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Genexis Pure

Pure Fiber-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)
- Two telephony ports (SIP-based VoIP)
- Management via TR-069, CLI, DHCP/TFTP/SNMP and/or Cloud
- 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 Fiber-Series

General specifications

Dimensions (H x W x D)	38x156x232 mm
Weight approx.	420 g*
Power supply voltage	12 Vdc ± 10%
Power consumption	typ. 18W*
Operating temperature	0 - 40 °C*
Storage temperature	0 - 70 °C*

Fiber interface

Tx wavelength 1310 nm

Rx wavelength

F500: RX1490-1550 nm

F501: RX1490-1500nm

Optical output range	-9 ... -3 dBm
Optical input range	-23 ... -3 dBm
Maximum distance	20 km

Single mode fiber (ITU-T G.652)

SC/APC connector compliant with 1000BASE-BX-U

Auto sensing 1 Gb/s and 100 Mb/s

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 / 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 802.11b/g/n, 2.4GHz 3x3

IEEE 802.11a/n/ac, 5.0 GHz 4x4

(internal antennas)

Software and WiFi Features

iopsysWRT 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 / TFT, PCLI, IUP and CLI

Status LEDs

Status

Uplink status(Fiber/DSL)

Internet

Telephony status

WiFi status

* Subject to change

** Will be supported when available

Genexis Pure Fiber-Series product models

Model	Uplink type	LAN ports (Mbps)		VoIP	USB 2.0	WLAN 3x3 2.4 GHz	WLAN 4x4 5.0 GHz
Pure-F500	Fiber uplink 100/1000 TX1310/RX1490-1550nm	4x	10/100/1000	2x	1x	11n	11ac
Pure-F501	Fiber uplink 100/1000M TX1310/RX1490-1500nm	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 Ethernet DSL-Series specifications are included in a different datasheet

Product features and specifications

Genexis Pure Fiber-Series

This document aim to describe the main technical details for Pure ED500 product. 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

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.

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
- PHY Rates
- 802.11a up to 54 Mbit/s
- 802.11n up to 600 Mbit/s
- 802.11ac up to 1733 Mbit/s
- 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