GPON ONT STICK

■ Overview

To extend the GPON deployment in existing access network for business and residential subscribers, It provides the standard SFP package with SGMII interface, which can easily replace the   Ethernet SFP module existing in Ethernet gateway, switch, router or backhaul equipment etc.

Equipped with ITU-T G.984 compliant GPON interface, incorporates interoperability, key customers' specific requirements and cost-efficiency. By integrating GPON MAC and standard compliant OMCI stack, It provides all GPON functionality and full range FCAPS management features including supervision, monitoring and maintenance

■ Service

Data

The ONT is delivered with one SFP (Small Form-factor Pluggable) based HSGMII interface, supporting:

- Built-in layer-2 switching
- Advanced data features such as VLAN tag manipulation, classification, and filtering

■ Specification

- 1.244G bps Burst Mode Upstream Transmitter

Dimensions

- 72 mm x 14 mm x 11.8 mm (L x W x D)

Power Supply

- Full Speed Power Consumption at room temperature: < 1.6W

Working Environment

- case operating temperature: -40~+85 °C
- Humidity: 5 ~ 95% relative humidity, non-condensed

Safety & EMI

- CE compliant
- FCC/UL compliant

Installation

- SFP interface

GPON Interface

- Compliant with ITU-T G.984 GPON standards
- SFF type laser, SC/APC connector

- 2.488 Gbps Downstream Receiver

- Compliant with ITU-T G.984.2 Amd1, Class B+

    APD receiver and DFB transmitter

    0.5~+5dBm launch power, -27 dBm sensitivity, and -8dBm overload

- Wavelengths:

    US 1310nm, DS 1490nm

- Laser compliant with FCC 47 CFR Part 15, Class B, and FDA 21 CFR 1040.10 and 1040.11, Class I, ONT support Class C or Class C+ optics as an option

GPON QoS

- Multiple T-CONTs per device

- Multiple GEM Ports per device

- Flexible mapping between GEM Ports and T-CONT

- Activation with automatic discovered SN and password in conformance with ITU-T G.984.3

- AES-128 Decryption with key generation and switching

- FEC (Forward Error Correction)

- DBA reporting by piggyback reports in the DBRu (mode 0)

- 802.1p mapper service profile on U/S

- Mapping of GEM Ports into a T-CONT with priority queues based scheduling

- Support Multicast GEM port and incident broadcast GEM port.

Ethernet Interface

- SFP based HSGMII interface, 2.5GE/1GE compatible

- Hardware priority queues on the downstream direction in support of CoS

- 802.1D bridging

- Virtual switch based on 802.1q VLAN

- VLAN tagging/detagging

- VLAN stacking (Q-in-Q) and VLAN Translation

- IP ToS/DSCP to 802.1p mapping

- Class of Service based on VLAN-ID, 802.1p bit, ToS/DSCP

- Marking/remarking of 802.1p

- Broadcast/Multicast rate limiting

OAM

- Standard compliant OMCI (the embedded operations channel) interface as defined by ITU-T G.984.4 and G.988

- Alarming and AVC report, performance monitoring

- Remotely software image download over OMCI, as well as activation and rebooting

- Hold two software sets with software image integrity checking and automatic rollback

Pin Description

PIN NO.	Name	Description
1	VEET1	Transmitter ground
2	TX Fault	Transmitter Fault Indication
3	TX Disable	Transmit disable,
4	MOD_DEF2/SDA	Signal SDA(data) of the two-wire serial ID interface
5	MOD_DEF1/SCL	Signal SCL(clock) of the two-wire serial ID interface
6	MOD_DEF0	This pin is internally tied to transmit ground，indicate that the module is present
7	R_SEL/RST	Dying gasp
8	LOS/SD	Loss of signal indication
9	VEER1	Receiver ground. Or 1PPS output
10	VEER2	Receiver ground
11	VEER3	Receiver ground
12	RD_N	Differential receiver outputs. Differential lines with 100 Ω differential termination inside the module. AC coupled inside the module
13	RD_P	Differential receiver outputs. Differential lines with 100 Ω differential termination inside the module. AC coupled inside the module
14	VEER4	Receiver ground
15	VCCR	Receiver Power ,3.3 $\pm$ 5%
16	VCCT	Transmitter Power ,3.3 $\pm$ 5%
17	VEET2	Transmitter ground
18	TD_P	Differential transmitter inputs. Differential lines with 100 Ω differential termination inside the module. AC coupled inside the module
19	TD_N	Differential transmitter inputs. Differential lines with 100 Ω differential termination inside the module. AC coupled inside the module
20	VEET3	Transmitter ground