

O-NTU-Vision-2025 Optical Network Termination Unit

Description

The optical network termination unit **O-NTU-Vision-2025** is specially designed for triple-play applications at Fiber To The Home locations, situated at the end of the optical net. It's main characteristic is that all services are available via one single-mode (9/125 µm) fiber.

The unit can be provided with several options described in the configuration map.

Housing is made of die-cast aluminium and offers protection according to IP54. This type of housing guarantees optimal heat dissipation and perfect protection of the electronic components.



Features

- Four Ethernet LAN ports supporting 10/100Base-TX
- Two simultaneous voice over IP (VoIP) connections.
- Optical CATV receiver for CATV 1, CATV 2 and satellite IF.
- Ultra-high efficiency switch mode power supply (> 88%).

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Hirschmann Multimedia B.V . Pampuslaan 170 1382 JS Weesp	Tel.: 0031(0)294462555	Type Nr.:O-NTU-Vision- 2025	Status: Preliminary	Page 1 of 5

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General data:

Dimensions HxWxD : 115x190x85 mm

AC connection : Cord with Euro plug

Optical input : SC/APC 8°

Earthing connection : AMP 6,3 mm

Nominal temperature range : -15...+55°C

Maximum temperature range : -15...+70°C

Supported standards:

- ARP, UDP, TCP, DNS, DHCP, ICMP, IGMP, SNMP,
- HTTP, TFTP, VLAN, SIP, STUN, RTP, RTCP, NTP

Interfaces:

- 1 SC/APC fiber connector
- 2 RJ-11 POTS connectors
- 4 RJ-45 Ethernet connectors
- LAN/WAN status&activity L.E.D.'s
- System status L.E.D.
- Service status L.E.D.'s
- Wireless antenna (optional)

WAN interface:

- Single Mode Fiber (ITU G.652 compliant)
- IEEE 802.3AH compliant
- 100Base-BX10 standard
- 1 SC/APC connector
- Full Duplex
- TX wavelength : 1310nm
- TX power : -8 ... -14 dBm
- RX wavelength : 1310nm
- RX power : -8 ... -31 dBm
- Range : 15 km
- Class 1 laser

LAN interface:

- IEEE 802.3 Ethernet compliant
- 10/100Base-TX standard
- 4 RJ-45 connectors
- Autonegotiating half/full duplex
- Auto crossover (MDI/MDIX)
- portbased VLAN control
- portbased Q.o.S. control
- Rate-limiting

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Internet Service:

- Build-in routing functionality
- DHCP server for LAN
- Protocol based Q.o.S.
- DDNS support
- Internet Diagnostics
- IGMP V1/V2 proxy

VoIP service:

- 2 RJ-11 connectors
- seperated POTS lines
- SIP 2.0 based registration
- 3 REN support (5 REN optional)
- Function support overview:
 - Voicemail status
 - STUN
 - T.38 FAX
 - Caller ID (FSK/DTMF)
 - Silence suppression
 - Caller ID suppression
 - Line echo cancelation
 - Comfort noise
 - Variable Jitter Buffer
 - Call forwarding
 - Call waiting
 - Call register
 - Call block
 - Configurable POTS line configuration
 - Configurable dialplan
 - Configurable Vertical Service Codes
 - Configurable speeddial
- Supported Codecs:
 - G.711 a-law
 - G.711 u-law
 - G.723
 - G.729
 - G.722 (optional)
 - G.726 (optional)

Management:

- SNMP v1/v2c/v3 support
- Multi-user HTTP interface
- VLAN seperation for services
- System monitoring
- Failsafe startup sequence
- Remote software update
- Automatic provisioning (optional)

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CATV data *

Optical data

Wavelength CATV 1	:	1550 nm (DWDM)
Wavelength CATV 2	:	1530 nm (DWDM)
Wavelength Satellite IF	:	1570 nm (DWDM)
Maximum optical input power	:	+ 3 dBm
Operational optical input power/wavelength	:	0 dBm.... -8 dBm
Equivalent input noise current level ir	:	typical ≤ 4.5 pA/sqrtHz (max. ≤ 5.5 pA/sqrtHz)

Parameters at Popt, in

-4 dBm (1550 nm), Uout 76 dB μ V	
C/N (B= 5 MHz, m=5%, 42 Ch. CENELEC)	: ≥ 48 dB

Electrical data

Frequency range

CATV 1+2	:	47...862 MHz
Satellite IF	:	950...2150 MHz
Flatness	:	$\leq \pm 1.0$ dB(<600 MHz), $\leq \pm 1.5$ dB(>600 MHz)
Return loss	:	≥ 18 dB bij 40 MHz- 1.5 dB/octave
Impedance	:	75 Ohm
RF output	:	F

Power supply

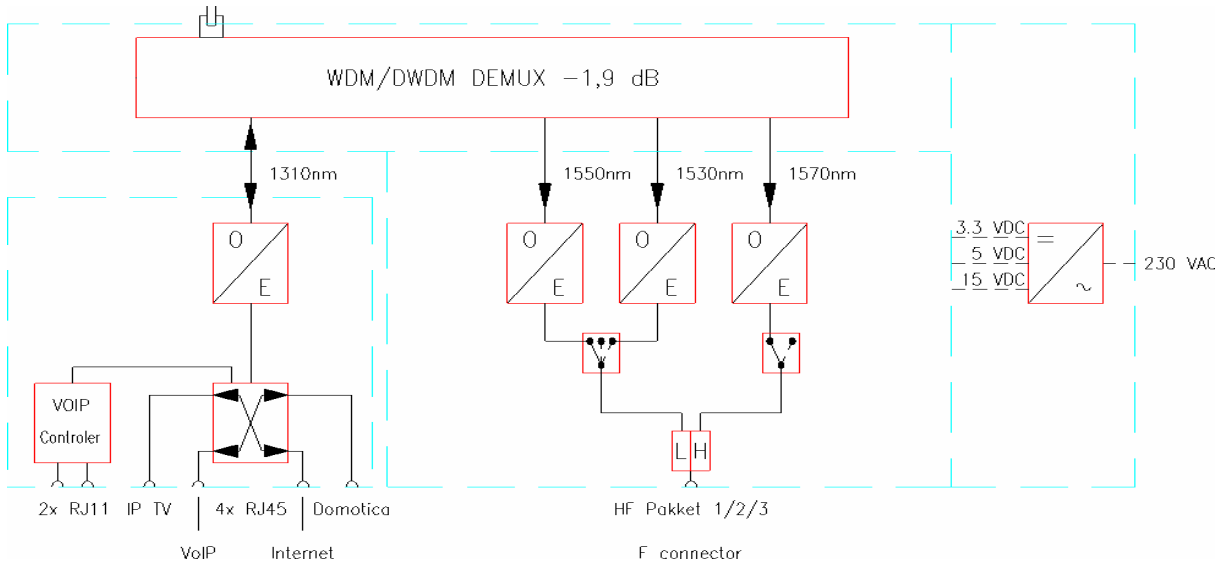
supply voltage	:	230 VAC
frequency	:	48...62 Hz
Power consumption	:	≤ 8 W (Ethernet, CATV 1+2, satellite, VoIP)

Ordering type	:	O-NTU-Vision-2025, artnr: 695.004.465
	:	see configuration map

*Technical data at nominal temperature range

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Block diagram of the O-NTU-Vision-2025 provided with all options

Overview of the O-NTU-Vision-2025 configuration map

Ethernet CATV 1 CATV 2 Satellite IF Switch VoIP Artnr.

X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	
X	X	X	X	X	X	695.004.465