GPON ONT G-95SP
Platform Briefing

VERSION 2

Jan.2018

Partnership for the Next Generation Broadband CPE

■ Overview

To extend the GPON deployment in existing access network for business and residential subscribers, GPON ONT SFP G-95SP 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, G-95SP incorporates interoperability, key customers' specific requirements and cost-efficiency. By integrating GPON MAC and standard compliant OMCI stack, G-95SP provides all GPON functionality and full range FCAPS management features including supervision, monitoring and maintenance

■ Service

Data

The G-95SP ONT is delivered with one SFP (Small Form-factor Pluggable) based 1000 Base-X Gigabit Ethernet data interface, supporting:

- Built-in layer-2 switching

- Advanced data features such as VLAN tag manipulation, classification, and filtering

■ Specification

Dimensions

- 82 mm x 14 mm x 12.5 mm (L x W x D)

Power Supply

- Power Consumption: < 2.5W

- Power saving mode supported

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

- 1.244G bps Burst Mode Upstream Transmitter

- 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 1000 Base-X GbE interface

- 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
1	VEET/BOOT4
2	TX_FAULT/ASC_TX/TOD
3	TX_DISABLE
4	SDA
5	SCL
6	MOD_ABS
7	Rate SEL/Dyinggasp
8	RX_LOS
9	VEET/1PPS
10	VEET/BOOT0
11	VEER
12	RD-
13	RD+
14	VEER
15	VCCR
16	VCCT
17	VEET
18	TD+
19	TD-
20	VEET

Enclosure

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■ Contact Information

Cambridge Industries USA Inc.

2445 Augustine Dr., 6th FL.

Santa Cara, CA 95054

Tel: +1(408)606-2200

Email: nasales@cigtech.com

CIG Shanghai Co., Ltd.

5/F, Building 8, 2388 ChenHang Road

Shanghai, China 201114

Tel: +86-21-8023 3300

Email: sales@cigtech.com

www.cigtech.com