

Die folgenden Schnittstellenspezifikationen gelten für die Produkte der:

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## 1

### Passive optische Schnittstelle am Hausübergabepunkt (HÜP)

#### Optisches Interface:

- Connector: LC/APC
- Patchkabel: ITU-T G.657
- Interface: 1000BASEBX10-U
  - TX Wellenlänge: 1310 nm
  - TX Wellenlänge range: 1260 – 1360 nm
  - TX Pegel: -3 – -9 dBm
  - RX Wellenlänge: 1490 nm
  - RX Wellenlänge range: 1480 – 1500 nm
  - RX Pegel: -3 – -19.5 dBm
  - Laser Class: 1 (IEC 60825-1)

## 2

### Passive optische Schnittstelle an der Teilnehmeranschlussdose (GF-TA)

#### Abhängig von der Anschlussadresse:

- Connector: LC/APC
- TX Wellenlänge: 1310
- TX Wellenlänge range: 1260 – 1360
- TX Pegel: -3 – -9 dBm
- RX Wellenlänge: 1490
- RX Wellenlänge range: 1480 – 1500 nm
- RX Pegel: -3 – -19.5 dBm

## 3

### Optical/Electrical converter

- 1490nm wavelength downstream, 1310nm wavelength upstream
- 2.488Gb/s line rate downstream, 1.244Gb/s line rate upstream
- SC/APC optical connector
- Single mode fiber (ITU-T G.657)
- G.984.3-compliant Advanced Encryption Standard (AES) in downstream

- Compliant with ITU-T G.988, OMCI
- Compliant with ITU-T G.984.2 Amd1, Class B+
- G.984.3-compliant forward error correction (FEC) in both directions
- 802.1p fixed mapping to queues
- IEEE 802.3-compliant 10/100/1000Base-T ports
- Medium dependent interface/medium dependent interface crossover (MDI/MDIX) automatic sense

## 4

### Router

#### WAN interface

- Option for:
  - 1000/100/10Base-T RJ-45 port
  - SFP (fixed fiber) interface (Compliant with 1000BASE-BX10-U)
  - Combo port (RJ-45 + SFP interface)
- VLAN per service triple play
- DHCP client
- PPPoE client
- IPv4/IPv6 dual stack

#### LAN interface

- 4 1000/100/10Base-T LAN ports (RJ-45)

#### Routing

- Line-speed (1000 Mbps) routing
- performance for packets > 256 byte.
- DHCP server
- NAT/PAT
- UPnP
- VPN pass-through
- SPI Firewall
- DMZ
- Mixed bridged/routed port(s) for IPTV
- IGMPv2, IGMPv3 snooping and proxy

#### Voice

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

#### IEEE 802.11n/ac wireless interface

- IEEE 802.11b/g/n (2.4 and 5.0 GHz) 2T2R
- IEEE 802.11ac (5.0 GHz)
- Automatic channel selection
- Internal antennae
- WEP, WPA, WPA2
- WPS button for simple WLAN network setup
- Multiple SSIDs supported

#### Management and control

- TR-069, TR-098, TR-104
- Genexis Automatic Provisioning System (GAPS) compatible
- SNMP
- DHCP/TFTP
- CLI
- Fail-safe firmware upgrade
- Factory default reset button