

# Sonus SBC 5200™ Session Border Controller

Designed for communications service providers and large enterprises, the SBC 5200 Session Border Controller is powerful, compact and purpose-built for the multimedia communications of today and tomorrow. The Sonus SBC 5200 provides all of the features you need in an SBC today—robust security, sophisticated routing and policy management, overload controls, SIP normalization—plus the features you'll need tomorrow, like IPv4-IPv6 interworking, centralized policy management, built-in media transcoding and high performance under heavy traffic. The SBC 5200 Series is available in two form factors: modular (5210) and fixed (5200). The SBC 5200 Series delivers true multimedia SBC support for audio, video and collaboration with advanced security, priority, identity and service quality capabilities.



## System Capabilities

- Sessions
  - 64,000 simultaneous sessions
  - Up to 17,200 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
  - Maximum # of IPsec tunnels: 2048 (4096 IPsec SAs)
  - IPsec (IKE) setup rate: 120/sec
  - Maximum # SRTP sessions: 64,000

## Media Services

- Transcoding G.711, G.726, G.729A/B, G.723, iLBC, G.722, G.722.1, AMR-NB, AMR-WB, EVRCB0, EVRC0
- 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
- 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

## 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
- 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 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
- Model 5200: Fixed DSP cards

### 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:

- SBC 5200
  - Peak Consumption: 18.8A
- SBC 5210
  - 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

- SBC 5200: 50 lbs. (22.68 kg)
- SBC 5210: 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

SBC 5200	SPS100	SPS100DB	AC Low Line		AC High Line		DC	
			Amps	Watts	Amps	Watts	Amps	Watts
	0	0	5.8	515	2.8	502	12.4	519
	1	0	6.7	604	3.3	595	14.8	589
	1	1	7.6	676	3.7	656	16.8	672
	1	2	8.5	755	4.1	731	18.8	751

# About Sonus Networks

Sonus is a leader in IP networking with proven expertise in delivering secure, reliable and scalable next-generation infrastructure and subscriber solutions. With customers in over 50 countries across the globe and over a decade of experience in transforming networks to IP, Sonus has enabled service providers and enterprises to capture and retain users and generate significant ROI. Sonus products include session border controllers, policy/routing servers, subscriber feature servers and media and signaling gateways. Sonus products are supported by a global services team with experience in design, deployment and maintenance of some of the world's largest and most complex IP networks. For more information, call 1-855-GO-SONUS

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