FRG-3105SFP-CW-DR
Triple Play Gateway

4 Ports 10/100/1000Mbps RJ-45

1 Combo Uplink Port (10/100/1000Mbps RJ-45 and 100/1000 Mbps SFP Slot)

Gigabit Ethernet Residential Gateway

Features

▪ **Dual Rate with Auto-Sensing Function**
Dual Rate CPE Switch with auto-sensing function can automatically adjust to the speed of the slide-in fiber transceiver. This can save the cost when upgrading the device from 100Mbps to 1000Mbps.

▪ **Flexible Auto Provision Schemes**
Provide both DHCP auto provision and TR-069 to fulfill the choice of deployment scale and reduce the OPEX of device maintenance for service providers.

▪ **IGMP snooping v1/v2**
Support IGMP snooping v1/v2 to facilitate the IPTV service deployment.

▪ **Combo WAN Port Technology**
Support both SFP slot and TP WAN port for various kinds of deployment and saving manual setting efforts.

▪ **Smart Lighting Control**
LED Indicators for link activities and status can be quickly switched ON/OFF by pressing a control button. This Smart Lighting Control can turn off LED blinking indicators especially at night for household users to prevent light pollution.

▪ **Optional Cable Tray**
This is a flexible option for FTTH installation. Users can keep excessive fiber inside the cable tray to have extra protection for the sensitive fiber.

▪ **CLI Management**
It supports Command Line Interface (CLI) which requires fewer resources and is easier to configure multiple devices at a time. For experts, it would be more concise and powerful to manage the gateway.

Description

Connection Technology System (CTS) FRG-3105SFP-CW-DR series solution is a Web & SNMP managed fiber optical residential gateway which is designed to meet the FTTH deployment requirements for delivering high speed internet access, IPTV services. FRG-3105SFP-CW-DR provides one (SFP slot / TP) combo WAN port for broadband internet connections, four 10/100/1000 base-T RJ-45 ports for LAN application.
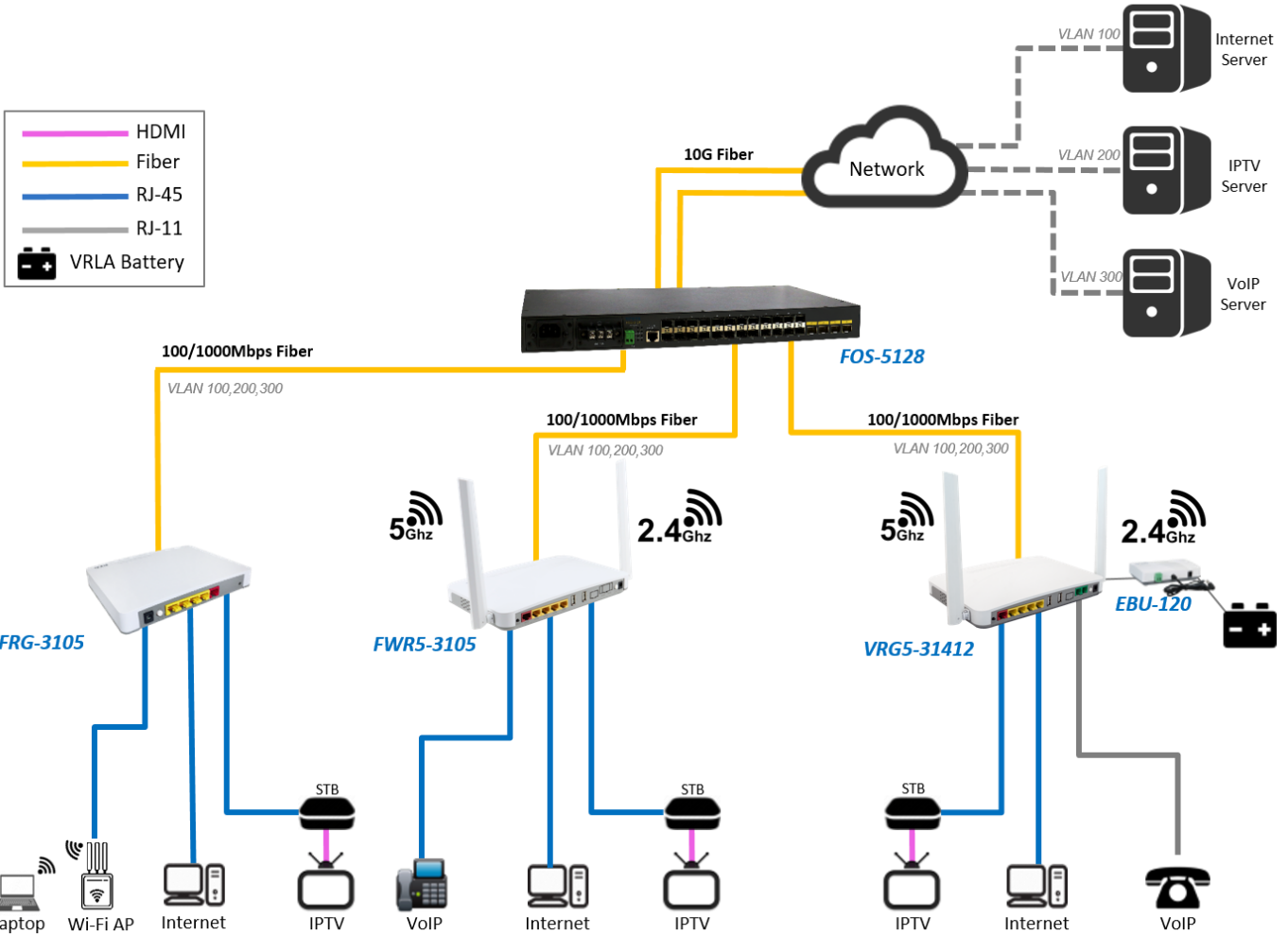
Aimed at the operators or services providers who deliver the multiple services for residential users, FRG-3105SFP-CW-DR allows the services in a Fiber-to-the-home deployed infrastructure in a single device. The four 10/100/1000Base-T RJ-45 ports enable users to connect PC or laptop for internet applications such as web surfing, E-mail, file upload/download and online gaming as well as connected a set top box for provisioned video applications like IPTV, VoD, E-learning etc.

The Combo WAN port of FRG-3105SFP-CW-DR can support both short & long-distance connections for the deploy-ments to the household, apartment or campus. The device management is based on CLI, Web and SNMP interfaces to fulfill the requirement of mass deployments, the device also supports auto-provisioning mechanism to allow the opera- tors or service providers to manage the device configuration automatically and dynamically. Consequently, it can help saving the OPEX (operational cost) for the operators or service providers.

Target Applications
▪ SOHO & Residential Gateway which requires network management for FTTX service deployment.

Application Diagram

VLAN 100 — Internet Server
VLAN 200 — IPTV Server
VLAN 300 — VoIP Server

10G Fiber

Network

Legend:
- HDMI
- Fiber
- RJ-45
- RJ-11
- VRLA Battery

100/1000Mbps Fiber
VLAN 100,200,300

FOS-5128

100/1000Mbps Fiber
VLAN 100,200,300

100/1000Mbps Fiber
VLAN 100,200,300

FRG-3105

FWR5-3105

5Ghz 2.4Ghz

VRG5-31412

5Ghz 2.4Ghz

EBU-120

Laptop Wi-Fi AP Internet IPTV VoIP Internet IPTV IPTV Internet VoIP

STB STB STB

Specification

■ Interface
- LAN: 4 x 10/100/1000Base-T RJ-45
- Combo WAN: 1 x 100/1000Base-X SFP and
  10/100/1000Base-T RJ-45

■ Standards
IEEE 802.3 10Base-T
IEEE 802.3u 100Base-TX/FX
IEEE 802.3ab 1000Base-T
IEEE 802.3z 1000Base-X
IEEE 802.1p Priority
IEEE 802.1q Tag VLAN

■ H/W Specification
Store and Forward Switching Mechanism
Auto Crossover for MDI/MDI-X in TP Port
Auto Negotiation in TP Port
Half/Full Duplex Mode Operation
Jumbo Frame up to: 9K
MAC Address Table: 1K

■ LED
Power ,Status, WAN, LAN1-4
WPS
LED ON/OFF Control Button

■ Forward / Filter Rate
10M : 14,880/14,880pps
100M: 148,800/148,800pps
1000M:1,488,000/1,488,000pps

■ Layer 2 Switch Features
- IEEE802.1p Priority/ 802.1Q Tag VLAN
- QoS
- Priority Queues: 4 Queues
- CoS, 802.1p, DSCP
- Weighted Round-Robin(WRR)/
  Strict-Priority Queuing(SPQ) Scheduling
  Algorithm
- Policy and Shaping Rate Limit
- IGMP Snooping v1 & v2
- IGMP Fast Leave

■ Layer 3 Routing
PPPoE Client
NAT/Bridge Hybrid Mode
Static Route
DHCP Client & Server
DNS Client & DDNS
IGMP Proxy
DMZ Host

■ Security
Firewall
Packet / URL Filter
VPN Pass Through (IPSec., PPTP, L2TP)
DDoS Attack Detection & Blocking
UPnP

■ Management
IPv4/IPv6 Dual Stack
Web/Telnet/CLI Management
SNMP v1/v2c
HTTP/FTP/TFTP Firmware Upgrade
DHCP Auto Provision
TR-069**
Event Log
Power Down Trap

■ Power Requirement
External Power Adaptor
AC Input: 100～240VAC, 50/60Hz
DC Output: 12VDC
Power Consumption (Max.):
 AC Side: 9.25W
 DC Side: 7.96W

■ Environmental Condition
Operation : 0˚C～50˚C
Storage Temperature : -20˚C～60˚C
Humidity:5%～90%, Non-condensing

■ Dimension & Weight
Size: 180 x 130 x 28.5 mm (W x D x H)
Weight: 0.32 Kg

■ EMC/Safety
FCC Class B, CE

"**" Customizations may be required for
the interoperability between the ACS
server and the device.

Order Information

FRG-3105

Model	Fiber Ports			TP Ports		WLAN	VoIP
	Speed (Mbps)	Type	Ports	Speed (Mbps)	Ports	Type	FXS Port
FRG-3105SFP-CW-DR	100/1000	SFP	1	10/100/1000	5	-	-

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Accessory

SFP-31-DR

Model	Fiber Port					
	Speed (Mbps)	Type	Connector	Distance	Wavelength	Temperature
SFP-31FC-DR	100/1000	MM	LC	550M/2KM	1310nm	0 ~ 70˚C
SFP-31FC(SM-10)-DR	100/1000	SM	LC	10KM	1310nm	0 ~ 70˚C
SFP-31W2A(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX: 1310nm RX:1550nm	0 ~ 70˚C
SFP-31W2B(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX: 1550nm RX:1310nm	0 ~ 70˚C

SFP-31

Model	Fiber Port					
	Speed (Mbps)	Type	Connector	Distance	Wavelength	Temperature
SFP-31FC	1000	MM	LC	550M	850nm	0 ~ 70˚C
SFP-31FC(SM-10/20)	1000	SM	LC	10/20KM	1310/1310nm	0 ~ 70˚C
SFP-31W2A(SM-10/20)	1000	WDM	LC	10/20KM	TX: 1310/1310nm RX: 1550/1550nm	0 ~ 70˚C
SFP-31W2B(SM-10/20)	1000	WDM	LC	10/20KM	TX: 1550/1550nm RX: 1310/1310nm	0 ~ 70˚C

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