
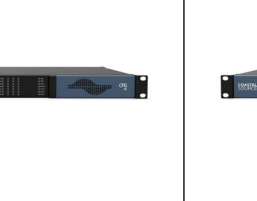



AUDIO MATRIX | AMPLIFIERS

AMPLIFIER BASICS

MODEL														
AMPLIFIERS	SAS160/2	SAS250/2	SAS300	SAS600	CAS300	CAS600	CAS900	CAS1200	CRS300	CRS600	CRS1K	CRS2K	CRS4K	CRS8K
DESCRIPTION	Self Contained Audio System ready for Bluesound Power Node	Self-Contained Audio System ready for SONOS AMP	Self-Contained Audio System ready for SONOS PORT	Self-Contained Audio System ready for SONOS PORT	Component Audio System for small to medium speaker systems	Component Audio System for small to medium speaker systems	Component Audio System for systems requiring multiple subwoofers	Component Audio System for systems requiring multiple subwoofers	Component Rack Mounted System for small high-fidelity systems	Component Rack Mounted System for small high-fidelity systems	Component Rack Mounted System for medium high-fidelity systems	Component Rack Mounted System for large high-fidelity systems	Component Rack Mounted System for very large high-fidelity systems	Component Rack Mounted System for the largest high-fidelity systems
OUTPUT	2 CH	2 CH	4 CH	4 CH	4 CH	4 CH	4 CH	4 CH	4 CH	4 CH	4 CH	4 CH	4 CH	4 CH
OUTPUT POWER	160W	250W	300W	600W	300W	600W	900W	1200W	300W	600W	1000W	2000W	4000W	8000W
INPUT TYPE	5P	5P	5P	5P	5P	5P	5P	5P	QUAD RCA	QUAD RCA	QUAD RCA	QUAD RCA	QUAD RCA	QUAD RCA
AUDIO INPUTS	1	1	1	1	1	2	2	2	4	4	4	4	4	4
OUTPUT TYPE	2x (CC) COASTAL CONNECTOR	2x (CC) COASTAL CONNECTOR	4x (CC) COASTAL CONNECTOR	4x (CC) COASTAL CONNECTOR	4x (CC) COASTAL CONNECTOR	4x (CC) COASTAL CONNECTOR	4x (CC) COASTAL CONNECTOR	4x (CC) COASTAL CONNECTOR	PHOENIX CONNECTOR	PHOENIX CONNECTOR	PHOENIX CONNECTOR	PHOENIX CONNECTOR	PHOENIX CONNECTOR	PHOENIX CONNECTOR
WEB GUI	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes
AES67	-	-	AES67 Optional	AES67 Optional	AES67 Optional	AES67 Optional	AES67 Optional	AES67 Optional	AES67 Optional	AES67 Optional	AES67	AES67	AES67	AES67
ADVANCED DSP	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MULTI-ZONE CAPABLE	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SIZE	14.5" x 12.5" x 7.5"	14.5" x 12.5" x 7.5"	13.24" x 15.24" x 7.22"	13.24" x 15.24" x 7.22"	13.24" x 15.24" x 7.22"	13.24" x 15.24" x 7.22"	17.24" x 15.24" x 8.25"	17.24" x 15.24" x 8.25"	1/2 WIDTH 1RU	1/2 WIDTH 1RU	1RU	1RU	1RU	1RU
INSTALLATION TYPE	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
MOUNTING	Vertical Wall/Post	Vertical Wall/Post	Vertical Wall/Post	Vertical Wall/Post	Vertical Wall/Post	Vertical Wall/Post	Vertical Wall/Post	Vertical Wall/Post	Rack Mount	Rack Mount	Rack Mount	Rack Mount	Rack Mount	Rack Mount
POWER SHARING	-	-	Full	Full	Full	Full	Full	Full	Full	Full	Partial	Partial	Partial	Partial
2Ω STABLE	-	-	-	Yes	-	Yes	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes
MAX 8Ω SPEAKERS PER CHANNEL[†]	2	2	2	4	2	4	3	4	2	4	4	4	4	4
MAX SUBS PER SYSTEM*	-	-	1	2	1	2	3	4	1	2	2	4	8	16
READY FOR SONOS	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
BOLLARD EXAMPLE SYSTEM[†]	(2x) 10.0 Ellipse Bollard Speakers	(2x) 10.0 Ellipse Bollard Speakers	(2x) 10.0 Ellipse Bollard Satellites, (1x) 10.0 Ellipse Bollard Subwoofer	(2x) 3-Way Ellipse Bollard Speakers, (2x) 10.0 Ellipse Bollard Satellites	(2x) 10.0 Ellipse Bollard Satellites, (1x) 10.0 Ellipse Bollard Subwoofer	(4x) 10.0 Ellipse Bollard Speakers, (1x) 14.0 Bollard Subwoofer	(2x) 10.0 3-Way Ellipse Bollard Speakers, (1) 14.0 Bollard Subwoofer	(4x) 10.0 3-Way Ellipse Bollard Speakers	(4x) 8.0 Mini Ellipse Bollards, (1x) 10.0 Bollard Subwoofer	(2x) 3-Way Ellipse Bollard Speakers, (2x) 10.0 Ellipse Bollard Satellites	(2x) 10.0 3-Way Ellipse Bollard Speakers, (4x) 10.0 Ellipse Bollard Satellites	(4x) 10.0 3-Way Ellipse Bollard Speakers, (4x) 10.0 Ellipse Bollard Satellites	(4x) 12.0 Line Source Bollard Speakers, (2x) 18.0 Bollard Subwoofer	(8x) 12.0 Line Source Bollard Speakers, (4x) 18.0 Bollard Subwoofer
RAZOR EXAMPLE SYSTEM[†]	(2x) RZ210	(2x) RZ210	(4x) RZ210	(2x) RZ220	(4x) RZ210	(2x) RZ220	(2x) RZ220, (2x) RZ110	(2x) RZ310	(2x) RZ210	(2x) RZ220	(2x) RZ220, (2x) RZ110	(2x) RZ310, (2x) RZ110	(4x) RZ340, (4x) RZ350	(8x) RZ340, (8x) RZ350

[†]These examples represent just one possible speaker arrangement to help identify the capability of each amplifier. All of our amplifiers are able to be used with a wide variety of system setups

[‡]For 16Ω Speakers (i.e. Contour), these numbers can be doubled. For 32Ω Speakers (i.e. Pathfinder), these numbers can be quadrupled.






*RAZOR SUB CONVERSION CHART FOR AMP SIZING

Razor speakers utilize multiple woofers and must be considered differently than Bollards when choosing an amplifier. Use this conversion chart to evaluate how many "subs" to consider with choosing a Razor amp.

RZ100		RZ200 Series		RZ300 Series	
RZ110	0	RZ210	0	RZ310	2
-	-	RZ220	1	RZ320	2
-	-	-	-	RZ330	1
-	-	-	-	RZ340	0
-	-	-	-	RZ350	2

AUDIO MATRIX | SPEAKERS AND SUBWOOFERS

BOLLARD SPEAKERS						BOLLARD SUBWOOFERS				CONTOUR
MODEL										
SPEAKER	8.0 Mini Ellipse Bollard	10.0 Ellipse Bollard Satellite	10.0 2-Way Ellipse Bollard	10.0 3-Way Ellipse Bollard	12.0 Line Source Bollard	10.0 Ellipse Bollard Sub	10.0 Bollard Sub	14.0 Bollard Sub	18.0 Bollard Sub	CT110 Contour
SKU	EB82W6.5BN	EBS102W6.5BN	EB102W710BN	EB103W6.5-8BN	LSB123W4-10BN	EB10SW710BN	B10SW8BN	B14SW12G3BN	B18SW15BK	CT110BN
TYPE	2-Way Speaker	2-Way Satellite	2-Way Speaker	Bi-Amplified 3-Way Speaker	Bi-Amplified 3-Way Line Source Speaker	Subwoofer	Subwoofer	Subwoofer	Subwoofer	2-Way Speaker
DISPERSION	120°	120°	120°	120°	120°	Omnidirectional	Omnidirectional	Omnidirectional	Omnidirectional	100°
DRIVER COMPLEMENT	(1) 6.5" Woofer (1) 1" Ti Dome Tweeter	(1) 6.5" Woofer (1) 1" Ti Dome Tweeter	(1) 7x10" Woofer (1) 1" Ti Dome Tweeter	(1) 6.5" Mid-bass (1) 1" Ti Dome Tweeter (1) 8" Subwoofer	(6) 4" Mid-bass (12) 3" Ribbon Tweeters (1) 10" Subwoofer	(1) 7x10" Subwoofer	(1) 8" Subwoofer	(1) 12" Subwoofer	(1) 15" Subwoofer	(1) 5.25" Coax w/ 1" Ti Dome Tweeter
PEAK POWER HANDLING	100W	100W	150W	100W Sat / 200W Sub	600W Sat / 400W Sub	100W	200W	400W	600W	75W
MINIMUM AMPLIFIER POWER	25W	25W	25W	25W Sat / 100W Sub	100W Sat / 200W Sub	50W	100W	100W	300W	25W
FREQUENCY RESPONSE	65Hz - 20kHz	120Hz - 20kHz	50Hz - 20kHz	35Hz - 20kHz	32Hz - 20kHz	50Hz - 300Hz	35Hz - 120Hz	30Hz - 120Hz	25Hz - 120Hz	70Hz - 20kHz
SENSITIVITY	90dB @ 1W	92dB @ 1W	92dB @ 1W	92dB @ 1W	98dB @ 1W	90dB @ 1W	92dB @ 1W	94dB @ 1W	94dB @ 1W	88dB @ 1W
IMPEDANCE	8Ω	8Ω	8Ω	8Ω Sat / 8Ω Sub	8Ω Sat / 8Ω Sub	8Ω	8Ω	8Ω	8Ω	16Ω
DIMENSIONS	18" x 8" Ø	15" x 10" Ø	29" x 10" Ø	42" x 10" Ø	54.5" x 12" Ø	29" x 10" Ø	30" x 10" Ø	30" x 18" Ø	37.5" x 18" Ø	17.5" x 10" x 6.5"
WEIGHT	10.5 lbs	9.3 lbs	15.5 lbs	38 lbs	88 lbs	17 lbs	29.1 lbs	59 lbs	84 lbs	8 lbs
MOUNTING	In-Grade/Surface	Surface	In-Grade/Surface	In-Grade/Surface	In-Grade/Surface	In-Grade/Surface	In-Grade/Surface	In-Grade/Surface	In-Grade/Surface	Surface
INSTALLATION TYPE	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape	Hardscape/Landscape

RAZOR SPEAKERS									CUBE	PATHFINDER
MODEL										
	100 SERIES	200 SERIES			300 SERIES					
SPEAKER	RZ110	RZ210	RZ220	RZ310	RZ320	RZ330	RZ340	RZ350	CUBE	Pathfinder
SKU	RZ110WT	RZ210WT	RZ220WT	RZ310WT	RZ320WT	RZ330WT	RZ340WT	RZ350WT	HS10SWBN	PFBN
TYPE	2-Way Satellite	2.5-Way Speaker	Bi-Amplified 3-Way Speaker	High Power Bi-Amplified 3-Way Speaker	2.1 Soundbar	3.1 LCR	Line Source Speaker	Subwoofer	Subwoofer	Small-form Omnidirectional Speaker
DISPERSION	110°	110°	110°	110°	110°	110°	100°	Omnidirectional	Omnidirectional	Omnidirectional
DRIVER COMPLEMENT	(1) 5.25" Coaxial	(1) 5.25" Coaxial (2) 5.25" Passive Radiators	(1) 5.25" Coaxial (2) 5.25" Passive Radiators	(1) 5.25" Coaxial (4) 5.25" Subwoofers	(2) 5.25" Coaxial (3) 5.25" Subwoofers	(3) 5.25" Coaxial (2) 5.25" Subwoofers	(6) 5.25" Coaxial	(4) 5.25" Subwoofers	(1) 10" Subwoofer	(2) 3" Full-Range, (2) 3" Passive Radiators
PEAK POWER HANDLING	75W	75W	75W Sat / 200W Sub	75W Sat / 400W Sub	100W Sat (x2) / 300W Sub	100W Sat (x3) / 200W Sub	500W	400W	350W	30W
MINIMUM AMPLIFIER POWER	25W	25W	25W Sat / 100W Sub	25W Sat / 150W Sub	25W Sat (x2) / 150W Sub	25W Sat (x3) / 100W Sub	150W	150W	100W	10W
FREQUENCY RESPONSE	80Hz-20kHz	60Hz-20kHz	40Hz-20kHz	40Hz-20kHz	40Hz-20kHz	40Hz-20kHz	100Hz-20kHz	40Hz - 120Hz (preset dependent)	35Hz - 120Hz	100Hz - 15kHz
SENSITIVITY	88dB @ 1W	88dB @ 1W	88dB @ 1W	88dB @ 1W	88dB @ 1W	88dB @ 1W	93dB @ 1W	86dB @ 1W	86dB @ 1W	80dB @ 1W
IMPEDANCE	8Ω	8Ω	8Ω Sat / 8Ω Sub	8Ω Sat / 8Ω Sub	8Ω Sat / 8Ω Sub	8Ω Sat / 8Ω Sub	8Ω	8Ω	8Ω	32Ω
DIMENSIONS	10.5" x 10.5" x 3.35"	21.75" x 10.5" x 3.35"	21.75" x 10.5" x 3.35"	36" x 10.5" x 3.35"	36" x 10.5" x 3.35"	36" x 10.5" x 3.35"	36" x 10.5" x 3.35"	36" x 10.5" x 3.35"	17" x 17" x 16.75"	9.375" x 9.375" x 4.5"
WEIGHT	8.9 lbs	13.9 lbs	18.6 lbs	30.6 lbs	26.6 lbs	31.4 lbs	33.6 lbs	27.3 lbs	50 lbs (without top), 70-75 lbs (w/ stone top)	3 lbs
MOUNTING	Surface/Corner	Surface/Corner	Surface/Corner	Surface/Corner	Surface/Corner	Surface/Corner	Surface/Corner	Surface/Corner	Surface	Surface
INSTALLATION TYPE	Hardscape	Hardscape	Hardscape	Hardscape	Hardscape	Hardscape	Hardscape	Hardscape	Hardscape/Landscape	Hardscape/Landscape