genexis
PART OF INTENO GROUP

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 roaming and airtime fairness.

Key features

- High-speed gateway with 4 managed Gigabit Ethernet ports
- WLAN Access Point (2.4GHz 11/b/g/n and 5.0GHz 11a/n/ac concurrent dual band)
- VDSL2 up to 35b and G.fast up to 212a
- 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

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 xDSL
Intel® VRX518 chipset
Support for ADSL(x) and VDSL2

ED504 G.Fast
Intel® VRX619 chipset
Support for VDSL2 and G.fast

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

WAN interface (Ethernet)
1x 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 / μ-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 802.11 b/g/n, 2.4GHz 3x3
IEEE 802.11 a/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)
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 / TFT, 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 + VDSL2 + ADSLx (Annex A)	4x	10/100/1000	2x	1x	11n	11ac
Pure ED500B	Ethernet + VDSL2 + ADSLx (Annex B)	4x	10/100/1000	2x	1x	11n	11ac
Pure ED504	Ethernet + VDSL2 + G.fast	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
WiFi 2.4GHz	Intel WAV513
WiFi 5GHz	Intel WAV524

xDSL – VRX518 (ED500)

The VRX518 is a low power 1-channel multi-standard:

- ADSL / ADSL2 / ADSL2+
- VDSL2 35b

xDSL – VRX619 (ED504)

The VRX619 is a low power 1-channel multi-standard:

- VDSL2 35b
- G.fast 212a

Supported standards and features

- ADSL2+ (G.992.5), ADSL2 (G.992.3) and ADSL full-rate for Annex A and Annex B (G.992.1)
- VDSL2 (G.993.2)
- G.fast (G.9700 and G.9701)
- Supports retransmission (G.998.4)
- Support of Vector (G.993.5)
- High performance VDSL2 supports profile up to 35b, 17a, 12x, 8x and ADSL2+ with on-chip
- High performance G.fast supports profile 106a and 212a
- Interleaver/Retransmission Memory for Annex-Q
- Support of simultaneous Retransmission and Vectoring
- Support of ToD

WiFi 2.4GHz
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
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