



## Genexis Pure

### Pure Ethernet DSL-Series

Full speed, seamless connectivity



The Pure residential gateway is ready to provide a reliable and stable WiFi connection to all of your wireless devices at home.

Being the core of your complete In-Home network, Pure supports advanced WiFi features, such as band steering, 802.11 k,v,r roaming and airtime fairness.

#### Key features

- High-speed gateway with 4 managed Gigabit Ethernet ports
- WLAN Access Point (2.4GHz 11/b/g/n & 5.0GHz 11a/n/ac concurrent dual band)
- xDSL v.35b and G.Fast-212 MHz support (Annex A and Annex B)
- Two telephony ports (SIP-based VoIP)
- Management via TR-069, CLI, DHCP/TFTP/SNMP and/or CloudSight
- Operator controlled, end-user friendly HTTP(S) GUI
- IPv4 and IPv6 support
- Advanced WiFi technology with band steering, airtime fairness, 802.11 k,v,r

#### Advanced software platform: GenXOS

GenXOS provides a full enterprise solution with security enhancements and feature rich services such as local and remote management, enhanced WiFi experience, VoIP. GenXOS is based on the best from the open source community combined with knowledge gained from building innovative gateway solutions for more than a decade.

With GenXOS, the service provider benefits from a proven software platform and is able to add modules based on openWRT standards independently at the same time. The Pure can be connected to cloud solutions such as CloudSight, making the life of the ISPs helpdesk easier, while supporting WiFi analytics and self-help via a mobile APP as well.



# Product features and specifications

## Genexis Pure Ethernet DSL-Series

### General specifications

Dimensions (H x W x D)	38x156x232 mm
Weight approx.	420 g*
Power supply voltage	12 Vdc ± 10%
Operating temperature	0 - 40 °C*
Storage temperature	0 - 70 °C*

### xDSL interface

ED500 VDSL v.35b  
 Intel® VRX518 chipset  
 Support for xDSL v.35b  
 Annex A and B

ED504 G.Fast-212 MHz  
 Intel® VRX618 chipset  
 Support for xDSL v.35b + G.Fast-212 MHz  
 Annex A and B

### LAN interface

4x 1000/100/10Base-T RJ45 interfaces

### Buttons and USB

Power button  
 Reset button (recessed)  
 WPS/Pair button  
 1x USB 2.0

### Routing

Line-speed (1000 Mbps) routing performance for packets > 256 byte.  
 DHCP server / DNS proxy  
 NAT / PAT  
 UPnP  
 VPN pass-through  
 SPI Firewall  
 DMZ and port forwarding/translation  
 IGMP(v2/v3) snooping and proxy  
 RTSP proxy for Video on Demand  
 Static IPv4 Routing

### Voice features

SIP based Voice-over-IP  
 G.711 A-law /  $\mu$ -law codec  
 G.729 codec  
 5 REN support  
 Line Echo Cancellation  
 DTMF: In-band, RFC2833, SIP-Info  
 Class 5 features

### Protocols

IPv4/IPv6 dual stack concurrent  
 DHCP(v4/v6) client  
 PPPoE client

### WiFi interface

Intel® GRX350-1200 SoC; WAV513 (2,4GHz), WAV524 (5GHz)  
 IEEE 802.11b/g/n, 2.4GHz 3x3  
 IEEE 802.11a/n/ac, 5.0 GHz 4x4 (internal antennas)






### Software and WiFi Features

GenXOS open source software  
 Operator and end-user GUI/APP  
 Band steering  
 Airtime fairness  
 Guest WiFi  
 Seamless roaming (802.11 k,v,r)  
 Auto channel/bandwidth selection  
 Automatic channel selection  
 WEP, WPA, WPA2  
 Multiple SSIDs supported

### Management and control

TR-069, TR-098/TR-181, TR-104  
 SNMP, DHCP / TFTP, IUP and CLI

### Status LEDs

Status   
 Uplink status(Fiber/DSL)   
 Internet   
 Telephony status   
 WiFi status 

\* Subject to change

## Genexis Pure Ethernet DSL-Series product models

Model	Uplink type	LAN ports (Mbps)		VoIP	USB 2.0	WLAN 3x3 2.4 GHz	WLAN 4x4 5.0 GHz
Pure-ED500A	Ethernet + xDSL v.35b (Annex A)	4x	10/100/1000	2x	1x	11n	11ac
Pure-ED500B	Ethernet + xDSL v.35b (Annex B)	4x	10/100/1000	2x	1x	11n	11ac
Pure-ED504A	Ethernet+ xDSL G.Fast (Annex A)	4x	10/100/1000	2x	1x	11n	11ac
Pure-ED504B	Ethernet+ xDSL G.Fast (Annex B)	4x	10/100/1000	2x	1x	11n	11ac

Note: Not every listed feature may be included in the shipping product. We reserve the right to make changes of technical specifications, housing or design without prior notice.  
 The Pure Fiber-Series specifications are included in a different datasheet.



# Product features and specifications

## Genexis Pure Ethernet DSL-Series

This document aims to describe the main technical details for Pure Ethernet DSL-Series. Please note that not all features or functions are added to this document.

### Main components

DDR RAM	256 Mbyte
NAND Flash	128 Mbyte
CPU	Intel GRX350
xDSL	Intel VRX518
WiFi 2.4GHz	Intel WAV513
WiFi 5GHz	Intel WAV524

### xDSL – VRX518 (ED500)

The VRX518 is a low power 1-channel multi-standard VDSL2/ADSL2(2+) system.

### xDSL – VRX618 (ED504)

The VRX618 is a low power 1-channel multi-standard VDSL2/ADSL2(2+) system.

### Supported standards and features

- All VDSL2 (G.993.21), ADSL2+ (G.992.5), ADSL2 (G.992.3) and ADSL full-rate (G.992.1)
- Supports retransmission (G.998.4)
- Support of Vector (G.993.5)
- Support of G.Bond (G.998.2)
- Support of G.Fast-212 MHz
- High performance VDSL2 supports profile up to 35b, 30a, 17a, 12 x, 8x and ADSL2+with on-chip
- Interleaver/Retransmission Memory for Annex-Q
- Support of simultaneous Re transmission and Vectoring
- Support of ToD

### Supported standards and features

- IEEE802.11 a/n/ac compliant
- IEEE 802.11k
- IEEE 802.11v
- 4 Spatial streams @ 20,40 or 80 MHz bandwidth
- 4 TX/RX antennas (4x4)
- Multi User MIMO
- Implicit / Explicit beam forming for any client
- Advanced QoS
- OFDM Modulation up to QAM-256, LDPC, STBC RX, STBC TX
- Auto channel selection
- Offloading/accelerator
- Power consumption follow EU COC

### WiFi 2.4GHz – WAV513

#### Supported standards and features

- IEEE 802.11 b/g/n compliant
- 3 Spatial streams @ 20 or 40 MHz bandwidth
- 3 TX/RX antennas (3x3)
- Advanced QoS
- Auto channel selection
- Offloading/accelerator
- Power consumption follow EU COC

### WiFi 5GHz – WAV524

The WAV524 provide advanced 4x4 802.11a/n/ac in the 5150MHz-5950 MHz frequency band. Advanced offloading accelerator enables high throughput, low latency with minimal CPU load impact on host processor GRX350.