

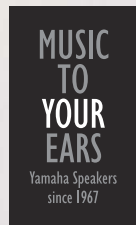


SPEAKERS FOR COMMERCIAL INSTALLATIONS

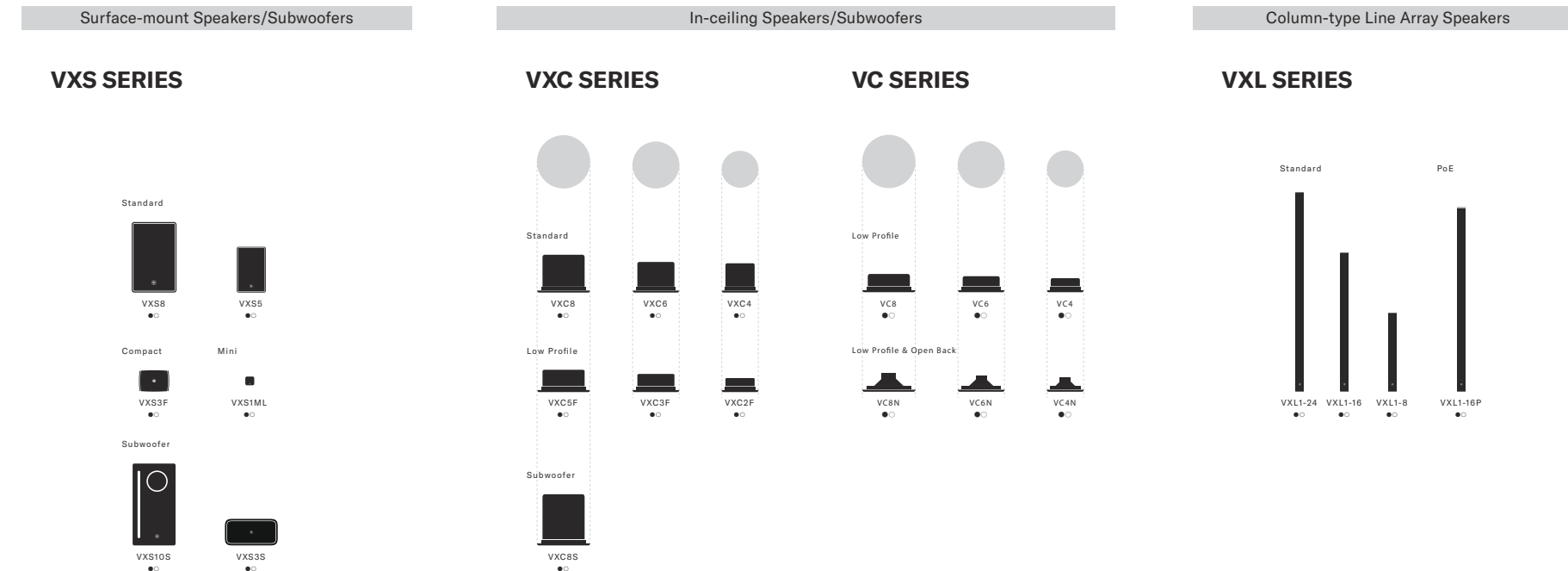
November 2021



1. High quality, richly musical sound
2. Visual design that harmonizes with any interior décor
3. Installation-friendly smart mechanical features



VXS, VXC, VC and VXL series speakers have been optimized specifically for commercial sound applications, with accurate sound inspired by our long history of musical instrument production plus visual design that blends easily with any décor. Choose the models that best suit your needs from our ample lineup.



Recommended Combinations

For Simple Sound Systems

- MA/PA Series

Recommended applications:

Cafes, restaurants, bars, retail stores, classrooms, presentation rooms, etc.



For Advanced Sound Systems

- MTX/MRX/XMV Series
- Controllers
- Peripherals

Recommended applications:

Conference rooms, lecture halls, restaurants, hotels, banquet halls, office complexes, multi-purpose facilities, shopping malls, etc.





WHAT MAKES US APART

With such a prolific history of instrument manufacture comes a unique musical sensibility that deeply influences all our speaker lineups. We won't settle for anything less than truly authentic, superior sound that satisfies the most discriminating tastes.



SOUND

We've adopted a uniquely utilitarian approach to speaker design that derives its aesthetic from the functionality of the speaker's construction so that every curve and corner serves a purpose that will ultimately benefit our customers and their clientele— with style.

DESIGN

Our meticulous parts and material selection process and innovative proprietary technologies ensure the same level of durability and reliability as our acclaimed professional audio gear and masterfully crafted musical instruments.

QUALITY





MAKE

IMPRESSIONS

Just like lighting, aroma, and interior design, the sounds a customer is initially exposed to can have a significant impact on their comfort and enthusiasm for your business.

Creating an inviting, high-quality sonic environment will not only complement your other stylistic choices, but influence per-customer spending and repeat business.

Yamaha is invested in the creative choices you make with your space by providing state-of-the-art products with superb musicality that ensure your vision resonates with everyone who enters.

SHOWCASE

Yamaha - The Sound Business Choice



Volvo Studio Aoyama (Showroom, Japan)



Petit Palace Hotel (Hotel, Spain)



Mitsui Garden Hotel (Hotel, Japan)



InterContinental Hotel (Hotel, Switzerland)



Usine (Restaurant, Sweden)



La Maison du Sake (Restaurant, France)



Le Agavi (Hotel, Italy)



Billund Airport (Airport, Denmark)



Thermes Marins Monte-Carlo (Spa, Monaco)



Victoria & Albert (Museum, UK)
Photo by the V&A Museum



Shang Xia (Boutique, China)



Stone Harbor Municipal Courthouse (Courthouse, USA)



Eglise Saint-Denis-Sainte-Foy (Church, France)



Scalaria (Hotel, Austria)
Scalaria.com



Walkerhill Hotel & Resort (Hotel, Korea)



Attractive, Discreet Design for
Elegant Spaces

It is our goal to offer the most pleasing environments possible, both sonically and visually. The sleek curves and attractive, minimalist design of VXS series make them easily adaptable to any commercial environment seeking a unique, subtle complement to the overall aesthetic.



Safe and Efficient Installation

The brackets supplied with the VXS series are all you need for smooth, streamlined wall or ceiling mounting. The bracket itself is a compact design that facilitates mounting in tight spaces, while incorporating features for safe, efficient installation.

VXS8/VXS5



VXS1ML



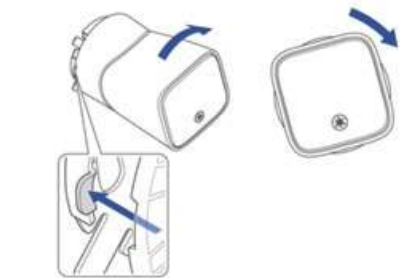
A press-in bracket design leaves both hands free for easy wiring and angle adjustment.



Reverse-thread screws and safety pin prevent damage or injury due to the speaker accidentally falling during installation.



A design that prevents lateral movement during ceiling installation simplifies vertical angle adjustment.



Align the speaker to the notch on the mounting bracket, and then attach the speaker. Secure the speaker by turning it clockwise.

Featured Model



Good Things. Small Packages.

Mini Surface-mount Speaker
VXS1ML (VXS Series M)

Bigger isn't always better, and for more intimate commercial environments in particular, a subtle approach to the sights and sounds your customers experience can often leave a stronger impression. Yamaha's ultra-compact VXS1ML provides an attractive interior accent, while filling your space with music that helps shape your overall aesthetic and inspires your clientele.

Blending into Any Décor

A remarkably small cube with elegantly flowing lines and surfaces.



Room-filling Sound Experience

Carefully selected and tuned 1.5" driver with neodymium magnet, realizing wide coverage.



Installation Friendly

Wall-mount, ceiling mount, In-ceiling*, or hanging from lighting rail*.

*with optional accessories

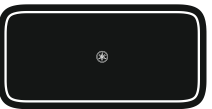


Recommended Subwoofer: VXS3S

In situations where more substantial low end is required, the compact VXS3S subwoofer is a perfect match for the VXS1ML. Featuring unique SR-Bass™ technology, the VXS3S delivers impactful bass performance while reducing the enclosure size.



VXS1ML



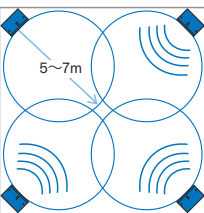
VXS3S

Tips for System Design & Installation

Speaker Layout

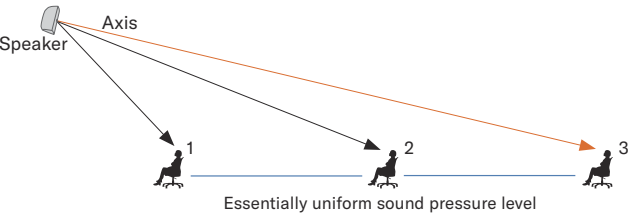
The coverage area of surface-mount speakers will depend on the mounting height rather than ceiling height. With surface-mount speakers installed at a height of around 3 meters, the coverage area will be somewhere between 5 and 7 meters, as shown in the below figure.

Higher speaker mounting positions will result in larger coverage circles: between 1 and 2 meters increase in diameter for every 1 meter in height, approximately.



Speaker mounting position:
around 3m height

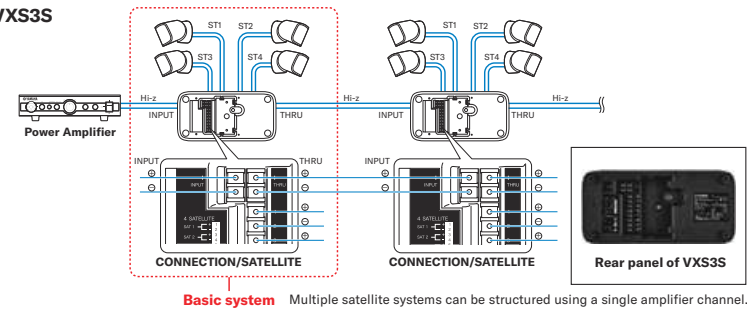
Uniform sound pressure level can easily be achieved throughout the listening plane with speakers that include by aligning the speaker's axis with the head of the most distant target (listener). This works because of the relationship between distance and coverage angle. When the perpendicular axis is aligned with the last row, the natural distance attenuation at the last row and the off-axis attenuation at closer rows tend to result in uniform SPL distribution.



*Yamaha provides dedicated speaker software application CISSCA for designing simple installation such as in-store background music system. Please see page 12 for the details.

Satellite Connection

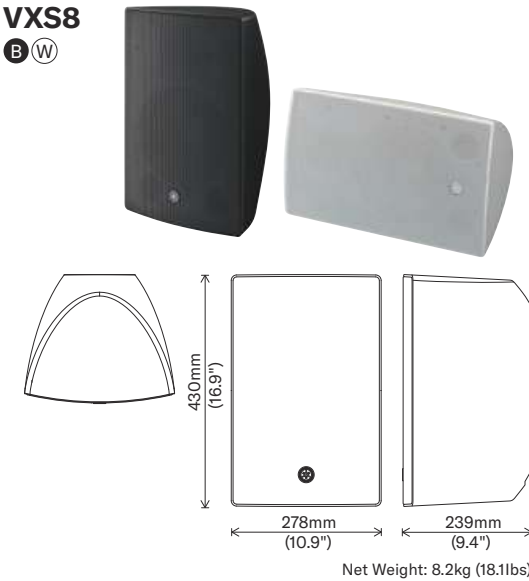
The VXS10S/VXS3S subwoofers have satellite connectors on the rear panel, minimizing the number of amplifier channels required to get a system up and running. And since the subwoofers support high-impedance connections, it is possible to connect low-impedance satellite speakers while the subwoofer is connected to a high-impedance system. A built-in high-pass filter is automatically applied to the satellite speakers, providing exceptionally smooth, natural frequency crossover from subwoofer to satellites.



Basic system Multiple satellite systems can be structured using a single amplifier channel.

Recommended for
Background Music System

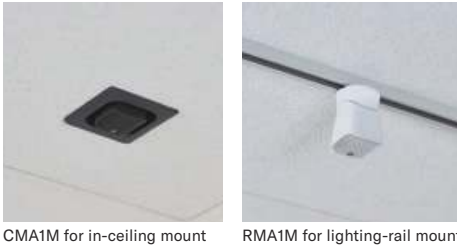
VXS8
B W



VXS1ML
B W



Optional Accessories

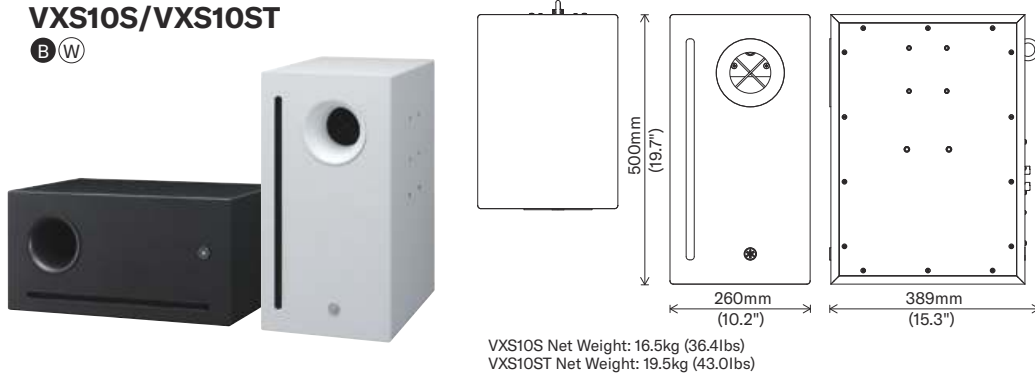


CMA1M for in-ceiling mount RMA1M for lighting-rail mount

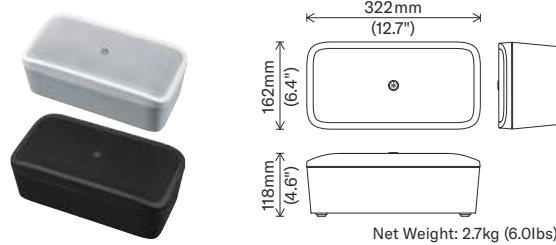
VXS5
B W



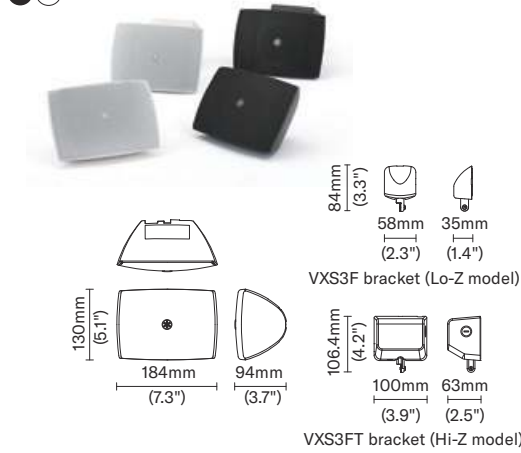
VXS10S/VXS10ST
B W



VXS3S
B W



VXS3F/VXS3FT
B W



VXS3F Net Weight (with bracket): 1.1kg (2.4lbs),
VXS3FT Net Weight (with bracket): 1.7kg (3.7lbs)
*A transformer is attached to a bracket of the VXS3FT (Hi-Z model)

Optional Accessories



UB-DXR8 for ceiling mount

Optional Accessories



CMA3S for in-ceiling mount

*Dedicated mounting bracket is included in each model.

Standard



Compact



Mini



Subwoofer

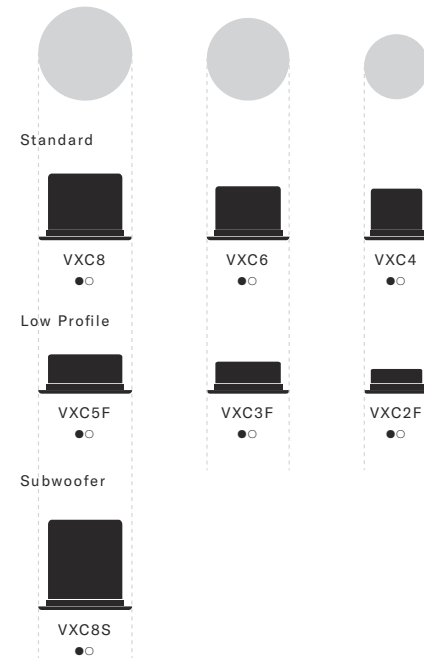


VXS series		VXS8/VXS8W		VXS5/VXS5W		VXS3F/VXS3FW	VXS3FT/VXS3FTW	VXS1MLB/VXS1MLW	VXS10S/VXS10SW	VXS10ST/VXS10STW	VXS3SB/VXS3SW
			VA version* (EN54-24 model)		VA version* (EN54-24 model)						
Speaker type		2-way, Bass reflex		2-way, Bass reflex		Full-range, Acoustic suspension		Full-range, Acoustic suspension	Subwoofer, Bass reflex		Subwoofer, SR-Bass™
Components	LF	8"		5.25"		3.5"		1.5"	10" Dual Voice Coil		3.5"
	HF	1"		0.75"					-		-
Crossover frequency		2.8kHz		3kHz		-					-
Frequency range (-10dB)		51Hz - 20kHz		62Hz - 20kHz		130Hz - 20kHz		180Hz - 20kHz	45Hz - 250Hz		65Hz - 180Hz
Nominal coverage (Horizontal x Vertical)		H100° x V100°		H120° x V120°		H150° x V160°		H170° x V170°	-		-
Power rating		90W		75W		20W	-	5W	100W + 100W	-	20W
		180W		150W		40W	-	10W	200W + 200W	-	40W
		360W		300W		80W	-	20W	400W + 400W	-	80W
Nominal impedance		8Ω		8Ω		8Ω	-	8Ω	8Ω + 8Ω	-	8Ω
Transformer taps	100V	60W, 30W, 15W		30W, 15W, 7.5W		-	15W, 7.5W, 3.8W	-	-	200W, 100W, 50W	15W, 7.5W, 3.8W
	70V	60W, 30W, 15W, 7.5W		30W, 15W, 7.5W, 3.8W		-	15W, 7.5W, 3.8W, 1.9W	-	-	200W, 100W, 50W, 25W	15W, 7.5W, 3.8W, 1.9W
SPL	Sensitivity (1W, 1m)	91dB SPL (Half-space)	89dB SPL (Full-space)	89dB SPL (Half-space)	88dB SPL (Full-space)	86dB SPL (Full-space)		79dB SPL (Full-space)	96dB SPL (Half-space)		79dB SPL (Full-space)
	Peak (Calculated, 1m)	117dB SPL	115dB SPL	114dB SPL	113dB SPL	105dB SPL	-	92dB SPL	125dB SPL	-	98dB SPL
Satellite filter		-	-	-	-	-	-	-	Network filter: HPF 200Hz, 6dB/OCT		
Satellite impedance		-	-	-	-	-	-	-	8Ω load per satellite output recommended		
I/O connectors		Euroblock (4 pin)	Ceramic terminal block	Euroblock (4 pin)	Ceramic terminal block	Euroblock (4 pin)	Barrier strip	Euroblock (2 pin)	Input: Euroblock (4 pin) Satellite out: Euroblock (4 pin)		Input: Barrier strip Satellite out: Barrier strip
Magnetically shielded		No									
Overload protection		Full-range power limiting to protect network and transducers									
Enclosure material	Cabinet	ABS (UL94 V-0)	ABS (UL94 5VB)	ABS (UL94 V-0)	ABS (UL94 5VB)	ABS (UL94 5VB)		ABS (UL94 V-0)	MDF		ABS (UL94 V-0)
	Baffle	PC/ASA	ABS (UL94 5VB)	PC/ASA	ABS (UL94 5VB)	ABS (UL94 5VB)		ABS (UL94 V-0)	-		ABS (UL94 V-0)
Grille material		Powder coated perforated aluminum					Powder coated perforated steel		-		Powder coated perforated steel
Finish	Black model	Munsell N3/RAL 9017 (approx.)					Munsell N3/RAL 9017 (approx.)				
	White model	Munsell N9.3/RAL9010 (approx.)					Munsell N9/RAL9010 (approx.)				
Dust and water resistance (IP rating)		IP35**			IP35**		-		-		-
Dimensions		W278mm (10.9") x H430mm (16.9") x D239mm (9.4")			W176mm (6.9") x H280mm (11.0") x D163mm (6.4")		W184mm (7.3") x H130mm (5.1") x D94mm (3.7")		W62mm (2.4") x H62mm (2.4") x D82mm (3.2")	W260mm (10.2") x H500mm (19.7") x D389mm (15.3")	
Net weight		8.2kg (18.1lbs)			3.6kg (7.9lbs)		1.1kg (2.4lbs)	1.7kg (3.7lbs)	0.17kg (0.37lbs)	16.5kg (36.4lbs)	19.5kg (43.0lbs)
Packaging		Pair	Pair	Pair	Pair	Pair	Pair	Single	Single	Single	Single
Certificate		UL1480, NFPA70, CE, EAC, RoHS	EN54-24, CE, RoHS	UL1480, NFPA70, CE, EAC, RoHS	EN54-24, CE, RoHS	UL1480, NFPA70, CE, RoHS	UL1480, NFPA70, CE, EAC, RoHS	UL1480, NFPA70, CE, RoHS	CE, EAC, RoHS	CE, EAC, RoHS	UL1480, NFPA70, CE, RoHS
EN54-24 DoP number		-	0359-CPR-00406	-	0359-CPR-00406	-	-	-	-	-	-

* VA versions are not available in some regions.
** IP34 when installing the speaker to the ceiling vertically.

In-ceiling Speakers/Subwoofers

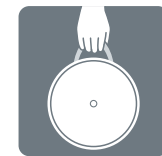
VXC SERIES



Recommended for
Background Music System

Smart Design for Safer, Faster Installation

The VXC ceiling speakers come with smart mechanical features that contribute to significantly safer, faster installation. And since these models support both low-impedance and high-impedance connection, the need for extra stock is minimized and systems can be designed to ideally meet the requirements of any application.



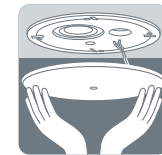
Portable

A built-in "Carrying Band" not only makes the speaker easy to carry around, but also increases safety when working on a stepladder.



Fast

Double threaded screws used for the speaker clamp mechanism allow the clamps to be tightened twice as fast as conventional screws.



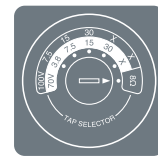
Streamlined

The supplied speaker grilles are firmly and elegantly held in place by powerful magnets. An anti-drop wire is also included.



Secure

An "Anti-Drop Tab" mechanism securely holds the speaker in place so that the installation can proceed safely and efficiently. There's also a release lever that allows the speaker to be smoothly removed from the ceiling as required.



Hi-Z or Lo-Z

Both high-impedance and low-impedance connections are supported, and speaker wattage can be easily switched even after installation.



Paintable

The supplied grilles can be painted any color to match interior decor.

Carrying Band



Anti-Drop Tab



Featured Model

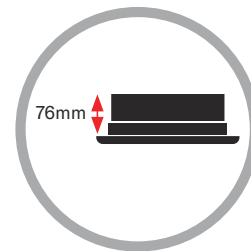
Style and Substance.

Low-profile In-ceiling Speaker
VXC2F (VXC Series F)

Featuring a newly designed speaker driver unit, optimally tuned for music playback, the VXC2F's super slim, lightweight construction and flexible design can easily adapt to the strictest installation limitations, ensuring superb audio performance wherever they're placed. It allows you to streamline the installation process and seamlessly integrate high-quality audio into a restaurant, retail, or professional environment, which proves that style and substance aren't always mutually exclusive.

Super Slim Back Can

A back can less than 76.2mm/ 3 inches deep, which directly contributes to flexible installation.



Streamlined Design

Grilles with minimum rim width, available in black or white, and removable logo.



Pendant-mount Option

Suspension hardware and loudspeaker cosmetic cover designed for hanging from open ceilings.



Recommended Subwoofer: VXC8S

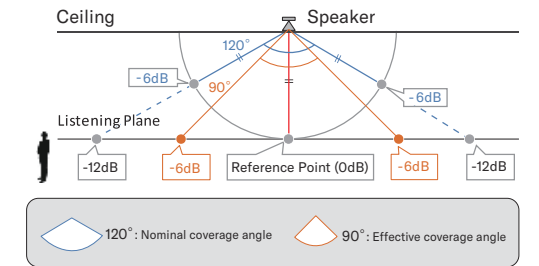
Yamaha also offers an in-ceiling subwoofer that ideally matches for VXC series speakers, smoothly extending the low frequency range with superb sonic quality without spoiling interior design.



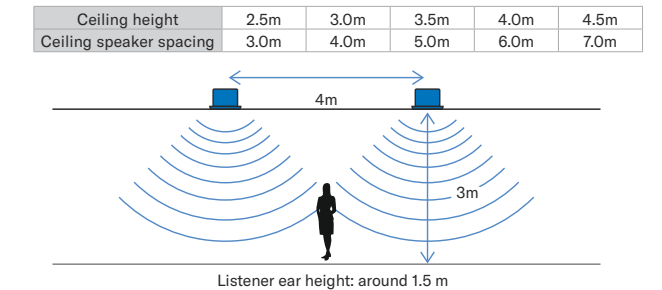
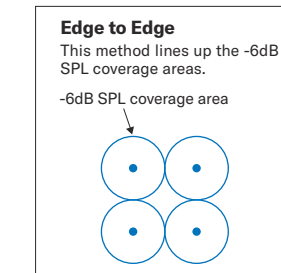
Tips for System Design & Installation

Speaker Layout

It is important to note that the nominal coverage angle listed in ceiling speaker specifications is not the same as the speaker's actual effective coverage angle. SPL at the nominal coverage angle is 6dB lower than the on-axis SPL, measured at a constant distance from the speaker. The effective coverage angle is defined as the angle at which the SPL is 6dB lower than the on-axis SPL at the listening plane. The effective coverage angle is usually about 70~80% of the nominal coverage angle.

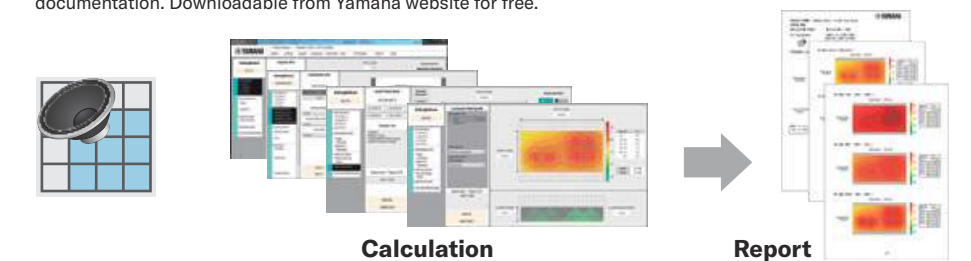


A number of methods can be employed when laying out speaker coverage areas. The "Edge to Edge" method is normally used for background music systems. The chart lists approximate coverage areas at a number of ceiling heights for standing listeners (listener ear height = around 1.5 meters). If the ceiling height is 3 meters, the coverage area will be approximately 4 meters. In this case a ceiling speaker spacing of 4 meters will provide uniform coverage with minimal volume variation.



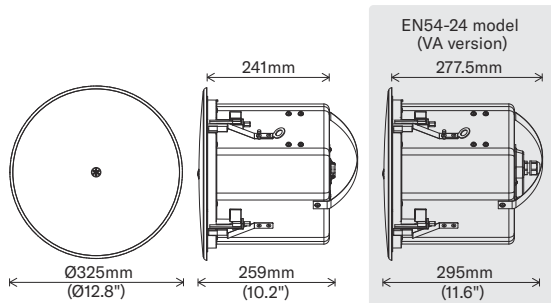
CISSCA

CISSCA, the Commercial Installation Solutions Speaker Calculator, is a Yamaha's dedicated software application that rapidly calculates the number of speakers required for optimum performance in installations, based on the size of the room, type of system, type of speakers, and speaker layout pattern. Output also includes an estimate of effective sound pressure level. CISSCA also has a "Report" function that makes it easy to create documentation. Downloadable from Yamaha website for free.



VXC8

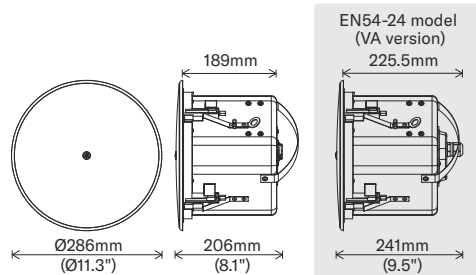
B W



Net Weight: 6.6kg (14.6lbs)
Cutout Size: Ø285mm (11.3")

VXC6

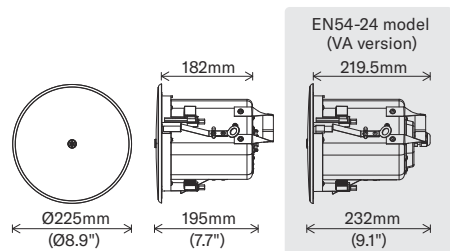
B W



Net Weight: 4.4kg (9.7lbs)
Cutout Size: Ø247mm (9.8")

VXC4

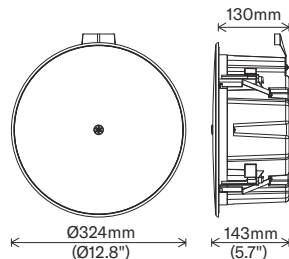
B W



Net Weight: 2.6kg (5.7lbs)
Cutout Size: Ø186mm (7.3")

VXC5F

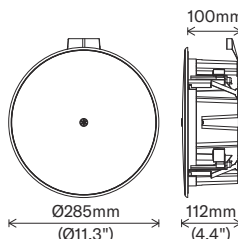
B W



Weight: 3.1kg (6.8lbs)
Cutout Size: Ø285mm (11.3")

VXC3F

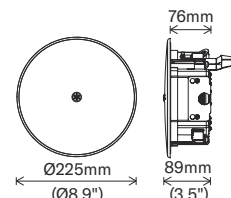
B W



Net Weight: 2.5kg (5.5lbs)
Cutout Size: Ø247mm (9.8")

VXC2F

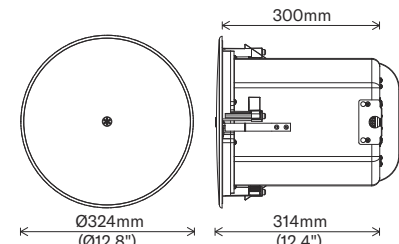
B W



Net Weight: 1.7kg (3.7lbs)
Cutout Size: Ø186mm (7.3")

VXC8S

B W



Net Weight: 8.7kg (19.2lbs)
Cutout Size: Ø285mm (11.3")

Optional Accessories

PK-C4

Pendant-mount kit for VXC4/VXC2F

B W



AB-C2 / AB-C8S*

Tile rail kit for VXC2F/VXC8S



*Tile rail kit is included in all models except VXC2F/VXC8S.

Standard

Low Profile

Subwoofer



VXC8



VXC6



VXC4



VXC5F



VXC3F



VXC2F**



VXC8S**

VXC series		VXC8/VXC8W		VXC6/VXC6W		VXC4/VXC4W		VXC5F/VXC5FW		VXC3F/VXC3FW		VXC2FB/VXC2FW	VXC8SB/VXC8SW	
		VA version* (EN54-24 model)		VA version* (EN54-24 model)		VA version* (EN54-24 model)		VA version* (EN54-24 model)		VA version* (EN54-24 model)				
Speaker type		2-way, Acoustic suspension		2-way, Acoustic suspension		Full-range, Bass reflex	Full-range, Acoustic suspension	Full-range, Bass reflex		Full-range, Bass reflex		Full-range, Bass reflex	Subwoofer, Band pass	
Components	LF	8"		6.5"		4"		4.5"		3.5"		2.5"		8"
	HF	1"		0.75"										-
Crossover frequency		3kHz		3.2kHz		-		-		-		-		
Frequency range (-10dB)		55Hz - 20kHz		56Hz - 20kHz		80Hz - 20kHz		60Hz - 20kHz		71Hz - 20kHz		67Hz - 20kHz	44Hz - 200Hz	
Nominal coverage (Conical)		100°		110°		130°		130°		140°		160°		
Power rating	NOISE	90W		75W		30W		40W		20W		15W		100W
	PGM	180W		150W		60W		80W		40W		30W		200W
	PEAK	360W		300W		120W		160W		80W		60W		400W
Nominal impedance		8Ω		8Ω		8Ω		8Ω		8Ω		8Ω		
Transformer taps	100V	60W, 30W, 15W		60W, 30W, 15W		30W, 15W, 7.5W		30W, 15W, 7.5W		15W, 7.5W, 3.8W		15W, 7.5W, 3.8W, 1.9W	60W, 30W, 15W, 7.5W	
	70V	60W, 30W, 15W, 7.5W		60W, 30W, 15W, 7.5W		30W, 15W, 7.5W, 3.8W		30W, 15W, 7.5W, 3.8W		15W, 7.5W, 3.8W, 1.9W		15W, 7.5W, 3.8W, 1.9W, 1W	60W, 30W, 15W, 7.5W, 3.8W	
SPL	Sensitivity (1W, 1m)	90dB SPL (Half-space)	89dB SPL (Half-space)	86dB SPL (Half-space)		87dB SPL (Half-space)		89dB SPL (Half-space)	87dB SPL (Half-space)	87dB SPL (Half-space)	86dB SPL (Half-space)	86dB SPL (Half-space)	88dB SPL (Half-space)	
	Peak (Calculated, 1m)	116dB SPL	114dB SPL	111dB SPL		108dB SPL		111dB SPL	109dB SPL	106dB SPL	105dB SPL	104dB SPL	114dB SPL	
I/O connectors		Euroblock (4 pin)	Ceramic terminal block	Euroblock (4 pin)	Ceramic terminal block	Euroblock (4 pin)	Ceramic terminal block	Euroblock (4 pin)	Ceramic terminal block	Euroblock (4 pin)	Ceramic terminal block	Euroblock (4 pin)	Euroblock (4 pin)	
Magnetically shielded		No												
Overload protection		Full-range power limiting to protect network and transducers												
Enclosure material	Cabinet (Back Can)	Steel		Steel		Steel		ABS (UL94 V-0)		ABS (UL94 V-0)		Steel	Steel	
	Baffle	HIPS		HIPS		HIPS		ABS (UL94 V-0)		ABS (UL94 V-0)		ABS (UL94 V-0)	ABS (UL94 V-0)	
Grille material		Powder coated perforated steel/Trim-ring: ABS (UL94 V-0)												
Finish	Black model	Munsell N3/RAL 9017 (approx.)												
	White model	Munsell N9.3/RAL9010 (approx.)												
Dust and water resistance (IP rating)		-	IP32	-	IP32	-	IP32	-	IP32	-	IP32	-	-	
Dimensions		Ø325mm (12.8") x D259mm (10.2")	Ø325mm (12.8") x D295mm (11.6")	Ø286mm (11.3") x D206mm (8.1")	Ø286mm (11.3") x D241mm (9.5")	Ø225mm (8.9") x D195mm (7.7")	Ø225mm (8.9") x D232mm (9.1")	Ø324mm (12.8") x D143mm (5.7")		Ø285mm (11.3") x D112mm (4.4")		Ø225mm (8.9") x D89mm (3.5")	Ø324mm (12.8") x D314mm (12.4")	
Net weight		6.6kg (14.6lbs)		4.4kg (9.7lbs)		2.6kg (5.7lbs)		3.1kg (6.8 lbs)		2.5kg (5.5 lbs)		1.7kg (3.7lbs)	8.7kg (19.2lbs)	
Packaging		Pair	Pair	Pair	Pair	Pair	Pair	Pair	Pair	Pair	Pair	Single	Single	
Certificate		UL1480, UL2043, NFPA70, CE, EAC, RoHS	EN54-24, CE, RoHS	UL1480, UL2043, NFPA70, CE, EAC, RoHS	EN54-24, CE, RoHS	UL1480, UL2043, NFPA70, CE, EAC, RoHS	EN54-24, CE, RoHS	UL1480, NFPA70, CE, EAC, RoHS	EN54-24, CE, RoHS	UL1480, NFPA70, CE, EAC, RoHS	EN54-24, CE, RoHS	UL1480, UL2043, NFPA70, CE, EAC, RoHS	UL1480, UL2043, NFPA70, CE, EAC, RoHS	
EN54-24 DoP number		-	0359- CPR-00405	-	0359- CPR-00405	-	0359- CPR-00405	-	0560- CPR-152190027	-	0560- CPR-152190028	-	-	

* VA versions are not available in some regions.

** Specifications of the VXC2F and VXC8S are tentative.

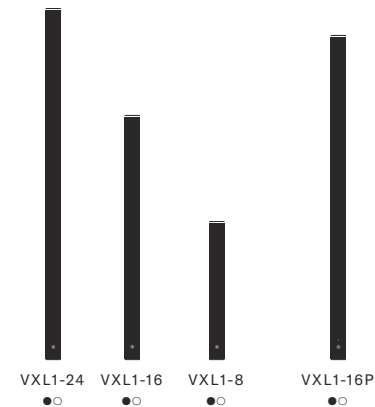


Column-type Line Array Speakers

VXL SERIES

Standard

PoE



Recommended for
Speech/Presentation System



Sleek. Smart. Sound.

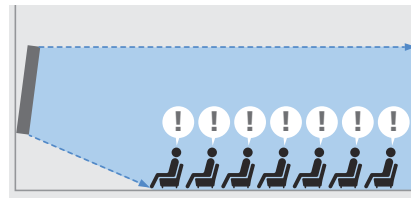
Blending Quality Sound with Visual Elegance

Ultra slim 54mm width appearance thanks to the small 1.5" driver shared with VXS1ML yet redesigned with a large voice coil, delivering distortion-free sound over a broad band of playback frequencies.

54mm

Outstanding Projection and Clear Sound Reinforcement

A line-array configuration significantly reduces the amount of reflection at the ceiling and floor surfaces, which means sound pressure is affected less by distance. As a result, clearer, more consistent sound can be delivered to back-of-house without making front-of-stage excessively loud.



Less Feedback Noise

With line-array speakers the per-unit output is smaller than with point-source speakers, meaning that a microphone positioned nearby picks up less sound energy.

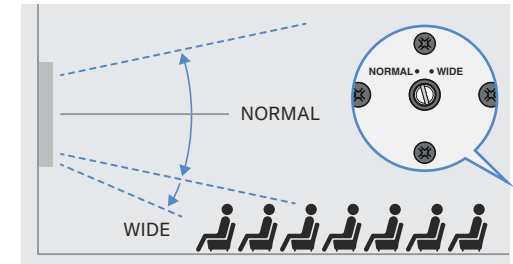


Tips for System Design & Installation

Vertical Coverage Expansion

The VXL1-16 and VXL1-24 feature special rear-panel switches that allow the lower vertical dispersion of the array to be easily expanded without having the angled speakers. This improves coverage at the front of the listening area in situations where the speakers are installed at a high location.

*VXL1-8's vertical dispersion is fixed

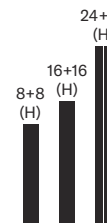


Double Speakers



Vertical Coupling

For increased SPL and extra projection.



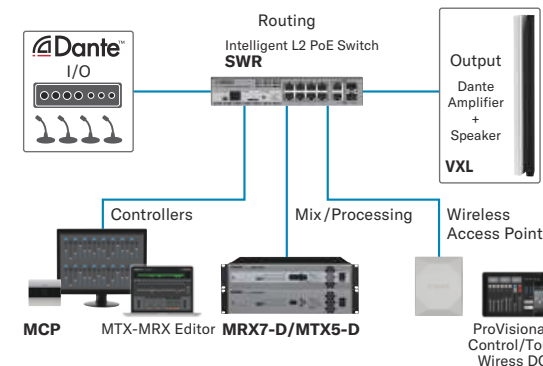
Horizontal Coupling

For increased SPL and more focused coverage that can minimize unwanted reflections from nearby surfaces.



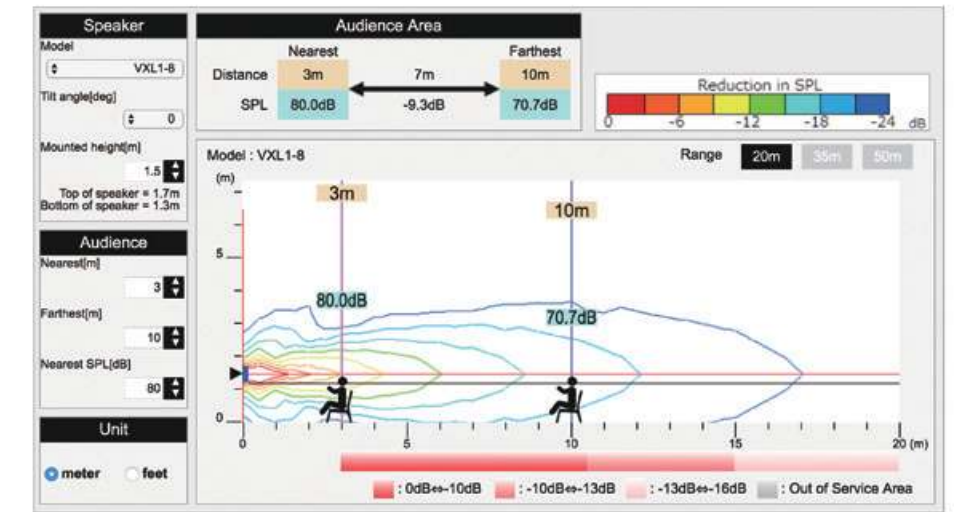
Dante+PoE Solution (VXL1-16P)

With audio distributed via a Dante network and PoE power supplied from a PoE compliant L2 switch, the speaker system can be constructed as a network. Simple wiring via LAN cables, easy installation, and no need for a power amp contribute to the flexibility of installation, allowing you to construct an elegant space-saving sound system.



VXL Selection Assistant

VXL Selection Assistant is a dedicated app available for free on Yamaha website, which is intended to assist the selection of the most appropriate VXL speaker model for speech reproduction applications. The App will provide an indication of whether good amplified sound can be provided across the audience area by calculating the difference in SPL between the nearest and furthest audience members. Good amplified sound can be expected if the SPL range across the audience area is within 10 dB.



The following shows a quick reference guide for appropriate selection of the VXL series.

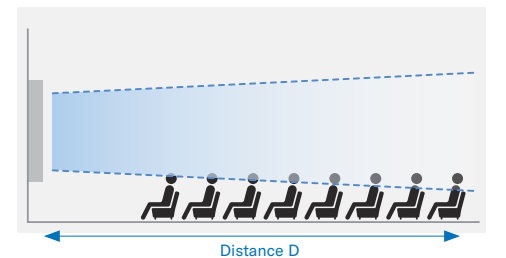
	Distance D
VXL1-8	9.5m (31 feet)
VXL1-16	13.5m (44 feet)
VXL1-24	25m (82 feet)

*Distance from the speaker to the nearest audience: 3m
*Distance from the floor to the bottom of the speaker: 1.1m

For much larger space, the use of double speakers in vertical coupling is recommended.

	Distance D
VXL1-16 + VXL1-16	33m (108 feet)
VXL1-24 + VXL1-16	42m (138 feet)
VXL1-24 + VXL1-24	46m (151 feet)

*Distance from the speaker to the nearest audience: 4m
*Distance from the floor to the bottom of the speaker: 1.1m



D: Distance from the speaker to the farthest audience*

*The SPL difference between the nearest and the farthest is within 10dB SPL.



Accessories		Installation	VXL1-24	VXL1-16	VXL1-8	VXL1-6P	Description
Default (Supplied bracket) 							For seamless wall mounting. This bracket does not allow angle adjustment.
WMB-L1 							Bracket for 2-axis adjustment of a single array.
VCB-L1 					N/A	N/A	Bracket for vertical mounting of two arrays, for increased SPL and extra projection.
VCSB-L1 			 with VXL1-16 VXL1-24	 with VXL1-16 VXL1-24	N/A	N/A	Bracket for 2-axis adjustment of a two vertically linked arrays. The VCB-L1 and WMB-L1 are used together.
HCB-L1 			 with VXL1-24	 with VXL1-16	 with VXL1-8		Bracket for side-by-side mounting of two arrays, for increased SPL and more focused horizontal dispersion that can minimize unwanted reflections from nearby surfaces.
PA-L1 							Bracket for pole mounting. Suitable pole size Ø35 mm.
ST-L1 						N/A	Transformer box for high-impedance connections. Ideal for multiple speaker layouts.



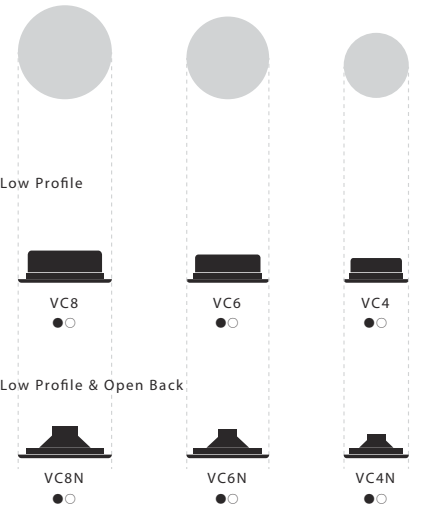
VXL series		VXL1B-24/VXL1W-24	VXL1B-16/VXL1W-16	VXL1B-8/VXL1W-8	VXL1B-16P/VXL1W-16P
Speaker type		Full-range, Bass reflex	Full-range, Bass reflex	Full-range, Bass reflex	Full-range, Bass reflex Powered speaker (PoE)
Components	LF	1.5" x 24	1.5" x 16	1.5" x 8	1.5" x 16
	HF				
Frequency range (-10dB)	Without port cover	77Hz - 20kHz	81Hz - 20kHz	70Hz - 20kHz	80Hz - 20kHz
	With port cover	98Hz - 20kHz	108Hz - 20kHz	110Hz - 20kHz	80Hz - 20kHz
Nominal coverage (Horizontal x Vertical)	Normal mode	H170° x V15° (+7.5 / -7.5)	H170° x V25° (+12.5 / -12.5)	H170° x V40° (+20 / -20)	H170° x V25° (+12.5 / -12.5)
	Wide mode	H170° x V20° (+7.5 / -12.5)	H170° x V30° (+12.5 / -17.5)	-	-
Power rating	NOISE	110W	80W	40W	-
	PGM	220W	160W	80W	-
	PEAK	440W	320W	160W	-
Nominal impedance		8Ω	12Ω	16Ω	-
Transformer taps	100V	With an optional transformer box (ST-L1): 60W, 30W, 15W			-
	70V	With an optional transformer box (ST-L1): 60W, 30W, 15W, 7.5W			-
Amplifier type		-			Class-D
Power rating (Amp)	Dynamic	-			15W (PoE + (IEEE 802.3 at)), 6W (PoE (IEEE 802.3 af))
	Continuous	-			15W (PoE + (IEEE 802.3 at)), 6W (PoE (IEEE 802.3 af))
SPL	Sensitivity (1W, 1m)	91dB SPL (Half-space)	91dB SPL (Half-space)	89dB SPL (Half-space)	-
	Peak (Calculated, 1m)	117dB SPL	116dB SPL	111dB SPL	102dB SPL**
I/O connectors		Euroblock (2 pin)	Euroblock (2 pin)	Euroblock (2 pin)	RJ45 (Dante)
Magnetically shielded		No			
Protection	Overload protection	Full-range power limiting to protect network and transducers			-
	Speaker processing	-			Clip limiting, Integral power protection
	Amplifier protection	-			Over current protection, Over temperature protection, Under voltage lock out, DC detection, Clock detection
	Power supply protection	-			Over load protection, Over voltage protection, Under voltage lock out
Cooling		-			Natural convection
Power requirements		-			PoE + (IEEE 802.3at), PoE (IEEE 802.3af)
Power consumption		-			Idle: 3W
		-			1/8 (Pink Noise): 6W (PoE+ (IEEE 802.3at)), 4.3W (PoE (IEEE 802.3af))
Enclosure material	Cabinet	Aluminum extrusion cabinet			
	Bottom board	ABS (UL94 5VB)			
Grille material		Powder coated perforated aluminum			
Finish	Black model	Munsell N3 / RAL 9017 (approx.)			
	White model	Munsell N9 / RAL9010 (approx.)			
Dust and water resistance (IP rating)		IP34*	IP34*	IP33*	-
Dimensions		W54mm (2.1") x H1212mm (47.7") x D104mm (4.1")	W54mm (2.1") x H846mm (33.3") x D104mm (4.1")	W54mm (2.1") x H480mm (18.9") x D104mm (4.1")	W54mm (2.1") x H1120mm (44.1") x D104mm (4.1")
Net weight		5.5kg (12.1lbs)	3.9kg (8.6lbs)	2.1kg (4.6lbs)	5.0kg (11.0lbs)
Packaging		Single	Single	Single	Single
Certificate		CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS

** Measured at 2 m; value converted to 1 m is shown (frequency range: 100Hz – 10kHz) ; IEC noise



In-ceiling Speakers

VC SERIES



Recommended for
Speech / Background Music System

Premium Sounding Compact Ceiling Speakers at a Non-Premium Price.

VC series ceiling speakers for commercial installations deliver excellent sound quality at a price point traditionally reserved for economy speakers. A total of six models, three with back cans and three without, feature elegant low-profile designs that can be install easily even in limited ceiling or wall spaces. Large mounting clamps with non-slip treads ensure secure mounting.

Fast
Double threaded screws used for the speaker clamp mechanism allow the clamps to be tightened twice as fast as conventional screws.

Hi-Z or Lo-Z
Both high-impedance and low-impedance connections are supported, and speaker wattage can be easily switched even after installation.

Lightweight
Reduced weight increases installation flexibility while lessening the burden on installation personnel.

Portable
A built-in "carrying band" not only makes the speaker easy to carry around, but also increases safety when working on a stepladder.
* VC8B, VC8W, VC6B, VC6W, VC4B, VC4W only

Paintable
The supplied grilles can be painted any color to match interior decor.

Versatile lineup for a variety of requirements

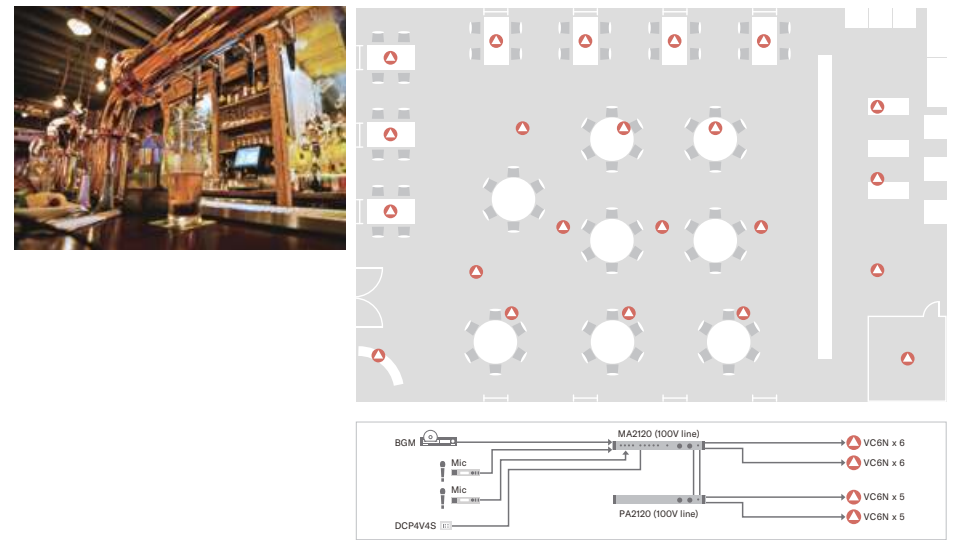
Extremely Low-profile

System Example

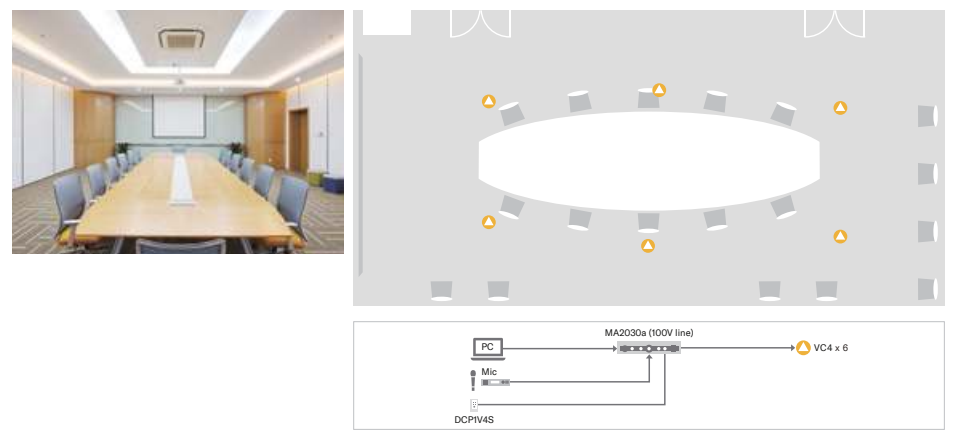
Large Shopping Mall



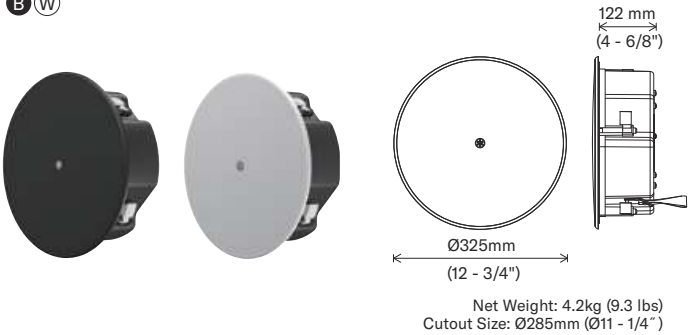
Restaurant



Meeting space



VC8



VC6



VC4



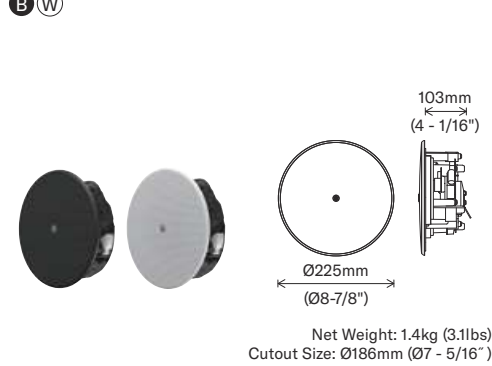
VC8N



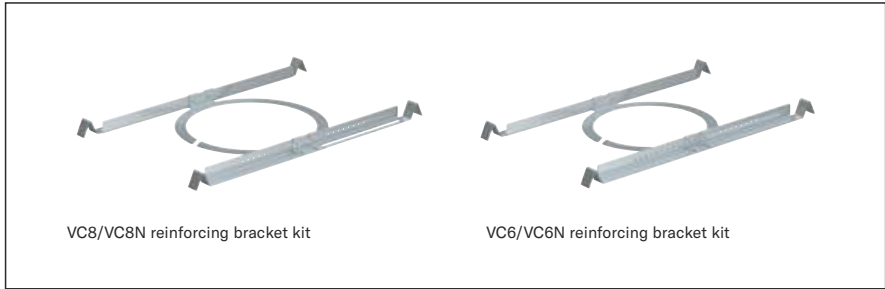
VC6N



VC4N



Optional Accessories



Low Profile

Low Profile & Open Back



VC/N series		VC8B / VC8W		VC6B / VC6W		VC4B / VC4W		VC8NB / VC8NW		VC6NB / VC6NW		VC4NB / VC4NW				
Speaker type		2way Coaxial type, Acoustic Suspension														
Frequency range (-10dB)		96Hz - 20kHz (Half-space: 2π)		104Hz - 20kHz (Half-space: 2π)		121Hz - 20kHz (Half-space: 2π)		52Hz - 20kHz (Half-space 2π)		63Hz - 20kHz (Half-space:2π)		85Hz - 20kHz (Half-space: 2π)				
Nominal coverage (Conical)		110° conical (Half-space 2π)		120° conical (Half-space :2π)		160° conical (Half-space :2π)		110° conical (Half-space 2π)		120° conical (Half-space :2π)		160° conical (Half-space: 2π)				
Components		LF	8" Cone		6.5" Cone		4" Cone		8" Cone		6.5" Cone		4" Cone			
		HF	1" Soft dome		0.8" Soft dome		0.8" Film dome		1" Soft dome		0.8" Soft dome		0.8" Film dome			
Power rating		NOISE	25W				15W				25W				15W	
		PGM	50W				30W				50W				30W	
		PEAK	100W				60W				100 W				60W	
Nominal impedance												16Ω				
Transformer taps		100V	12W, 6W, 3W				6W, 3W, 1.5W				12W, 6W, 3W				6W, 3W, 1.5W	
		70V	12W, 6W, 3W, 1.5W				6W, 3W, 1.5W, 0.8W				12W, 6W, 3W, 1.5W				6W, 3W, 1.5W, 0.8W	
SPL		Sensitivity (1W, 1m)	91dB SPL (Half-space 2π)		89dB SPL (Half-space 2π)		88dB SPL (Half-space 2π)		91dB SPL (Half-space 2π)		89dB SPL (Half-space: 2π)		88dB SPL (Half-space: 2π)			
		Peak (Calculated, 1m)	111dB SPL (Calculated, 1m)		109dB SPL (Calculated, 1m)		106dB SPL (Calculated, 1m)		111dB SPL (Calculated, 1 m)		109dB SPL (Calculated, 1 m)		106dB SPL (Calculated, 1 m)			
I/O connectors		Euroblock (4 pin) x1 (input: + / - , loop - thru: + / -), Wire size : Min. AWG24 (0.2 sq), Max. AWG12 (3.5 sq)						Push terminal (WAGO 294 /2 pin) × 1, Wire size : Solid conductor Min. AWG18 (0.75 sq) / Max. AWG12 (3.5 sq), Standard conductor Min. AWG18 (0.75 sq) / Max. AWG14 (2 sq)								
Protection circuit	Load protection	Full-range power limiting to protect network and transducers						Full-range power limiting to protect network and transducers								
Finish		Black model	Munsell N3 (approx.)													
		White model	Munsell N9.3 (approx.)													
Dimensions		325mm (12 - 3/4") x D122mm (4 - 6/8")		286mm (11 - 2/8") x 106mm (4 - 1/8")		225mm (8 - 7/8") x 95mm (3 - 3/4")		325mm (12 - 3/4") x 131mm (5 - 1/8")		286mm (11 - 2/8") x 114mm (4 - 4/8")		225mm (8 - 7/8") x 103mm (4 - 1/16")				
Net weight		4.2kg (9.3 lbs)		3.3kg (7.3 lbs)		2.1kg (4.6 lbs)		2.8kg (6.2 lbs)		2.3kg (5.1 lbs)		1.4kg (3.1 lbs)				
Cutout size		Ø285mm (Ø11-1/4")		Ø247mm (Ø9-3/4")		Ø186mm (Ø7-5/16")		Ø285mm (Ø11 - 1/4")		Ø247mm (Ø9 - 3/4")		Ø186mm (Ø7 - 5/16")				
Required ceiling board thickness		2 mm - 37 mm														
Accessories		C-Ring, Tile Rails x 2, Grille, Safety wire, Cutout template, Owner's Manual				Grille, Safety wire, Cutout template, Owner's Manual		C-Ring, Tile Rails x 2, Grille, Safety wire, Cutout template, Owner's Manual				Grille, Safety wire, Cutout template, Owner's Manual				
Packaging		Single package														
Certificate		UL1480, UL2043, NFPA70, CE, EAC, RoHS		UL1480, NFPA70, CE, EAC, RoHS		UL1480, NFPA70, CE, EAC, RoHS		UL1480, UL2043, NFPA70, CE, EAC, RoHS		UL1480, NFPA70, CE, EAC, RoHS		UL1480, NFPA70, CE, EAC, RoHS				
Options		-		-		AB-C2: C-ring + Tile Rail kit		-		-		AB-C2: C-ring + Tile Rail kit				

