

## System parameters

### Router

Ethernet interfaces	1 x 1000BASE-SX, 4 x 1000BASE-TX, 6 x 100BASE-FX
WAN interfaces	4 x 34 Mbps, 8 x 2 Mbps,
Routing bandwidth	For packages with length from 64 B (RFC2544): - routing between two Ethernet interfaces 1 Gbps, - total efficiency of routing between Ethernet interfaces 4 Gbps, - routing efficiency from WAN interfaces min. 180 Mbps (for 12 WAN directions).
Functionality	RIPv1, RIPv2, OSPF, BGP MPLS (CESoMPLS, TDMoIP) QoS FIREWALL NAT Administration through SNMP, SSH, HTTP, operator's console and desktop.
<b>Commutator</b>	
Route interfaces	20 x E1 (STANAG 4210, G.703) 4xSHDSL (range up to 4 km, bandwidth up to 2 Mbps) 4 x optical interfaces (E1, E2, E3, stream of up to 34 Mbps)
Functionality	Possibility to commutate routes with other routes as well as with the router's WAN interfaces. Possibility to commutate channels in framed routes G.704 or STORCZYK. Lock-less commutation matrix for all routes connected to the device.
Power supply	22-30 VDC.
Weight	< 32 kg
Dimensions	width 502 mm - 2 mm height 258 mm - 2 mm (with legs) length 498 mm 0,3 mm (with handles)
Mechanical and climatic classification	N7-UZ-II-(A and B) according to NO-06-A101:2005 and NO-06-A103:2005
Power consumption	<5A
Casing type	4WM
Ambient temperature range	From -30 °C to +50 °C
Working temperature	From -40 °C to +65 °C
Limit temperature (for storage)	

tactical communication systems | measurement instruments | controllers



# Set of line terminals ZZL-12E

Super efficient IP router



Transbit Sp. z o.o.  
ul. Przczołkowa 109A  
02-968 Warszawa, Poland



biuro@transbit.com.pl  
www.transbit.com.pl



phone: +48 22 550 48 00  
fax: +48 22 550 48 10

ZZL-12E Highlights

The super efficient router IP ZZL-12E is the successor of devices from line ZZL-12, that's why it has a commutator of routes and a commutator of channels as a standard. The router uses equipment mechanisms of IP packages routing, which allowed to achieve the full efficiency of 1Gb of Ethernet interfaces, even for 64 B frames. The very high effectiveness of routing in the ZZL-12E is combined with an abundance of connection ports.

Our solution includes:

- 11 router Ethernet interfaces, in standards 100BASE-FX, 1000BASE-SX and 1000BASE-TX,
- 28 route interfaces, in electrical standards STANAG 4210 and G.703, SHDSL and optical, of bandwidth of up to 34Mbps , which may operate in modes E1, E2, E3 and as data streams.

The ZZL-12E implements:

- Routing protocols RIPv1, RIPv2, OSPF, BGP,
- MPLS, sending TDM routes through IP networks (CESoMPLS, TDMoIP),
- QoS, package marking and band management,
- Firewall, IP traffic filtering,
- NAT,
- Administration through the WWW, SNMP, operator's console and desktop.

The ZZL-12E is perfect for military connection shelters and allows to take full advantage of the potential of modern broadband, horizontal radio relays for connecting territorially distant command posts into a single data exchange network. It also allows to share transmission means through a channel commutation system and an IP package commutation system. The ZZL-12E may also directly cooperate with four radio relays of various types, with bandwidth of up to 34 368 kb/s. Internal IP router makes it possible to combine up to 12 WAN connections.

The device has an intuitive and maximally simplified configuration interface. Using the WWW for the device configuration does not require the user to install additional software on the computer, which makes it possible to administer the device from virtually anywhere in the network.

Pictures



The routing efficiency 1 Gbps for frames from 64 B (in accordance with RFC2544)

Set of line terminals ZZL-12E