



GSW-2020C

7x GbE, RJ45 + 1x Dual Rate SFP
L2+ Managed Ethernet Switch
with Cable Tray and CATV RF Receiver options

The GSW-2020C is a new generation CPE switch developed by CTC Union Technologies. This new CPE switch is designed with 7 ports 10/100/1000Base-T RJ45 and 1 port 100/1000Base-X SFP based fiber optics for P2P FTTH service applications. Its design concept is well considered from the basis of stylish and elegant appearance for the residential user as well as the advantage of easy installation for the FTTH service provider. Hence, the GSW-2020C makes an Internet connected device no longer like the legacy ones hidden in the corner of household. Oppositely, it can become as an eye-catching furniture to blend into the overall decoration aesthetics at home. As usual, the GSW-2020C adopts the evolutionary cable tray structural design to help the installer more easily and protectively manage the excess fiber within the unit.

The GSW-2020C also features a USB host port which will allow future extension for IoT applications on demand. Any kind of wireless based IoT device in USB dongle type is possible to be integrated together with GSW-2020C then enable the specific IoT oriented service such as household medical care, home security...etc.

In addition a CATV RF receiver module is an optional feature which can be integrated into the GSW-2020C. The seamless integration of both H/W and S/W design between GSW-2020C and CATV RF receiver existing the cable operator or multi-service provider (MSO) to be able to provision the new services along with the CATV service via their existing pipeline infrastructure. This can generate additional revenue income from their existing subscriber base or even attract new subscribers.

The GSW-2020C fully supports Layer 2 feature sets with complete network management interfaces such as Web GUI, CLI and SNMP. The GSW-2020 also supports DHCP auto provisioning and TR-069 client function which are suitable for the very large scale deployment from operator or service provider. Both device management features can avoid truck rolls and save OPEX for FTTH service providers.

Feature

- Built-in IPTV probe feature can monitor IPTV service quality and performance in real-time
- Built-in USB host interface for data storage or IoT capable dongle integrated device application
- Smart interrogator function - automatically gather vital information from the CPE at all times and store in database accessible by the operator
- Never fail power design
 - Supports dual power input for redundancy
 - Supports 19V wide range DC input to extend power adapter life time
 - Automatically detect power status and send alarm trap or log message to server
- Optional integrated CTC in-house developed CATV RF receiver to provision CATV based triple play service
- Smart fiber tray design makes fiber cable management more handy

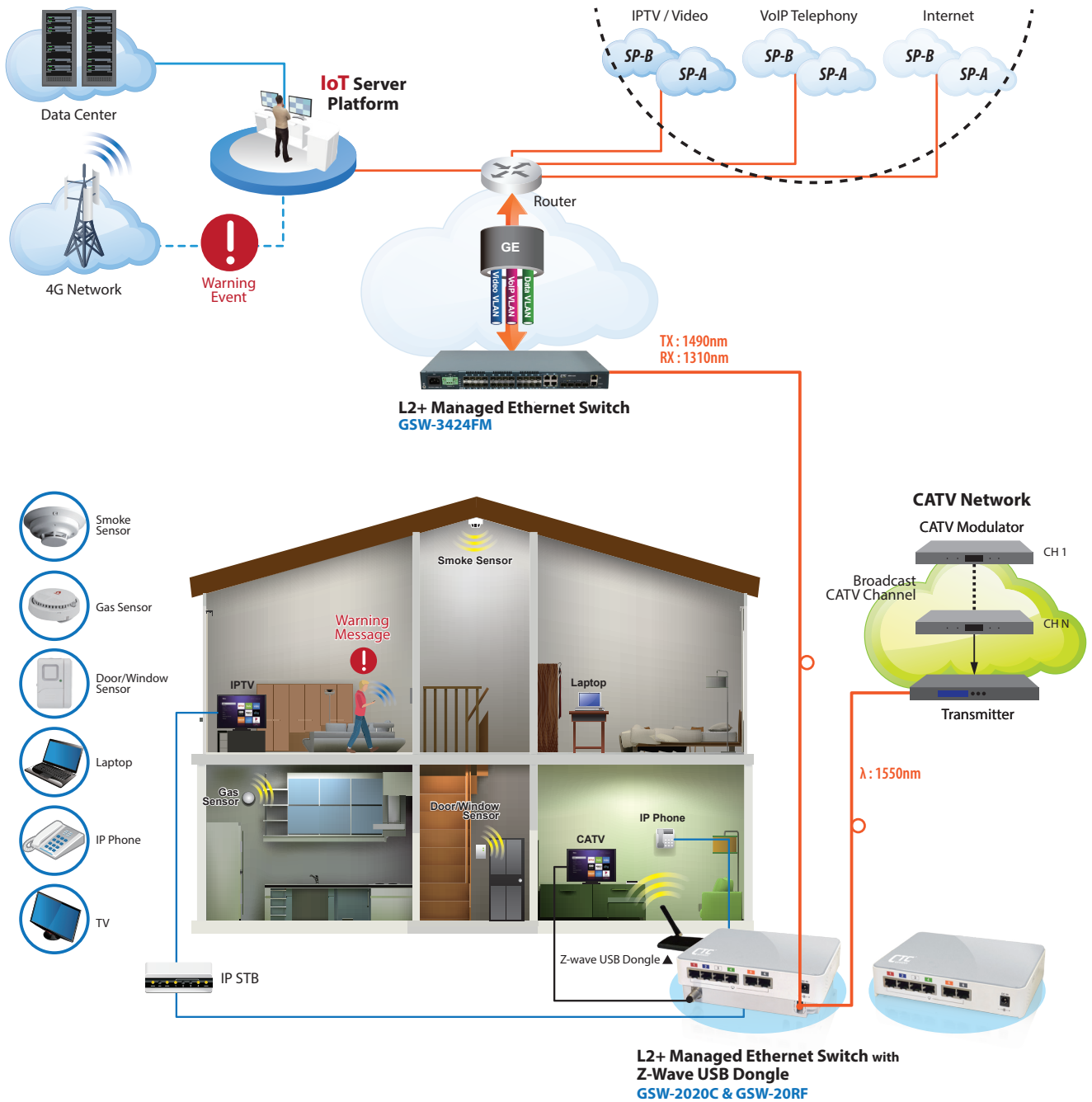
Specifications

Interface	fiber port: 100M/1Gbps SFP x 1 Copper port: 10/100/1000Mbps RJ45 x 6; 10/100/1000M/2.5Gpbs RJ45 x 1 (optional) 10/100/1000Mbps RJ45 for telemetry x 1 USB host connector x 1	Security	Static port security (MAC based) Per port limited MAC learning Port based/MAC base/single/multiple IEEE 802.1x access control 256 ACL rules based on L2~L4 information RADIUS/TACACS+ authentication HTTPS & SSH v2 IP/MAC binding IP source guard & ARP inspection
Packet forwarding rate	14880pps @10Mbps 148800pps @100Mbps 1488000pps @1000Mbps	IP Multicasting	IGMP snooping v1/v2/v3, IGMP proxy reporting MLD snooping v1/v2 IGMP fast leave IGMP query IGMP filtering/throttling MVR (Multicast VLAN Registration) IPTV probe functionality
Transmission Method	Store and Forward Switching	Management	WebGUI/Telnet CLI interface SNMP v1/v2c/v3 TR-069 client for remote device management and configuration RMON I (1,2,3,9 groups) & RFC1213 MIB II Dying gasp in trap message DHCP client/relay/snooping/relay option 82 TFTP/HTTP based firmware and configuration upgrade Port mirroring Event syslog server DNS client/proxy DHCP auto provisioning NTP client, UPnP IPv4/IPv6 management SFF-8472 DDM1 IEEE 802.1ab LLDP Smart detect functionality for configurable log and trap warning option
Packet buffer	1.75M bits		
MAC table size	4K		
Jumbo frame size	10240 Bytes		
VLAN feature	IEEE 802.1Q tagged VLAN (4K VLAN groups) IEEE 802.1ad QinQ VLAN Voice VLAN; MAC based VLAN; Protocol based VLAN IP subnet based VLAN Private VLAN for port isolation; VLAN Translation GVRP (GARP VLAN registration protocol)		
Link aggregation	Static trunk (SA, DA, IP, TCP/UDP port) IEEE 802.3ad LACP, 4 LACP trunk groups Max 8 port Max. per LACP trunk		
L2 switching protection	IEEE 802.1D STP/IEEE 802.1w RSTP/IEEE 802.1s MSTP Loop Protection		
QoS feature	Hard wired IEEE 802.1p 8 priority queues per port Traffic scheduling based on strict/WRR priority CoS based traffic classification on switch port, VLAN ID, DSCP, TCP/UDP port IEEE 802.1p priority tag remarking; DSCP remarking Per Port/Queue based ingress/egress rate limit in steps of 100kbps IEEE 802.3x flow control Multicast/Broadcast/Unicast storm control with flooding control		

Ethernet OAM	IEEE 802.3ah link OAM (peer discovery/dying gasp/loopback/event notification)
Timing synchronization	IEEE 1588v2 (port1~4)
Power Input	100V~240VAC power adaptor (Convert to 12V~19V/1A ; one for DC-in jack, optional one for DC terminal block) Telemetry RJ45 port can support IEEE 802.3af PoE/PD power fed optionally
Operating Temperature	0~45°C

Storage Temperature	-25~70°C
Humidity	5%~90% (non-condensing)
Dimension	162 x 122 x 32.2mm (W x D x H)
Certification	CE, FCC, RoHS

P2P FTTH Service and IoT integrated Application



GSW-20RF Specification

Optical Specifications	Wavelength	1260 to 1610nm
	PD Type	Receptacle
	Optical Connector	SC/APC
	Optical Input Power	0 to -10dBm (AGC-Optical level auto gain control)
RF Specifications	RF Band width	47 - 1000MHz
	Return Loss	13 dB (Typical) (12dB Min)
	Output level	83dBuV
	Flatness	+/- 1 dB
	CNR	48
	CTB: 67dB, CSO: 63dB	
	<ul style="list-style-type: none"> • PAL 63 chs loading ,OIM=4% and optical input power @-6dBm • NTSC 77 chs loading ,OIM=4% and optical input power @-6dBm 	

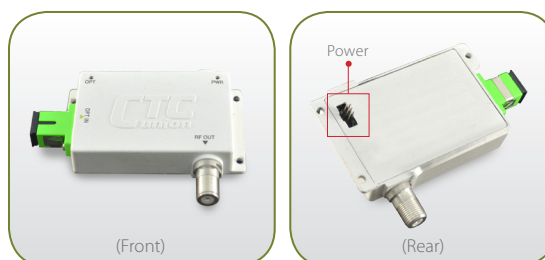
General Specifications	DC in range	9~21V
	Power Consumption	2.5W
	RF Connector	F-type (Female) Fit for cable size
	RF Output Impedance	75Ω
	Operating Temperature range	-20 to +50°C
	Storage Temperature range	-40 to +70°C
	Dimensions	72.2 x 44 x 14.8 mm (L x W x H)
	Weight	0.2kg

Ordering Information

Model Name	Description
GSW-2020C	7-port 10/100/1000Base-T to 100/1000Base-X managed GbE Ethernet switch

Optional Accessory

Model Name	Description
GSW-20RF	CATV RF Receiver module for GSW-20 series CPE
GSW-20PS12V	12V/1A power adaptor (White color)
GSW-20PS19V	19V/1A power adaptor (White color)
GSW-20DIN12V	12V/1A DIN type power supply
GSW-20PoE	PoE/PD module for GSW-20 series CPE
GSW-20FT	Fiber Tray set for GSW-20 series CPE



GSW-20RF