EDGe INTERCEPT

INTERCEPT

EDGe2500

Ethernet switch rOLT

Features and Benefits

The Intercept™ EDGe2500 Ethernet switch rOLT is an efficient low power solution for edge switching and Open XGS PON deployments. Designed for broadband service providers looking for a flexible and easily implemented PON delivery solution, the EDGe2500 delivers all the benefits of a carrier class edge switch in a temperature hardened strand or pedestal mount, secure housing that can be quickly and reliably deployed for efficient subscriber acquisition and exceptional time to market. Meeting the industry demand of multiple 25Gbit ports, the EDGe2500 is future ready and can accept 1, 10 or 25 Gbps SFP OLT modules, as well as standard SFP28s capable of providing multiple value and revenue generating services such as P2P Ethernet and mobile backhaul, from a single versatile backplane, while also enabling market leading 25G capable date rates to conventional residential FTTH markets.

Like all of Intercept's EDGe rOLT and edge server portfolio, the EDGe2500 is optimized for Tibit Microplug OLT functionality and resident PON management and provisioning without the need for additional MCMS licensing fees or costly integration. The EDGe2500 is a true Open PON white box solution which can be cascaded from any field or Hub sever for rapid deployment of revenue generating PON and backhaul services.

- **8x SFP28 Ethernet Ports, Each 25 Gbit Capable**
- **200 Gbps Switching Bandwidth**
- **Compact Size, Low Power Consumption**
- **Industry-grade Management and Temperature Grade**
- **Full Features Industry and Enterprise Ethernet Switching Capabilities**

The Intercept EDGe2500 Switch family provides a rich set of Enterprise switching features such as advanced TCAM-based VLAN and QoS processing, enabling delivery of differentiated services, and security through TCAM-based frame processing using versatile content aware processor (VCAP).

IPv4/IPv6 Layer 3 (L3) unicast and multicast routing is supported with up to 18K IPv4/9K IPv6 unicast LPM entries and up to 9K IPv4/3K IPv6 (S,G) multicast groups.

L3 security features include source guard and reverse path forwarding (uRPF) tasks. Additional L3 features include VRF-Lite and IP tunnels (IP over GRE/IP).

The device integrates a powerful 1 GHz dual-core ARM® Cortex®-A53 CPU enabling full management of the switch and advanced Enterprise applications.

The EDGe2500 Switch family targets managed Layer 2 and Layer 3 equipment in SMB, SME, and Enterprise where high throughput switching with multiple 25G aggregation links is required.

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MECHANICAL		
Version A	**Version B**	**Version C**
8x25 G single SFP28 Ports 222 mm x 60 mm x 40 mm (approx.)	Space-optimized 4x25 G Single SFP28 Ports plus One QSFP28-Port (4x25 G) 152 mm x 65 mm x 40 mm (approx.)	Stacked 8x25G SFP28 Ports (cube format) 96 mm x 96 mm x 60 mm (approx.)

SPECIFICATIONS
Layer 2 and Layer 3 Forwarding
802.1Q Switch with 4 K VLANs and 32 K MAC Table Entries
Push/pop/translate up to Three VLAN Tags on Ingress and Egress
RSTP and MSTP Support
Fully Nonblocking Wire-speed Switching Performance for all Frame Sizes
Link Aggregation and DRNI per IEEE 802.1AX
External Bridge Port Extender Role per IEEE 802.1BR
IPv4/IPv6 Unicast and Multicast Layer 2 Switching with up to 32 K Groups and 2 K Port Masks
IPv4/IPv6 Unicast and Multicast Layer 3 Forwarding (routing) with Reverse Path Forwarding (RPF) Support
IGMPv2, IGMPv3, MLDv1, and MLDv2 Support
IPv4 Tunnels Including GRE, 6 to 4, 6rd, 6 Over 4, ISATAP, and 6 in 4
Quality of Service
Four Megabytes of Integrated Shared Packet Memory
Eight QoS Classes with a Pool of up to 32 K Queues
TCAM-based Classification with Pattern Matching Against Layer 2 Through Layer 4 Information
Dual-rate Policers Selected by VCAP IS2, Eight Dual-rate Priority Policers per Port, and Four Single-rate Port Policers for Each Port
Flexible 4K Ingress QoS Mappings and 8K Egress QoS Mappings for VLAN Tags and DSCP Values
4K Egress VLAN Tag Operations
Low Latency Cut-through Forwarding Mode
Priority-based Flow Control (PFC) (IEEE 802.1Qbb)
Security
Versatile Content Aware Processor Packet Filtering Engine Using ACLs for Ingress and egress
Packet Inspection with Four Ingress Lookups per Frame and Two Egress Lookups per Egress Frame Copy
Hierarchical VLAN ACLs and Router ACLs
Storm Controllers for Flooded Broadcast, Flooded Multicast, and Flooded Unicast Traffic
Per-port, Per-address Registration for Copying/redirecting/discarding
64 Single-rate Policers for Ingress ACLs
64 Single-rate Policers for Egress ACLs
Power
Power Consumption System (TBC) - 20 Watts (typical) - 30 Watts (maximum)
Power Supply 24 VDC/2 A Recommended

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Hierarchical VLAN ACLs and Router ACLs
Storm Controllers for Flooded Broadcast, Flooded Multicast, and Flooded Unicast Traffic
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64 Single-rate Policers for Ingress ACLs
64 Single-rate Policers for Egress ACLs
Management
CPU System with Integrated Dual-core 1 GHz ARM Cortex-A53 CPU with MMU and DDR3/DDR4 SDRAM Controller
Integrated ARM Cortex-M3 CPU Core for Dedicated PCIe Bootup and POE Management
CPU Frame Extraction (eight queues) and Injection (two queues) Through DMA, which Enables Efficient Data Transfer Between Ethernet Ports and CPU
1 GB of DDR4 SDRAM Memory
256MB of Non-volatile NAND Memory
Rich Set of GPIOs and LEDs - Two LEDs per Port - Debug UART - SFP Loss of Signal Inputs
Per-port Counter Set with Support for the RMON Statistics Group (RFC 2819) and SNMP Interfaces Group (RFC 2863)
Applications
Enterprise L2 Managed
Enterprise L2/L3 (L3-Lite) Managed
XGS-PON Deployments
Enterprise eEge
WiFi Aggregation
High-end SMB/net Café
Embedded and Control Plane Switches
Security Appliances
Base Stations and Baseband Processor Interconnect
Service Provider CPEs
Environmental
Storage and Operating Temperature -20 ºC to 65 ºC (-4 ºF to 149 ºF)
Operating Humidity 20 % to 85 % RH, Non-condensing
Non-Operating Humidity 5 % to 95 % RH, Non-condensing
Physical Size
To Come
Weight
To Come
Compliance
CE
RoHS

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