



## TBOXLT2

All-in-one Internet-ready RTU for automation and monitoring applications

|  |  |            |            |            |            |            |            |            |  |
|--|--|------------|------------|------------|------------|------------|------------|------------|--|
| <b>Designation</b>                                     | Industrial-grade remote terminal unit (RTU)  |            |            |            |            |            |            |            |  |
| <b>Processor</b>                                       | 32 bits ARM9, 400MHz   |            |            |            |            |            |            |            |  |
| <b>Clock</b>   | Real-time clock with lithium battery backup  |            |            |            |            |            |            |            |  |
| <b>Memory</b>  | 32MB NOR Flash 64MB DDR2 SDRAM 1MB SRAM with lithium battery backup<br>Industrial grade µSD card to 32GB (see our price list)  |            |            |            |            |            |            |            |  |
| <b>Toggle switch</b>                                   | Run – Stop – Reset   |            |            |            |            |            |            |            |  |
| <b>Communication</b>                                   | Ethernet (10/100), USB, Serial (RS-232/RS-485) and optional LTE/4G modem   |            |            |            |            |            |            |            |  |
| <b>LT2-xxx-4W-2</b>                                    | 12 bands LTE(4G), 7 bands UMTS/HSPA+ (3G), 4 bands GPRS/EDGE (2G)  |            |            |            |            |            |            |            |  |
| <b>LT2-xxx-S</b>                                       | One additional full RS232 serial port  |            |            |            |            |            |            |            |  |
| <b>Power supply</b>                                    | DC powered, 9 to 30VDC, solar panel can be used Card consumption is typically 1.2W @ 24VDC   |            |            |            |            |            |            |            |  |
| <b>Power backup</b>                                    | Embedded battery charger, 13.8VDC temperature compensated For sealed lead acid batteries only; recommended model: 12V, 7Ah   |            |            |            |            |            |            |            |  |
| <b>Models LT2 -</b>                                    | <b>500</b>   | <b>510</b> | <b>520</b> | <b>530</b> | <b>532</b> | <b>540</b> | <b>542</b> | <b>562</b> |  |
| <b>Digital Inputs or Outputs (3DI can be counters)</b> | 0  | 10         | 10         | 16         | 16         | 16         | 16         | 24         |  |
| <b>Analog Inputs (4-20mA or 0-10VDC)</b>               | 0  | 0          | 4          | 8          | 8          | 6          | 6          | 1          |  |
| <b>Analog Outputs (4-20mA)</b>                         | 0  | 0          | 0          | 0          | 2          | 0          | 2          | 1          |  |
| <b>Temperature Inputs (Pt1000)</b>                     | 0  | 0          | 0          | 0          | 0          | 2          | 2          | 0          |  |
| <b>Connectors</b>                                      | Spring-cage terminal blocks for power, I/O, RS-232 and RS-485  |            |            |            |            |            |            |            |  |
| <b>Operating System</b>                                | Linux Kernel with TBox Telecontrol stack   |            |            |            |            |            |            |            |  |
| <b>Programming</b>                                     | Via TWinSoft Suite (including WebForm Studio 2.0 and Report Studio)  |            |            |            |            |            |            |            |  |
| <b>Languages</b>                                       | Ladder logic, BASIC (IEC 61131-3) and optional C/C++ add-ons   |            |            |            |            |            |            |            |  |
| <b>Alarm handling</b>                                  | Smart alarm management with embedded calendar  |            |            |            |            |            |            |            |  |
| <b>Data logging</b>                                    | Smart data logging: Sampling tables (periodic) + digital & analogue chronologies (event)   |            |            |            |            |            |            |            |  |
| <b>SCADA compatible</b>                                | TView, InTouch, iFix, Control Maestro, CITECT, Topkapi, Cube, Labview, Panorama, Scope-X, VTScada  |            |            |            |            |            |            |            |  |
| <b>Remote upload</b>                                   | Up to firmware level   |            |            |            |            |            |            |            |  |
| <b>IT features</b>                                     | HTTP(S), FTP(S), SMTP(S) & POP3(S), SNMP, IP forwarding, DynDNS, NTP, SSH/SCP/SFTP   |            |            |            |            |            |            |            |  |
| <b>Protocol support</b>                                | Support for over 40 protocols, including Modbus (master/slave, RTU/TCP/ASCII), DNP 3.0, IEC 60870-5-101/104, OPC UA, MQTT(S), Siemens ISO-on-TCP, Allen Bradley DF1 & EtherNET/IP, IEC-61850 (MMS) and many more |            |            |            |            |            |            |            |  |
| <b>Security</b>  | Firewall, 4 levels of authority, HTTP Session Authentication, SSL/TLS & X.509 Certificates, IEEE802.1X   |            |            |            |            |            |            |            |  |
| <b>Size</b>  | 150mm (H)x 83mm (D)x 29mm (W) / 5.91" x 3.27" x 1.4"   |            |            |            |            |            |            |            |  |
| <b>Weight</b>  | 515gr/18.17oz  |            |            |            |            |            |            |            |  |
| <b>Mounting</b>  | DIN rail fixing  |            |            |            |            |            |            |            |  |
| <b>Temperature</b>                                     | Storage: -40°C to +80°C / -40°F to 176°F<br>Working: -40°C to +70°C / -40°F to +158°F  |            |            |            |            |            |            |            |  |
| <b>Humidity</b>  | 0-95% non-condensing   |            |            |            |            |            |            |            |  |
| <b>Altitude</b>  | Max. 4000m   |            |            |            |            |            |            |            |  |
| <b>Material</b>  | Proprietary aluminium enclosure, Alodine coating against corrosion   |            |            |            |            |            |            |            |  |
| <b>Approvals</b>                                       | CE, UL/CSA, FCC, IC, RCM, RED, Class I Div.2, IEC 60068-2-6/27/31/64   |            |            |            |            |            |            |            |  |
| <b>MTBF</b>  | >1,000,000 hours, statement available upon request   |            |            |            |            |            |            |            |  |

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