



GES1316-FSA

1U 8/16-port Temperature-Hardened G.fast DPU

The GES1316-FSA 1U 8/16-port Temperature-Hardened G.fast DPU fulfills FTTB and FTTdp deployments by allowing service providers to keep their existing copper infrastructure and deploy fiber-grade services to homes and premises. It supports VDSL2 profile 35b, 30a, and 17a auto fallback for smooth migration from VDSL to G.fast.

Benefits

A state-of-the-art choice for Gigabit broadband services

Enabling Gigabit-grade service via existing copper line, the Zyxel GES1316-FSA complies with the G.9700 and G.9701 standards to achieve speeds of up to 1.8 Gbps in short loop and 500 Mbps within a 200m distance. The GES1316-FSA also supports G.fast technology with 212a, 106b profile and the co-existing VDSL for smooth migration from VDSL to G.fast.

Temperature-hardened and dual-powered design with battery charger save CAPEX and simplify installation

With a compact 1U design and a wide range of operating temperatures ranged from -40°C to 60°C, the Zyxel GES1316-FSA suits various deployment environments. Furthermore, the dual-power battery charger design of the GES1316-FSA allows you to power the device without an additional SMR while charging the backup battery at the same time.



G.fast with G.vectoring and VDSL2/35b fallback



Multi-service interfaces including G.fast, VDSL2, GPON and fiber-based GbE



Comprehensive QoS enhanced triple-play experience



Field-proven IGMP snooping and proxy for IPTV deployments



Temperature-hardened for flexible installation



Fanless design for extended product life



AC or DC dual-power with battery charge function



Flexible ACL, VLAN-aware DHCP, and anti-IP/MAC address spoofing to prevent malicious attacks



Sophisticated OAM&P features

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The Zyxel GES1316-FSA provides various management methods including a local console port, Telnet, a locally-hosted Web GUI and SNMP v1/v2/v3-based EMS (NetAtlas EMS). It also includes management functions such as alarm and status surveillance, configuration management,

performance management and fault management. The Zyxel solution also provides efficient provisioning and remote management features eliminating the need for field technicians to configure setups or diagnose problems.

Specifications

System specifications

DSL compliant

- G.fast:
 - Compliant with G.9700 and G.9701
 - Supports 212MHz profile
 - DS/US ratio configurable
 - Online reconfiguration
 - Bit swap
 - SRA (Seamless Rate Adaptation)
 - TIGA (Transmitter Initialized Gain Adjustment)
 - UPBO (Upstream Power Back Off)
 - Vectoring/G.INP (retransmission)
 - 35b/VDSL2 fallback
- VDSL2:
 - Compliant with G.993.2
 - Supports 8c/8d, 12a/12b, 17a, 30a, 35b profile
 - Annex A and Annex B 998 band plan
 - Online reconfiguration
 - Bit swap
 - SRA (Seamless Rate Adaptation)
 - DELT (Dual End Line Test)
 - DPBO (Downstream Power Back Off)
 - UPBO (Upstream Power Back Off)
 - Single bearer/latency
 - Auto rate adaptation
 - Virtual noise/notch filter

Performance

- Supports 1000 IGMP multicast groups
- DSCP to 802.1p mapping

Security

- Static MAC for UNI port
- MAC limitation per UNI port
- DHCPv4 option 82
- PPPoE IA
- Filtering based on physical port, L2, L3, L4 headers
- Loop guard
- Service control
- Access control
- Downlink port isolation

VLAN

- IEEE 802.1Q/1AD compliance
- Selective Q-in-Q
- VLAN translation mode (1:1, N:1)

Multicast

- IGMP snooping
- IGMP proxy
- IGMP v2
- IGMP v3 ASM (Any Source Multicast)
- Multicast VLAN
- Limit multicast group per port
- Static multicast

Hardware specifications

- 1U Pizza box/fanless
- 2 x SFP uplink, 1/2.5/10G data rate
- 16 port for G.fast with 1 x Telco-50
- 16 port for POTS with 1 x Telco-50
- 2 x QSFP+ for DLV stacking
- 1 x USB type console
- 1 x RJ-45 management port
- 1 x DB9 alarm port
- Dual power with battery charger
- Power consumption: 54W

Physical specifications

- Item dimensions (WxDxH):
440 x 250 x 44.35 mm
(17.32" x 9.84" x 1.74")
- Item weight:
Splitter version: 4.26 kg (9.39 lb.)
Non-splitter version:
3.94 kg (8.68 lb.)
- Packing dimensions (WxDxH):
548 x 360 x 362 mm
(21.57" x 14.17" x 14.25")
- Packing weight:
Splitter version: 5.92 kg (13.05 lb.)
Non-splitter version:
5.6 kg (12.34 lb.)

Environment specification

Operating environment

- Temperature:
-40°C to 60°C (-40°F to 140°F)
- Humidity:
10% to 95% (Non-condensing)

Storage environment

- Temperature:
-40°C to 70°C (-40°F to 158°F)
- Humidity:
10% to 95% (Non-condensing)

Certification

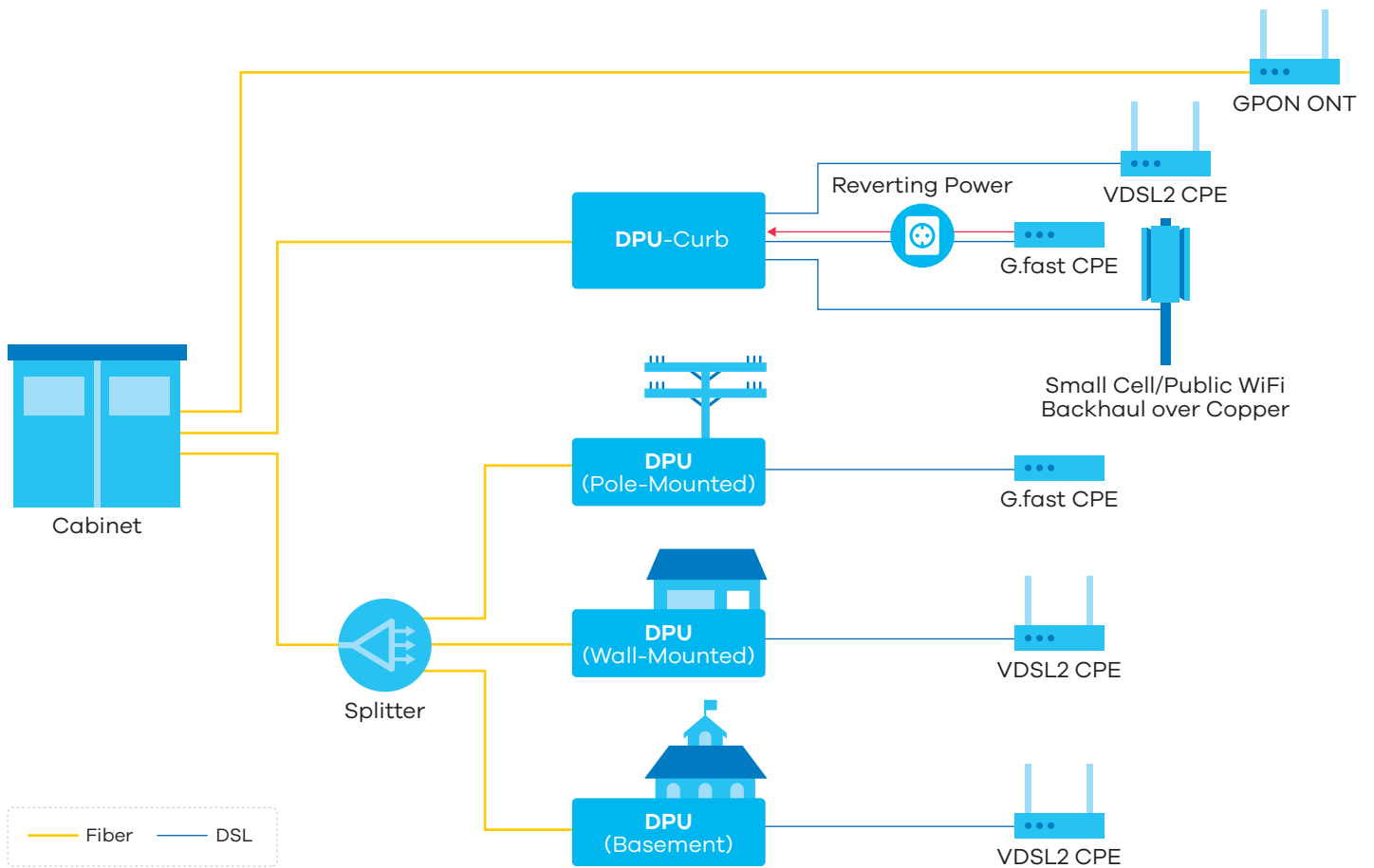
Safety

- EN 62368-1: 2014

EMC

- EN 55024: 2010
- EN 55024: 2010+A1:2015
- EN 55032-2012/AC:2013
- EN 55032-2015/AC:2016
- EN 55035: 2017
- EN 55035: 2017/AC:2019
- EN 300 386: V1.6.1
- EN 300 386: V2.1.1
- EN 6100-3-2: 2014
- EN 6100-3-3: 2013
- EN 6100-3-3: 2013+A1:2019
- CISPR 32 Ed. 2.0: 2015

Application diagram



Hardware interface





For more product information, visit us on the web at www.zyxel.com

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Datasheet [GES1316-FSA](#)



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