GigaSpire® BLAST u4

Calix

The Calix GigaSpire® BLAST® u4 is a new generation smart home system that extends the access network into the home and acts as a strategic location for control of 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. The GigaSpire BLAST u4 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)

1 gigabit ethernet (GE) WAN interface

- 10/100/1000 BASE-T Ethernet, auto-negotiating

Wi-Fi

- 2.4 GHz and 5 GHz, simultaneous dual-band
- 2.4 GHz and 5 GHz 802.11ax (Wi-Fi 6) certified, 802.11a/n/ac compatible
- 4x4 streams (2x2 @ 2.4 GHz and 2x2 @ 5 GHz)
- PA/WPA2/WPA3; WEP 64/128 bit encryption
- PuF (Physical Unclonable Functions)
- WPS push-button
- 2x2 DL/UL MU-MIMO, implicit/ explicit high-power, dynamic beamforming (5 GHz radio)
- 2x2 DL/UL MU-MIMO implicit/ explicit high-power, dynamic beamforming (2.4 GHz radio)
- 1024 QAM; OFDMA; BSS Coloring
- DCM (Dual Carrier Modulation)
- TWT (Target Wake Time) for IoT clients

Wi-Fi redundant mesh

- Self Managed: self configuration, Air time fairness
- Dynamic Mesh: load balancing, band/node steering; interference management
- Self Healing; diagnostics; events

Gigabit ethernet (GE) LAN interfaces

- Two (2) ports of multi-rate 10/100/1000 BASE-T Ethernet, auto-negotiating for residential IPTV and data services

USB port

- USB 2.0 - Type A host interface

Supports multiple data service profiles

Traffic management and quality of service (QoS)

- 2.1Q 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

- GMP Snooping and Proxy
- IGMP Fast Leaves

Gateway management

- CSC (Calix Support Cloud)
- TR-069
- Local Home Gateway GUI, access provisional
- Remote WAN side GUI access
- Default username/password

AC to 12 V DC power adapter

SPECIFICATIONS

Dimensions

- Width: 5 in (12.7 cm)
- Height: 1.6 in (4 cm)
- Depth: 5 in (12.7 cm)
- Weight: 10.6 oz. (0.3 kg

WAN Interface

- Interface: One Gigabit-Ethernet Port, RJ-45 connector

Interfaces

- Wireless: 2.4 GHz 2x2 and 5 GHz 2x2 internal antennas
- LAN Data/IPTV: Two (2) 10/100/1000 BASE-T Ethernet port, RJ-45 connectors
- WAN: One (1) 10/100/1000
- USB: USB 2.0 Type A
- Power: Single barrel connector
- 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
- Traffic Management and QoS802.11Q VLAN; 802.11p voice, video, data and management priorities; Q-in-Q tagging

Wireless

- 2.4 GHz 802.11 b/g/n/ac/ax
- 5 GHz 802.11 a/n/ac/ax
- 2x2 DL/UL MU-MIMO, implicit/ explicit high-power, dynamic beamforming (5 GHz radio)
- 2x2 DL/UL MU-MIMO implicit/ explicit high-power, dynamic beamforming (2.4 GHz radio)
- 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 200 wireless clients
- US Wi-Fi Output Power: 30 dBm EU: ETSI Wi-Fi Output Power compliant

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 60950 and UL 1697 approved
- IEEE: 802.3, 802.3AB, 802.3U, 802.11p, 802.11Q
- Wi-Fi Alliance Certified 802.11ax

- USB-IF Compliance USB 2.0

Powering and Alarms

- Single barrel connector
- 12 V DC (nominal)
- External Power Adapter: 12 V DC, 2 A

Ookla-based Performance Testing

- Subscribers can run an Ookla-based performance test from within the Calix Command**IQ**® mobile app
- Symmetrical speed test results of 1 Gbps are possible with the GigaSpire BLAST u4 system (owing to the 1 GigE WAN port)

ORDERING INFORMATION

Calix GigaSpire BLAST u4 (GS2028E)

000-01177.......... GS2028E BLAST u4, dual band 2x2 Wi-Fi 6, GE WAN, 2 GE LAN, AM Power Adapter

Calix GS2028E/GM1028 Power Adapter

100-05544.......... GigaSpire BLAST u4/u4m (GS2028E/GM1028) Power Adapter, 12 V, 2 A – AM Type A

Optional Uninterruptible Power Supply (UPS)

100-04068.......... Indoor UPS (8 hour support), Wall Mount or Desktop, 12 V, 7.2 AH, 36 W, Black - AM, Type B, Grounded

100-05345.......... Indoor UPS (24 hour support), Wall Mount or Desktop, 12 V, 20AH, 75W, Audible Alarm, Regulated Output R3 Production

UPS Power Adapters

100-04235.......... Indoor UPS Power cord, 7-pin UPS to 2-pin 800 GC, 1m, black

100-04236...........Indoor UPS Power cord, 7-pin UPS to 2-pin 800 GC, 3m, black

Note: Calix believes the information in this publication to be accurate as of publication date, and is not responsible for error. Product Specifications are subject to change without notice.