

Sonus SBC 5210™ Session Border Controller

Designed for communications service providers and large enterprises, the SBC 5210 Session Border Controller is a powerful, compact and purpose-built SBC for the multimedia communications of today and tomorrow. The Sonus SBC 5210 provides all of the features you need in an SBC today—robust network security, sophisticated routing and policy management, overload controls, SIP normalization—plus the features you’ll need tomorrow, like IPv4-IPv6 interworking, multi-modal communication, built-in media transcoding and assured performance and scale under heavy traffic. As a key component of Sonus’ award-winning SBC Core platform family, the SBC 5210 meets all of the security, scalability, availability, and management requirements of service providers and large enterprises.



System Capabilities

- Sessions
 - 64,000 simultaneous sessions
 - Up to 40,000 transcoded sessions based on codec
 - Up to 32,000 H.323 sessions
 - RTCP sessions scale 1:1 with RTP sessions
- Call Set-Up
 - Maximum call setup rate: 450 cps
 - Call latency = 30ms (@ 450 cps, 90% fall into this category)
- Registrations
 - Maximum new registrations/sec: 1000
 - Maximum refreshes/sec: 5000
 - Total registered end point support: 256,000; up to 256,000 NAT'd end points
- Encryption
 - Maximum number of TLS sessions: 256,000
 - TLS set-up rate: 150/sec
 - IPsec (IKE) setup rate: 120/sec
 - Maximum # SRTP call legs: 128,000

Media Services

- Transcoding G.711, G.726, G.728, G.729A/B, G.723, iLBC, G.722, G.722.1, AMR-NB, AMR-WB, EVRCB0, EVRCO, Opus
- Wireline, wireless, wideband and clearchannel codec pass through
- T.38 compliant fax relay or fall back to G.711
- VAD, Silence Suppression, Dynamic Jitter Buffer, Fax/ Modem Detection, DTMF/Tone Relay/RFC2833/RFC4733 interworking
- NAT/NAPT on media
- Message Session Relay Protocol (MSRP)
- DTMF Trigger Detection and Notification

- Generic audio codec relay
- Tones & Announcements
- Local Ring Back Tone (LRBT) support with centralized PSX Policy Server
- RTP inactivity monitoring
- Supported video codecs: H.264 AVC, H.264 SVC, H.263+; H.263, H.261, VP8
- SIPREC

Redundancy

- 1:1 Redundant Systems for Service Availability
- 1:1 Redundant Management/ Control Ports

Management Capabilities

- Graphical based wizards for ease of configuration
- Secure embedded web-based management GUI
- Sonus CLI, SSH
- Centralized support by Sonus Insight EMS
- REST API
- SNMP V2/V3 status and statistics
- Local logging of events, alarms, and traps; Call trace
- Sonus DSI Level 0 support for storing CDRs; RADIUS accounting records
- Live Software Update (LSWU)

Signaling

- Back to Back User Agent (B2BUA)
- SIP, SIP-I/SIP-T, SIP/H.323; Sonus Gateway to Gateway Signaling
- SIP protocol normalization/ protocol repair; SIP message manipulation
- NAT/NAPT on signaling
- Binary floor control protocol (BFCP) Far-end camera control (FECC)

Protocol Support

- IPv4, IPv6, IPv4/IPv6 interworking
- SSH; sFTP
- SNMP; NETCONF; NTP
- HTTP/HTTPS
- RTP/RTCP
- UDP, TCP
- DNS, ENUM

Routing/Policy

- Embedded policy/routing engine
- Centralized support by Sonus
- PSX Policy/Route Server using DIAMETER+
- Screening, blocking, routing, presentation, call type filters
- Route prioritization
- Leading digit routing; International routing; URI based routing
- Digit/parameter manipulation
- E911 support; Priority Call handling

Security

- Session aware firewall; Topology Hiding
- Line rate DoS/ DDoS, and Rogue RTP protection
- Line rate malformed packet protection
- TLS, IPsec (IKEV1) for signaling encryption
- Secure RTP/RTCP for media encryption

Quality of Service (QoS)

- Bandwidth management
- Call admission control (CAC) per trunk group, per zone
- Per call statistics
- TOS/ COS packet marking

Packet Network Time Source

- Network Time Protocol (NTP) per RFC-1708

Hardware Specifications

Front Panel

- Status Indicators Front Panel LEDs:
 - Status
 - Critical
 - Major
 - Minor
 - User
 - Location
- Single USB V2.0 interface

Rear Panel

- Management Ports:
 - Two (single active, single passive) 10/100/1000 Ethernet RJ-45 ports
- Media Ports:
 - Four 1 Gbps Ethernet fiber or copper via SFP
- High Availability Ports:
 - Two 1 Gbps Ethernet multimode fiber via SFP
- Single Field Service port with RJ45 connector
- Locator LED
- Alarm port with DB15 connector
- Single serial craft DB9 port

Memory

- 24 Gbytes

DSP Expansion

- Model 5210: Modular DSP slots

Chassis

- 2U, rack mount
- Inches: 17.5" Wide x 3.5" High x 21" Deep
- Centimeters: 44.5 Wide x 8.8 High x 53.3 Deep
- Optional mounting brackets for 19" or 23" rack

Chassis Mounting Options:

- 19" or 23" Adjustable Brackets

Storage

- 256 Gbytes of Solid State Disk (SSD) storage

AC Power Option:

- RMS Input Voltage
- Minimum 90 VAC
- Nominal 100-240 VAC
- Maximum 264 VAC
- RMS Current
 - 5.6A
- Input Frequency
 - Minimum 47 Hz
 - Nominal 50/60 Hz
 - Maximum 63 Hz

DC Power Option:

- Peak Consumption: 17.3 A

Operating Altitude:

- 6,000 Feet
- 1,800 Meters

Heat Dissipation

- Fully-Populated Maximum:
 - 1000 Watts
 - 3410 BTU per Hour
- Replaceable Filter

Weight Maximum Fully Populated

- 50 lbs. (22.68 kg)

Environmental:

- 5 to 40° C Operating
- -5 to 55° C Short Term
- 5 to 90% Non-Condensing Operating Humidity

Regulatory Compliance

Central Office Standards:

- DC Systems - SR-3580 NEBS Level 3
 - GR-1089-CORE
 - GR-63-CORE
- AC Systems - SR-3580 NEBS Level 3
 - GR-1089-CORE
 - GR-63-CORE

Table 1. Estimated Power Consumption (all power measurements taken with fans running high)

Configuration	AC Low Line (W)		AC High Line (W)		DC Input (W)	
	Amps	Watts	Amps	Watts	Amps	Watts
SBC 5210 - No DSP Cards	5.7	512	2.9	516	12.6	502
SBC 5210 +1 DSP25	6.4	576	3.2	582	14.0	559
SBC 5210 +2 DSP25	7.2	644	3.6	647	14.9	594
SBC 5210 +3 DSP25	7.8	702	3.9	702	17.0	678
SBC 5210 +4 DSP25	8.5	761	4.2	763	17.3	692

About Sonus Networks

Sonus enables and secures real-time communications so the world's leading service providers and enterprises can embrace the next generation of SIP and 4G/LTE solutions including VoIP, video, instant messaging and online collaboration. With customers in more than 50 countries and nearly two decades of experience, Sonus offers a complete portfolio of hardware-based and virtualized Session Border Controllers (SBCs), Diameter Signaling Controllers (DSCs), policy/routing servers and media and signaling gateways. For more information, visit www.sonus.net or call 1-855-GO-SONUS. Sonus is a registered trademark of Sonus Networks, Inc. All other company and product names may be trademarks of the respective companies with which they are associated.

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