GigaSpire®
BLAST u10xe

Calix

The Calix GigaSpire BLAST u10xe (GS4237) is a new generation of Wi-Fi 6E smart home system that integrates ONT and residential gateway functionality into a single system. It supports virtually any PON and Ethernet technology, while providing the ultimate Wi-Fi experience. Besides supporting broadband connectivity of data and video services, this intelligent, high-performance system offers the latest 802.11ax 'Wi-Fi 6' technology with Wi-Fi 6E wide spectrum support. The GigaSpire BLAST u10xe provides switching and routing functions that support multi-Gigabit throughput for IPTV video and data services.

KEY ATTRIBUTES

Home Gateway

- Layer 2 bridge and Layer 3 routing for High Speed Internet (HSI) data and IPTV video services
- DHCP server options
- DHCP (IPoE) and PPPoE network connections
- Network Access Translation (NAT), public to private IP addressing
- Configurable IP address schemes, subnets, static-IP addresses
- DNS server
- Bridge port assignment and data traffic mappings
- Port forwarding
- Firewall and security
- Application and website filtering
- Selectable forwarding and blocking policies
- DMZ hosting
- Parental controls, time of day usage
- Denial of service (DoS) protection
- MAC filtering
- Time/Zone support
- Universal Plug-and-Play (UPnP)

Wi-Fi

- 2.4 GHz, 5 GHz, and 6 GHz simultaneous tri-band
- 5 GHz 802.11ax (Wi-Fi 6) certified, 802.11a/b/g/n/ac compatible
- 6 GHz (Wi-Fi 6E), 802.11ax compatible
- 10x10 streams (2x2 @ 2.4 GHz, 4x4 @ 5 GHz and 4x4 6 GHz)
- 2.4 GHz 802.11ax (Wi-Fi 6) certified, 802.11b/g/ac compatible
- WPA/WPA2/WPA3; WEP 64/128 bit encryption

- PuF (Physical Unclonable Functions)
- WPS push-button
- 4x4 DL/UL MU-MIMO, implicit/explicit high-power, dynamic beamforming
- 1024 QAM; OFDMA; BSS Coloring
- DCM (Dual Carrier Modulation)
- TWT (Target Wake Time) for IoT clients

Wi-Fi Redundant mesh

- Self-managed: Self-configuration, Airtime fairness
- Dynamic Mesh: load balancing, band/node steering; interference management
- Self-Healing: backhaul failover; diagnostics; events

SFP+ WAN interface

- Full 10 Gigabit bandwidth
- Supporting several SFP WAN modules, including:
- GPON
- 10 GBT
- XGS
- GE and 10 GE Active Ethernet

Gigabit Ethernet (GE) LAN interfaces

- Four (4) ports of multi-rate 10/100/1000 BASE-T Ethernet, auto-negotiating for residential IPTV and data services

10 Gigabit Ethernet (10 GE) LAN/WAN interface

- Single port of multi-rate 100/1000/2500/5000/10000 BASE-T Ethernet, auto-negotiating for residential IPTV and data services

Two voice lines

- Carrier-grade SIP, H.248 (aka Megaco) and MGCP
- Supports 1km of loop length with 24 AWG wire

USB port

- USB 2.0 - Type A host interface

Supports multiple data service profiles

Traffic Management and Quality of service (QoS)

- 802.1Q VLANs
- 802.1p service prioritization
- Q-in-Q tagging
- Multiple VLANs
- DiffServ
- Pre-defined QoS on service type
- LAG of GE ports
- MAP-T

IPTV, IGMPv2, future support of IGMPv3 • IGMP Snooping and Proxy

- IGMP Fast Leaves

Gateway Management

- Calix Support Cloud
- TR-069
- Local Home Gateway GUI, access provisionable
- Remote WAN side GUI access
- Default username/password

AC to 12 V DC power adapter

UPS power unit

SPECIFICATIONS

Dimensions

- Width: 4.75 in (12.1 cm)
- Height: 10 in (25.4 cm)
- Depth: 4.75 in (12.1 cm)
- Weight: 2.6 pounds (1.2 kg)

WAN Interface

- Interface: SFP+ cage (with options for GPON, 10 GBT, XGS, and GE and 10GE Active Ethernet); 10 Gigabit Ethernet (when SFP module is not being used)

Interfaces

- Wireless: 2.4 GHz 2x2, 5 GHz 4x4 and 4x4 6 GHz internal antennas
- LAN Data/IPTV: Four (4) 10/100/1000 BASE-T Ethernet ports, RJ 45 connectors; Single 100/1000/2500/5000/10000 BASE-T Ethernet ports
- WAN: SFP+ cage
- USB: USB 2.0 Type A
- Voice: Two ports supporting Metaswitch; C15; C20 SIP; H.248 and MGCP
- Power: Single pin and 8-pin
- WPS Switch: Push-button actuator
- Reset button for factory default

Data

- Drop length: 328 feet (100 m) maximum using CAT5/6 cable for GigE

- Auto MDI/MDIX crossover for 1000BASE-TX, 100BASE-TX
- 10GBT: 328 feet (100m) CAT6A/7 cable
- Traffic Management and QoS: 802.11Q VLAN; 802.11p voice, video, data and management priorities; Q-in-Q tagging

Wireless

- 2.4 GHz 802.11 b/g/n/ac/ax
- 2x2 UL/DL MU-MIMO
- 5 GHz 802.11 a/n/ac/ax
- 4x4 UL/DL MU-MIMO, explicit high-power, dynamic beamforming
- 6 GHz 802.11 ax 4x4
- 2.4 GHz, 5 GHz and 6 GHz simultaneous
- DCM, TWT, extended GI
- Auto channel selecting and interference detection
- WPS, WPS push button
- Wi-Fi multimedia (WMM)
- 802.11k,802.11v,802.11r
- Supports up to 256 wireless clients

Remote Management

- TR-069 remote management
- TR-098 Internet Gateway Device Data Model

Environmental

- Operating temperature: Indoor ambient temperature, 0° to 40°C (32° to 104° F)

- Operating and storage relative humidity: 10 to 90 % and 5 to 95% non-condensing respectively

Certification and Compliance

- Emissions: FCC Part 15 Class B, IC ICES-003 Class B, CISPR-22
- Safety: UL 62368 and UL 1697 approved
- IEEE: 802.3, 802.3AB, 802.3U, 802.11p, 802.11Q
- Wi-Fi Alliance Certified 802.11ax (Wi-Fi 6 and 6E)

- USB-IF Compliance USB 2.0

Powering and Alarms

- Single pin and 8-pin
- Input voltage: 12 V DC (nominal)
- External Power Adapter: 12 V DC, 3A
- UPS Power Unit