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TOSIBOX® SOLUTIONS AND SERVICES

Your secure and scalable solution from remote access to global OT networking

TOSIBOX

CONTENTS

Product name	TOSIBOX® 610	TOSIBOX® 650	TOSIBOX® 670	TOSIBOX® 675
Matching	Physical and remote	Physical and remote	Physical and remote	Physical and remote
Internet connectivity	ethernet	WLAN, ethernet	4G x 2, ethernet	4G x 2, WLAN, ethernet
LTE	No	No	Yes	Yes
Dual sim	No	No	Yes	Yes
LAN ports	3 (10/100/1000)	3 (10/100/1000)	3 (10/100/1000)	3 (10/100/1000)
GPS	No	No	Yes	Yes
Built-in firewall with 1:1 NAT	Yes	Yes	Yes	Yes
TosiOnline™	Yes	Yes	Yes	Yes
End-to-end VPN	Yes	Yes	Yes	Yes
SW auto-update	Yes	Yes	Yes	Yes
Layer 2 / Layer 3	Yes	Yes	Yes	Yes
Connectivity with Tosibox Ecosystem	Yes	Yes	Yes	Yes
Access Control	With Tosibox Key or Tosibox VCL	With Tosibox Key or Tosibox VCL	With Tosibox Key or Tosibox VCL	With Tosibox Key or Tosibox VCL
VPN throughput	70 Mbps	70 Mbps	70 Mbps	70 Mbps
DIN rail attachment	Yes	Yes	Yes	Yes
Power	Industrial Plug	Industrial Plug	Industrial Plug	Industrial Plug
Operating temperature	-40 ... +75 °C	-40 ... +75 °C	-40 ... +75 °C	-40 ... +75 °C
Regulatory	CE, RCM	CE, FCC, IC, RCM	CE, FCC, IC, RCM,ATT, PTCRB	CE, FCC, IC, RCM, ATT, PTCRB
Casing material	Aluminum housing	Aluminum housing	Aluminum housing	Aluminum housing

NODE

TOSIBOX® Lock 150

CE FC IC cULus LISTED

Compliance with
IMDA Standards
DB107332

TOSIBOX® Lock 150 is an industrial router with firewall and secure Plug & Go™ connectivity. It serves as an endpoint for secure remote connections.

IoT devices connected to the Lock can be securely accessed over the Internet and most LAN and WAN networks through an encrypted VPN connection. TOSIBOX® Lock 150 is compatible with all existing TOSIBOX® products.

Technical data

Product codes
TBL15

Ports
- 1 x USB 2.0, type A
- 1 x RJ-45 WAN connection, 10/100 Mb/s, auto-negotiation (MDI / MDI-X)
- 3 x RJ-45 LAN connection, 10/100 Mb/s, auto-negotiation (MDI / MDI-X)
- x RJ-45 Service connection, 10/100 Mb/s, auto-negotiation (MDI / MDI-X)

Connections
- 10-30V DC ±10% (reverse polarity protected)
- 2 x Wireless network antenna connector, RP-SMA Female
- DIN rail attachment (bottom), angle bracket available as an accessory (TBMBD1)

WAN connection features
- Independent of operating systems
- Works in all Internet connections (operator independent)
- Supports HTTP proxy servers with and without authentication
- Firewall friendly
- Works with dynamic, static and private IP addresses
- Built-in firewall, NAT
- Up to 10 concurrent VPN connections
- VPN throughput 10 Mb/s

Mobile connection features
- Supported 4G USB modems: TOSIBOX® 4G modem

- TosiOnline™ Automatic network recovery that recovers from most mobile operator and modem problems

WLAN
- IEEE 802.11 b/g/n, max. 150 Mbps
- WEP, WPA-PSK, WPA2-PSK, WPA-PSK/WPA2-PSK Mixed encryption
- Frequency 2.412 – 2.462 GHz, 11 channels
- Output power 20 dBm max

Included accessories
- RJ-45 Cat6 Ethernet cable, USB extension cable
- 2 x WLAN antennas, 2 dBi
- AC Adapter: Input 100 – 240V AC, frequency 47 – 63 Hz, Output 24.0 V, 0.8 A, max 7.2 W. EU, UK, AU or US Power Socket
- DC input plug
- DIN rail mounting bracket

Physical properties
- 132 mm x 99 mm x 35.5 mm / 5.2" x 3.9" x 1.4" (L x W x H)
- Weight 593 g / 1.31 lbs (net weight article)
- Cast aluminium casing
- Operating temperature -20 ℃ ... +55 ℃ / -4 °F ... 131 °F
- Operating humidity: 20 – 80% RH, non-condensing
- Storage temperature -40 ℃ ... +70 ℃ / -40 °F ... 158 °F
- Protection class IP20

NODE

TOSIBOX® 175

CE FC

TOSIBOX® 175 is a cost-effective Plug & Go™ connectivity device and is ideal for demanding industry sectors that require an all-in-one solution that is compact, able to handle all environments and suited to global market usage. The 4G module and external 4G antenna provides stable Internet access, so the node can be easily configured anywhere. The versatile connectivity options, utilized in conjunction with leading edge Cyber security technology from TOSIBOX® enable diverse application scenarios.

The durable aluminium alloy shell and small form factor allows for ideal mounting conditions. Creating secure and sustainable infrastructure has never been this easy. is an industrial router with firewall and secure Plug & Go™ connectivity. It serves as an endpoint for secure remote connections. TOSIBOX® 175 is compatible with all existing TOSIBOX® products.

Technical data

Product codes
TBL175

Ports
• 1 x RJ-45 WAN connection, 10/100 Mb/s, auto-negotiation (MDI / MDI-X)
• 1 x RJ-45 LAN connection, 10/100 Mb/s, auto-negotiation (MDI / MDI-X)
• LAN can be assigned as Service connection, 10/100 Mb/s, auto-negotiation (MDI / MDI-X)
• RS485 port is not supported in the software. The device can be powered through the port

Connections
• 9-35V DC
• 1 x WiFi antenna connector, RP-SMA Male
• 1 x LTE antenna connector, SMA Female
• DIN rail attachment (back)
• Maximum power consumption 10W
Connection features
• 3-way WAN priority
• Proxy server support
• WAN access with static addressing or DHCP
• Network Time Protocol (NTP) server
• Automatic LAN network discovery
• LAN access with mixed static addressing and DHCP server
• Static routes
• Works in all Internet connections (operator independent)
• Firewall friendly

• Works with dynamic, static and private IP addresses
• Built-in firewall, NAT
• Up to 10 concurrent VPN connections
• VPN throughput up to 10 Mbit/s
• TosiOnline™ Automatic network recovery that recovers from most mobile operator and modem problems
• Built-in firewall, NAT

4G Module
• Region: GLOBAL
• LTE Cat-4
• Up to 150 Mbps DL, 50 Mbps UL

• Frequency Bands
• LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28
• LTE TDD: B38/B39/B40/B41
• WCDMA: B1/B2/B4/B5/B6/B8/B19

WLAN
• IEEE 802.11 b/g, 2.4 GHz, max. 150 Mbps
• Encryptions WEP, WPA-PSK, WPA2-PSK, WPA-PSK/WPA2-PSK mixed mode
• Frequency 2.412 – 2.462 GHz, 11 channels
• Access point or client mode
• Output power 20 dBm max

Included accessories
• RJ-45 Cat5e Ethernet cable
• 1 x LTE antenna
• 1 x WiFi antenna
• DIN rail mount
• Power supply unit
• AC adapter - Input 100 – 240 V AC, frequency 50/60Hz 0,3A, Output 12.0 V, 1.0 A, max 12.0 W. EU, UK, AU and US power socket

Physical properties
• 104 mm x 28 mm x 110 mm / 4.09" x 1.10" x 4.33" (L x W x H)
• Storage temperature -30 °C ... +70 °C / -22 °F ... +158 °F
• Protection class IP30
• Weight 305 g / 0.67 lbs (net weight article)
• Operating temperature -20 °C ... +55 °C / -4 °F ... +131 °F

NODE

TOSIBOX® Lock for Container

With TOSIBOX® Lock for Container, services running on the connected device can be securely accessed over the Internet and most LAN and WAN networks through highly encrypted VPN connection.

TOSIBOX® Lock for Container is suitable for demanding and hazardous applications such as medical, marine, transport and oil industries. In these scenarios TOSIBOX® Lock for Container brings secure connectivity to hardware devices designed to meet demanding requirements.

TOSIBOX® Lock for Container is also perfect for developers, device manufacturers, and integrators who are innovating new ecosystem technology.

Technical data

Product code:
TBLFC1

Recommended software requirements
- Any 64-bit Linux OS supported by Docker and Docker Engine - Community v20 or later installed and running (www.docker.com)
- Docker Compose
- Linux kernel version 4.9 or later
- Full functionality requires certain kernel modules related to IP tables
- Any 64-bit Windows OS with WSL2 enabled (Windows Subsystem for Linux v2)
- Installation requires sudo or root level user rights

Recommended system requirements
- 50 MB RAM
- 50 MB hard disk space
- ARM 32-bit or 64-bit, Intel or AMD 64-bit dual core processor
- Internet connectivity

Security
- Patented TOSIBOX® connection method
- PKI with 3072-bit RSA key
- Compatible with all TOSIBOX® devices and products
- Uses Remote Matching for including to your TOSIBOX® secured network
- Uses device firewall for security
- TOSIBOX® software separated from system software

WAN connection features
- Serves as an endpoint for TOSIBOX® secure VPN tunnel
- VPN connections to/from Virtual Central Lock
- VPN connection from TOSIBOX® Key
- Works in all Internet connections (operator independent)
- Supports HTTP proxy servers with and without authentication
- Works with dynamic, static and private IP addresses
- Up to 2 concurrent VPN connections
- VPN throughput limited only by network connection
- Layer 3 connections
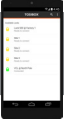- LAN access if supported by the device

User Interface
Packed with TOSIBOX® web UI for remote configuration

Required open firewall ports
- Outbound TCP: 80, 443, 8000, 57051
- Outbound UDP: random, 1-65535
- Inbound: none

TOSIBOX® KEY is a client used to access the network. The network can have several admins and numerous users using physical TOSIBOX® Keys, TOSIBOX® Mobile Client app or TOSIBOX® SoftKey software license.

Functions	TOSIBOX® Key	TOSIBOX® SoftKey	TOSIBOX® Mobile Client
TOSIBOX® Plug & Go™ Technology	Yes	Yes	Yes
Key role	Master Key, Backup Key, Sub Key	Sub Key	Sub Key
Cryptographic key size and type	2048 bit RSA, hardware-based	4096 bit RSA	2048 bit RSA
Data encryption	TLS, Blowfish-128-CBC, AES-128-CBC, AES-256-CBC	TLS, Blowfish-128-CBC, AES-128-CBC, AES-256-CBC	TLS, Blowfish-128-CBC, AES-128-CBC, AES-256-CBC
VPN connection type	Layer 2 / Layer 3 (OpenVPN)	Layer 2 / Layer 3 (OpenVPN)	Layer 3 (OpenVPN on Android, IPsec/IKEv2 on iOS)
Mobile Client for Android and iOS	Yes (1 license incl.)	No	N/A
Two-factor authentication	Yes	Yes	Yes
Product code	TBK2	TBSKL1 TBSKL5 TBSKL10	TBMC1 TBMC5 TBMC10

TOSIBOX® Key

TOSIBOX® Key is an intelligent cryptoprocessing device that enables a secure connection between your computer and one or more TOSIBOX® Locks, giving you full visibility and control over the network devices connected to the Lock.

Connections are established through a secure, encrypted VPN tunnel over the Internet or other common WANs and LANs, and permissions can be easily granted, revoked and configured in an unlimited number of ways. TOSIBOX® Key comes with a durable light metal alloy casing.

Starting from the ID "EF" TOSIBOX® Key conforms to the FIPS 140-2 level 3 regulations. The ID is the first two letters of the serial number found on the nameplate.

Physical properties
- 83 mm x 22 mm x 10 mm / 3.27" x 0.87" x 0.39" (L x W x H)
- Weight 27 g / 0.06 lbs
- Casing aluminium and plastic
- Operating temperature 0 °C ... +70 °C / +32 °F ... +158 °F
- Storage temperature -20 °C ... +80 °C / -4 °F ... +176 °F
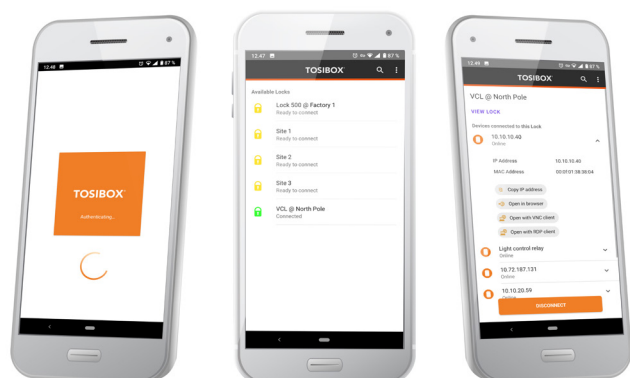
TOSIBOX® Mobile Client

TOSIBOX® Mobile Client gives you secure and easy remote access on the go by enabling secure VPN connections to matched TOSIBOX® Lock devices, using the mobile device's Wi-Fi or mobile data connection.

TOSIBOX® Mobile Client is built on the physical security foundation of TOSIBOX® products: the access rights are granted and controlled from the physical TOSIBOX® Key, after which the Mobile Client remains bound to it. The access rights are device-specific and non-transferrable.

TOSIBOX® SoftKey

TOSIBOX® SoftKey is a computer software that enables a secure connection between your computer and one or more TOSIBOX® Locks, giving you full visibility and control over the network devices connected to the Lock.

The SoftKey works without a physical TOSIBOX® Key device. The SoftKey corresponds a Sub Key that is controlled via a physical Master Key, and therefore it cannot be used to create more keys or Mobile Clients. The access rights are granted and controlled from the physical TOSIBOX® Key, after which the SoftKey remains bound to it. The access rights are device-specific and non-transferrable.

TOSIBOX® SoftKey

HUB

TOSIBOX® HUB is the platform for OT network and access management. You can limit access, add new users and objects simply by drag and drop.

Functions	TOSIBOX® Central Lock	TOSIBOX® Virtual Central Lock
TOSIBOX® Plug & Go™ Technology	Yes	Yes
Mounting options	19" rack mounting, rails included	N/A
Power input	90 - 264 V AC	N/A
3G / 4G USB modem support	No	N/A
WAN port	1 Gbit/s	One required, dependent on virtual platform
LAN ports	4 x 1 Gbit/s, independent	One required, dependent on virtual platform
VPN throughput	Up to 700 Mbit/s	Dependent on virtual platform
VPN encryption	Blowfish 128 bit CBC, AES 128/192/256 bit CBC	Blowfish 128 bit CBC, AES 128/192/256 bit CBC
VPN connection authentication	PKI, 3072 bit RSA	PKI, 3072 bit RSA
Concurrent VPN connections	Max 4000	Dependent on virtual platform and license
Supported platforms	N/A	VMWare ESXi, Microsoft, Hyper-V, Linux KVM
WLAN	No	N/A
Operating temperature		N/A
Measurements (LxWxH)	570 mm x 430 mm x 43 mm / 22.44" x 16.93" x 1.69"	N/A
Power consumption	Max 250W	N/A
Approvals	CE, FCC, UL	N/A
Product codes	TBCL1	TBVCL1 TBVCL1LP100 Licence Package required

TOSIBOX

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