2023 BOSE PROFESSIONAL DESIGN GUIDE

CONTENTS

SURFACE-MOUNT LOUDSPEAKERS

	FreeSpace		DesignMax				
	FS2SE	**FS4SE**	**DM3SE**	**DM5SE**	**DM6SE**	**DM8S**	**DM10S-SUB**
Driver Components	1 × 2.25-inch full-range	1 × 4.5-inch full-range	1 × 0.75-inch tweeter 1 × 3.25-inch woofer	1 × 1-inch tweeter 1 × 5.25-inch woofer	1 × 1.25-inch tweeter 1 × 6.5-inch woofer	1 × 1-inch compression driver 1 × 8-inch woofer	1 × 10-inch woofer
Power Handling (Long-term)	20 W	50 W	30 W	60 W	125 W	150 W	300 W
Sensitivity (SPL / 1 W @ 1 m)	87 dB	89 dB	86 dB	89 dB	90 dB	93 dB	90 dB
Max SPL (SPL / 1 W @ 1 m)	100 dB	106 dB	101 dB	107 dB	111 dB	115 dB	115 dB
Freq Response (–3 dB) Freq Range (–10 dB)	95 Hz - 16 kHz 83 Hz – 19 kHz	80 Hz - 16 kHz 70 Hz – 17 kHz	85 Hz - 20 kHz 75 Hz – 20 kHz	73 Hz - 17 kHz 65 Hz – 20 kHz	70 Hz - 20 kHz 59 Hz – 20 kHz	60 Hz - 20 kHz 52 Hz – 20 kHz	41 Hz - 108 Hz 35 Hz – 125 Hz
Nominal Impedance	16 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 16W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 40W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 25W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 50W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 150W
Coverage (H × V, or Conical) 1 kHz - 4 kHz Average	145° × 140°	130° × 125°	140° conical	135° conical	125° conical	130° conical	Omnidirectional
Acoustic Technology	—	—	Dispersion alignment system	Dispersion alignment system	Dispersion alignment system	Coaxial compression driver & woofer	—
Dimensions (H × W × D)	182 × 113 × 114 mm 7.1 × 4.4 × 4.5 in	254 × 171 × 174 mm 10.0 × 6.7 × 6.8 in	232 × 154 × 155 mm 9.1 × 6.1 × 6.1 in	286 × 192 × 197 mm 11.2 × 7.5 × 7.7 in	340 × 222 × 229 mm 13.4× 8.7 × 9.0 in	395 × 249 × 255 mm 15.6 × 9.8 × 10.0 in	502 × 316 × 323 mm 19.8 × 12.5 × 12.7 in
Color options	Black or white	Black or white	Black or white	Black or white	Black or white	Black or white	Black or white
Environmental	IP55 outdoor Optional aluminum grille	IP55 outdoor Optional aluminum grille	IP55 outdoor Included aluminum grille	IP55 outdoor Included aluminum grille	IP55 outdoor Included aluminum grille	Indoor	Indoor
Installation Technology	—	—	QuickHold; horizontal or vertical installation; repeatable angles	QuickHold; horizontal or vertical installation; repeatable angles	QuickHold; horizontal or vertical installation; repeatable angles	QuickHold; horizontal or vertical installation; repeatable angles; magnetically attaching grille	QuickHold; horizontal or vertical installation
Installation Accessories	Included: wall- & ceiling-mount U-bracket Optional: aluminum grille, wall-mount pan-&-tilt bracket, Ceiling Mount Bracket S2	Included: wall- & ceiling-mount U-bracket Optional: aluminum grille, wall-mount pan-&-tilt bracket, Ceiling Mount Bracket S2	Included: wall- & ceiling-mount U-bracket Optional: wall-mount pan-&-tilt bracket, Ceiling Mount Bracket S2	Included: wall- & ceiling-mount U-bracket Optional: wall-mount pan-&-tilt bracket, Ceiling Mount Bracket S2	Included: wall- & ceiling-mount U-bracket Optional: wall-mount pan-&-tilt bracket, Ceiling Mount Bracket S2	Included: wall- & ceiling-mount U-bracket Optional: wall-mount pan-&-tilt bracket	Included: wall- & ceiling-mount U-bracket
Certifications	EN 54-24 for voice alarm systems, UL 1480 UUMW, ULC-S541 for fire alarm & signaling	EN 54-24 for voice alarm systems, UL 1480 UUMW, ULC-S541 for fire alarm & signaling	UL 1480A	UL 1480A	UL 1480A	UL 1480A	UL 1480A
Product Codes	841151-0310 (Black, Pair) 841151-0410 (White, Pair)	841155-0310 (Black, Pair) 841155-0410 (White, Pair)	829712-0110 (Black, Pair) 829712-0210 (White, Pair)	829705-0110 (Black, Pair) 829705-0210 (White, Pair)	829682-0110 (Black, Pair) 829682-0210 (White, Pair)	801332-0110 (Black) 801332-0210 (White)	831856-0110 (Black) 831856-0210 (White)

IN-CEILING LOUDSPEAKERS

	FreeSpace		DesignMax						EdgeMax	
	FS2C	FS4CE	DM2C-LP	DM3C	DM5C	DM6C	DM8C	DM8C-SUB	EM90	EM180
Driver Components	1 × 2.25-inch full-range	1 × 4.5-inch full-range	1 × 2.5-inch full-range	1 × 0.75-inch tweeter 1 × 3.25-inch woofer	1 × 1-inch tweeter 1 × 5.25-inch woofer	1 × 1.25-inch tweeter 1 × 6.5-inch woofer	1 × 1-inch compression driver 1 × 8-inch woofer	1 × 8-inch woofer	1 × 1-inch compression driver 1 × 8-inch woofer	1 × 1-inch compression driver 1 × 8-inch woofer
Power Handling (Long-term)	20 W	50 W	20 W	30 W	60 W	125 W	150 W	180 W	150 W	150 W
Sensitivity (SPL / 1 W @ 1 m)	86 dB	88 dB	84 dB	83 dB	87 dB	88 dB	91 dB	89 dB	96 dB	93 dB
Max SPL (SPL / 1 W @ 1 m)	99 dB	105 dB	97 dB	98 dB	105 dB	109 dB	113 dB	112 dB	118 dB	115 dB
Freq Response (–3 dB) Freq Range (-10 dB)	95 Hz - 16 kHz 83 Hz – 19 kHz	80 Hz - 16 kHz 70 Hz – 17 kHz	95 Hz - 18 kHz 85 Hz – 19 kHz	85 Hz - 19 kHz 75 Hz – 20 kHz	73 Hz - 17 kHz 65 Hz – 20 kHz	70 Hz - 20 kHz 59 Hz – 20 kHz	60 Hz - 20 kHz 52 Hz – 20 kHz	45 Hz - 117 Hz 38 Hz – 155 Hz	50 Hz - 18 kHz 45 Hz – 20 kHz	50 Hz - 18 kHz 45 Hz – 20 kHz
Nominal Impedance	16 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 16W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 40W	16 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 9W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 25W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 50W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 150W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W
Coverage (H × V, or Conical) 1 kHz – 4 kHz Average	150° conical	145° conical	150° conical	135° conical	130° conical	120° conical	135° conical	Omnidirectional	90° × 75° (vertical referenced to wall)	180° × 75° (vertical referenced to wall)
Acoustic Technology	—	—	—	Dispersion alignment system	Dispersion alignment system	Dispersion alignment system	Coaxial compression driver & woofer	—	PhaseGuide technology	PhaseGuide technology
Dimensions (Ø x total D × ceiling D)	182 × 132 × 125 mm 7.2 × 5.2 × 4.9 in	272 × 172 × 163 mm 10.7 × 6.8 × 6.4 in	198 × 110 × 99 mm 7.8 × 4.3 × 3.9 in	255 × 154 × 144 mm 10.0 × 6.0 × 5.7 in	303 × 205 × 192 mm 11.9 × 8.1 × 7.6 in	356 × 239 × 223 mm 14.0 × 9.4 × 8.8 in	409 × 255 × 240 mm 16.1 × 10.0 × 9.4 in	409 × 255 × 240 mm 16.1 × 10.0 × 9.4 in	390 × 249 × 236 mm 15.4 × 9.8 × 9.3 in (across square face × total D × ceiling D)	390 × 249 × 236 mm 15.4 × 9.8 × 9.3 in (across square face × total D × ceiling D)
Grille color options	Black or white	Black or white	Black or white	Black or white	Black or white	Black or white	Black or white	Black or white	White with optional black	White with optional black
Environmental	Indoor	IP55 outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Installation Technology	—	—	QuickHold; magnetically attaching grille; minimum bezel; removable logo	QuickHold; magnetically attaching grille; minimum bezel; removable logo	QuickHold; magnetically attaching grille; minimum bezel; removable logo	QuickHold; magnetically attaching grille; minimum bezel; removable logo	QuickHold; magnetically attaching grille; minimum bezel; removable logo	QuickHold; magnetically attaching grille; minimum bezel; removeable logo	—	—
Installation Accessories	Included: hole template Optional: tile bridge (for 6 units), rough-in pan pack (for 6 units), retrofit kit	Included: hole template Optional: tile bridge (for 6 units), rough-in pan pack (for 6 units), retrofit kit, Optional: aluminum grille	Included: tile bridge, hole template Optional: rough-in pan pack (for 6 units)	Included: tile bridge, hole template Optional: rough-in pan pack (for 6 units)	Included: tile bridge, hole template Optional: rough-in pan pack (for 6 units)	Included: tile bridge, hole template Optional: rough-in pan pack (for 6 units)	Included: tile bridge, hole template Optional: rough-in pan pack (for 6 units)	Included: tile bridge, hole template Optional: rough-in pan pack (for 6 units)	Included: tile bridge, hole template Optional: rough-in pan, black grille	Included: tile bridge, hole template Optional: rough-in pan, black grille
Certifications	EN 54-24 for voice alarm systems, UL 1480 UUMW, ULC-S541 for fire alarm & signaling, UL 2043	EEN 54-24 for voice alarm systems, UL 1480 UUMW, ULC-S541 for fire alarm & signaling, UL 2043	UL 1480A, UL 2043	UL 1480A, UL 2043	UL 1480A, UL 2043	UL 1480A, UL 2043	UL 1480A, UL 2043	UL 1480A, UL 2043	UL 1480A, UL 2043	UL 1480A, UL 2043
Product Codes	841153-0310 (Black, Pair) 841153-0410 (White, Pair)	841156-0310 (Black, Pair) 841156-0410 (White, Pair)	815011-0110 (Black, Pair) 815011-0210 (White, Pair)	829708-0110 (Black, Pair) 829708-0210 (White, Pair)	829683-0110 (Black, Pair) 829683-0210 (White, Pair)	829679-0110 (Black, Pair) 829679-0210 (White, Pair)	802080-0110 (Black) 802080-0210 (White)	829380-0110 (Black) 829380-0210 (White)	778844-0220 (White) 788330-0110 (Black Grille Only)	777189-0220 (White) 788330-0110 (Black Grille Only)

PENDANT-MOUNT LOUDSPEAKERS

	FreeSpace	DesignMax			
	FS2P	**DM3P**	**DM5P**	**DM6PE**	**DM10P-SUB**
Driver Components	1 × 2.25-inch full-range	1 × 0.75-inch tweeter 1 × 3.25-inch woofer	1 × 1-inch tweeter 1 × 5.25-inch woofer	1 x 1.25-inch tweeter 1 × 6.5-inch woofer	1 × 10-inch woofer
Power Handling (Long-term)	20 W	30 W	60 W	125 W	300 W
Sensitivity (SPL / 1 W @ 1 m)	87 dB	84 dB	87 dB	89 dB	85 dB
Max SPL (SPL / 1 W @ 1 m)	100 dB	99 dB	105 dB	110 dB	110 dB
Freq Response (-3 dB) **Freq Range (-10 dB)**	95 Hz - 16 kHz 83 Hz – 19 kHz	85 Hz - 20 kHz 75 Hz – 20 kHz	80 Hz - 20 kHz 65 Hz – 20 kHz	75 Hz - 20 kHz 62 Hz – 20 kHz	46 Hz - 108 Hz 40 Hz – 125 Hz
Nominal Impedance	16 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 16W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 25W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 50W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 150W
Coverage (H × V, or Conical) **1kHz - 4 kHz Average**	140° conical	130° conical	120° conical	115° conical	Omnidirectional below 200 Hz
Acoustic Technology	—	Dispersion alignment system	Dispersion alignment system	Dispersion alignment system	—
Dimensions, Flush-Mount (Ø × total D × ceiling D) **Dimensions, Surface-Mount (H × W × D)**	149 × 215 mm 5.9 × 8.5 in (Ø × D)	207 × 248 mm 8.2 × 9.8 in (Ø × D)	259 × 300 mm 10.2 × 11.8 in (Ø × D)	308 × 375 mm 12.1 × 14.8 in (Ø × D)	400 × 383 mm 15.7 × 15.1 in (Ø × D)
Color options	Black or white	Black or white	Black or white	Black or white	Black or white
Environmental	Indoor	Indoor	Indoor	IP55 outdoor	Indoor
Installation Accessories	Included: one (1) 4.5 meter (15 foot) Gripple adjustable suspension cable system, four (4) cable ties	Included: one (1) 4.5 meter (15 foot) Gripple adjustable suspension cable system, four (4) cable ties Optional: Threaded Rod Adapter, Conduit Adapter, Gripple Pendant Suspension Cable Pair kit	Included: one (1) 4.5 meter (15 foot) Gripple adjustable suspension cable system, four (4) cable ties Optional: Threaded Rod Adapter, Conduit Adapter, Gripple Pendant Suspension Cable Pair kit	Included: one (1) 4.5 meter (15 foot) Gripple adjustable suspension cable system, four (4) cable ties, (1) weather resistant input cover Optional: Threaded Rod Adapter, Conduit Adapter, Gripple Pendant Suspension Cable Pair kit	Included: one (1) 4.5 meter (15 foot) Gripple adjustable suspension cable system, four (4) cable ties Optional: Threaded Rod Adapter, Conduit Adapter, Gripple Pendant Suspension Cable Pair kit
Certifications	EN 54-24 for voice alarm systems, UL 1480 UUMW, ULC-S541 for fire alarm & signaling	UL-1480A, S5591/UL Listed, NFPA70 & NFPA90-A, CE compliant, UL 2239 for suspension cable	UL-1480A, S5591/UL Listed, NFPA70 & NFPA90-A, CE compliant, UL 2239 for suspension cable	UL-1480A, S5591/UL Listed, NFPA70 & NFPA90-A, CE compliant, UL 2239 for suspension cable	UL-1480A, S5591/UL Listed, NFPA70 & NFPA90-A, CE compliant, UL 2239 for suspension cable
Product Codes	841153-0310 (Black, Pair) 841153-0410 (White, Pair)	841165-0110 (Black, Pair) 841165-0210 (White, Pair)	841166-0110 (Black, Pair) 841166-0210 (White, Pair)	841168-0110 (Black, Pair) 841168-0210 (White, Pair)	835265-0110 (Black) 835265-0210 (White)

SPECIALTY INSTALL LOUDSPEAKERS

	FreeSpace 3					Panaray Column Line Array Modules		
	FreeSpace 3 Flush-Mount Satellite	FreeSpace 3 Surface-Mount Satellite	FreeSpace 3 Series II Acoustimass	FreeSpace 3 Series I Acoustimass	FreeSpace 360P Series II	Panaray MA12	Panaray MA12EX	Panaray MSA12X
Driver Components	1 × 2.5-inch full-range	1 × 2.5-inch full-range	1 × 5.25-inch woofer	1 × 5.25-inch woofer	1 × 4.5-inch full-range	12 × 2.25-inch full-range	12 × 2.25-inch full-range	12 × 2.25-inch full-range
Power Handling (Long-term)	12 W	12 W	70/100V: 200 W Low Z: 50 W per channel stereo, 100 W mono	70/100V: 200 W Low Z: 50 W per channel stereo, 100 W mono	80 W	300 W	150 W	Integrated 12 × 50 W power amplifiers
Sensitivity (SPL / 1 W @ 1 m)	84 dB	84 dB	76 dB per channel stereo, 79 dB mono	76 dB per channel stereo, 79 dB mono	87 dB	88 dB	87 dB	—
Max SPL (SPL / 1 W @ 1 m)	95 dB	95 dB	96 dB per channel stereo, 102 dB mono	96 dB per channel stereo, 102 dB mono	100 dB	113 dB	112 dB	97 dB @ 10 m
Freq Response (-3 dB) Freq Range (-10 dB)	210 Hz - 16 kHz 170 Hz – 20 kHz	210 Hz - 16 kHz 170 Hz – 20 kHz	50 Hz - 230 Hz 40 Hz – 315 Hz	50 Hz - 230 Hz 40 Hz – 315 Hz	70 Hz - 10 kHz 60 Hz – 15 kHz	155 Hz - 12 kHz 100 Hz – 16 kHz	75 Hz - 13 kHz 58 Hz – 16 kHz	75 Hz - 17 kHz 58 Hz – 18 kHz
Nominal Impedance	6 Ω	6 Ω	6 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 200W	6 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 200W	4 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω	8 Ω	—
Coverage (H × V, or Conical) 1kHz - 4 kHz Average	170° conical	170° conical	Omnidirectional	Omnidirectional	360° × 50°	145° × 20°	160° × 20°	160° × steerable up to 30° (single module), 40° (2–3 modules)
Acoustic Technology	—	—	—	—	Domed port grille, accoustic diffuser	Column line array	Articulated column line array	Digitally steerable, self-powered, articulated column line array
Dimensions, Flush-Mount (Ø × total D × ceiling D) Dimensions, Surface-Mount (H × W × D)	157 × 134 × 116 mm 6.2 × 5.3 × 4.6 in	77 × 77 × 102 mm 3.0 × 3.0 × 4.0 in	391 × 205 × 190 mm 15.4 × 8.1 × 7.5 in	356 × 191 × 342 mm 14.0 × 7.5 × 13.5 in	379 × Ø 368 mm 14.9 × Ø 14.5 in	985 × 105 × 128 mm 38.8 × 4.2 × 5.0 in	985 × 104 × 139 mm 38.8 × 4.1 × 5.5 in	984 × 106 × 206 mm 38.7 × 4.2 × 7.1 in
Color options	Black or white grille	Black or white	Black or white grille	Black or white	Green	Black or white	Black or white	Black or white
Environmental	Indoor	Indoor	Indoor	Indoor	IP35 outdoor	Indoor	IPX5 outdoor	Indoor
Installation Accessories	Optional: tile bridge (for 6 units), rough-in pan pack (for 6 units)	Included: wall-mount bracket	Optional: tile bridge (for 6 units), rough-in pan (for 6 units)	—	—	Optional: wall-mount pitch lock bracket, wall-mount bi-pivot bracket, wall-mount pitch only bracket, coupling bracket, transformer for 70/100V operation	Optional: wall-mount pitch lock bracket, wall-mount bi-pivot bracket, wall-mount pitch only bracket, coupling bracket, transformer for 70/100V operation	Included: wall-mount bracket sets, interconnect bracket
Certifications	UL 1480 (UEAY), UL 2043 with plenum cover accessory	UL 1480 (UEAY)	UL 1480 (UEAY), UL 2043 with plenum cover accessory	UL 1480 (UEAY)	—	—	—	—
Product Codes	040150 (Black, Pair) 040149 (White, Pair)	040144 (Black, Pair) 040143 (White, Pair)	040148 (Black) 040147 (White)	040146 (Black) 040145 (White)	040151 (Green)	040189 (Black) 040188 (White)	317302-0100 (Black) 317302-0200 (White)	(Black) 787856-1110 (US) 787856-2110 (EU) 787856-3110 (JP) 787856-4110 (UK) 787856-5110 (AU) — (White) 787856-1210 (US) 787856-2210 (EU) 787856-3210 (JP) 787856-4210 (UK) 787856-5210 (AU)

POINT SOURCE INSTALL LOUDSPEAKERS

	AMM Series			AMU Series (ArenaMatch Utility)				
	AMM108	**AMM112**	**AMS115**	**AMU105**	**AMU108**	**AMU206**	**AMU208**	**MB210-WR**
Driver Components	1 x 1.7-in compression driver 1 x 8-in woofer	1 x 3-in compression driver 1 x 12-in woofer	1 x 15-in high-excursion woofer	1 × Bose EMB2S 2-inch voice-coil compression driver 1 × 5.25-inch woofer	1 × Bose EMB2S 2-inch voice-coil compression driver 1 × 8-inch woofer	1 × Bose EMB2S 2-inch voice-coil compression driver 2 × 6-inch woofer	1 × Bose EMB2S 2-inch voice-coil compression driver 2 × 8-inch woofer	2 × 10-inch woofer
Power Handling (Long-term)	150 W	300 W passive 300 W (LF bi-amp) 45 W (HF bi-amp)	500 W	150 W	250 W	300 W	400 W	625 W
Sensitivity (SPL / 1 W @ 1 m)	94 dB	96 dB	96 dB (half-space)	90 dB	91 dB	91 dB	95 dB	90 dB
Max SPL (SPL / 1 W @ 1 m)	116 dB	121 dB	123 dB (half-space)	111 dB	115 dB	116 dB	121 dB	118 DB
Freq Response (-3 dB) Freq Range (-10 dB)	88 Hz - 17 kHZ 75 Hz – 20 kHz	70 Hz - 18 kHZ 60 Hz – 20 kHz	40 Hz - 100 Hz 35 Hz – 130 kHz	100 Hz - 16 kHz 90 Hz – 18 kHz	90 Hz - 16 kHz 80 Hz – 18 kHz	90 Hz - 16 kHz 80 Hz – 18 kHz	80 Hz - 16 kHz 70 Hz – 18 kHz	40 Hz - 180 Hz 37 Hz – 270 Hz
Nominal Impedance	8 Ω, passive	8 Ω, passive 8 Ω + 8 Ω bi-amp	8 Ω	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω in bypass, multiple transformer taps for 70/100V operation; highest tap, 80W	8 Ω
Coverage (H × V) 1kHz - 4 kHz Average	110° × 60°	110° × 60°	Omnidirectional	100° × 100°	90° × 60° rotatable	120° × 60° rotatable	90° × 60° rotatable	Omnidirectional
Dimensions, (H × W × D)	318 × 318 × 268 mm 12.5 × 12.5 × 10.5 in	457 × 457 × 383 mm 18.0 × 18.0 × 15.0 in	470 × 470 × 508 mm 18.5 × 18.5 × 20.0 in	152 × 304 × 190 mm 6.0 × 12.0 × 7.5 in	235 × 470 × 262 mm 9.3 × 18.5 × 10.3 in	191 × 552 × 234 mm 7.5 × 21.8 × 9.2 in	235 × 686 × 262 mm 9.3 × 27.0 × 10.3 in	291 × 659 × 450 mm 11.5 × 26.0 × 17.7 in
Color options	Black	Black	Black	Black or white	Black or white	Black or white	Black or white	Black or white
Environmental	Indoor	Indoor	Indoor	IP55 outdoor	IP55 outdoor	IP55 outdoor	IP55 outdoor	IP55 outdoor
Installation Accessories	Optional: U-bracket kit; Suspension bracket; RMUBRKT1 (Pan-and-tilt Bracket)	Optional: U-bracket kit; Suspension bracket	—	Included: stainless-steel U-bracket Optional: pan-and-tilt bracket	Included: stainless-steel U-bracket Optional: pan-and-tilt bracket	Included: stainless-steel U-bracket Optional: pan-and-tilt bracket	Included: stainless-steel U-bracket Optional: pan-and-tilt bracket	Included: stainless-steel U-bracket
Certifications	—	—	—	EN 54-24 for voice alarm systems	EN 54-24 for voice alarm systems	EN 54-24 for voice alarm systems	EN 54-24 for voice alarm systems	—
Product Codes	843160-0110 (Black)	843161-0110 (Black)	843163-0110 (Black)	811433-0110 (Black) 811433-0210 (White)	811434-0110 (Black) 811434-0210 (White)	811435-0110 (Black) 811435-0210 (White)	811436-0110 (Black) 811436-0210 (White)	811432-0110 (Black) 811432-0210 (White)

DIGITAL SIGNAL PROCESSORS

	CSP		ControlSpace		ControlSpace Conferencing		
	CSP-428	**CSP-1248**	**ESP-880A**	**EX-1280**	**EX-440C**	**EX-1280C**	**EX-12AEC**
Analog Mic/Line Inputs	4	12	8	12	4	12	—
Analog Line Outputs	2	4	8	8	4	4	—
Dante Inputs × Outputs	—	—	—	64 × 64	16 x 16	64 × 64	16 x 16
AmpLink Outputs	8	8	8	8	4	8	—
GPIO Logic Ports	8 × 1	8 × 1	5 × 5	5 × 5	1 × 0	5 × 5	—
DSP Architecture	Fixed configurable	Fixed configurable	Open architecture	Open architecture	Open architecture	Open architecture	Open architecture
Acoustic Echo Cancellation	—	—	—	—	8 channels	12 channels	12 channels
Configuration Software	Onboard web-based UI	Onboard web-based UI	ControlSpace Designer	ControlSpace Designer	ControlSpace Designer	ControlSpace Designer	ControlSpace Designer
Supported Bose Dante Enpoints	—	—	—	EX-4ML, EX-8ML, EX-UH, WP-22B-D	EX-4ML, EX-8ML, EX-UH, WP-22B-D	EX-4ML, EX-8ML, EX-UH, WP-22B-D	EX-4ML, EX-8ML, EX-UH, WP-22B-D
User Controls Supported	ControlSpace Remote, CC-1D, CC-2D, CC-3D	ControlSpace Remote, CC-1D, CC-2D, CC-3D	ControlSpace Remote, CC-1, CC-2, CC-3, CC-1D, CC-2D, CC-3D, CC-16, CC-64	ControlSpace Remote, CC-1, CC-2, CC-3, CC-1D, CC-2D, CC-3D, CC-16, CC-64	ControlSpace Remote, CC-1, CC-2, CC-3, CC-1D, CC-2D, CC-3D, CC-16, CC-64	ControlSpace Remote, CC-1, CC-2, CC-3, CC-1D, CC-2D, CC-3D, CC-16, CC-64	ControlSpace Remote, CC-1, CC-2, CC-3, CC-1D, CC-2D, CC-3D, CC-16, CC-64
Dimensions (Rack Height, H × W × D)	1RU 44 × 483 × 215 mm 1.7 × 19.0 × 8.5 in	1RU 44 × 483 × 215 mm 1.7 × 19.0 × 8.5 in	1RU 44 × 483 × 215 mm 1.7 × 19.0 × 8.5 in	1RU 44 × 483 × 282 mm 1.7 × 19.0 × 11.1 in	1RU 44 × 483 × 282 mm 1.7 × 19.0 × 11.1 in	1RU 44 × 483 × 282 mm 1.7 × 19.0 × 11.1 in	1RU 44 × 483 × 282 mm 1.7 × 19.0 × 11.1 in
Product Codes	808453-1110 (US-120V) 808453-2110 (EU-230V) 808453-3110 (JP-100V) 808453-4110 (UK-230V) 808453-5110 (AU-240V)	808456-1110 (US-120V) 808456-2110 (EU-230V) 808456-3110 (JP-100V) 808456-4110 (UK-230V) 808456-5110 (AU-240V)	812862-1110 (US-120V) 812862-2110 (EU-230V) 812862-3110 (JP-100V) 812862-4110 (UK-230V) 812862-5110 (AU-240V)	834317-1110 (US-120V) 834317-2110 (EU-230V) 834317-3110 (JP-100V) 834317-4110 (UK-230V) 834317-5110 (AU-240V)	834315-1110 (US-120V) 834315-2110 (EU-230V) 834315-3110 (JP-100V) 834315-4110 (UK-230V) 834315-5110 (AU-240V)	772234-1110 (US-120V) 772234-2110 (EU-230V) 772234-3110 (JP-100V) 772234-4110 (UK-230V) 772234-5110 (AU-240V)	834316-1110 (US-120V) 834316-2110 (EU-230V) 834316-3110 (JP-100V) 834316-4110 (UK-230V) 834316-5110 (AU-240V)

POWER AMPLIFIERS

|	FreeSpace				PowerSpace			PowerSpace +	
	IZA 250-LZ	**IZA 190-HZ**	**IZA 2120-LZ**	**IZA 2120-HZ**	**P4300A**	**P2600A**	**P21000A**	**P4150+**	**P4300+**
Unbalanced Inputs	2 × stereo RCA	2 × stereo RCA	2 × stereo RCA	2 × stereo RCA	—	—	—	2 × stereo RCA	2 × stereo RCA
Balanced Inputs	1 × XLR/1/4-in TRS combo	1 × XLR/1/4-in TRS combo	2 × Euroblock	2 × Euroblock	4 × Euroblock	2 × Euroblock	2 × Euroblock	4 × Euroblock	4 × Euroblock
Additional Inputs	Page: 1 × balanced Euroblock Auxiliary: 1 × unbalanced 1/8-in TRS	Page: 1 × balanced Euroblock Auxiliary: 1 × unbalanced 1/8-in TRS	Page: 1 × balanced Euroblock Auxiliary: 1 × unbalanced 1/8-in TRS	Page: 1 × balanced Euroblock Auxiliary: 1 × unbalanced 1/8-in TRS	—	—	—	Page: 1 x Uses input 4 Euroblock	Page: 1 x Uses input 4 Euroblock
Outputs	2 × terminal block 1 × 400 Ω auxiliary, stereo RCA	1 × Euroblock 1 × 400 Ω auxiliary, stereo RCA	2 × Euroblock 1 × 400 Ω auxiliary, stereo RCA	2 × terminal block 1 × 400 Ω auxiliary, stereo RCA	4 × terminal block	2 × terminal block	2 × terminal block	4 × terminal block 1 × 600 Ω auxiliary, Euroblock 1 x auxiliary line out, Euroblock	4 × terminal block 1 × 600 Ω auxiliary, Euroblock 1 x auxiliary line out, Euroblock
Onboard Signal Processing	Analog: Input gain, output levels, routing, paging, and selectable EQ presets	Analog: Input gain, output levels, routing, paging, and selectable EQ presets	Analog: Volume/source selection, EQ, tone controls, and paging/auxiliary routing options with selectable EQ presets	Analog: Volume/source selection, EQ, tone controls, and paging/auxiliary routing options with selectable EQ presets	—	—	—	Digital: SmartBass processing, routing, level control, delays, limiters, Bose loudspeaker EQs, plus input and area EQs	Digital: SmartBass processing, routing, level control, delays, limiters, Bose loudspeaker EQs, plus input and area EQs
Control	Power, input select, tone controls, gain, level, mode DIP switch, EQ preset selector, page mic gain, output trims	Power, input select, tone controls, gain, level, mode DIP switch, EQ preset selector, page mic gain, output trim	Power, input select, tone controls, level, mode DIP switch, EQ preset selector, page mic gain, output trims	Power, input select, tone controls, level, mode DIP switch, EQ preset selector, page mic gain, output trims	Power, mode DIP switches, input sensitivity, input select, mute, output attenuators	Power, mode DIP switches, input sensitivity, input select, mute, output attenuators	Power, mode DIP switches, input sensitivity, input select, mute, output attenuators	Power, remote input, mute, output attenuators programmed with web interface	Power, remote input, mute, output attenuators programmed with web interface
User Controls Supported	CC-1, CC-2	CC-1, CC-2	CC-1, CC-2	CC-1, CC-2	—	—	—	CC-1, CC-2, CC-3	CC-1, CC-2, CC-3
Power, LZ @ 8 Ω	2 × 25 W	—	2 × 60 W	—	4 × 300 W	2 × 600W	2 × 1000 W	4 × 150 W	4 × 300 W
Power, HZ @ 70/100V	—	1 × 90 W	—	2 × 120 W	4 × 300 W	2 × 600 W	2 × 1000 W	4 × 150 W	4 × 300 W
AmpLink	—	—	—	—	8 channels, RJ-45	8 channels, RJ-45	8 channels, RJ-45	—	—
Dante	—	—	—	—	—	—	—	—	—
Dimensions (Rack Height, H × W × D)	1RU × half-rack 45 × 214 × 310 mm 1.8 × 8.4 × 12.2 in	1RU × half-rack 45 × 214 × 310 mm 1.8 × 8.4 × 12.2 in	1RU 44 × 483 × 324 mm 1.7 × 19.0 × 12.8 in	1RU 44 × 483 × 324 mm 1.7 × 19.0 × 12.8 in	1RU 44 × 483 × 420 mm 1.7 × 19.0 × 16.5 in	1RU 44 × 483 × 420 mm 1.7 × 19.0 × 16.5 in	1RU 44 × 483 × 420 mm 1.7 × 19.0 × 16.5 in	1RU 44 × 483 × 420 mm 1.7 × 19.0 × 16.5 in	1RU 44 × 483 × 420 mm 1.7 × 19.0 × 16.5 in
Product Codes	344871-1440 (120V US) 344871-2440 (230V EU) 344871-3440 (100V JP) 344871-4440 (230V UK) 344871-5440 (240V AU)	344871-1430 (120V US) 344871-2430 (230V EU) 344871-3430 (100V JP) 344871-4430 (230V UK) 344871-5430 (240V AU)	719782-1440 (120V US) 719782-2440 (230V EU) 719782-3440 (100V JP) 719782-4440 (230V UK) 719782-5440 (240V AU)	719782-1430 (120V US) 719782-2430 (230V EU) 719782-3430 (100V JP) 719782-4430 (230V UK) 719782-5430 (240V AU)	803288-1110 (120V US) 803288-2110 (230V EU) 803288-3110 (100V JP) 803288-4110 (230V UK) 803288-5110 (240V AU)	803286-1110 (120V US) 803286-2110 (230V EU) 803286-3110 (100V JP) 803286-4110 (230V UK) 803286-5110 (240V AU)	803287-1110 (120V US) 803287-2110 (230V EU) 803287-3110 (100V JP) 803287-4110 (230V UK) 803287-5110 (240V AU)	810965-1110 (120V US) 810965-2110 (230V EU) 810965-3110 (100V JP) 810965-4110 (230V UK) 810965-5110 (240V AU)	803289-1110 (120V US) 803289-2110 (230V EU) 803289-3110 (100V JP) 803289-4110 (230V UK) 803289-5110 (240V AU)
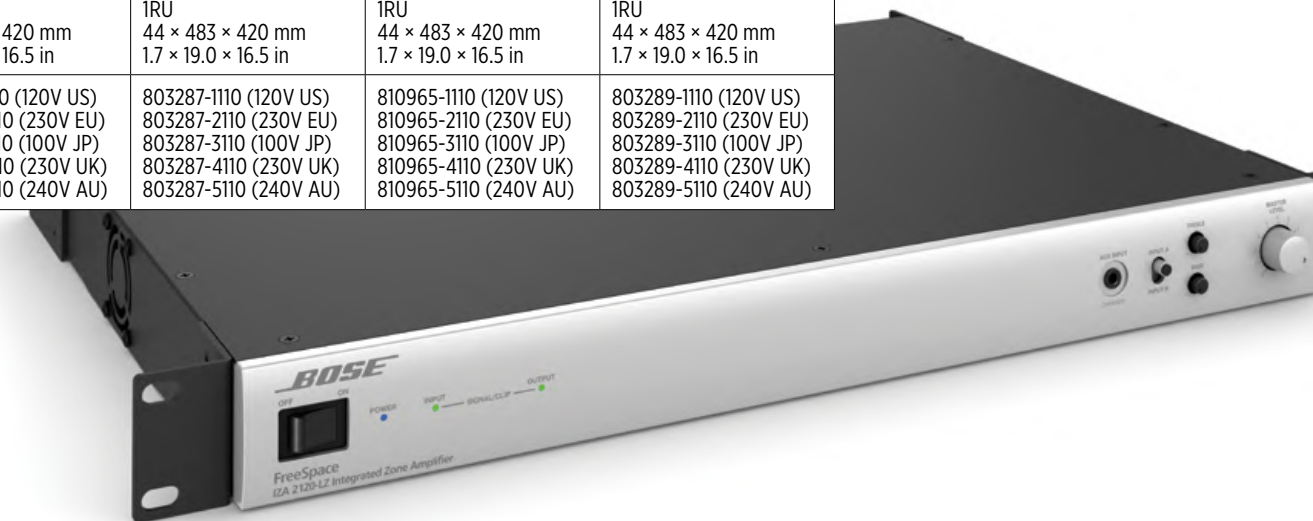
POWER AMPLIFIERS

	PowerShare		PowerMatch		
	PS404D	**PS604D**	**PM4500N**	**PM8250N**	**PM8500N**
Balanced Inputs	4 × Euroblock	4 × Euroblock	4 × Euroblock	8 × Euroblock	8 × Euroblock
Expansion Slot	—	—	1 slot, 4–24 channels, card-dependent	1 slot, 4–24 channels, card-dependent	1 slot, 4–24 channels, card-dependent
Outputs	4 × Euroblock	4 × Euroblock	Configurable 1–4 outputs, Euroblock	Configurable 2–8 outputs, Euroblock	Configurable 2–8 outputs, Euroblock
Onboard Signal Processing	Digital: Matrix mixer, loudspeaker EQ, PEQ, limiters, delay, band pass, mute/output, polarity	Digital: Matrix mixer, loudspeaker EQ, PEQ, limiters, delay, band pass, mute/output, polarity	Digital: Matrix mixer, loudspeaker EQ, Input PEQ, limiters, delay, band pass, mute/output polarity inversion	Digital: Matrix mixer, loudspeaker EQ, Input PEQ, limiters, delay, band pass, mute/output polarity inversion	Digital: Matrix mixer, loudspeaker EQ, Input PEQ, limiters, delay, band pass, mute/output polarity inversion
Control	Power, output attenuators integrated DSP ControlSpace Designer software	Power, output attenuators integrated DSP ControlSpace Designer software	LCD, ControlSpace Designer software	LCD, ControlSpace Designer software	LCD, ControlSpace Designer software
Computer Connection	—	—	USB; Ethernet, RJ-45	USB; Ethernet, RJ-45	USB; Ethernet, RJ-45
User Controls Supported	CC-1D, CC-2D, CC-3D	CC-1D, CC-2D, CC-3D	CC-1D, CC-2D, CC-3D, CC-64	CC-1D, CC-2D, CC-3D, CC-64	CC-1D, CC-2D, CC-3D, CC-64
Power, LZ @ 4/8 Ω	4 × 100 W @ 4/8 Ω	4 × 150 W @ 4/8 Ω	4 × 500 W @ 4 Ω 4 × 300 W @ 8 Ω	8 × 250 W @ 4 Ω 8 × 250 W @ 8 Ω	8 x 500 W @ 4 Ω 8 x 300 W @ 8 Ω
Power, HZ @ 70/100V	4 × 100 W @ 70/100V	4 × 150 W @ 70/100V	2 × 800 W @ 70V 2 × 1000 W @ 100V	4 × 400 W @ 70V 4 × 500 W @ 100V	4 × 800 W @ 70V 4 × 1000 W @ 100V
AmpLink	—	—	24 channels, RJ-45, with card	24 channels, RJ-45, with card	24 channels, RJ-45, with card
Dante	4 channels, RJ-45	4 channels, RJ-45	8 × 8 channels, RJ-45, with card	8 × 8 channels, RJ-45, with card	8 × 8 channels, RJ-45, with card
Dimensions (Rack Height, H × W × D)	1RU 44 × 483 × 414 mm 1.7 × 19.0 × 16.3 in	1RU 44 × 483 × 414 mm 1.7 × 19.0 × 16.3 in	2RU 88 × 483 × 525 mm 3.5 × 19.0 × 20.7 in	2RU 88 × 483 × 525 mm 3.5 × 19.0 × 20.7 in	2RU 88 × 483 × 525 mm 3.5 × 19.0 × 20.7 in
Product Codes	813375-1310 (US-120V) 813375-2310 (EU-230V) 813375-3310 (JP-100V) 813375-4310 (UK-230V) 813375-5310 (AU-240V)	813403-1310 (US-120V) 813403-2310 (EU-230V) 813403-3310 (JP-100V) 813403-4310 (UK-230V) 813403-5310 (AU-240V)	361810-1110 (US-120V) 361810-4110 (EU-230V) 361810-3110 (JP-100V) 361810-5110 (UK-230V) 361810-2110 (AU-240V)	361810-1110 (US-120V) 361810-4110 (EU-230V) 361810-3110 (JP-100V) 361810-5110 (UK-230V) 361810-2110 (AU-240V)	343546-1110 (US-120V) 343546-4110 (EU-230V) 343546-3110 (JP-100V) 343546-5110 (UK-230V) 343546-2110 (AU-240V)

RESTAURANT APPLICATION

BACKGROUND/FOREGROUND MUSIC
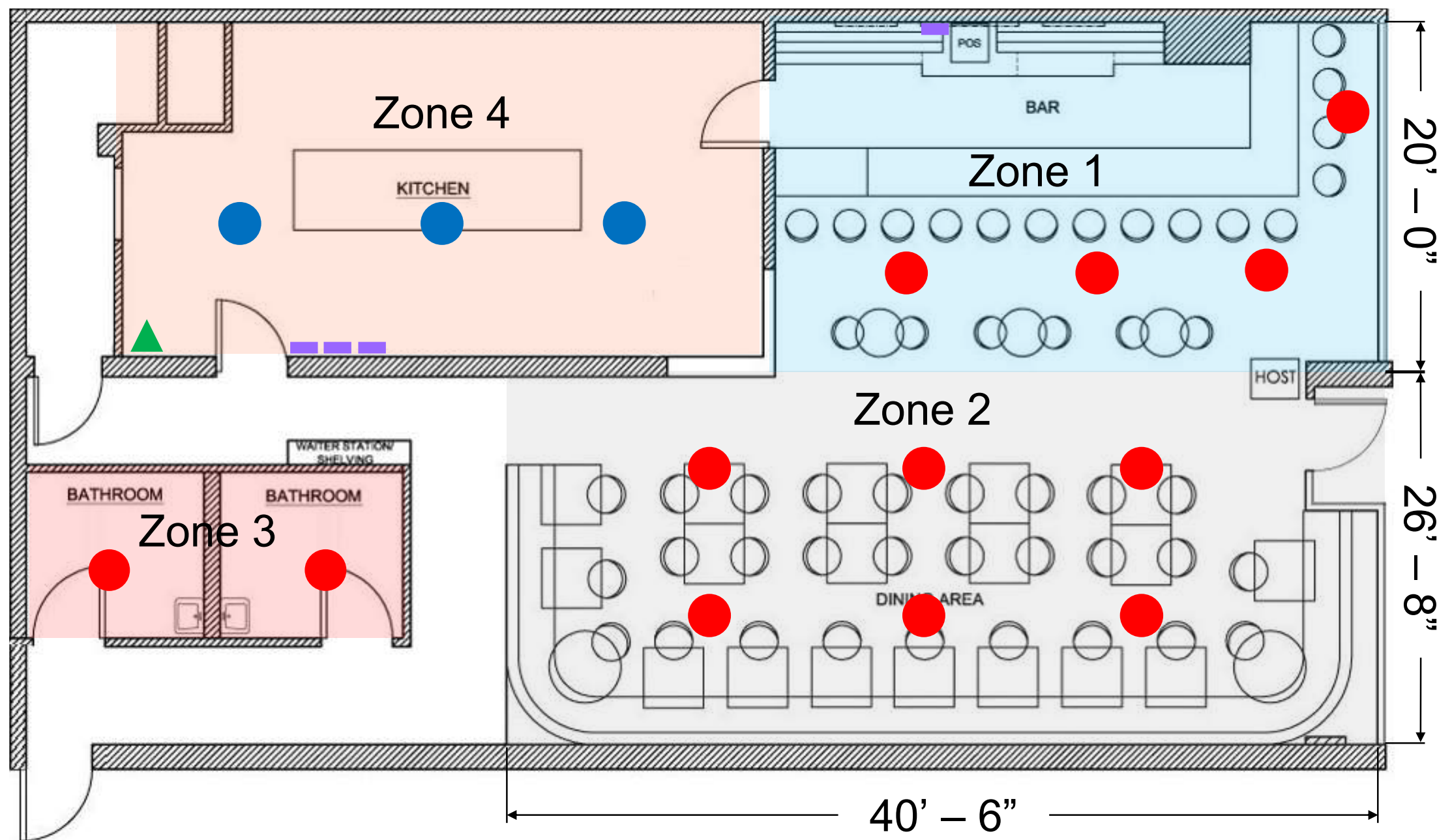
RESTAURANT LAYOUT

Zone 1: Bar—Experience Space
- Premium sound
- 10' between speakers
- Speakers @ 10' height

Zone 2: Dining—Experience Space
- Premium sound
- 13.4' between speakers
- Speakers @ 10' height

Zone 3: Bathrooms—Utility Space
- Basic sound
- Speakers flush in-ceiling
- Spaced as required

Zone 4: Kitchen—Utility Space
- Basic sound
- 12' between speakers
- Speakers @ 10' height

Host—Utility Space
- Provide indirect coverage

Wait Station—Utility Space
- Avoid coverage as possible

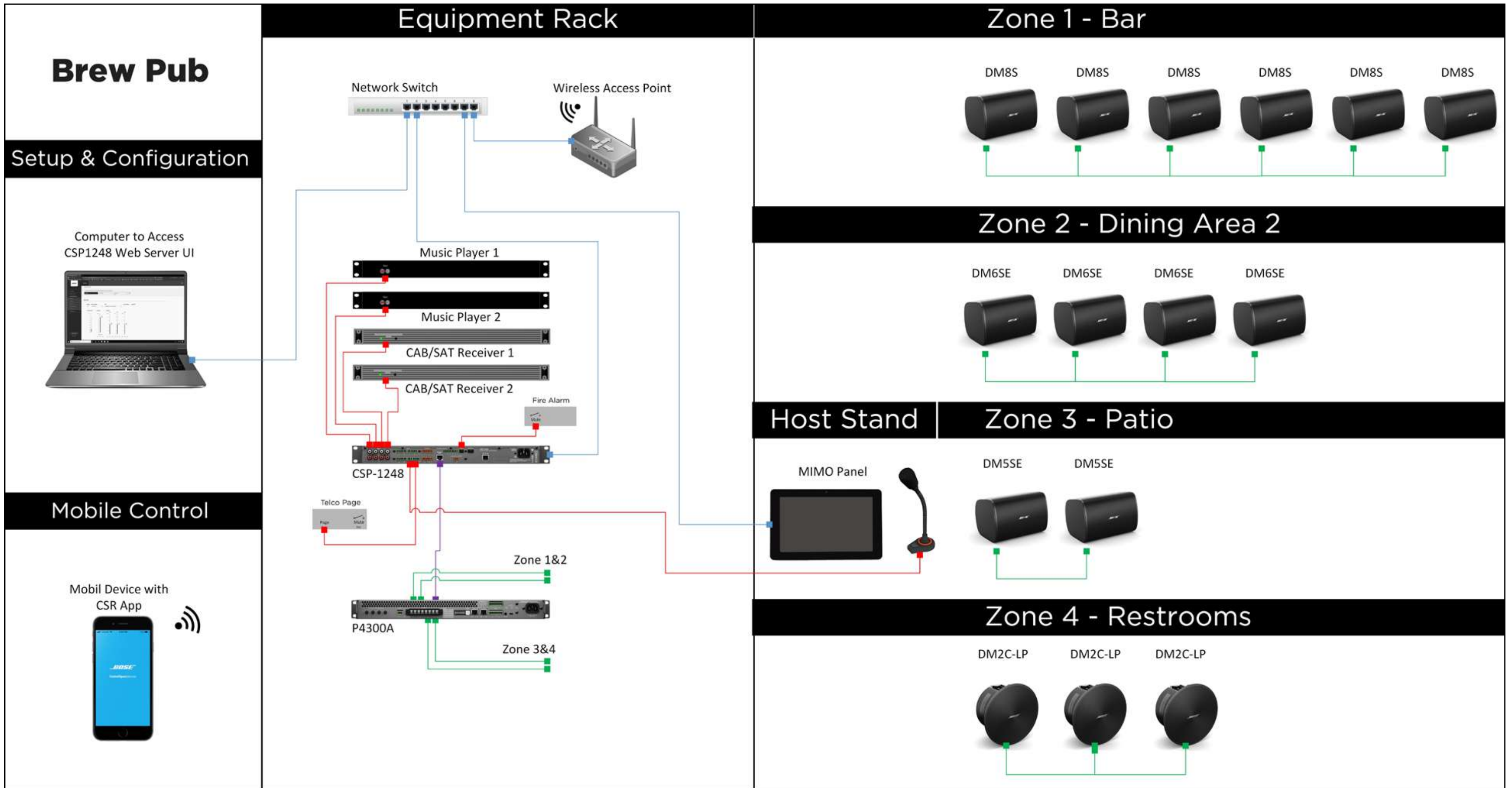## LEGEND

🔴 Ceiling Mounted DesignMax® Loudspeaker

🔵 Ceiling Mounted FreeSpace® Loudspeaker

▬ Remote Volume Control/ Source Selection

🔺 Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Restaurant

Setup & Configuration

Computer to Access P4300+ Web Server UI

Wireless Access Point

Network Switch

Equipment Rack

Cable/Sat Box

Music Player

Zone 1&2

P4300+

Fire Alarm

Zone 3&4

BOSE CV41 4-to-1 Converter

Zone 1 - Bar

DM6C DM6C DM6C DM6C

Zone 2 - Dining Area

DM5C DM5C DM5C DM5C DM5C DM5C

Host Stand | Zone 3 - Restrooms

DM3C DM3C

Zone 4 - Kitchen

FS2C FS2C FS2C
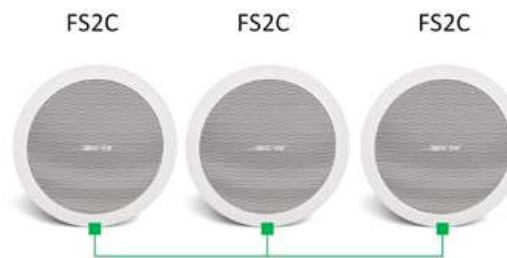
EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🔴	DM6C (829679-0110)	DesignMax 6C 6.5 inch coaxial 100W Ceiling Speaker	4
🔴	DM5C (829683-0110)	DesignMax 5C 5.25 inch coaxial 50W Ceiling Speaker	6
🔵	FS2C (854154-0210)	FreeSpace FS2C Ceiling Speaker	3
🔺	P4300+ (803289-1110)	PowerSpace 4300+ Amplifier & DSP 300W X 4	1
🔺	CC-2 (768938-0110)	CC-2 Volume Control w/ AB Switch	2
▬	CC-1 (768932-0110)	CC-1 Volume Control	2
▬	CV41 (768928-0010)	ControlCenter 4 to 1 Converter	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1   **What color loudspeakers and user controls are required?**

2   **Are the ceilings finished or open?**
- Gypsum ceiling not complete, include rough-in pans
- Gypsum ceiling complete or drop tile ceiling, include adjustable tile bridges (adjustable tile bridges are included with the DesignMax in-ceiling loudspeakers)
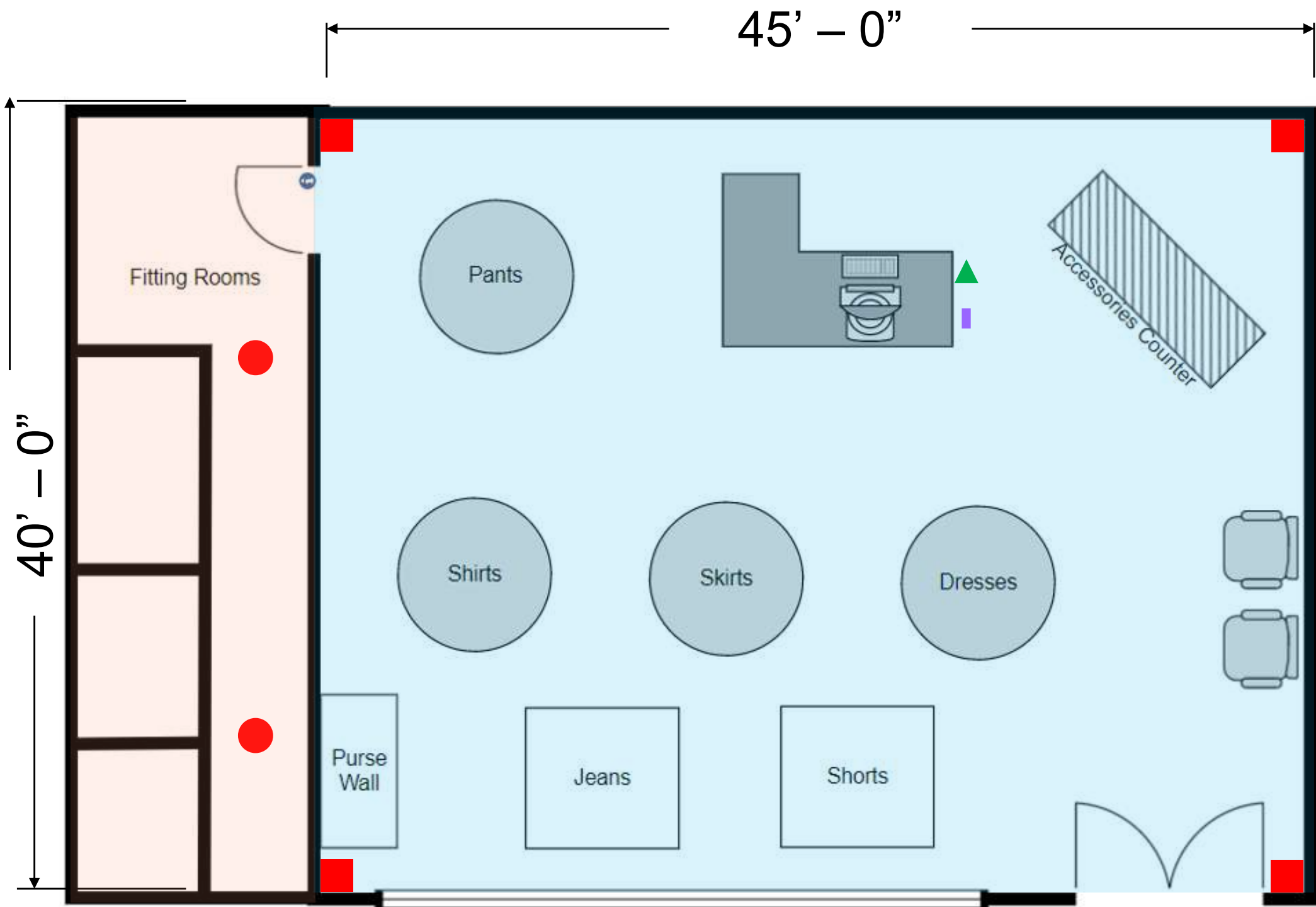
If open ceiling utilize the pendant mount accessory.

3   **Confirm the input requirements and the output zones.**

For technical support call: **1-800-994-BOSE**

BREW PUB APPLICATION

BACKGROUND/FOREGROUND MUSIC
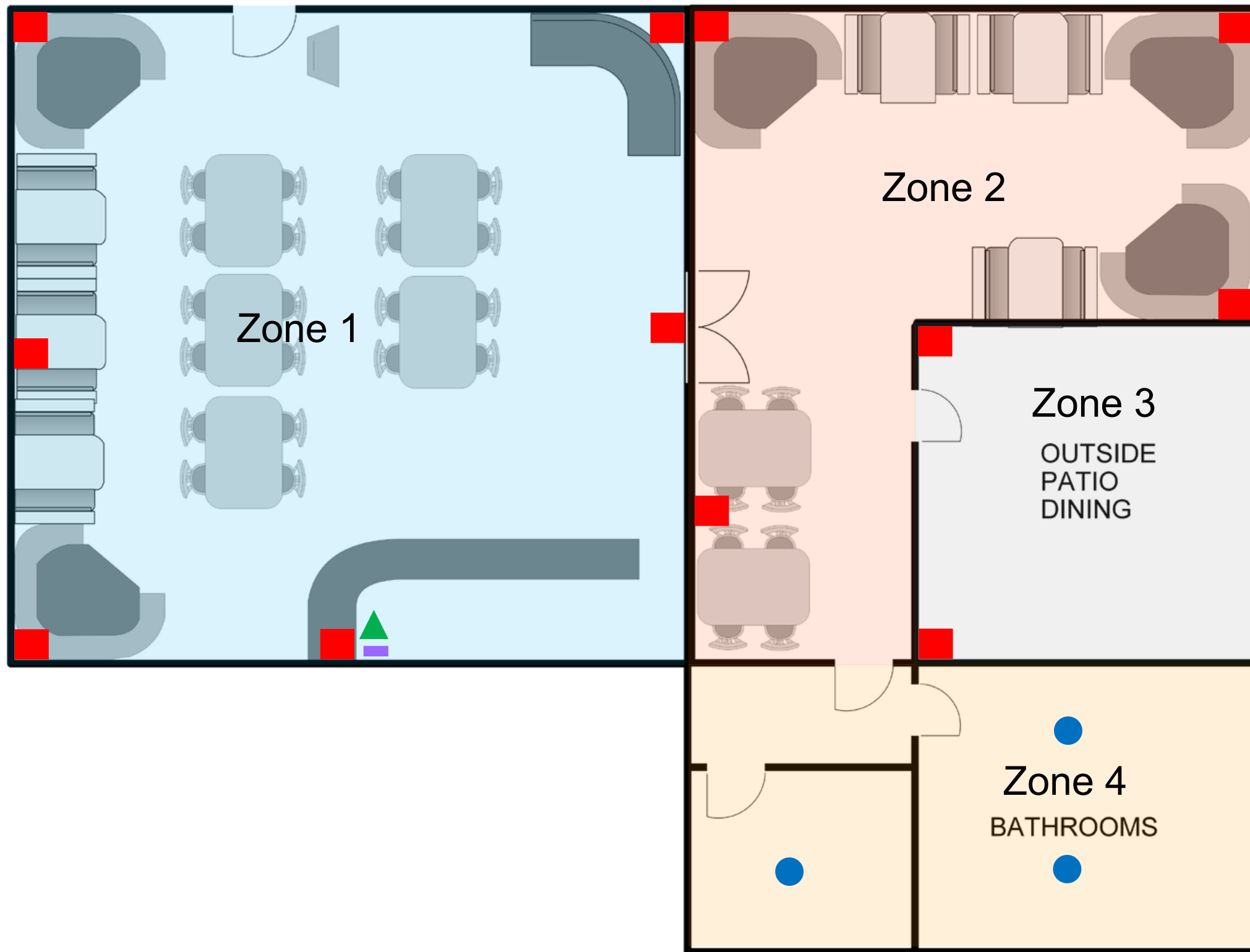
BREW PUB LAYOUT

Zone 1: Bar—Experience Space
- Premium sound
- 15' between speakers
- Speakers @ 10' height

Zone 2: Dining—Experience Space
- Premium sound
- 13.4' between speakers
- Speakers @ 10' height

Zone 3: Patio—Outdoor Space
- Premium sound
- Speakers outdoor rated
- Spaced as required

Zone 4: Bathrooms—Utility Space
- Basic sound
- Speakers flush in-ceiling
- Spaced as required

Host—Utility Space
- Provide indirect coverage

Wait Station—Utility Space
- Avoid coverage as possible

LEGEND

- ■ Surface Mounted 8" DesignMax® Loudspeaker
- ■ Surface Mounted 6" DesignMax Loudspeaker
- ● Ceiling Mounted DesignMax Loudspeaker
- ▬ Remote Volume Control/ Source Selection
- ▲ Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Brew Pub

Setup & Configuration

Computer to Access
CSP1248 Web Server UI

Mobile Control

Mobil Device with
CSR App

Equipment Rack

Network Switch

Wireless Access Point

Music Player 1

Music Player 2

CAB/SAT Receiver 1

CAB/SAT Receiver 2

Fire Alarm

CSP-1248

Telco Page

Zone 1&2

P4300A

Zone 3&4

Zone 1 - Bar

DM8S   DM8S   DM8S   DM8S   DM8S   DM8S

Zone 2 - Dining Area 2

DM6SE   DM6SE   DM6SE   DM6SE

Host Stand   Zone 3 - Patio

MIMO Panel

DM5SE   DM5SE

Zone 4 - Restrooms

DM2C-LP   DM2C-LP   DM2C-LP

EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🟥	DM8S (801332-0110)	DesignMax 8S 8 inch coaxial 100W Ceiling Speaker	6
🟥	DM6SE (829682-0110)	DesignMax 6C 6.5 inch coaxial 100W Ceiling Speaker	4
🟥	DM5SE (829705-0110)	DesignMax 5C 5.25 inch coaxial 50W Ceiling Speaker	2
🔵	DM2C-LP (815011-0110)	DesignMax 2C-LP Low Profile 16W Ceiling Speaker	3
🔺	CSP1248 (808456-0110)	12x8 DSP with web GUI	1
🔺	P4300A (803288-1110)	PowerSpace 4300A Amplifier 300W X 4	1
▬	MIMO PAD (776978-0010)	7" Touch Panel	1
	MIMO Back Box (782691-0010)	MIMO Back Box	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1 **What color loudspeakers and user controls are required?**

2 **Are the ceilings finished or open?**
- Gypsum ceiling not complete, include rough-in pans
- Gypsum ceiling complete or drop tile ceiling, include adjustable tile bridges (adjustable tile bridges are included with the DesignMax in-ceiling loudspeakers)

3 **Confirm the input requirements and the output zones.**

For technical support call: **1-800-994-BOSE**

RETAIL APPLICATION
BACKGROUND/FOREGROUND MUSIC

45' – 0"

40' – 0"

Fitting Rooms

Pants

Accessories Counter

Shirts

Skirts

Dresses

Purse Wall

Jeans

Shorts

RETAIL LAYOUT

Sales Area—Experience Space
- Premium sound
- Corner mounted speakers
- Speakers @ 12' height

Cashier—Utility Space
- Avoid coverage as possible

LEGEND

EdgeMax EM90

Ceiling Mounted DesignMax® Loudspeaker

Remote Volume Control

Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Retail

Setup & Configuration

Equipment Rack

Zone 1 – Sales Floor

Computer to Access
P4150+ Web Server UI

Music Player

CC-1

EM90   EM90   EM90   EM90

P4150+

Fire Alarm

Zone 2 –Fitting Rooms

DM2C-LP   DM2C-LP

Network Switch
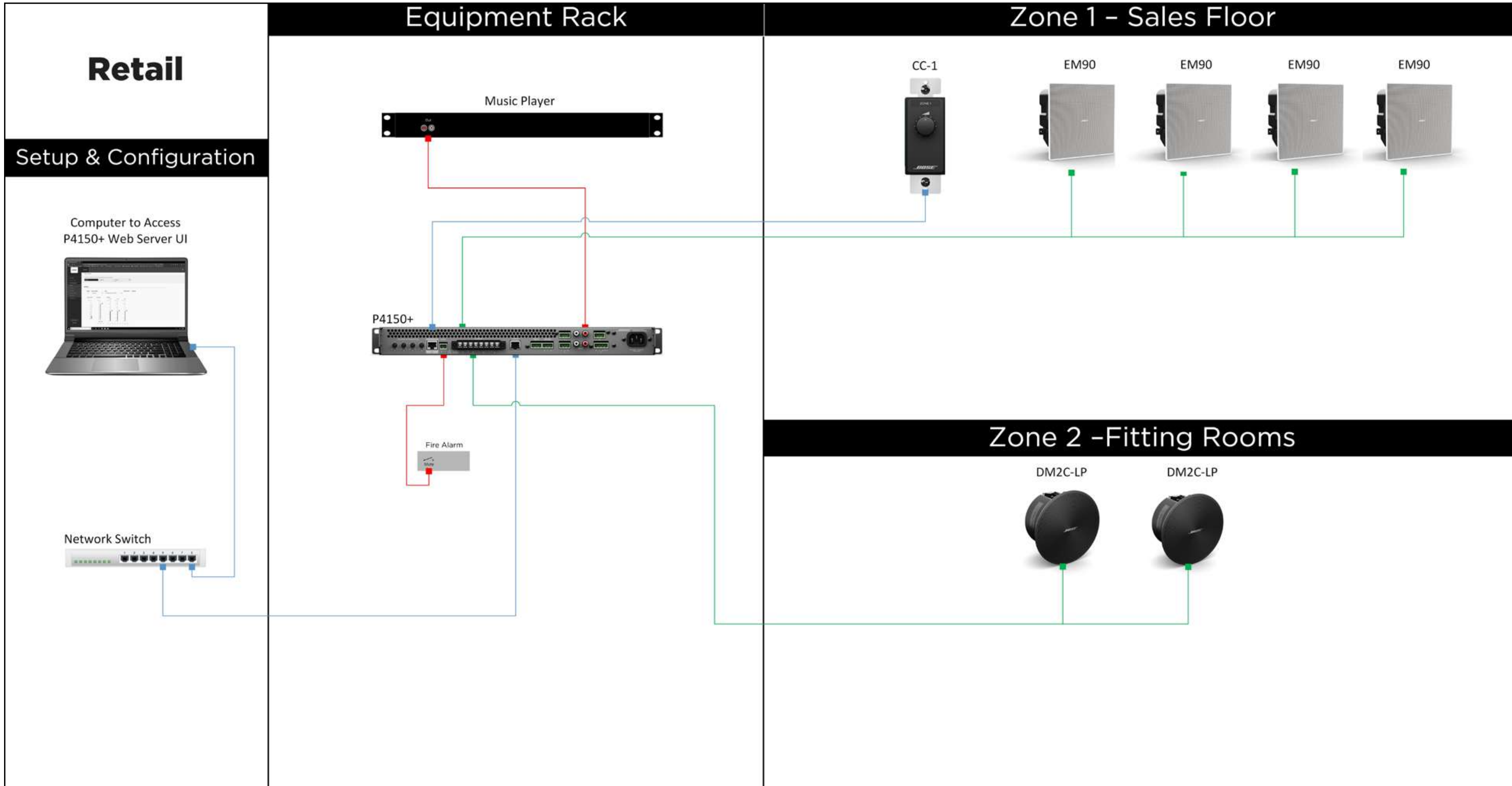
EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🟥	EM90 (778844-0220)	EdgeMax EM90	4
🔵	DM2C-LP (815011-0210)	DesignMax DM2C-LP Low Profile Ceiling Speaker	2
🔺	P4150+ (810965-1110)	DesignMax 5C 5.25 inch coaxial 50W Ceiling Speaker	1
🟪	CC-1 (768932-0110)	CC-1 Controller	1

Design and equipment list provided as a reference.

Exact equipment and quantities will need to be determined as required for actual space.

Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1   **What color loudspeaker is required? White grill included. Black is an option.**

2   **What color is needed for the user controls?**

3   **To select your mounting accessories; Are the ceilings finished or open?**
If finished are they gypsum or drop tile?
- Gypsum ceiling not complete, include rough-in pans
- Drop tile ceiling, tile bridges are included

4   **Confirm the input requirements and the output zones.**

For technical support call: **1-800-994-BOSE**

GROCERY/SUPERMARKET
BACKGROUND/FOREGROUND MUSIC
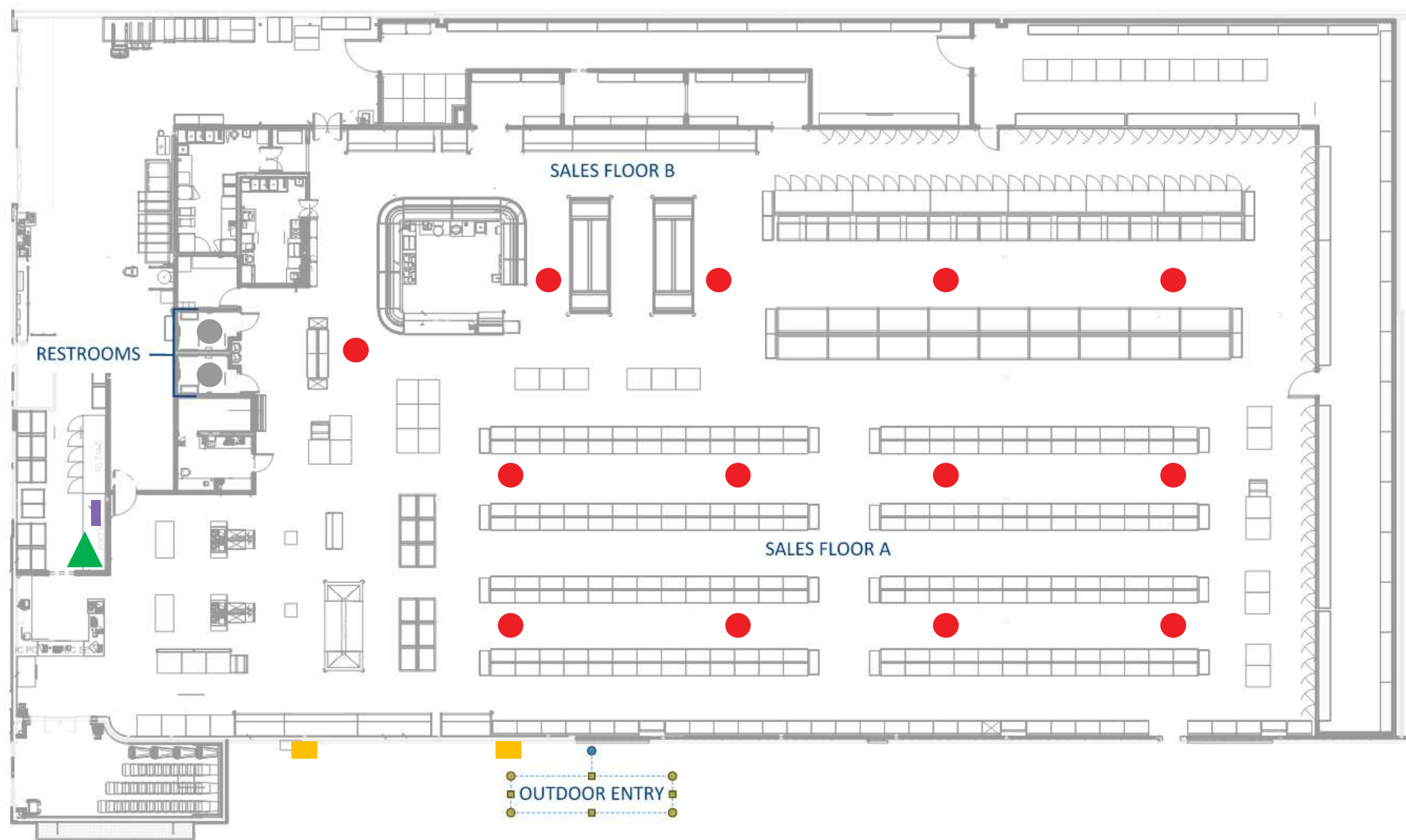
GROCERY/SUPERMARKET LAYOUT

Sales Area—Experience Space
- Premium sound
- Pendant mounted speakers
- Speakers @ 18' height

Cashier—Utility Space
- Avoid coverage as possible

LEGEND

⬤ Ceiling Mounted DesignMax® Loudspeaker

🔴 Pendant Mounted DesignMax Loudspeaker

🟧 Surface Mounted DesignMax Loudspeaker

🟪 Remote Volume Control

🔺 Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.
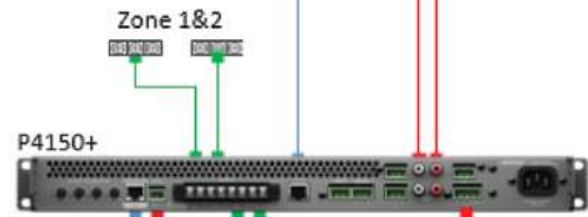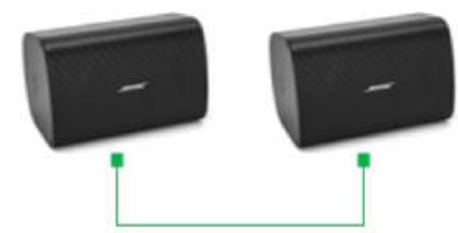
EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🔴	DM5P (841166-0110)	DesignMax DM5P Pendant Loudspeaker, black	13
⚪	DM2C-LP (815011-0210)	DesignMax DM2C-LP Low Profile Ceiling Loudspeaker, white	2
🟧	DM3SE (829712-0110)	DesignMax DM3SE Pendant Loudspeaker, black	2
🔺	P4300+ (803289-1110)	PowerSpace 4300+ & DSP 300W X 4	1
🟪	CC-1 (768932-0110)	CC-1 Controller	2

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1   **What color loudspeaker is required?**

2   **What color is needed for the user controls?**

3   **To select your mounting accessories; Are the ceilings finished or open?**
If finished are they gypsum or drop tile?
- Gypsum ceiling not complete, include rough-in pans
- Drop tile ceiling

4   **Confirm the input requirements and the output zones.**

For technical support call: **1-800-994-BOSE**
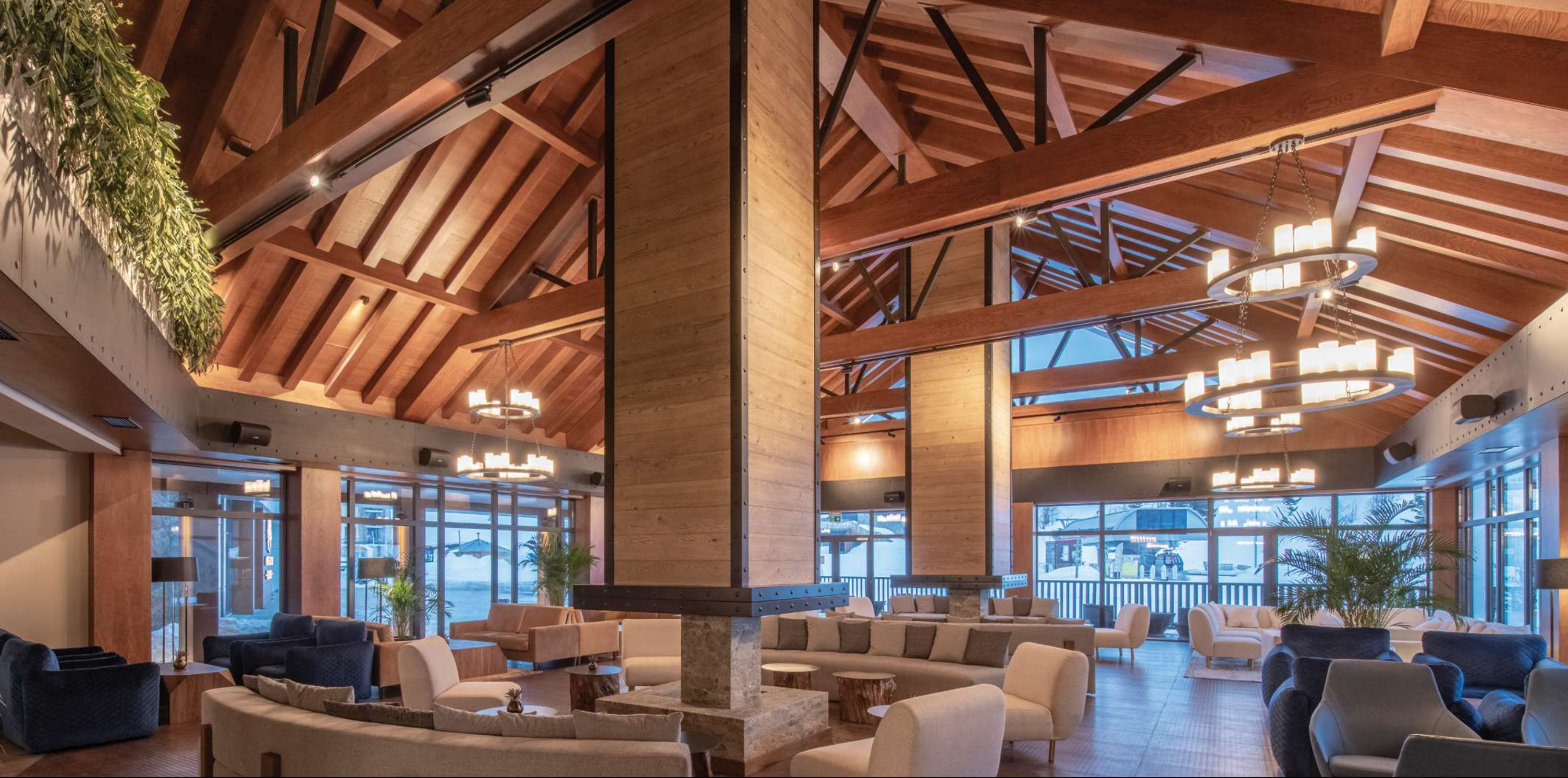
HOSPITALITY APPLICATION
BACKGROUND/FOREGROUND MUSIC
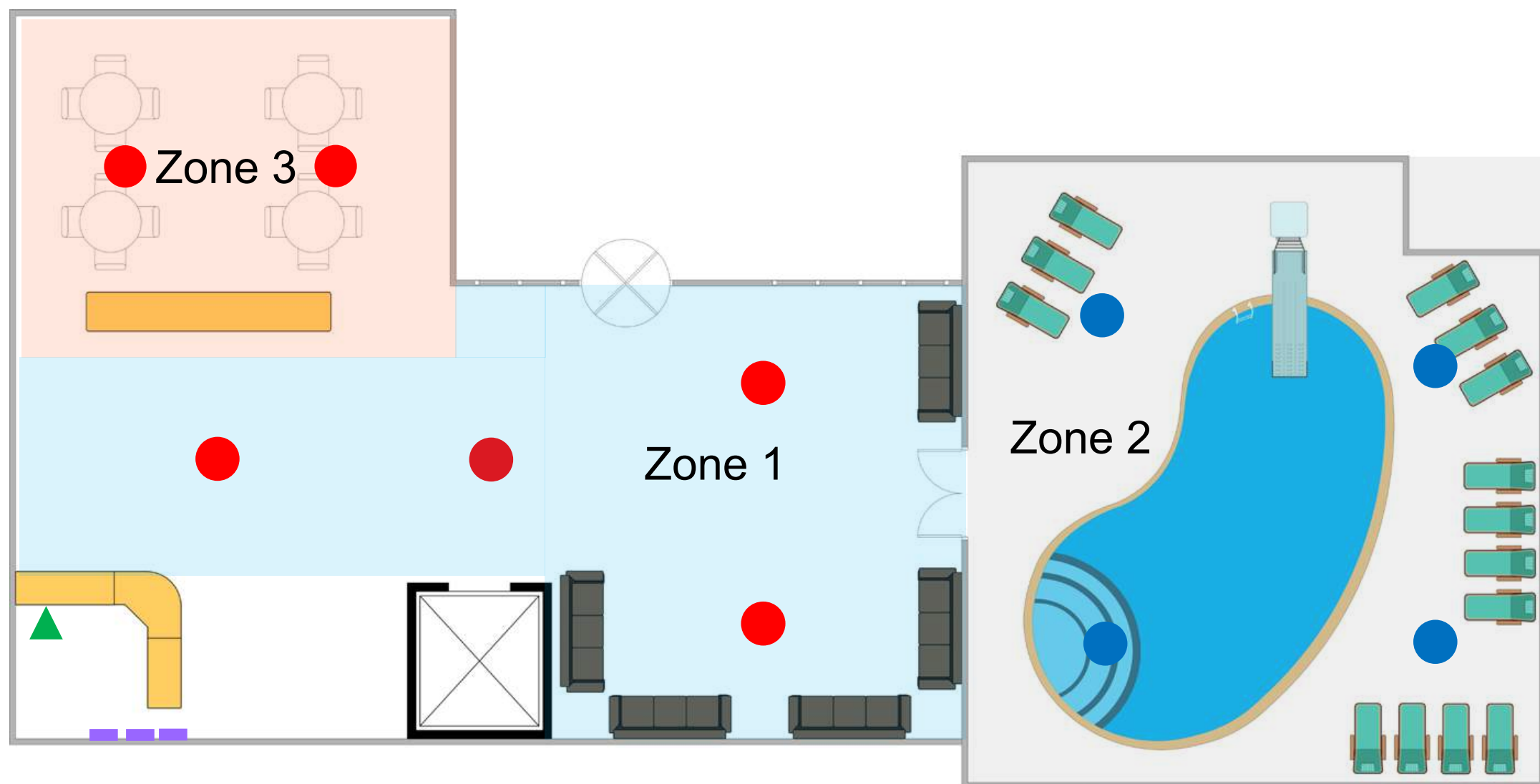
HOSPITALITY LAYOUT

Zone 1: Lobby—Experience Space
- Premium sound
- 10' between speakers
- Speakers @ 10' height

Zone 2: Pool—Utility Space
- Basic sound
- Speakers flush in-ceiling
- Weatherized speakers
- 13.4' between speakers
- Speakers @ 10' height

Zone 3: Cafe—Experience Space
- Premium sound
- 10' between speakers
- Speakers @ 10' height
- Spaced as required

Front Desk—Utility Space
- Provide indirect coverage

LEGEND

● Ceiling Mounted DesignMax® Loudspeaker

● Ceiling Mounted FreeSpace® Loudspeaker

▬ Remote Volume Control/ Source Selection

▲ Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Hospitality

Setup & Configuration

Computer to Access P4150+ Web Server UI

Wireless Access Point

Network Switch

Equipment Rack

Music Player

P4150+

Fire Alarm

BOSE
CV41
4-to-1 Converter

Zone 1 - Lobby

CC-1

DM3C   DM3C   DM3C   DM3C

Zone 2 – Pool Area

CC-1

FS4CE   FS4CE   FS4CE   FS4CE
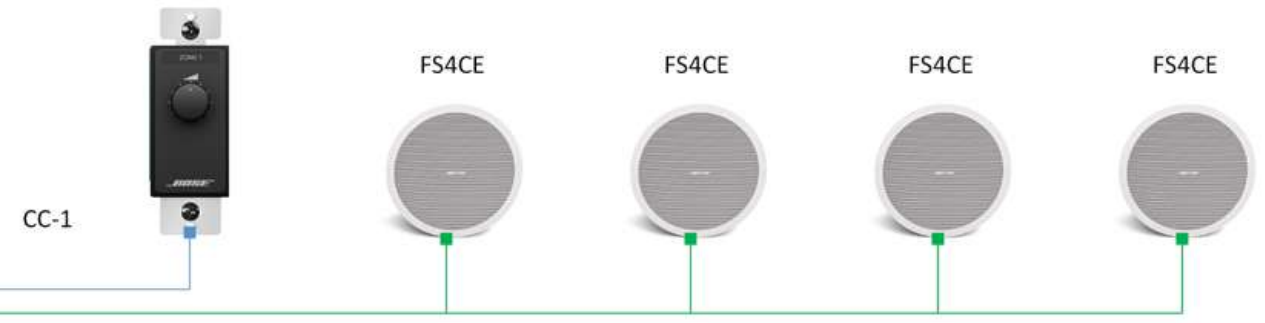
Zone 3 – Breakfast Area

CC-2

DM3C   DM3C   TV Audio

EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🔴	DM3C (829708-0210)	DesignMax 3C 3.25 inch coaxial 25W Ceiling Speaker	6
🔵	FS4CE (841156-0210)	DesignMax FS4CE 4.5 inch coaxial 40W Ceiling Speaker	4
🔺	P4150+ (810965-1110)	PowerSpace 4300+ Amplifier & DSP 300W X 4	1
▬	CC-2 (768938-0110)	CC-2 Volume Control w/ AB Switch	1
▬	CC-1 (768932-0110)	CC-1 Volume Control	2
▬	CV41 (768928-0010)	ControlCenter 4 to 1 Converter	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1 **What color loudspeakers and user controls are required?**

2 **Are the ceilings finished or open?**
- Gypsum ceiling not complete, include rough-in pans
- Gypsum ceiling complete, include tile bridges
- Drop Tile Ceiling, include tile bridges

3 **Confirm the input requirements and the output zones.**

For technical support call: **1-800-994-BOSE**

FITNESS

FULL RANGE BACKGROUND MUSIC
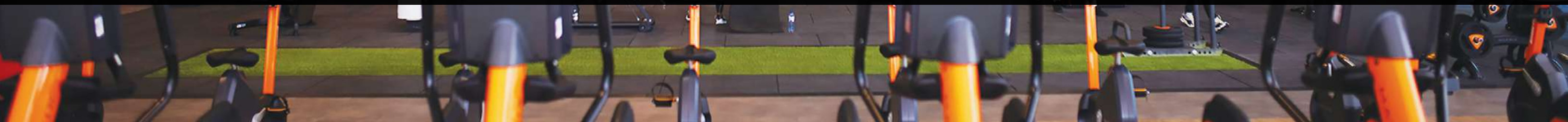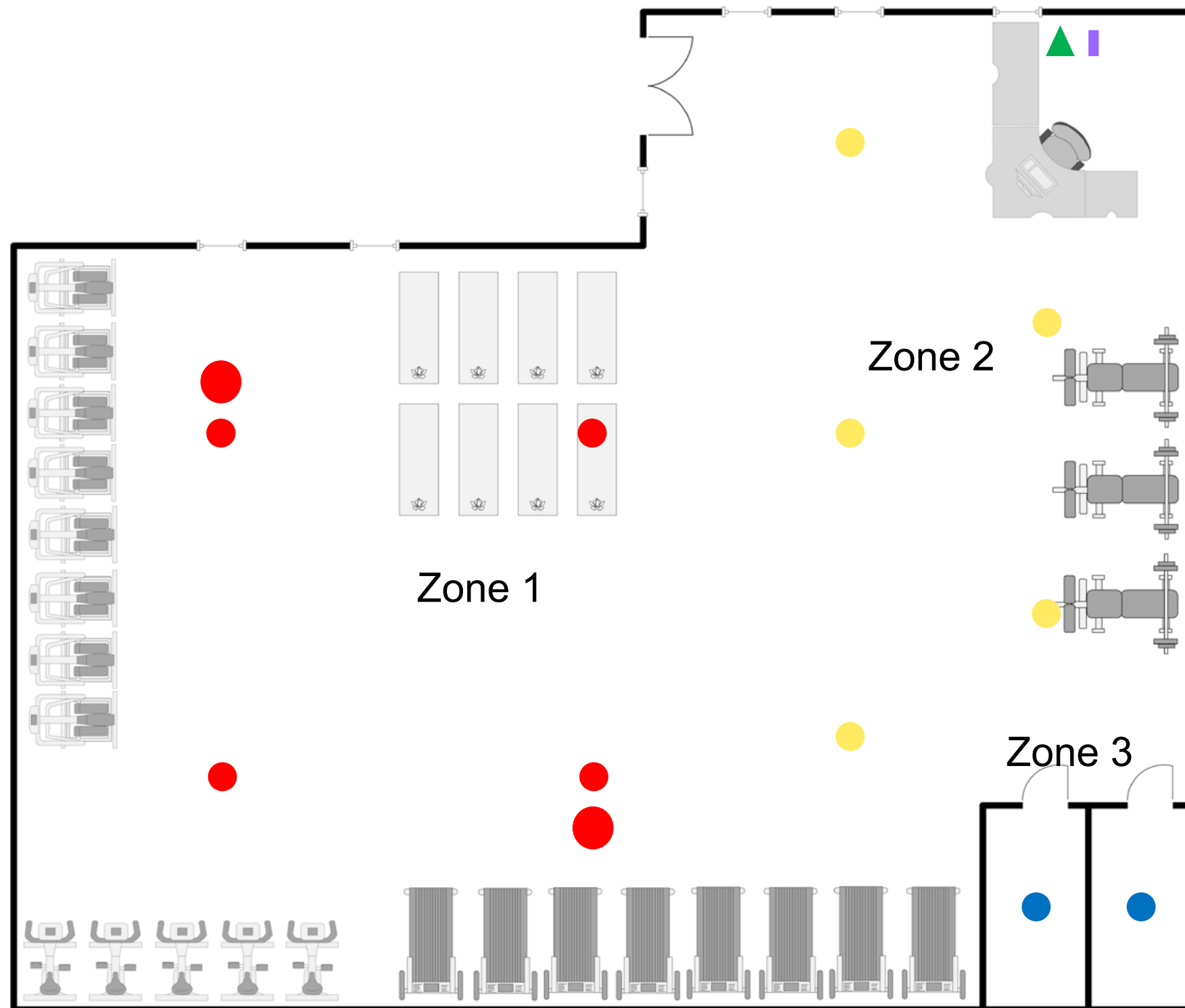
FITNESS LAYOUT

Zone 1: Cardio—Experience Space
- Premium sound
- 10′ between speakers
- Speakers @ 10′ height

Zone 2: Weights—Experience Space
- Premium sound
- 13.4′ between speakers
- Speakers @ 10′ height

Zone 3: Bathrooms—Utility Space
- Basic sound
- Speakers flush in-ceiling
- Spaced as required

Host—Utility Space
- Provide indirect coverage

LEGEND

- Pendant Mounted DesignMax® Sub-Woofer Loudspeaker
- Pendant Mounted DesignMax DM6PE Loudspeaker
- Pendant Mounted DesignMax DM5P Loudspeaker
- Flush Mounted DesignMax DM3C Loudspeaker
- Remote Volume Control/ Source Selection
- Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Computer to Access
ESP880A Using
ControlSpace Designer

Mobil Device with
CSR App

Network Switch

Wireless Access Point

Music Player 1

Music Player 2

Fire Alarm
Mute

ESP-880A

Zone 1

P4300A

Zone 2&3

DM6PE   DM6PE   DM6PE   DM6PE   DM10P-SUB   DM10P-SUB

DM5P   DM5P   DM5P   DM5P   DM5P

DM3C   DM3C
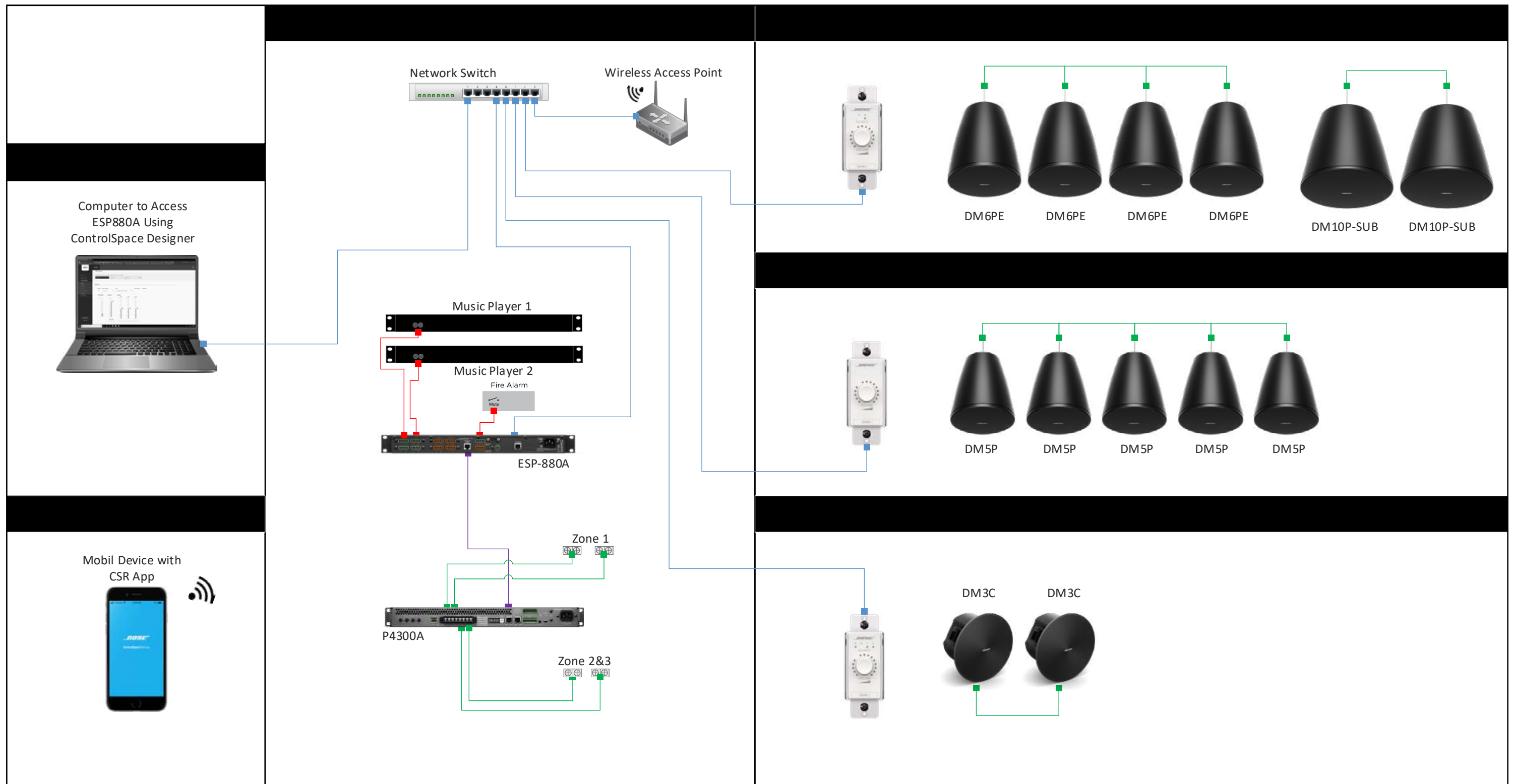
EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🔴	DM6PE (841168-0110)	DesignMax 6PE 6.5 inch coaxial 100W Pendant Speaker	4
🔴	DM10P-SUB (835265-0110)	DesignMax 10P-SUB 10 inch Pendant Sub-Woofer	2
🔵	DM3C (829708-0110)	DesignMax 3C 3.5 inch coaxial 25W Ceiling Speaker	2
🟡	DM5P (841166-0110)	DesignMax 5P 5.25 inch coaxial 50W Pendant Speaker	5
🔺	P4300A (803288-1110)	PowerSpace 4300A Amplifier 300W X 4	1
▬	ESP-880A (812862-1110)	8x8 DSP with 8 Analog Inputs 8 Outputs	1
▬	CC-3D (808930-0110)	CC-3D Volume Control w/ 4 Source Select	1
▬	CC-2D (808928-0110)	CC-2D Volume Control w/ 2 Source Select	1
	CC-1D (808461-0110)	CC-1D Volume Control	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.
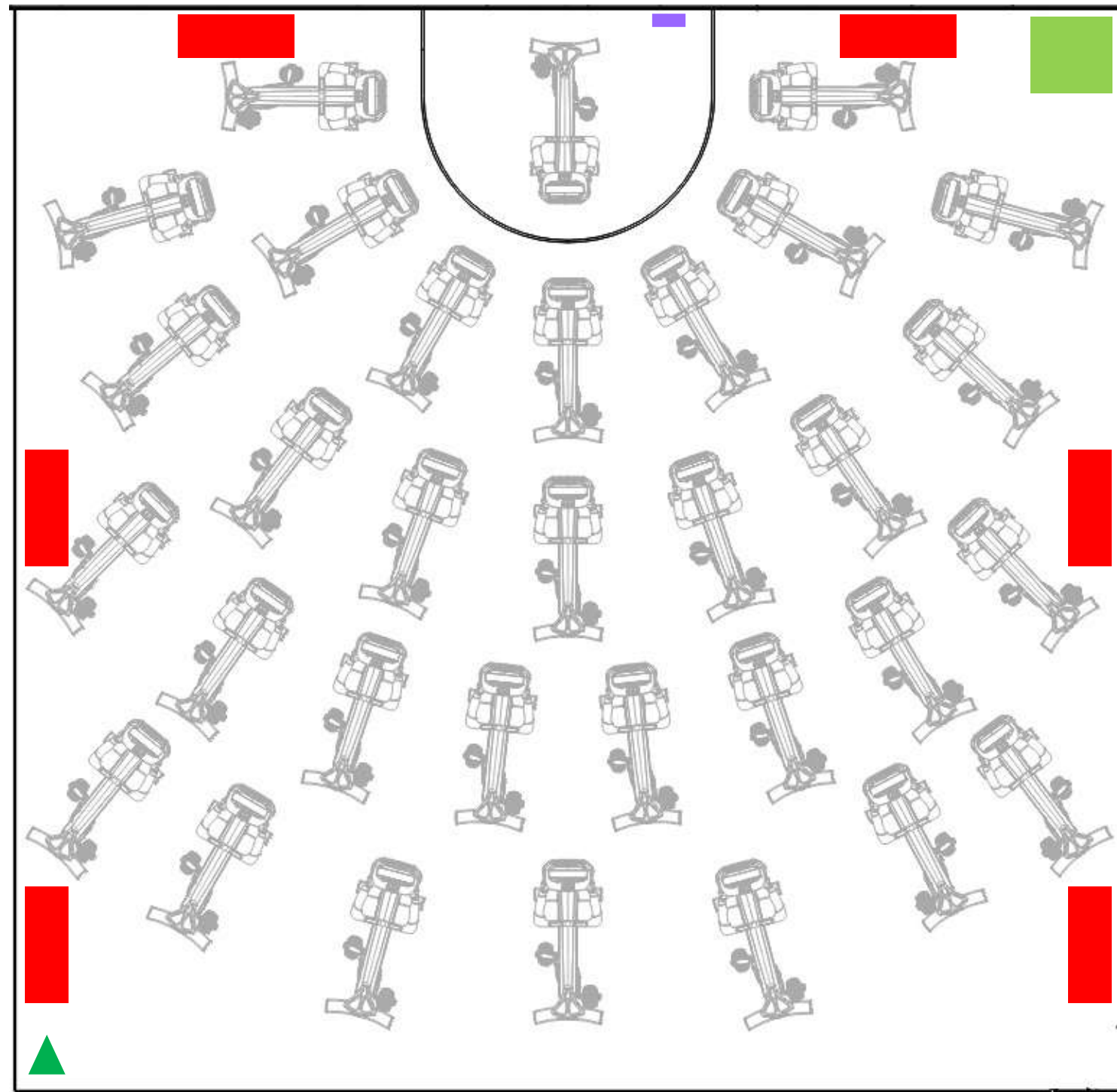
COMPLETING THE DESIGN

1   **What color loudspeaker is required?**

2   **Confirm that pendant subwoofers are placed within 4 feet of pendant full-range speakers to minimize subwoofer localization.**

3   **Confirm the input requirements and the output zones.**

For technical support call: **1-800-994-BOSE**

SPIN STUDIO

HIGH IMPACT FOREGROUND MUSIC

SPIN STUDIO LAYOUT

Single Zone: Spin Studio
- High impact sound
- 15-30° downward pitch for surface mounted speakers
- Side wall mounted speakers delayed to front

LEGEND

■ Surface Mounted ArenaMatch Utility Loudspeaker

■ Floor Mounted ShowMatch 18″ Subwoofer

▬ Remote Volume Control/ Source Selection

▲ Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Network Switch

Wireless Access Point

Computer to Access
ESP880A using
ControlSpace Designer

ControlSpace Remote
Builder Software for
Control Surface Design

Music Player

Instructor
Wireless
Microphone

Fire Alarm

Mute

ESP-880A

Front   Mid

PM8500N

Rear

PM8500N

Sub

FRONT

AMU208   AMU208

MID

AMU208   AMU208

REAR

AMU208   AMU208
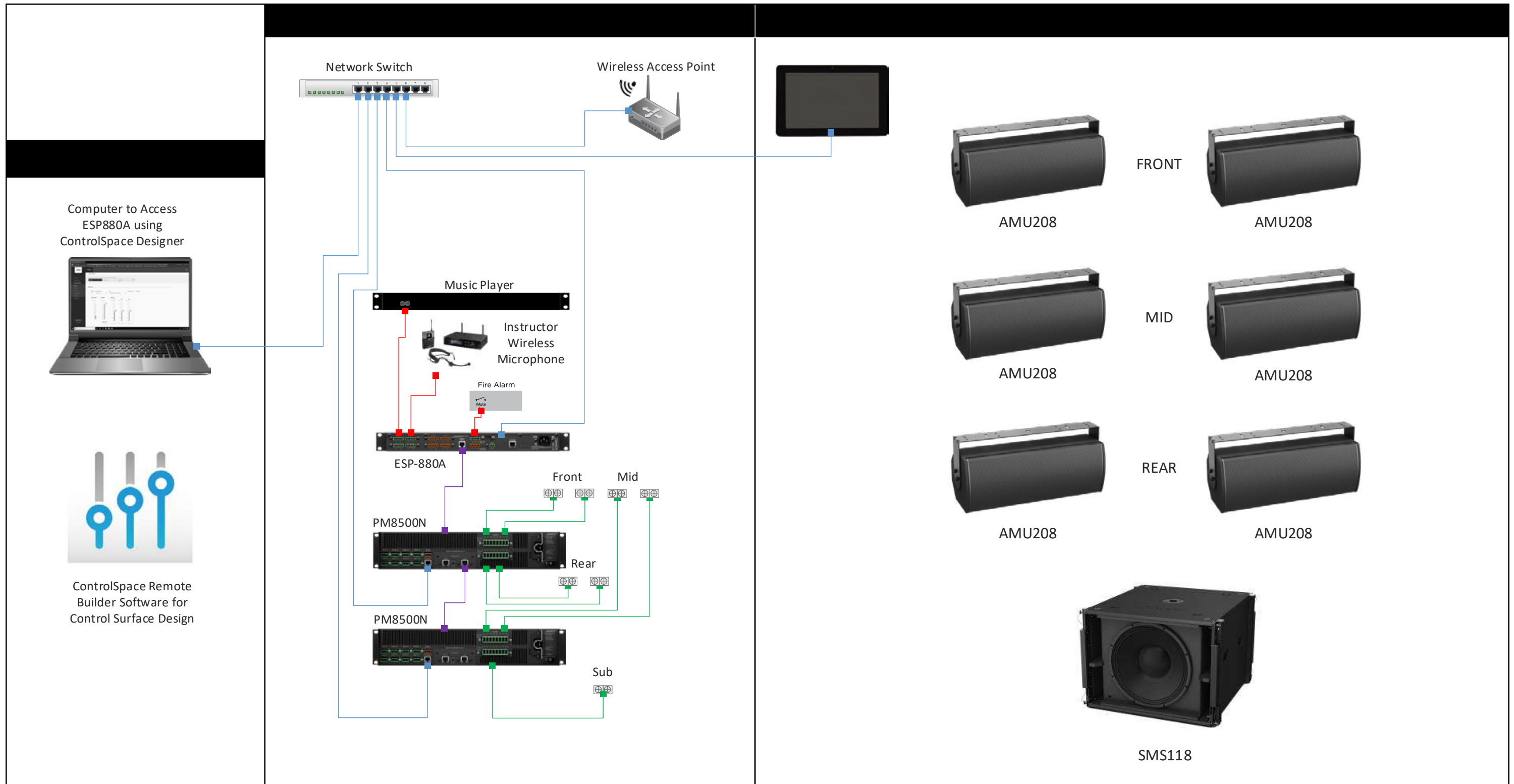
SMS118

EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🟥	AMU208 (811436-0110)	ArenaMatch Utility Dual 8" High Output Speaker	6
🟩	SMS118 (734302-0110)	ShowMatch Single 18" Sub-Woofer	1
▲	PM8500N (343546-1110)	PowerMatch 8-Channel Configurable Amplifier	2
▲	PM AmpLink Card (772238-0110)	8-Channel Digital Audio Card	2
▲	ESP-880A (812862-1110)	8x8 DSP with 8 Analog Inputs 8 Outputs	1
▬	MIMO Tablet (776978-0010)	7" PoE Android Tablet Controller	1
▬	MIMO Tablet Mount (782691-0010)	Flush Mount J-Box for MIMO Tablet	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1   **What color loudspeaker is required?**

2   **Adjust loudspeaker delay times to keep focus towards the front.**

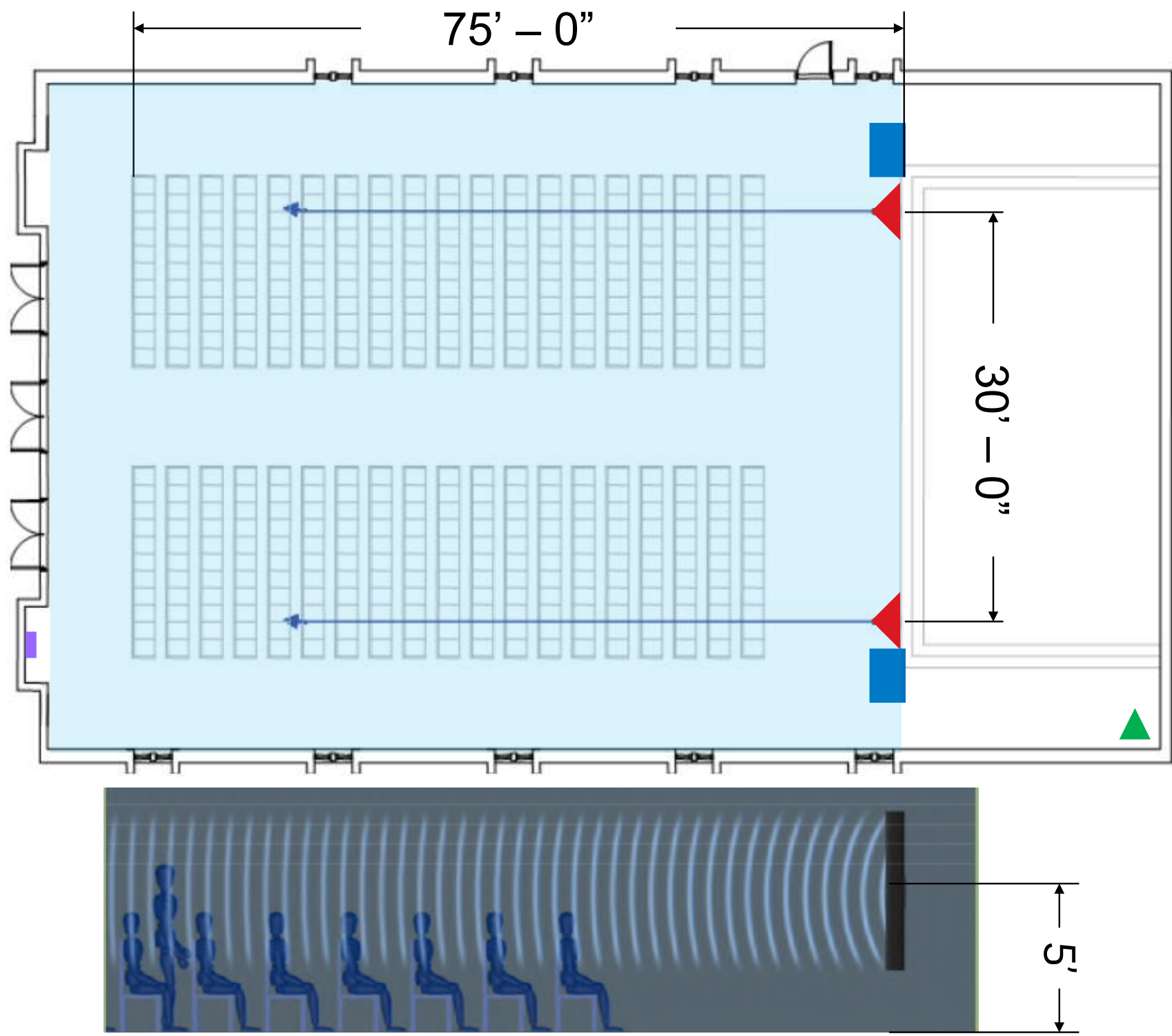**3**   **Confirm the input requirements and the output level targets.**

For technical support call: **1-800-994-BOSE**

SMALL HOUSE OF WORSHIP

75' – 0"

30' – 0"

5'

Small House of Worship
- Flat seating area
- Mid-band reverberation time $(RT_{60}) < 3$-sec
- 75-feet to furthest listener
- MA12 for speech only applications
- MA12EX + MB210 for music systems
- Mount the column line arrays at 5' above the floor the listeners are seated on to the center of the array

LEGEND

Column Line Array Loudspeaker

Optional Panaray MB210

Remote Volume Control/ Source Selection

Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
◀	MA12 EX (317302-0100)	Panaray MA12EX	4
	CB-MA12EX (317088-0100)	CB-MA12EX Coupling Bracket	2
	WMB2-MA12EX (318337-0100)	WMB2-MA12EX Pitch Lock Upper Bracket	2
	WMB-MA12EX (318338-0100)	WMB-MA12EX Bi-Pivot Bracket	2
▮	MB210 (785043-0110)	Panaray MB210 Subwoofer	2
▲	ESP-880A (812862-1110)	ControlSpace ESP-880A	1
▲	PM4500N (361813-1110)	PowerMatch PM4500N	1
▬	CC-64 (41760) CC-PS1 (371407-0010)	ControlSpace CC64 with Power Supply	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1   **What color loudspeaker is required?**

2   **Confirm that the column line array loudspeakers will not require pitch.
If the site has either of the scenarios described below, contact your
Bose Representative to confirm design.**

- Large hard surface at the rear of the listening area that the speakers are firing at
  directly. This may cause late-arriving reflections which adversely affect intelligibility.
- Obstructed "line-of-site" coverage to listening area. If a listener will not
  be able to see the loudspeaker they will likely not have clear audio.

3   **Confirm that the MB210 is placed on the floor or mount using included U-Bracket.**

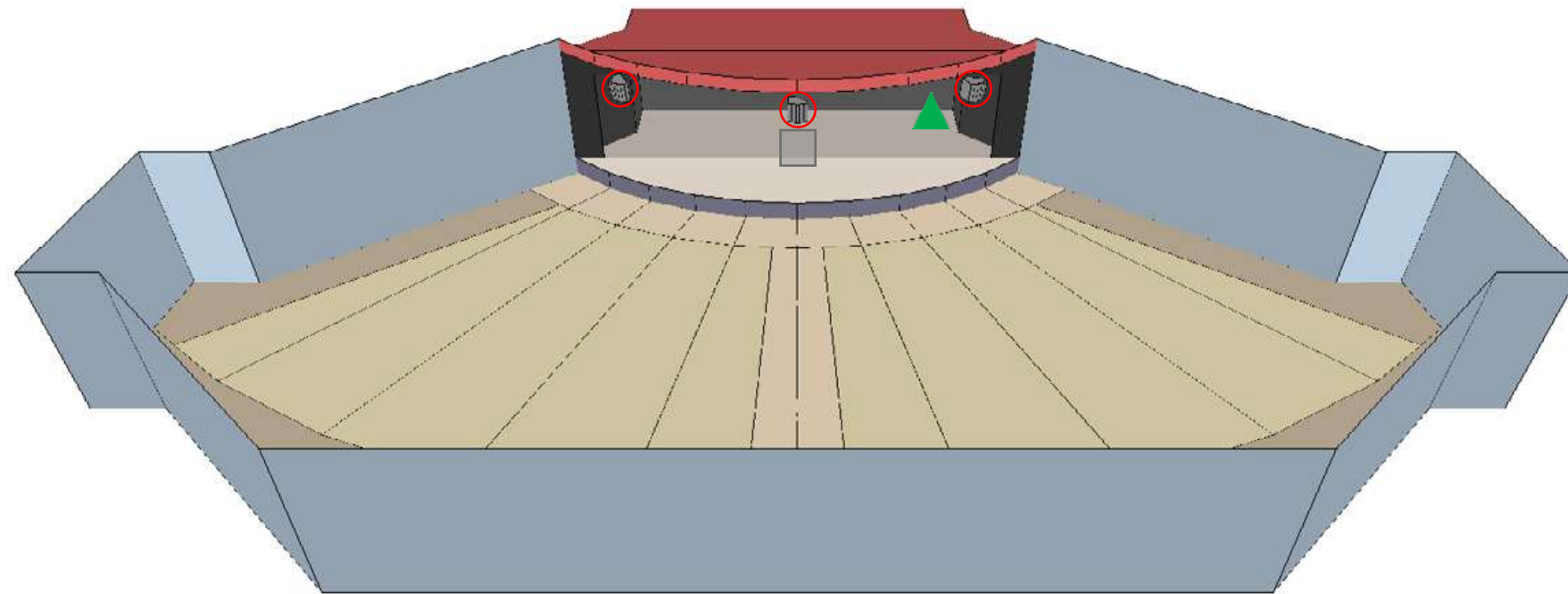**4**   **Confirm the input requirements and the output zones.**

For technical support call: **1-800-994-BOSE**

PERFORMING ARTS/AUDITORIUM

PERFORMING ARTS/ AUDITORIUM LAYOUT

Performing Arts/Auditorium
- Raked seating area
- Mid-band reverberation time $(RT6_{60}) < 1.5$
- 45-feet to furthest listener
- AMM112 for full-range speech and music applications
- AMM112 + SMS118 for extended range music systems
- Distributed mono system—delay outer two cabinets to minimize interference in seating areas
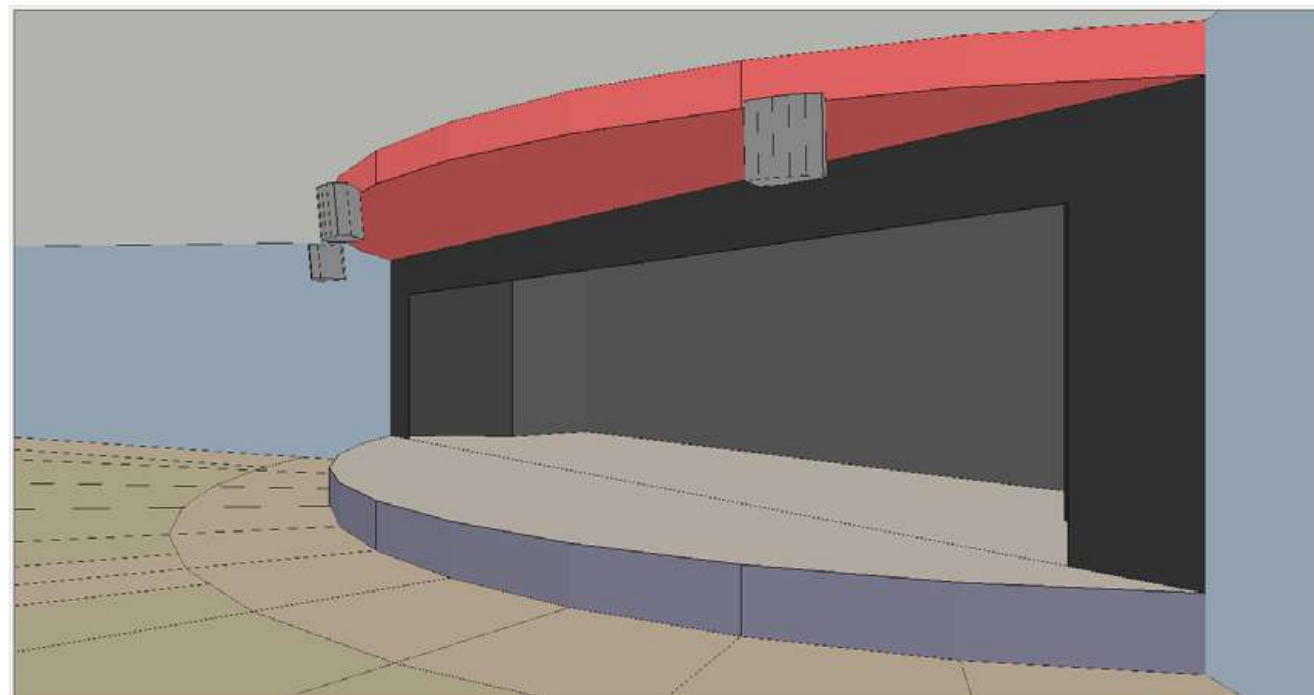
LEGEND

◯ AMM112 Multi-purpose Loudspeaker

▢ Optional ShowMatch SMS118 (flown behind center loudspeaker)

▲ Rack/Amplifier

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
◯	AMM 112 (843161-0110)	AMM Multi-Purpose Loudspeaker	3
	AMM Bracket (843344-0010)	AMM Universal Suspension Bracket	3
☐	SMS118 (734302-0110)	ShowMatch SMS118 Subwoofer (Optional)	1
▲	ESP-880A (812862-1110)	ControlSpace ESP-880A Processor	1
▲	PM8500N (361813-1110)	PowerMatch PM8500N	1
▲	CC-64 (41760) CC-PS1 (371407-0010)	ControlSpace CC64 with Power Supply	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1 Loudspeakers are black in color in this example. Enclosures are paintable.

2 Ensure proper structural elements exist from which to suspend the loudspeakers. Contact a licensed structural engineer for additional assistance.

3 Confirm placement of SMS118. Possible locations include flown (suspended) behind the center AMM112 loudspeaker or recessed under the stage (assuming space exists).

4 Confirm the input requirements, output zones, and control needs.

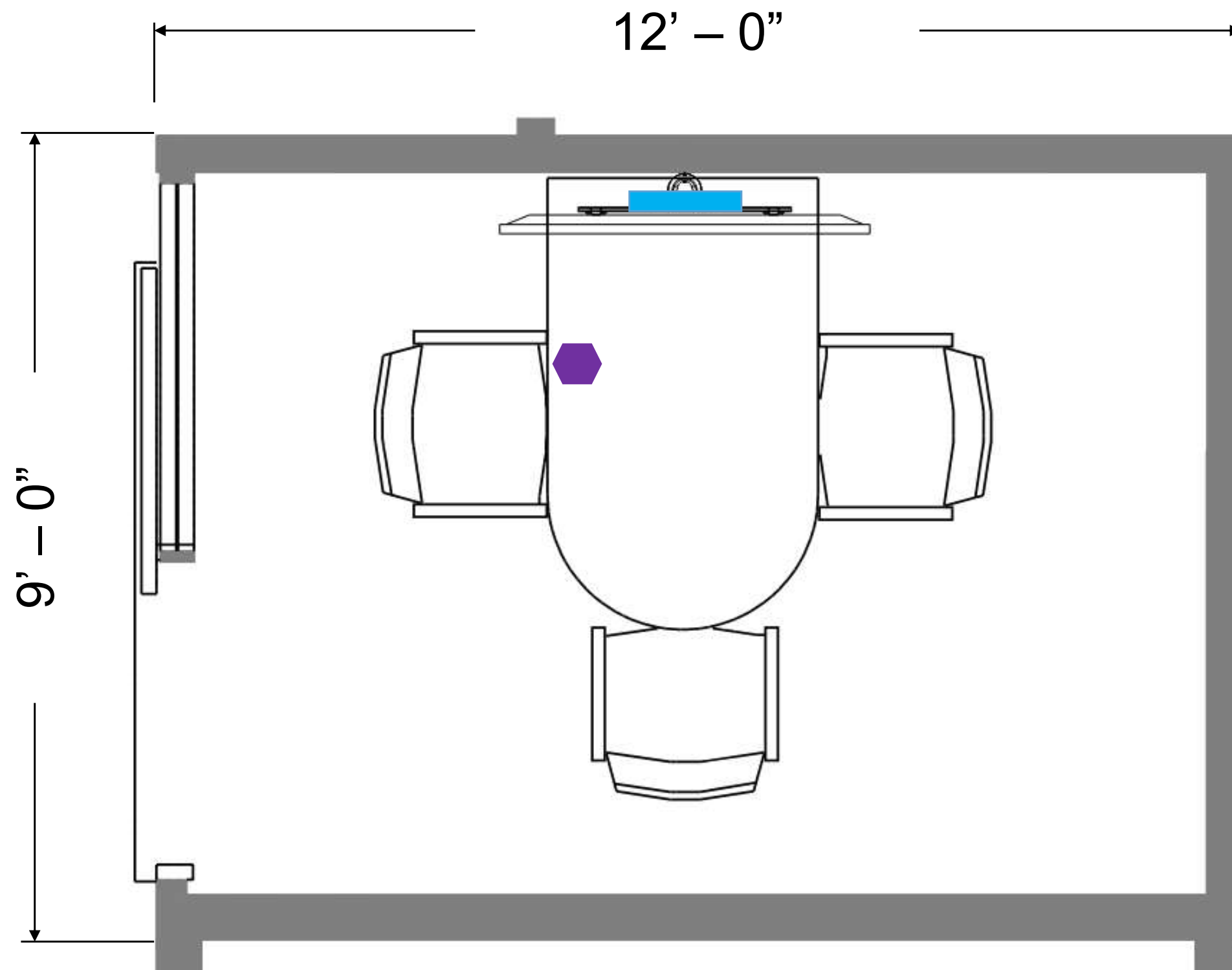For technical support call: **1-800-994-BOSE**

2-3 PERSON WORKPLACE

VB-S HUDDLE ROOM

VB-S LAYOUT

Conference Room
- Premium sound
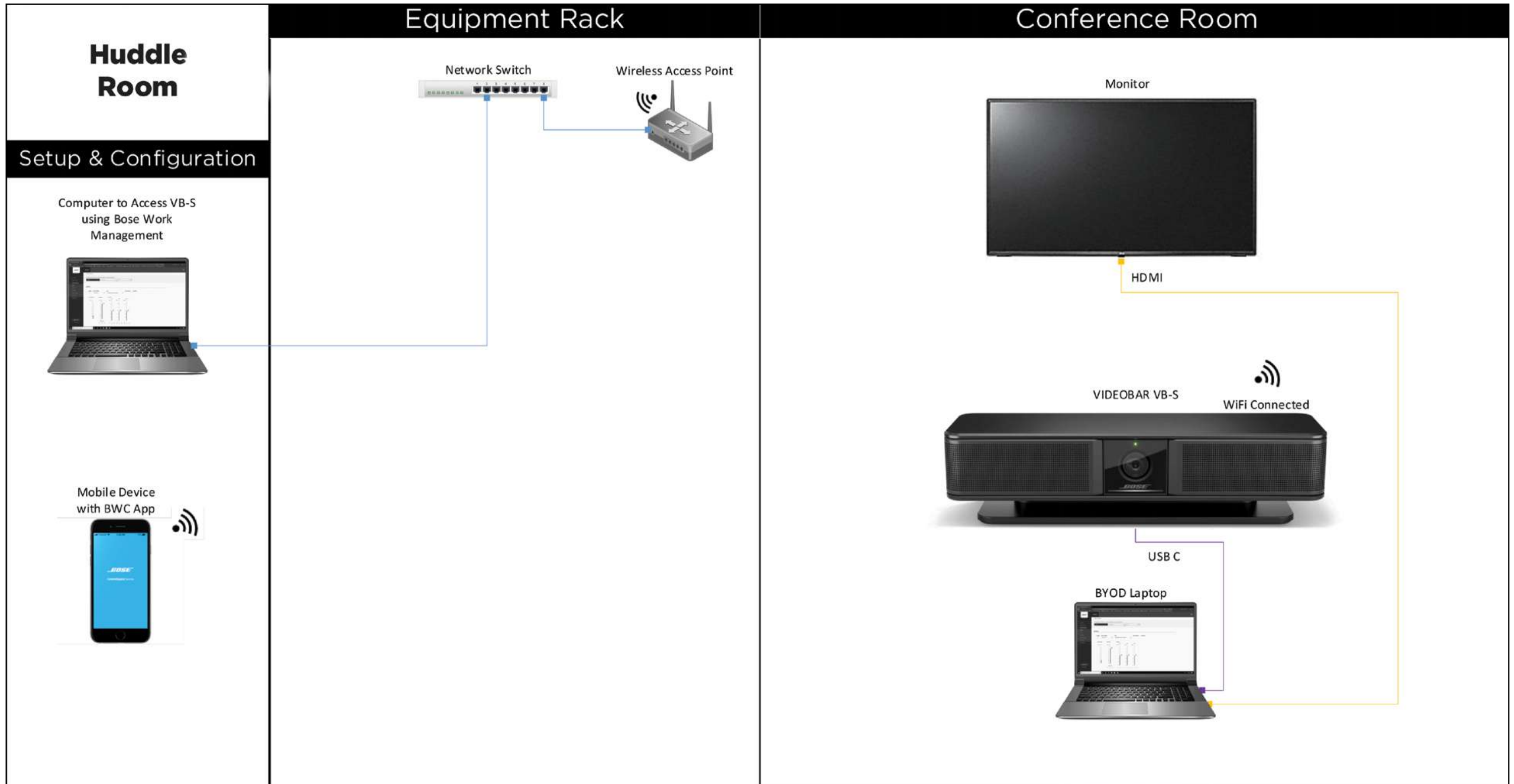- Speakers built-in to Videobar

Additional Considerations
- Display size appropriate for space
- Wireless network access
- Good lighting in room
- Connectivity at table (HDMI/USB)
- BlueTooth connectivity

LEGEND

USB-C to VB-S

VB-S on Table Stand

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Huddle Room

Setup & Configuration

Computer to Access VB-S using Bose Work Management

Mobile Device with BWC App

Equipment Rack

Network Switch

Wireless Access Point

Conference Room

Monitor

HDMI

VIDEOBAR VB-S

WiFi Connected

USB C

BYOD Laptop

EQUIPMENT LIST | SYSTEM SOLUTION

| LEGEND		MODEL (SKU)	DESCRIPTION	QTY
▬		VB-S (868751-1110)	VB-S Video Bar – 4 Mic array element, 4K camera	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

For technical support call: **1-800-994-BOSE**

4-8 PERSON WORKPLACE
VB1 MEDIUM CONFERENCE ROOM
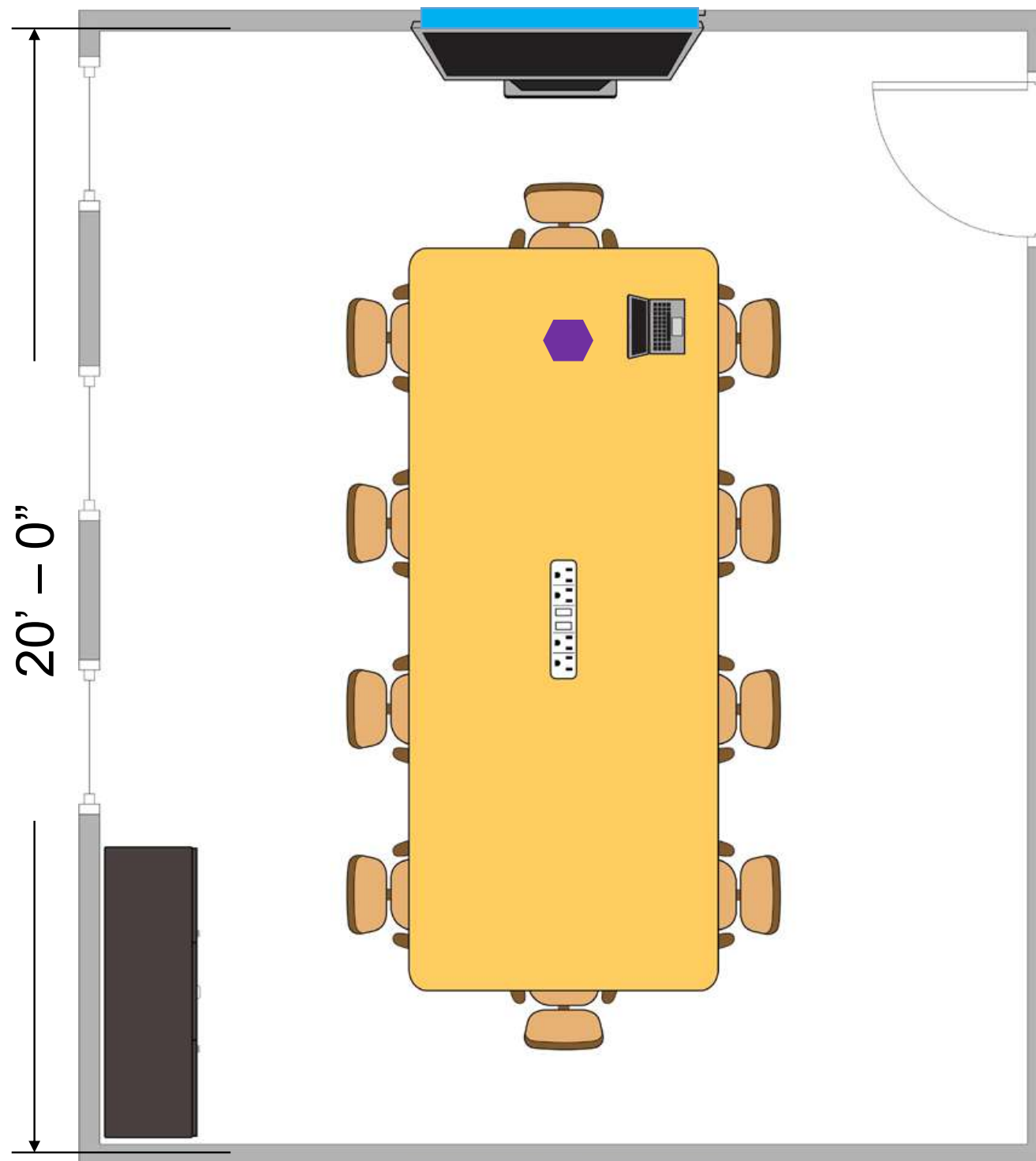
VB1 LAYOUT

Conference Room
- Premium sound
- 4K Camera
- 6 Beam Forming Microphones
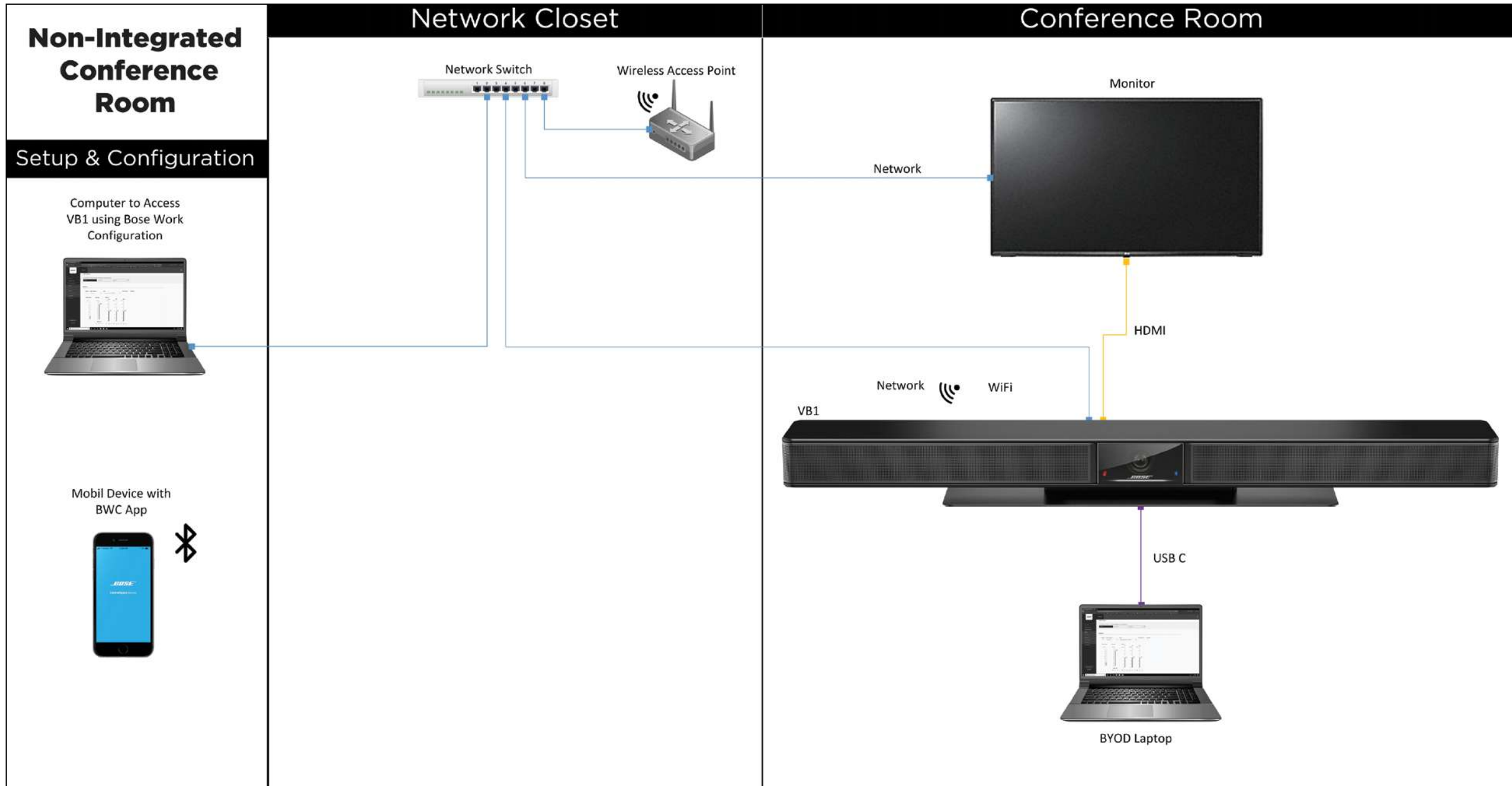- Single USB from the table

Additional Considerations
- Presentation display(s)
- Remote management
- BlueTooth connectivity
- Teams and Zoom Certified

LEGEND

USB-C to VB1

HDMI from VB1 to TV

20' – 0"

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Non-Integrated Conference Room

Setup & Configuration

Network Closet

Conference Room

Network Switch

Wireless Access Point

Monitor

Network

Computer to Access VB1 using Bose Work Configuration

HDMI

Network   WiFi

VB1

Mobil Device with BWC App

USB C

BYOD Laptop

EQUIPMENT LIST | SYSTEM SOLUTION

| LEGEND	MODEL (SKU)	DESCRIPTION	QTY
▬	VB1 (842415-1110)	VB1 Video Bar – 6 Mic array element, 4K camera	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

For technical support call: **1-800-994-BOSE**

10 PERSON WORKPLACE

ES1 LARGE CONFERENCE ROOM

20' – 0"
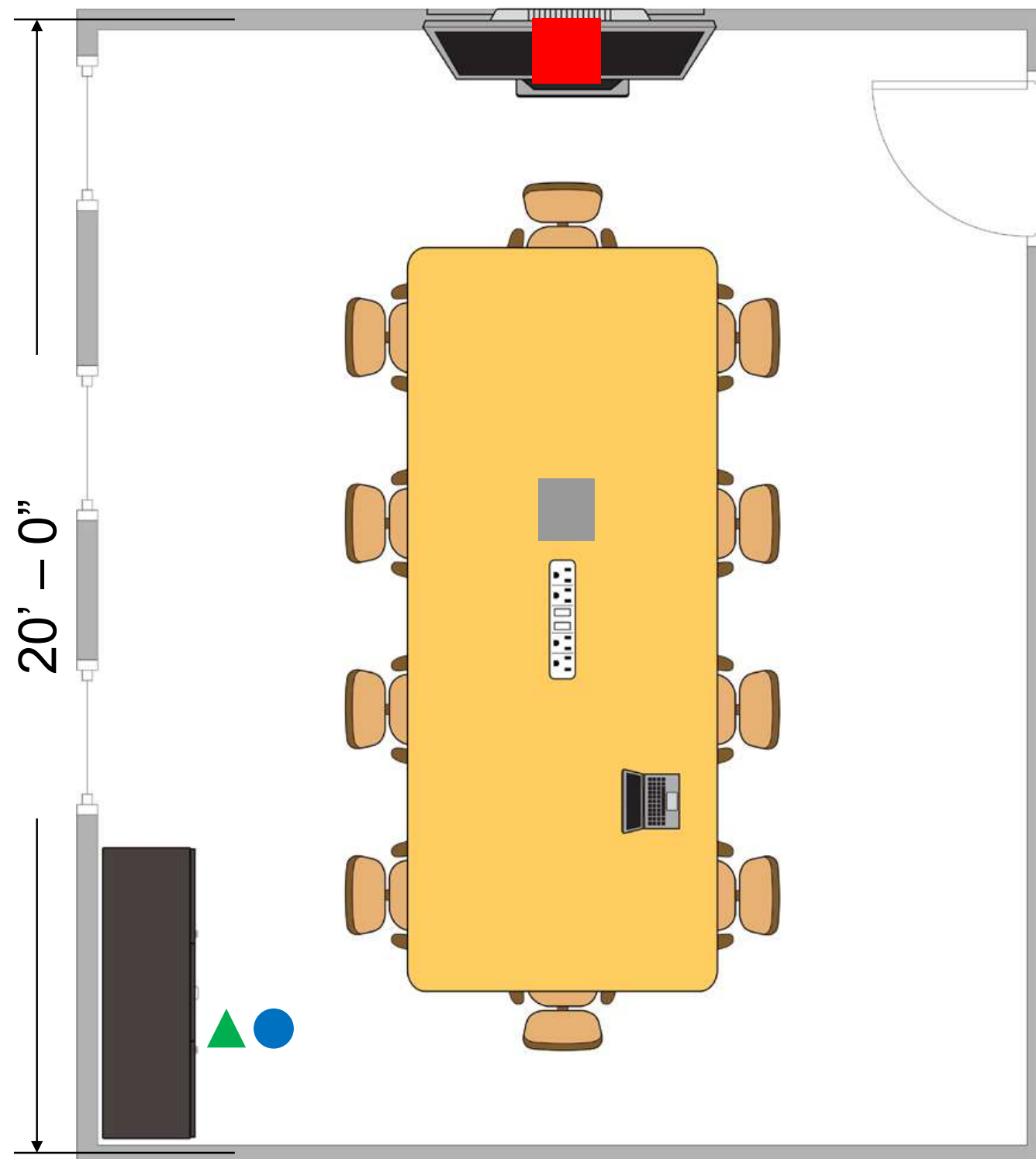
ES1 MEDIUM LAYOUT

Conference Room
- Premium sound
- Speakers @ 9-16' height
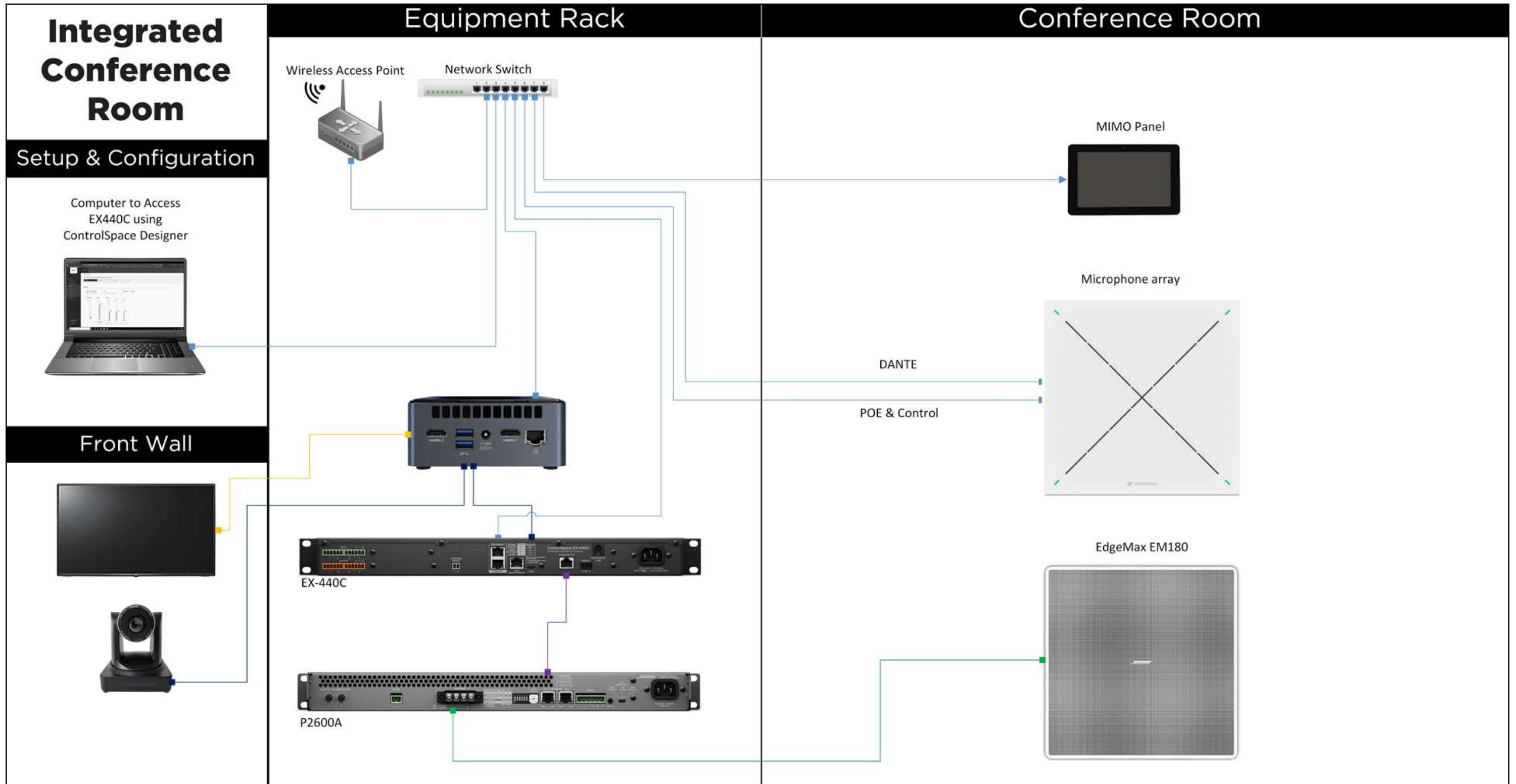- Speakers to be coordinated with room acoustics and microphone layout

Additional Considerations
- Control of the entire AV system
- Presentation display(s)
- Camera placement
- Connectivity at table (HDMI/Audio)
- Wireless AV connectivity

LEGEND

■ EdgeMax EM 180

▲ Rack/Amplifier

■ TCC2

● DSP

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Integrated Conference Room

Equipment Rack

Conference Room

Setup & Configuration

Wireless Access Point

Network Switch

MIMO Panel

Computer to Access
EX440C using
ControlSpace Designer

Microphone array

DANTE

POE & Control

Front Wall

EX-440C

EdgeMax EM180

P2600A

EQUIPMENT LIST | SYSTEM SOLUTION

| LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🟥	EM180 (777189-0220)	EdgeMax EM180	1
🔺	P2600 (803286-1110)	PowerSpace P2600 600W X 2 Amplifier	1
🔵	EX-440C (834315-1110)	EX-440C 4x4 DSP with VOIP & AEC	1
▬	MIMO PAD (776978-0010)	7" Touch Panel Controller	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

For technical support call: **1-800-994-BOSE**

12+ PERSON WORKPLACE

ES1+ EXTRA LARGE CONFERENCE ROOM
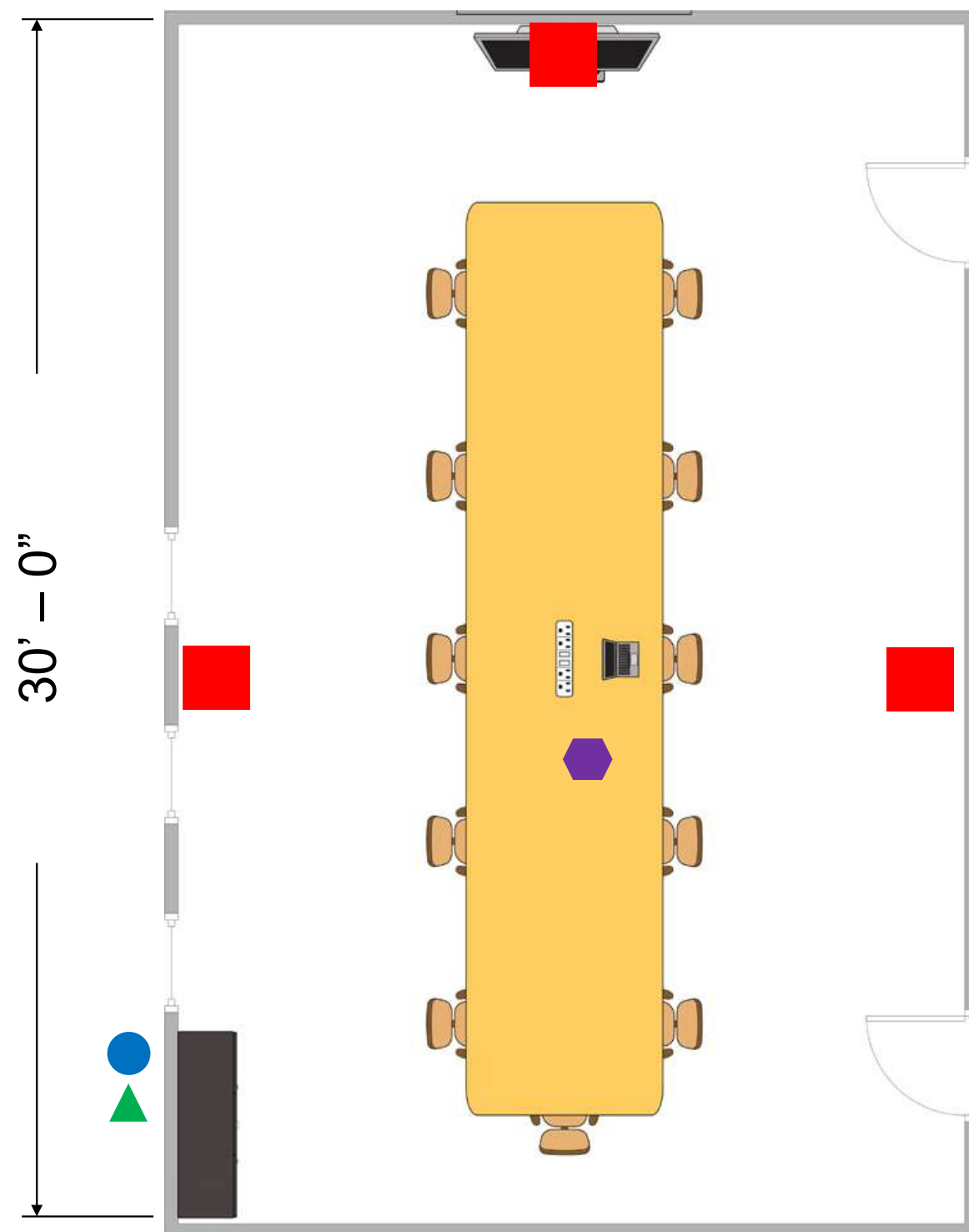
ES1 LARGE LAYOUT

Conference Room
• Premium sound
• Speakers @ 9-16' height
• Speakers to be coordinated
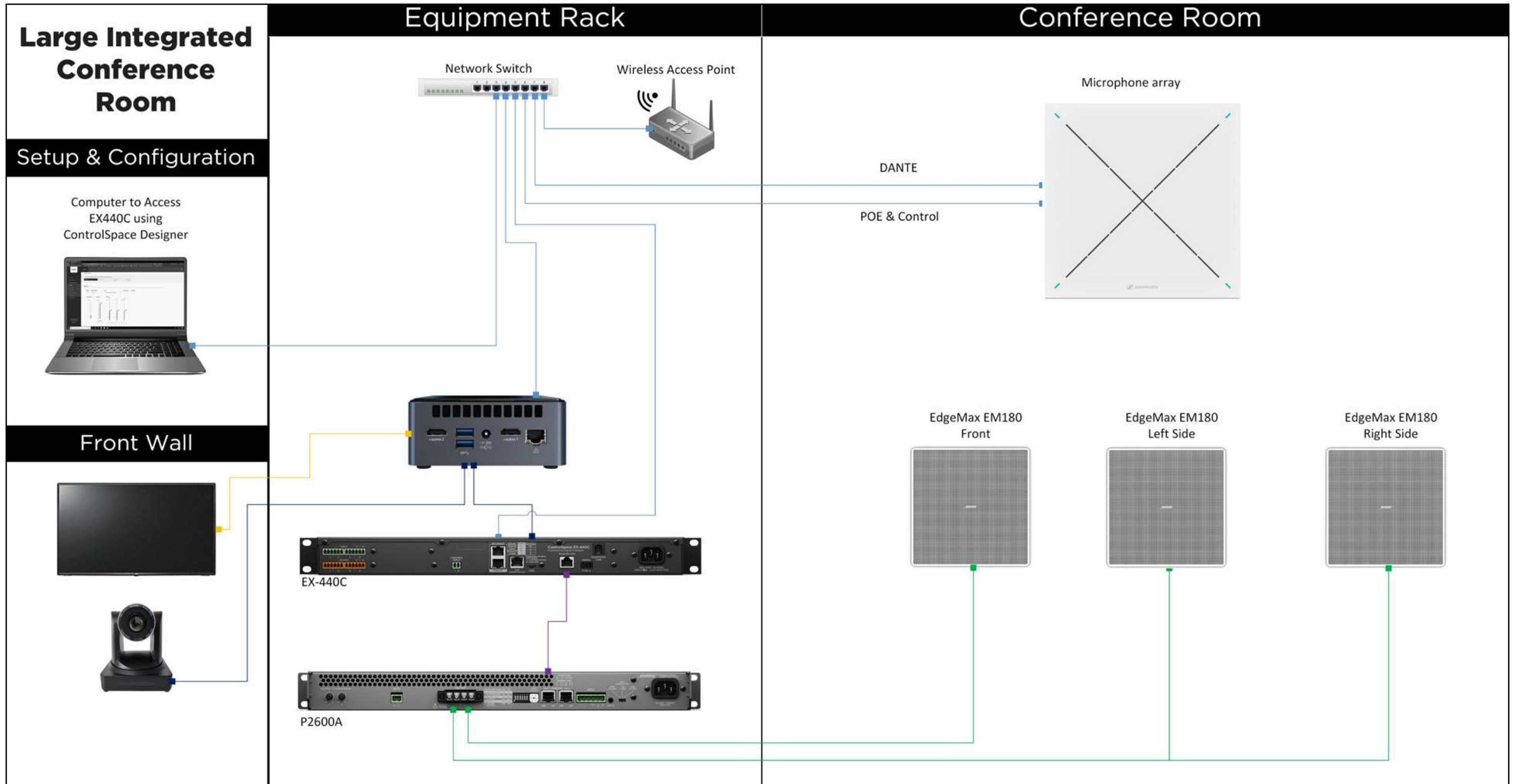 with room acoustics and
  microphone layout

Additional Considerations
• Control of the entire AV system
• Presentation display(s)
• Camera placement
• Connectivity at table (HDMI/Audio)
• Wireless AV connectivity

LEGEND

■ EdgeMax EM 180

▲ Rack/Amplifier

⬡ EX-UH

● DSP

30' – 0"

Sample design above, please go to **http://professional.bose.com/bmsd** to use the Business Music System Designer for additional recommendations.

Large Integrated Conference Room

Equipment Rack

Conference Room

Setup & Configuration

Computer to Access EX440C using ControlSpace Designer

Front Wall

Network Switch

Wireless Access Point

Microphone array

DANTE

POE & Control

EX-440C

P2600A

EdgeMax EM180 Front

EdgeMax EM180 Left Side

EdgeMax EM180 Right Side

EQUIPMENT LIST | SYSTEM SOLUTION

LEGEND	MODEL (SKU)	DESCRIPTION	QTY
🟥	EM180 (777189-0220)	EdgeMax EM180	3
🔺	P2600 (803286-1110)	PowerSpace P2600 600W X 2	1
🔵	EX-440C (834315-1110)	EX-440C 4x4 DSP with VOIP & AEC	1
▬	MIMO PAD (776978-0010)	7" Touch Panel Controller	1

Design and equipment list provided as a reference.
Exact equipment and quantities will need to be determined as required for actual space.
Mounting accessories and non-Bose components will need to be provided for a complete and functional system.

COMPLETING THE DESIGN

1   **What color loudspeaker is required? White grill included.**

2   **To select your mounting accessories; Are the ceilings finished or open?**
If finished are they gypsum or drop tile?
- Gypsum ceiling not complete, include rough-in pans
- Drop tile ceiling, tile bridges are included

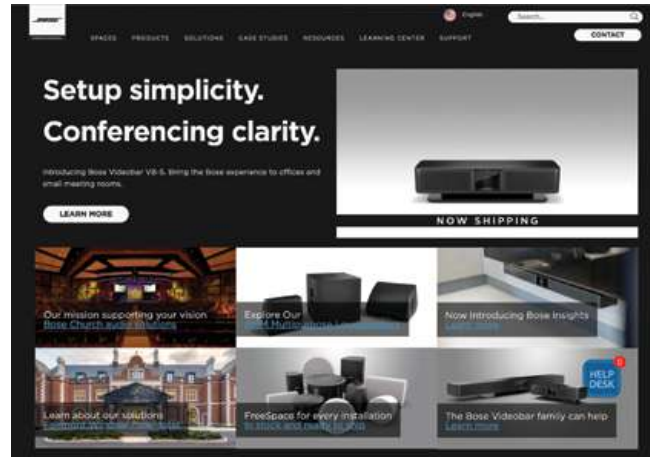**3**   **Confirm the input requirements and the output zones.**
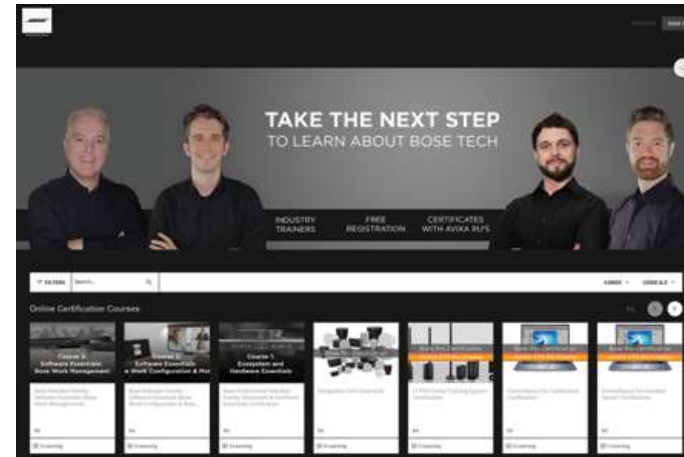
For technical support call: **1-800-994-BOSE**

SCAN TO LEARN MORE

Bose Professional: Pro.bose.com

Learning Center: Proedu.bose.com

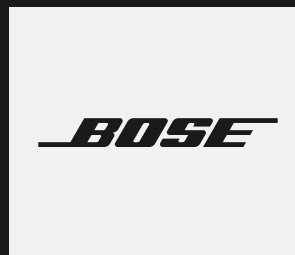**Contact a Bose Sales Representative**

Product Catalog

Vertical Focused Assets

Design Guide

BOSE

PROFESSIONAL