

G.L.E.N.E.C.

Gigabit LAN Extension Node
with Edge Computing

10 Gbit Ethernet Switch with Embedded Edge Computing

- ▶ 4x Cortex®-A53 @ 1.6GHz
- ▶ 1x Cortex®-M7 @ 800MHz
- ▶ Machine Learning Accelerator @ 2.3 TOPS
- ▶ Connected with 2x 1 Gbit Ethernet links
- ▶ Integrated security functions



Robust Ethernet switch with Embedded Edge Computing acting as far edge processing device and connectivity broker.

G.L.E.N.E.C. links smart city, smart industry and security applications with multi tenant cloud services. Existing network and cloud services can be easily expanded towards outdoor and heavy duty applications with highest safety and reliability standards in a ruggedized and compact form factor:

- PoE+ supply for applications
- internal AC/DC conversion
- minimum installation effort
- zero-touch deployment
- no extra housing or cabinet required



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Feature	Value / Detail
Security	<ul style="list-style-type: none"> Enterprise-Level Cisco IOS-XE switching security 2-level Intrusion Detection
Network Functions	<p>Network Essential License (Layer 2):</p> <ul style="list-style-type: none"> IEEE 802.1, 802.3 standard, NTP, UDLD, CDP, LLDP, unicast MAC filter, VTPv2, VTPv3, EtherChannel, voice VLAN, PVST+, MSTP, and RSTP Multicast: IGMPv1, v2, v3 snooping, IGMP filtering, IGMP querier Management: Web UI, MIB, SmartPort, SNMP, syslog, DHCP server, SPAN session, Full Flexible Netflow, NETCONF, RESTCONF Security: Port security, 802.1x, DHCP snooping, dynamic ARP inspection, IP source guard, guest VLAN, MAC authentication bypass, 802.1x multidomain authentication, storm control - unicast, multicast, broadcast, SCP, SSH, SNMPv3, TACACS+, RADIUS server/client, MAC address notification, BPDU guard, Central Web guard Authentication, ARP Snooping Quality of Service: Ingress policing, rate limit, egress queuing/shaping, autoQoS Layer 2 IPv6: IPv6 host support, HTTP over IPv6, SNMP over IPv6 Redundancy Protocols: REP <p>Network Advantage License (Layer 3):</p> <ul style="list-style-type: none"> IP routing: OSPF (V2 and V3), RIP (V1 and V2), ISIS (for IPv4 and IPv6), EIGRP (for IPv4 and IPv6), PBR (Policy Based Routing) Virtualization: VRF-lite Security: MACsec-256 Multicast: PIM sparse mode (PIM-SM), PIM dense mode (PIM-DM) and PIM Sparse dense mode High Availability: Bidirectional Forwarding Detection (BFD) echo mode, HSRP & VRRP (IPv4 & IPv6)
Uplink Interfaces	<ul style="list-style-type: none"> 2x 1/10Gbit, Customer specific configurable SFP+ Externally accessible M32x1 Industry standard for easy field assembly; further options in preparation
Edge Computing	<ul style="list-style-type: none"> NXP iMX8M Plus powered, 4x Cortex®-A53 up to 1.6GHz, 1x Cortex®-M8 up to 800MHz, NPU @2.3TOPS, GPU @ 16GFLOPS/32-bit, Tensilica HiFi4 DSP @ 800MHz LPDDR4-SDRAM up to 4GB with up to LPDDR4-4000 @ 32-bit, up to 256GB eMMC Flash 2x 1Gbit LAN link to ESS3300 switch core for max. data throughput/redundancy Yocto OS, eIQ Inference engine enabled for NPU computing (separate license)
Downlink Interfaces	<ul style="list-style-type: none"> 4x 10/100/1000Base-T PoE 802.3at on all four ports M12-X-coded; screw connection
Power Supply	<ul style="list-style-type: none"> 220-240VAC / 50-60Hz high efficiency power supply for low heat waste (up to 95% efficiency); Inrush-Current free topologie NEUTRIK powerCON® TRUE1 TOP connection system for easy field assembly Power consumption 163W max.
Certifications/ Approvals	<p>CE</p> <ul style="list-style-type: none"> Emission according to EN 55032:2015 Class B Immunity according to EN 61000-6-2:2019 (EN 61000-4-2/-3/-4/-5/-6/-8/-11) Safety according to EN 62368-1:2014 + AC:2015 <p>Environmental</p> <ul style="list-style-type: none"> TR 2130 Issue E, August 2014 (DIN EN 60068-2-27/-64)
Environmental conditions	<ul style="list-style-type: none"> Operating temperature -30°C up to +60°C environment; natural convection(DIN EN 60068-2-14:2021-04) Humidity 93%@40°C; non condensing (DIN EN 60068-2-78:2014-02) Degree of protection IP66 (DIN EN 60529:2014-09)
Dimensions	240 mm x 111 mm x 74 mm ¹⁾
Mounting	<ul style="list-style-type: none"> Housing-integrated Nut6 DIN rail mounting via adapter for hanging custom solution on request
Weight	max. 2,3 kg ¹⁾ 1) without brackets and external connectors



All technical changes and errors reserved.