / BeiDou (compass) / Galileo / QZSS |
| Communication protocols | ModBUS TCP server, ModBUS RTU master/ slave, FTP/SFTP server, HTTP/HTTPS server, SNMP |
| IoT Protocols | MQTT, OPC UA, http post |
| Operating modes | SoftPLC ModBUS RTU/ASCII TCP-IP Gateway, Modbus Gateway shared memory (via TCP-IP), Transparent Gateway, Serial Device Server, LAN Router, LAN/WAN switch, datalogger, remote alarm unit, remote service/remote control VPN unit, LAN/WAN switch, Nat 1:1, Static Router |

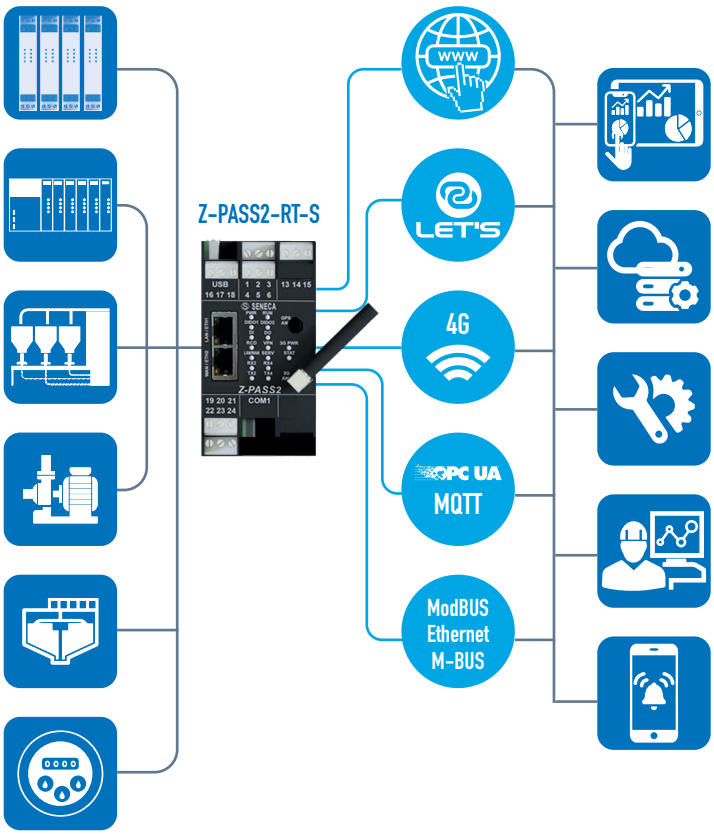
### SECURITY

| | |
|---|---|
| Remote access blocking | Mechanical, digital input |
| LAN/WAN separation | Yes |
| Authentication | 2-factor (Google Authenticator) |
| Permission management | Supervisor / Users / Groups |
| Encryption algorithm (data encryption) | OpenVPN AES-256bit-CBC + Auth SHA256 bit or user selectable |
| Fixed TCP-IP ports for remote assistance | Yes |
| Security protocols | OpenVPN, SSL, HTTPS Server, MQTT over SSL/TLS, TLS 1..2 or higher |
| SSL/TLS certificates | Automated TLS certificate management for HTTPS |
| Cybersecurity certificate (penetration testing) | Yes, OWASP, NIST 800-115, Risk Analysis, IEC62443 |

### SETTINGS AND SOFTPLC

| | |
|---|---|
| Configuration environment | Z-NET4, Web Server |
| PLC programming | IEC 61131-3 (Straton) |
| Max variables/tags | 1000 |
| Program size | 2048 kB |
| Diagnostics | Web Server |
| Data logging and display | Data Recorder, Trend Viewer, Web Factory |
| VPN management software | Open VPN, VPN Client Communicator |
| Management tool | SDD, SESC |
| LET'S teleservice/ telecontrol support | Yes |

## CONNECTIVITY




## ORDER CODES

| Code | Description |
|---|---|
| **CONTROL UNIT** | |
| Z-PASS2-RT-4G-S | IIoT Edge controller, 4G, GPS and built-in I/O |
| Z-PASS2-RT-4G-E | IIoT Edge controller, 4G, Energy protocols, GPS and built-in I/O |
| **VPN SERVERS** | |
| VPN-BOX-2 | PC Box - VPN Server for simulteneous connections and low latency Poin-To-Point / Single LAN |
| VPN-BOX-2-VM | VPN-BOX-2 Virtual Machine |
| VPN-CC-2 | VPN Client Communicator, remote access software VPN-BOX-2 |
| **SOFTWARE TOOLS** | |
| SDD | SENECA Discovery Device |
| SESC | SENECA Ethernet to Serial Connection |
| STRATON-870-850 | Lic. IEC 60870-5-101/104 Master / Slave + IEC 61850 Client / Server |
| STRATON-870M | IEC 60870-5-101/104 Master Activation License |
| STRATON-870S | Activation license IEC 60870-5-101/104 Slave |
| STRATON-870S-850 | IEC 60870-5-101/104 Slave+IEC 61850 Client/Server activation license |
| STRATON-D-USB | Straton USB dongle |
| STRATON-IDE256 | Straton environment 256 tags with USB activation key |
| STRATON-IDE512 | Straton 512 tag environment with USB activation key |
| STRATON-IDEUN | Straton IDE unlimited tag - IEC 61131 development environment |
| **ACCESSORIES** | |
| CS-TIP-MEF-PH | Serial communication cable (Tips / 4-way female connector) |
| CS-DB9M-MEF-PH | Serial communication cable (DB9M connector / 4-way female connector) |
| CE-RJ45-RJ45-R | Straight ethernet cable (RJ45 / RJ45) |
| MSD | Micro SD memory card with adapter |
| Z-PC-DIN1-35 | DIN rail quick mounting bracket 1 slot 35 mm pitch |
| Z-PC-DIN4-35 | DIN rail quick mounting bracket 4 slots 35mm pitch |
| Z-PC-DINAL1-35 | DIN rail quick mounting bracket - head + 1 slot 35 mm pitch |
| Z-PC-DINAL2-52.5 | DIN rail quick mounting bracket - head + 2 slots p=52.5mm |
| **ANTENNAS** | |
| A-GPS | External GPS antenna with MMCX magnetic base, 3 m cable |
| A-GPS-SMA | GPS antenna with SMA mount |
| A-GSM | External GSM dual band swing antenna cable 3.2 m |
| A-GSM-DIR-5M | GSM-DECT-UMTS triband directional antenna SMA-M,cable 5 mt |
| A-GSM-MG | External magnetic dual band antenna SMA cable 2.5 mt |
| A-GSM-OMNIDIR | Omnidir antenna GSM-UMTS-WIFI, 5.1 dB, SMA-M cable 5 mt |
| A-GSM-OMNIDIR-10 | Omnidir antenna GSM-UMTS-WIFI, 5.1 dB, SMA-M cable 10 mt |
| A-GSM-QUAD-N | Omnidirectional external antenna 4G/WI-FI, FME, 5 mt cable |
| A-GPS-SMA | Antenna GPS con attacco SMA |

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