ASHLY

Everything You Need To Know About

IS, AW & SP Series Speakers

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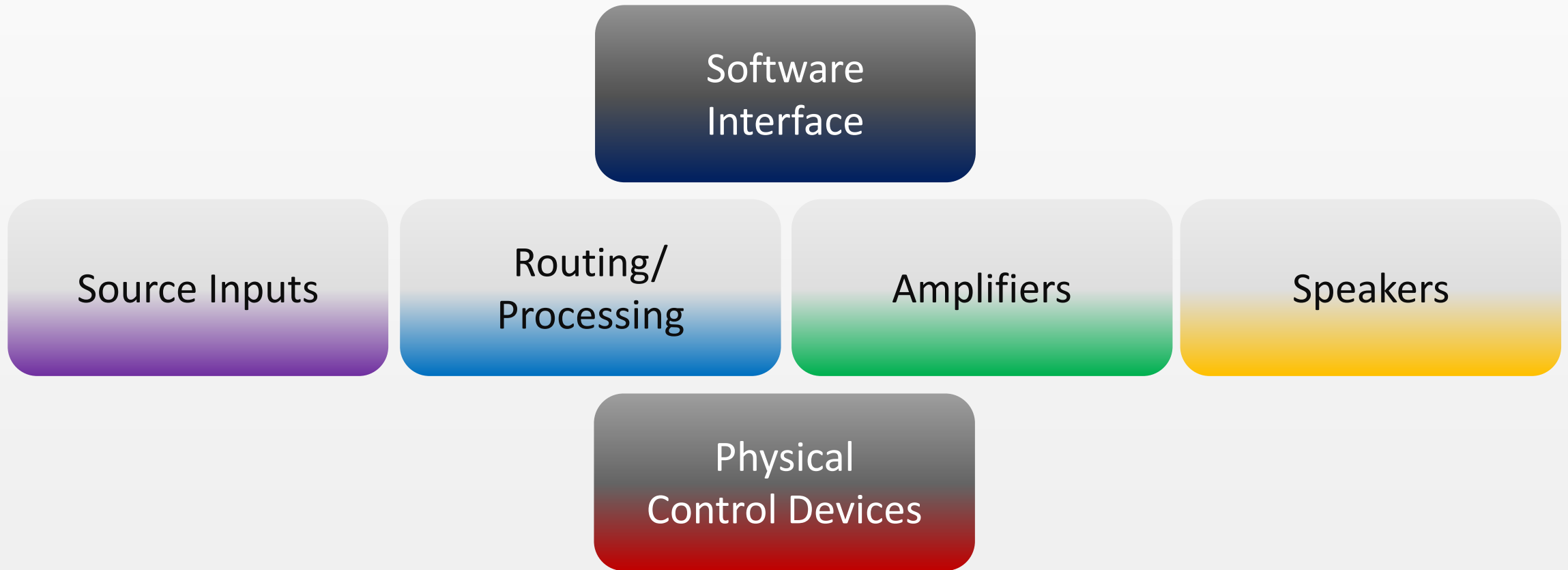**Our Family Is Growing......**

Ashly Speakers - Putting It All Together

- *Expanded ecosystem*

- *Offers system solutions*

- *Covering the bases*

- *Playing well with others (and us)*

- *Unique approach*

- *Vertically focused*

Complete Solutions – Commercial Installation

Software Interface

Source Inputs

Routing/ Processing

Amplifiers

Speakers

Physical Control Devices

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Selling The Total Ashly Solution

Ashly processors are equipped for speaker optimization:

- **Level 1**: AquaControl/Protea (mXa, pema, nXp, nep, ne)

    - Advanced EQ, FIRs, X-Over, Delay

- **Level 2**: Protea (ne24.24m processors)- No FIRs

- **Level 3:** SP only - Basic EQ, Delay

IS Series Slim Column Arrays

- **Optimized for Speech**

- **Sleek, low-profile enclosure for architectural requirements**

- **All Metal Construction for added durability**

  - **Mounting flexibility for install or portable use**

- **SP Series Subs for extended Low End**

- **Available in B/W for easy décor matching**

NEW! SP 8.1P

IS Series Target Markets

- **Houses of Worship**

- **Schools**

- **Conference Rooms**

- **Hotels**

- **Atriums/Terminals**

Column Array vs Conventional Speaker

Conventional Speaker:

SPL attenuates 6dB for every doubling of distance and has less controlled vertical dispersion

Progressive attenuation over most of projection range

Inverse Square Law applies

0ft   10ft   20ft   40ft   80ft   100ft   150ft

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IS Series - Coverage

IS 3.8P EASE Plot: Over 170˚ degrees of horizontal dispersion for even coverage

ata Shown: IS 3.8P (Ashly Audio)
isplay Parameters: Frequency: 1000Hz (1/1 Octave)

Level [dB]

0

-5

-10

-15

-20

-25

-30

-35

-40

Less than -5dB at 90 deg. off axis

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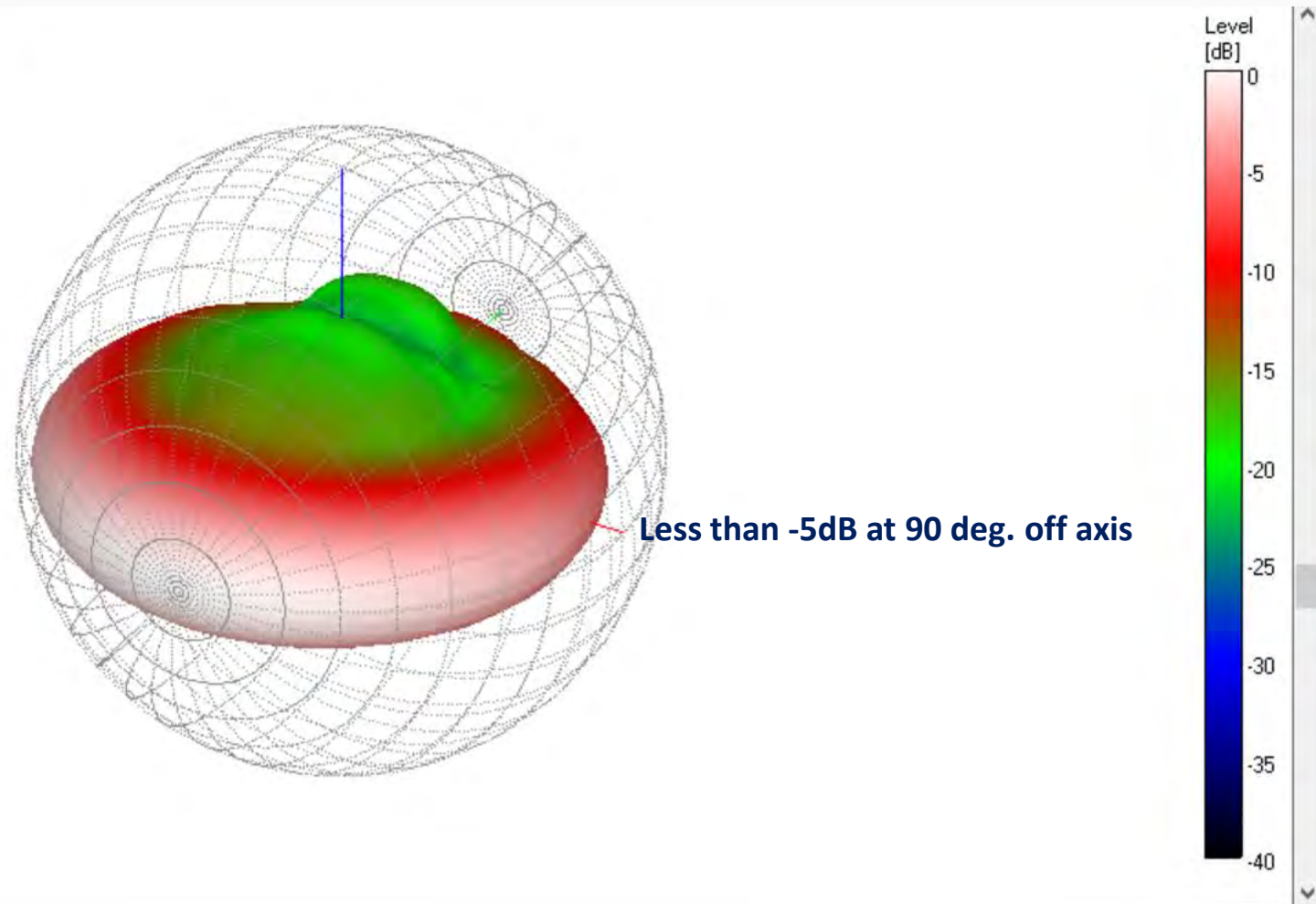
IS-2.8P Linear Column Speaker

- **Eight - 2" full range drivers**
- **120W Rated Power**
- **8 or 32 Ohms Impedance**
- **2-pole Euroblock & 2 x ¼"**
- **Integrated pole mount**

Suggested Amp Match:
- mXa-1502
- nXp-1502
- FA-125.2/4
- Pema4125/8125

Ideal for: HoW ■ Auditoriums ■ Conference Rooms ■ Hotels

$650 MAP

IS-3.8P Linear Column Speaker

- **Eight - 3" full range drivers**
- **240W Rated Power**
- **8 or 32 Ohms Impedance**
- **4-Pole Euroblock & 2 x NL4**
- **Integrated pole mount**

Suggested Amp Match:
- nXp-4002/4004
- Nep/pema4250/8250
- FA-250.4
- CA-502/4

Ideal for: HoW ■ Auditoriums ■ Conference Rooms ■ Hotels

$1,084 MAP

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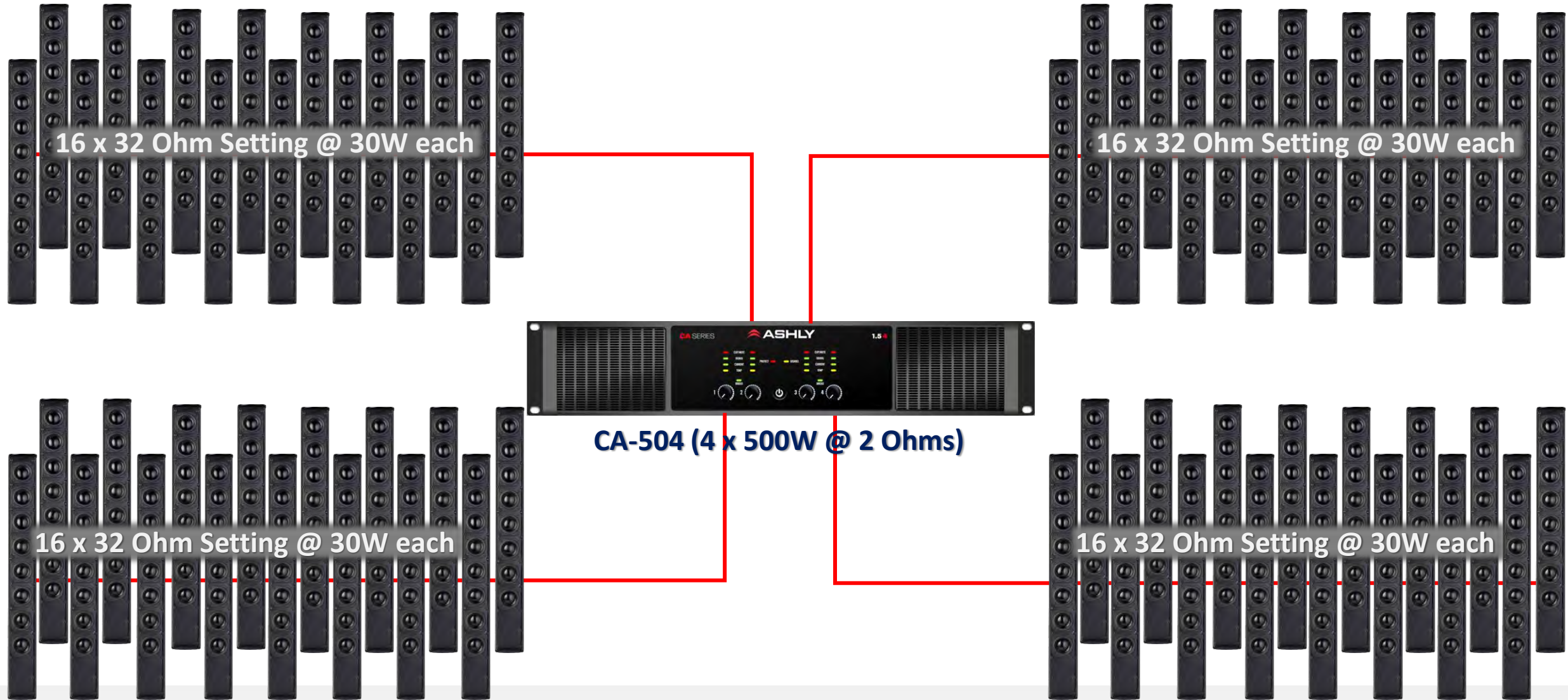
Why no transformer?

- **Limited Power handling**

- **Unsightly add-on**

- **Reduced performance:**

  - Insertion Loss

  - Further limits LF speaker performance

- **More complicated setup**

- **Added Cost**

IS Series: 32 Ohm Configuration

16 x 32 Ohm Setting @ 30W each

16 x 32 Ohm Setting @ 30W each

16 x 32 Ohm Setting @ 30W each

16 x 32 Ohm Setting @ 30W each

CA-504 (4 x 500W @ 2 Ohms)

SP Series Compact Subwoofers

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SP-12.1P Subwoofer

- **12" High-powered Sub-woofer**
- **350W RMS Rated Power (at 8 Ohms)**
- **4-Pole Euroblock & 2 x NL4 connectors**
- **Built-in Pole-mount Hole for IS (top & side)**
- **Available in Black or White**
- **Perfect low-frequency extension for IS Column or AW Speakers**

Suggested Amp Match:
- nXp-4002/4004
- CA-1.0X
- KLR-2000

$650 MAP

SP-8.1P Subwoofer

- 8" High-powered Sub-woofer
- 150W RMS Rated Power (at 8 Ohms)
- 4-Pole Euroblock & 2 x NL4 connectors
- Built-in Pole-mount hole for IS (top & side)
- Multiple 10mm bolt holes for hanging
- Available in Black or White
- Perfect low-frequency extension for IS Column or AW Speakers

Suggested Amp Match:
- nXp-152/154
- CA-502/504
- Nep4250/8250
- mXa-1502

NEW for '22

$379 MAP

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SP-8.1P Subwoofer

NEW for '22

- **Compact sub with short pole-mount for IS Speakers**
- **Ideal for tabletops & small stages**
  - **Classrooms**
  - **Meeting Rooms**
  - **Trade Shows**
  - **Retail Displays**

IS Series Mounting Options

- **IS-FWB2.8** Flush Wall Bracket (supplied)

- **IS-FWB3.8** Flush Wall Bracket (supplied)

- **IS-JP2B** Joining Plate for stacking 2 - IS speakers

- **IS-TWM** Tilt Wall Mount -15 V /+/-90 H tilt

- **IS-PM1B** 1' Pole Mount

- **IS-PM6B** 6' Pole Mount

- **IS-TR7B** 7' Folding Tripod Stand

- **M10-SP** Fly-mounting Eyebolts (3 pack) for SP 8.1P
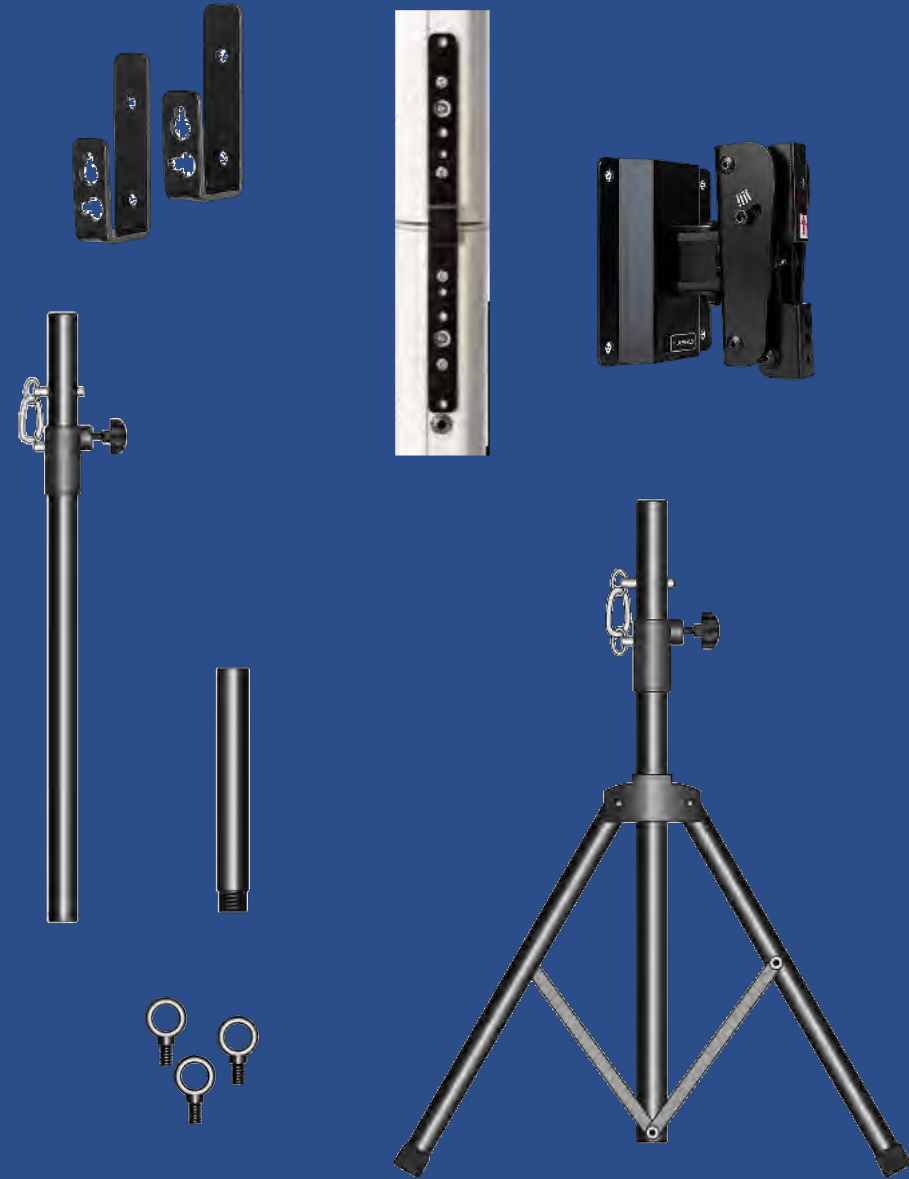
IS Series – The Competition

- **K-Array KK52i:** Vastly more expensive for similar configuration & performance. 8 x 2"

- **JBL CBT-50LA-1**: Less expensive w/ built-in transformer 8 x 2". Plastic housing not suitable for portable use.

- **TOA SR-H2L**: Less expensive, but not portable (wood encl). Lower SPL, Narrow dispersion. Optional Transfr. (Transformer + $70) Wht only

$1,959 MAP

$455 MAP

$419 MAP

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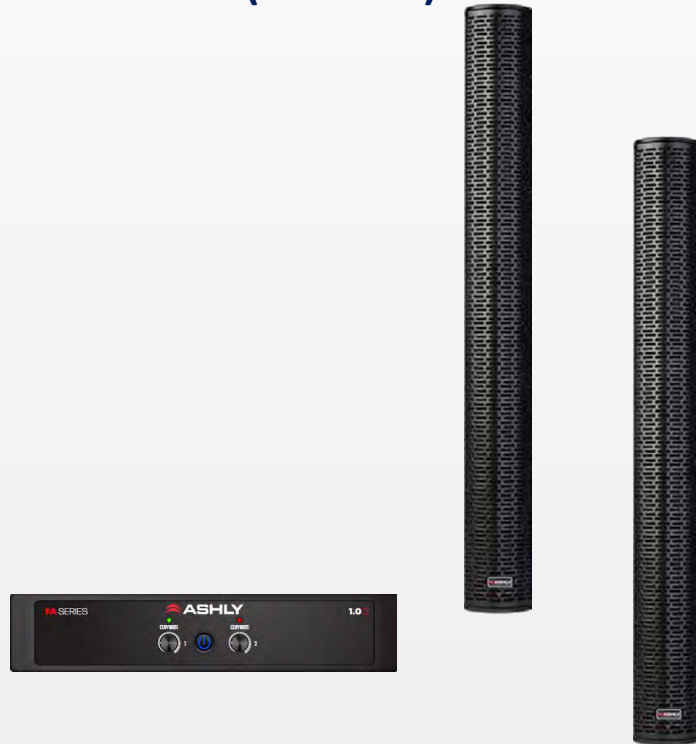An exertis | JAM business

IS & SP System Examples

IS Conference Packages

Package #1 (smaller displays)

- **2 x IS-2.8P Wall-mounted speakers**
- **FA-125.2 (2x125W)**

Package #2 (larger displays)

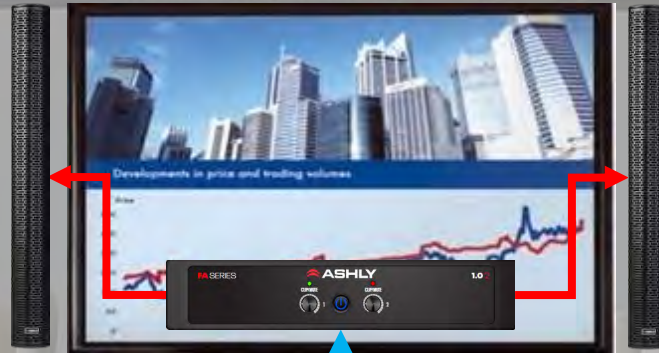- **2 x IS-3.8P Wall-mounted speakers**
- **FA-125.4 (2x250W)**

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IS- With Flat-panel Displays

**Conference Room
(37"-47" display)**

**Hotel Lobby
(50"+ Display)**

2 x IS-2.8P

Wall-mounted speakers

2 x IS-3.8P

Wall-mounted speakers

FA-125.2 (behind screen)

TV audio feeding FA-125.4 (behind screen)

PC audio

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IS HoW/Auditorium Packages

System for 100-250 seats

- **2 x IS-2.8P Wall-mounted speakers**
- **mXa-1502 Mixer-amp**

Add subs:
- 2 x SP-8.1P
- CA-502

System for 250-500 seats

- **4 x IS-3.8P Wall-mounted speakers**
- **2 x ISJP2B**
- **FA-125.4 (2x250W)**
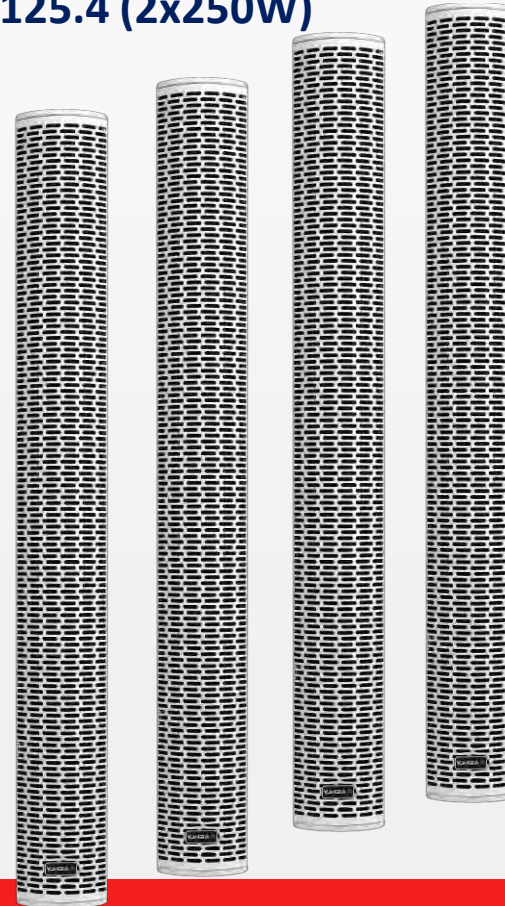
Add subs:
- 2 x SP-12.1P
- nX4002 or CA1.02

Small HoW/Auditorium

Main Outs (HPF): 2 x 150W @ 8 Ohms

IS-2.8P

IS-2.8P

mXa-1502

AUX Outs (LPF):

CA-502

SP-8.1P

SP-8.1P

2 x 250W @ 8 Ohms

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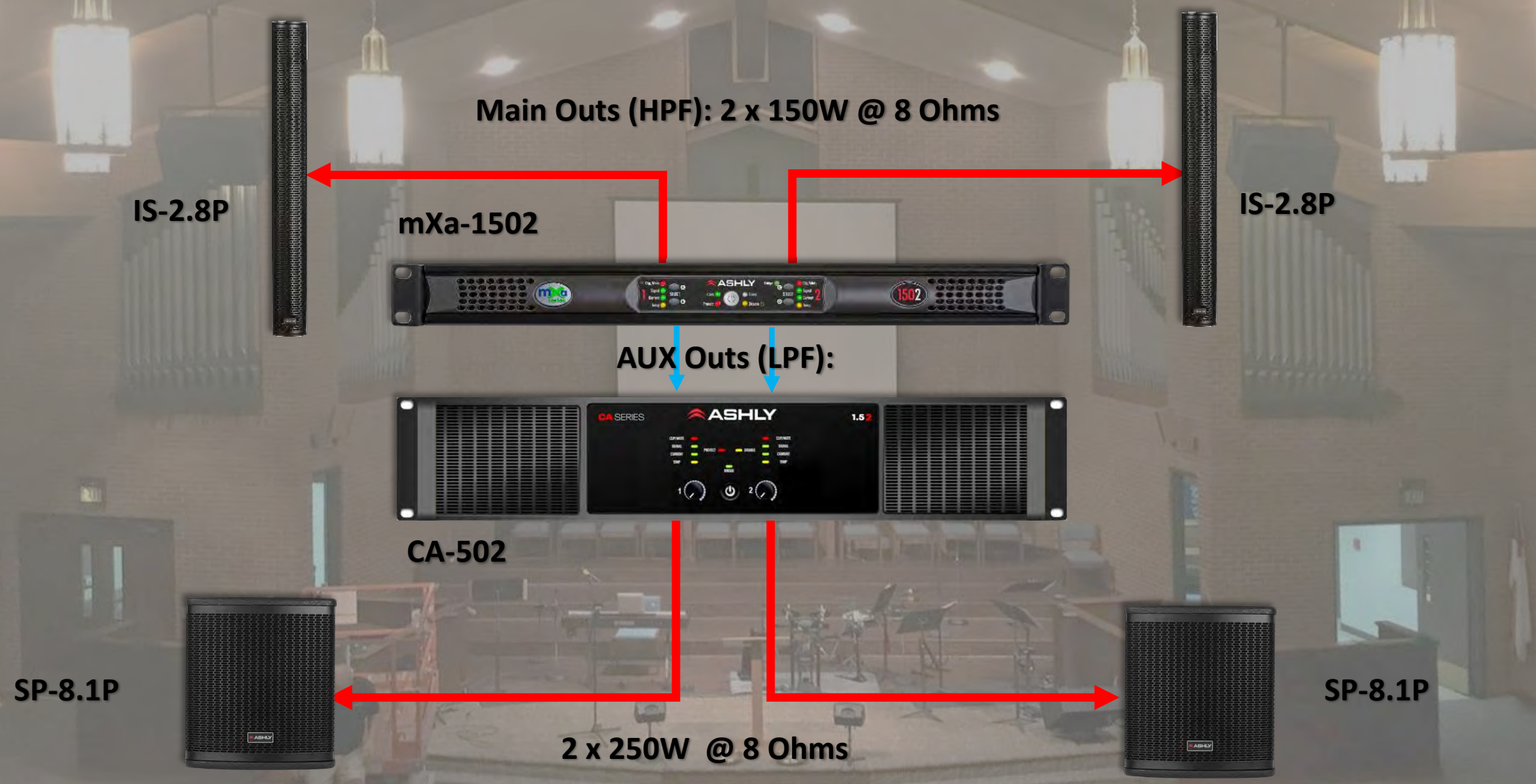
IS: Medium-sized HoW

2 x IS-3.8P
(Wall-mounted)

Vocal Mics

2 x IS-3.8P
(Wall-mounted)

Presentation Mic

Instrument

Pema 4250

Mid/High Out
4x250W @ 4 Ohms

SP-12.1P

SP-12.1P

Low Out: 2 x 400W @ 8 Ohms

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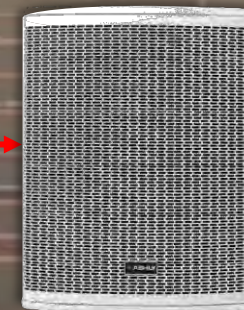
IS Portable Packages – Music/DJ/Hotel Events

Portable System for 50-200 people

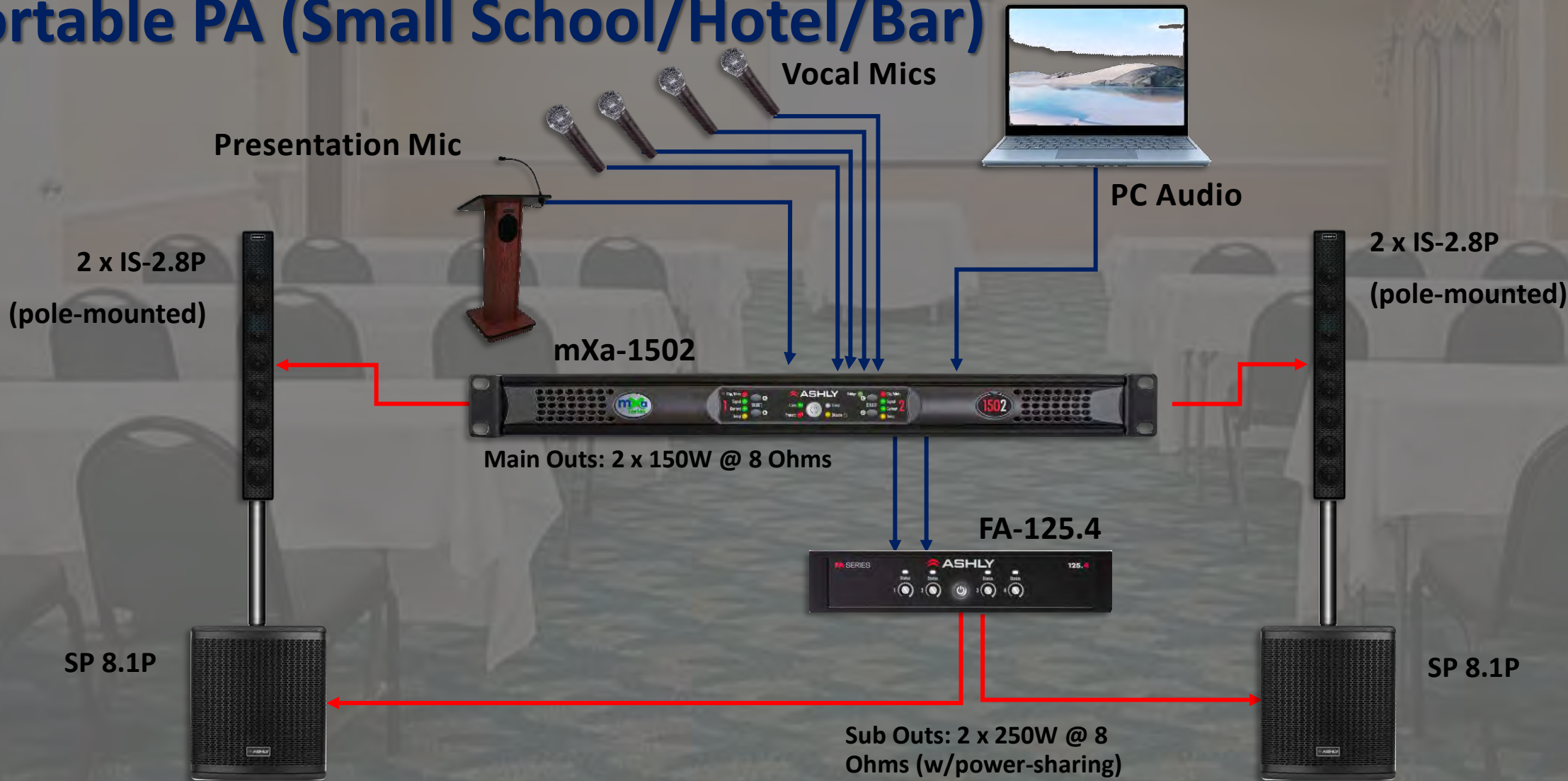- 2 x IS-2.8P Wall-mounted speakers
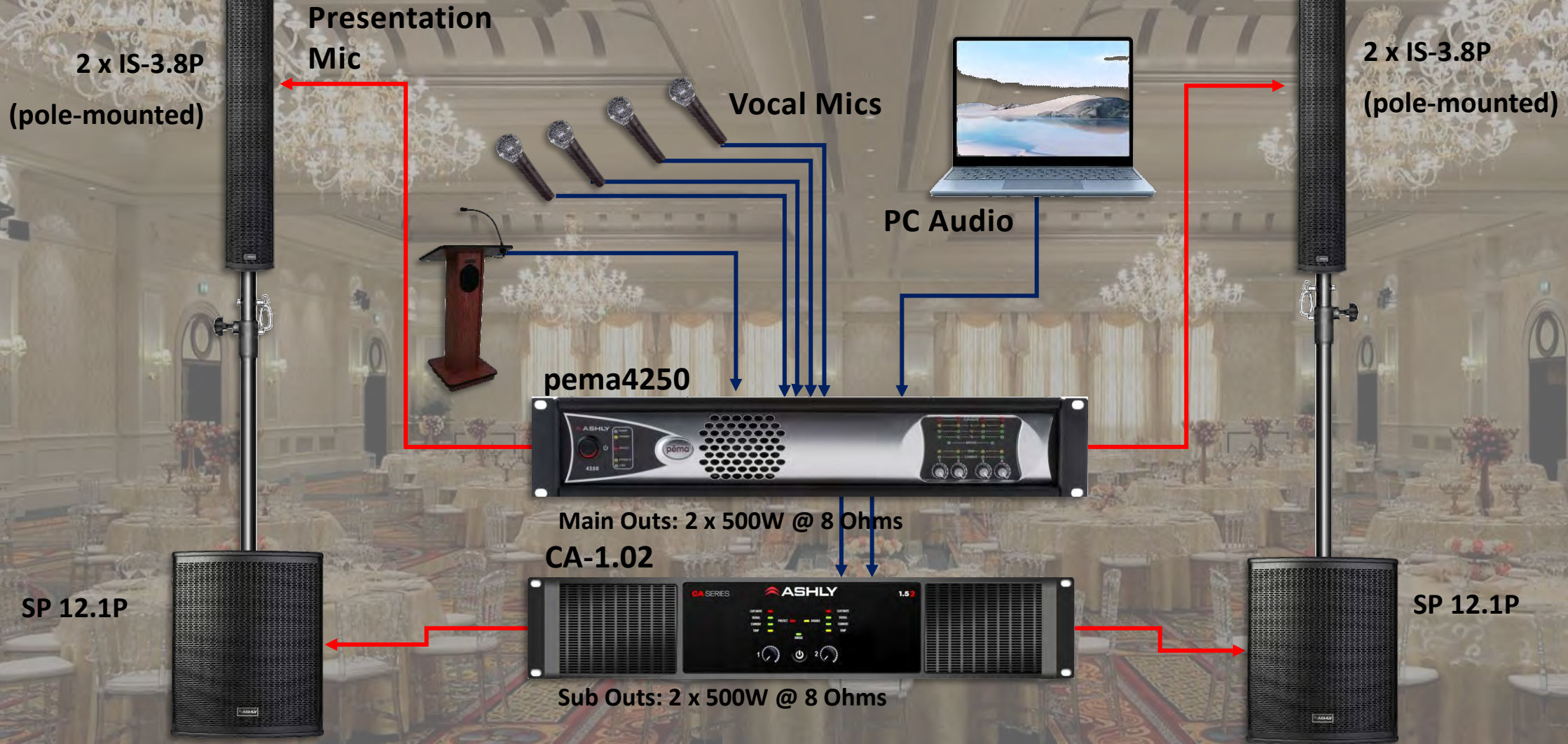- mXa-1502
- 2 x IS-TR7B

Add subs:
- 2 x SP-8.1P
- FA-125.4
- 2 x IS-PM1B
  -or- IS-PM6B

Portable System for 200-400 people

- 2 x IS-2.8P Wall-mounted speakers
- Pema4250
- 2 x IS-TR7B

Add subs:
- 2 x SP-12.1P
- nX4002 or CA1.02
- 2 x IS-PM6B
  -or- IS-PM7B

Portable PA (Small School/Hotel/Bar)

Vocal Mics

Presentation Mic

PC Audio

2 x IS-2.8P

(pole-mounted)

2 x IS-2.8P

(pole-mounted)

mXa-1502

Main Outs: 2 x 150W @ 8 Ohms

FA-125.4

SP 8.1P

SP 8.1P

Sub Outs: 2 x 250W @ 8 Ohms (w/power-sharing)

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Portable PA
(Large Auditorium/Hotel/Bar)

2 x IS-3.8P

(pole-mounted)

Presentation Mic

Vocal Mics

2 x IS-3.8P

(pole-mounted)

PC Audio

pema4250

Main Outs: 2 x 500W @ 8 Ohms

CA-1.02

SP 12.1P

SP 12.1P

Sub Outs: 2 x 500W @ 8 Ohms

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IS Series

3 Key things to remember:

- **Transformer-less design**

- **Wide-Dispersion**

- **Custom DSP**

AW Series Surface-mount Speakers

AW Series

3 Key Things to know:

- *Directivity Optimized Cross-Over for wider sweet spot*

- *Custom DSP processing for improved frequency response and coverage*

- *Integral part of Ashly Solution*

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AW Series Key Features

- **IP-rated design**

  - **IP52 (dripping water @15°)**
  - **IP54 (splash @ any angle)**
  - **Suitable for indoor or covered outdoor use**

- **High-impact resin w/metal grille**

- **Surface-mountable**

- **Available in B or W**

- **Sold/Priced in Pairs**

- **NEW Plus (+) Versions**

AW-2.1P

IP52
* Should be used outdoors under eaves only

- **2.5" Full-range**
- **6 Ohms**
- **Small size, for limited coverage areas**

Suggested Amp Match:
- SRA-2075
- TM-360

Ideal for: *Retail-BGM* ■ *Museum/Retail Kiosks* ■ *Small area fill-ins*

$107 MAP

AW-3.2P

- **3" 2-way**
- **8 Ohms**
- **Compact, Size/Performance**
- **Directivity Optimized Crossover**

IP52
* Should be used outdoors under eaves only

Suggested Amp Match:
- mXa-1502
- nXp-752/754/1502/1504
- SRA-2075
- TM-360

$216 MAP

Ideal for: *Retail-BGM* ■ Classroom ■ Courtroom ■ *Museum/Retail Kiosks*

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AW-5.2T+

■ **5" 2-way**

■ **8 Ohms /30, 15, 7.5, 3.75W @70V**

■ **Directivity Optimized Crossover**

■ **Better sound for medium-sized distributed systems**

IP54
* Should be used outdoors under eaves only

Suggested Amp Match:
- mXa-1502
- nXp-752/754/1502/1504
- Pema4125/8125

Ideal for: *Retail-BGM* ■ Bar/Restaurant ■ HoW ■ Patios

NEW
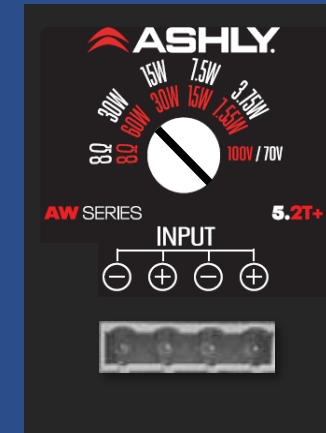
$324 MAP

AW-8.2T+

IP54

* Should be used outdoors under eaves only

NEW

- **8" 2-way,**
- **8 Ohms / 60, 30, 15, 7.5W @70V**
- **Directivity Optimized Crossover**
- **Full-range sound for higher SPL in larger systems**

Suggested Amp Match:
- mXa-1502
- nXp-752/754/1502/1504
- nep4250/8250
- Pema4125/8125/4250 /8250

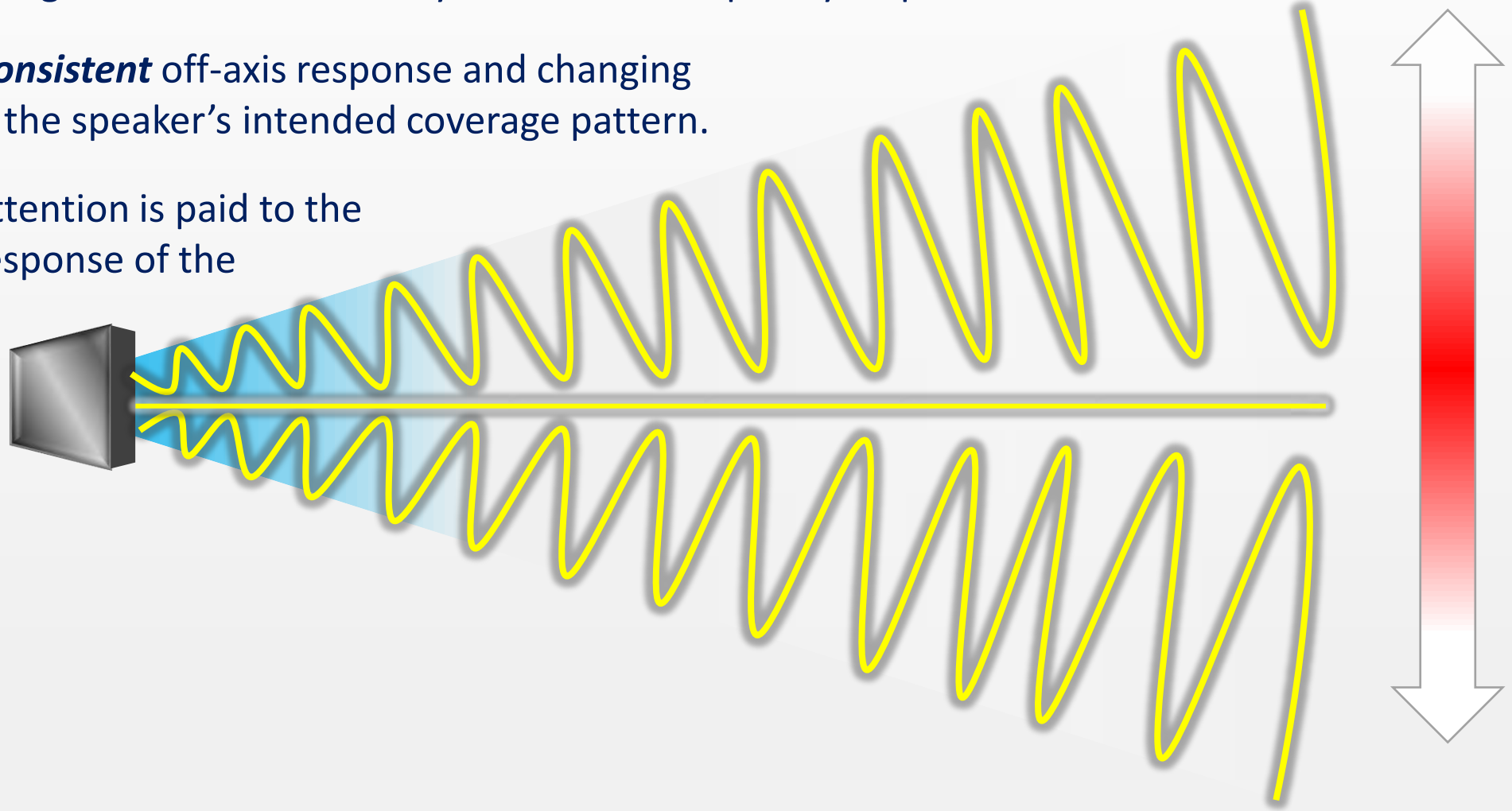**Ideal for:** *Retail*/Restaurant ■ HoW ■ Aerobics Studios ■ Patios

$433 MAP

ASHLY
AW SERIES   8.2T+
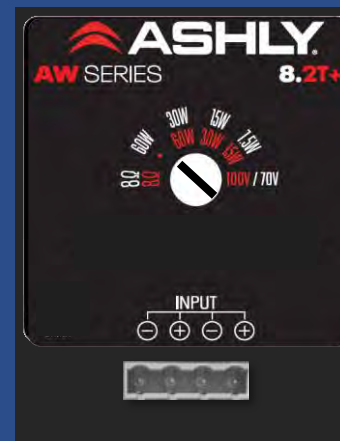
AW Series Mounts

- **Supplied wall/ceiling bracket (2.1/3.2)**
- **Supplied wall/ceiling bracket (5.2/8.2)**
- **Supplied Tether/safety cable (3.2/5.2/8.2)**
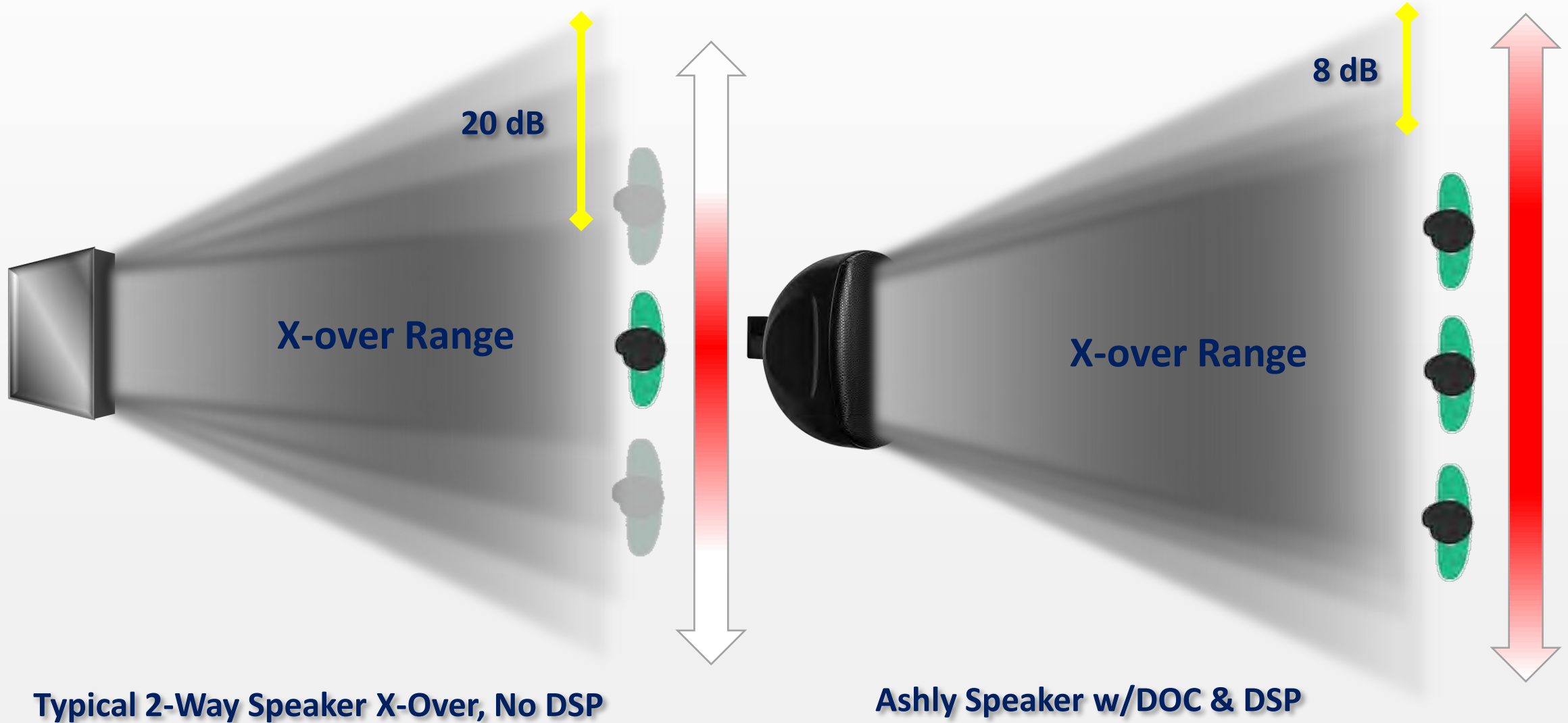- **Precise/locking Vertical and Horizontal angle adjustment**

The Directivity Problem

- Many loudspeaker designs focus on a relatively flat **on-axis** frequency response.

- This can result in **inconsistent** off-axis response and changing sound quality within the speaker's intended coverage pattern.

- However, too little attention is paid to the **off-axis** frequency response of the loudspeaker system.
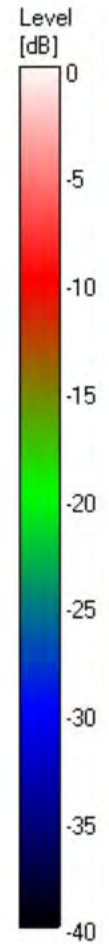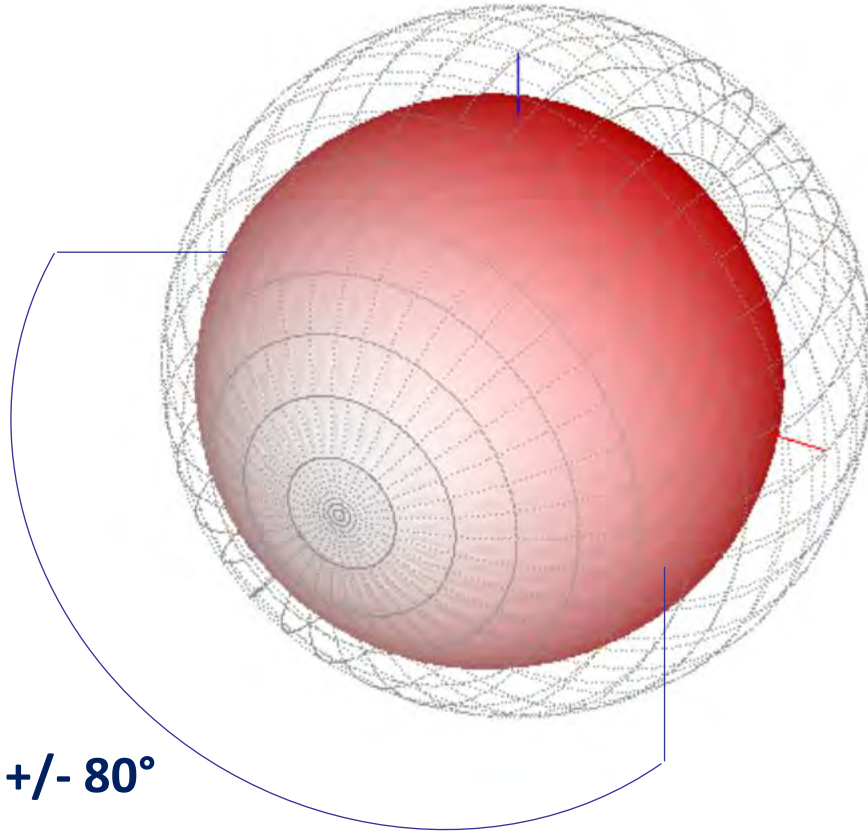
AW Series Comparison

Frequency response ±30° Vertical Axis

20 dB

8 dB

X-over Range

X-over Range

Typical 2-Way Speaker X-Over, No DSP

Ashly Speaker w/DOC & DSP

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AW Series – Coverage

AW-5.2T+ EASE Plot:

Data Shown: AW 5.2T (Ashly Audio)
Display Parameters: Frequency: 1000Hz (1/1 Octave)

Wide "Sweet Spot" +/- 80°

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AW Series – The Competition

- **Wider dispersion (sweet spot) than most.**

    - **Not designed like studio monitors**

- **Uses Ashly DSP for optimum performance**

- **Performs as well or better than more**

  expensive models

- **More adjustable, precise mounting system**

FGM/BGM/Announcements in:

- **Patios**

- **Public Spaces**

- **Retail Stores**

- **Bar-Restaurants**

- **School Cafeterias**

Sound Reinforcement/Playback /Fill-in for:

- **Worship Spaces**

- **Courtrooms**

- **Auditoriums**

- **Museum Exhibits**

- **Sports/Health clubs**

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AW Series System Examples

AW Series: Restaurant/Bar Packages

Small Bar/restaurant 2-4 Zones 150 people

- 8 x AW-5.2T+ Wall-mounted speakers
- mXa-1502

Add Subwoofer:
- SP-8.1P
- FA-125.2

Medium Size Bar 4-zone 300 people

- nXp4004
- 8 x AW-5.2T+
- 4 x AW-8.2T+
- 2 x IS-2.8P

Add Subwoofer (bar):
- SP-12.1P
- FA-125.2

AW Series: Restaurant/Bar (2 Zone BGM/Paging)

TV Sound (P4)

AW-5.2T+
Zone 1

AW-5.2T+
Zone 2

Paging Mic (P1)
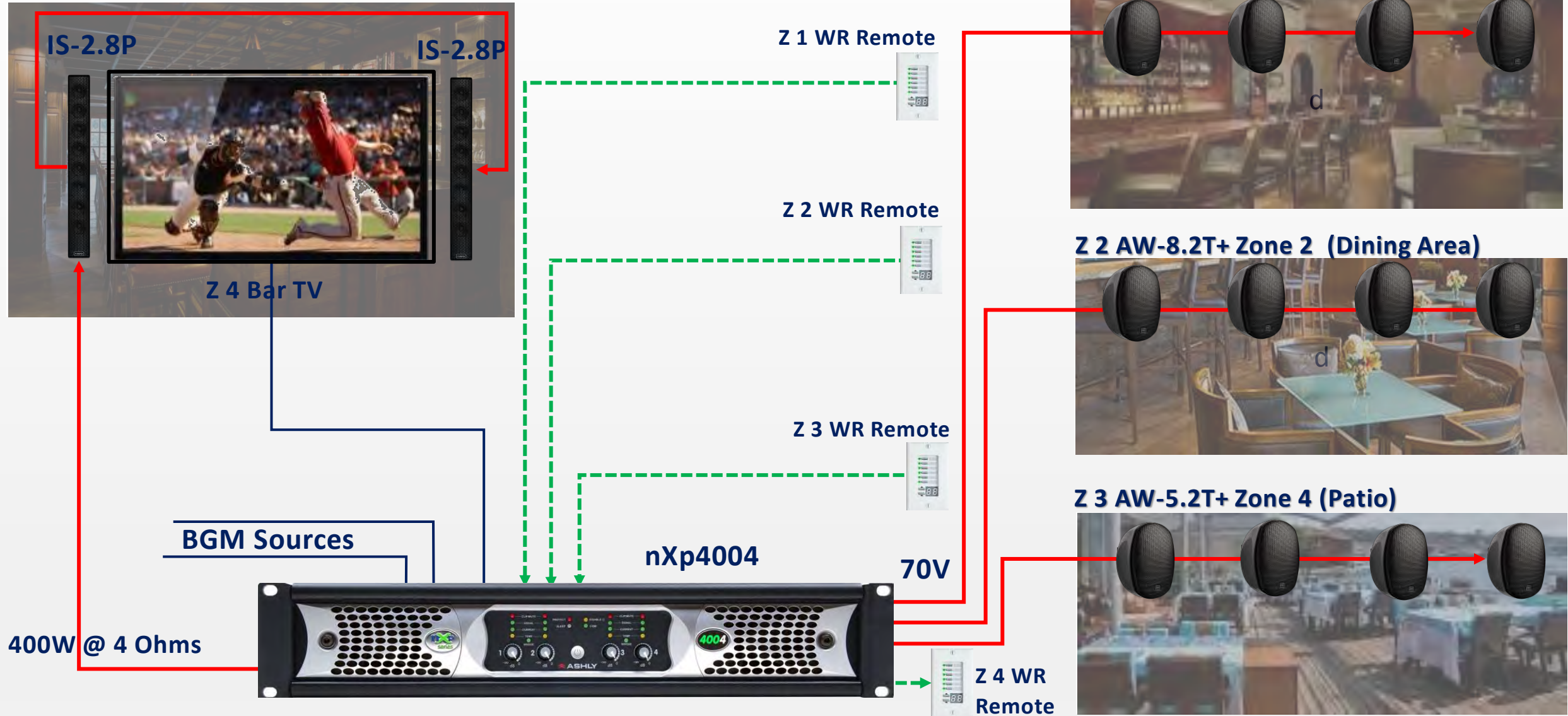
mXa-1502
(Level 1 DSP)

2 x 150W @ 70V

FM Tuner (P0)

Streaming music player (P0)

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AW Series: Multi-zone BGM Bar/Restaurant

Z 1 AW-8.2T+ Zone 1 (Bar Area)

IS-2.8P   IS-2.8P

Z 1 WR Remote

Z 4 Bar TV

Z 2 WR Remote

Z 2 AW-8.2T+ Zone 2 (Dining Area)

d

Z 3 WR Remote

BGM Sources

nXp4004

70V

Z 3 AW-5.2T+ Zone 4 (Patio)

400W @ 4 Ohms

Z 4 WR Remote

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Small AW Packages

Kiosk System

- 2 x AW-2.1P
- TM-360

Kiosk, small shop 1,000 Sq ft

- 2 x AW-3.2P
- TM-360
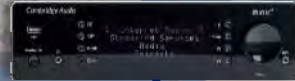
Retail 2,000 Sq ft, classroom (30 seat)
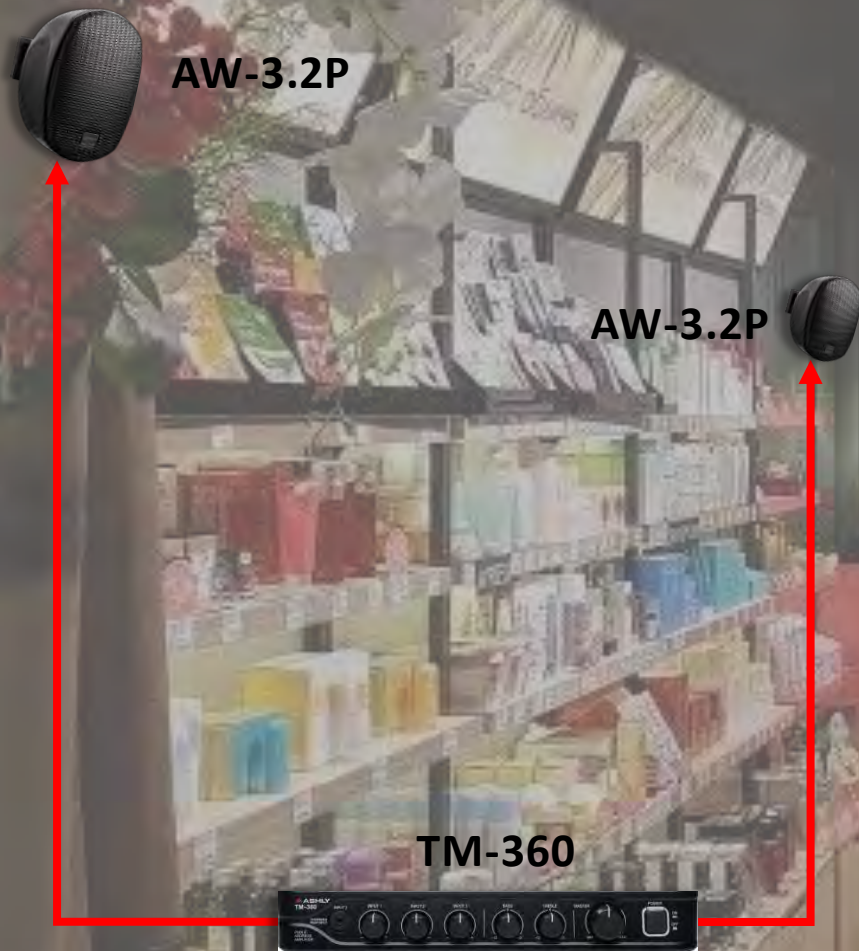
- 4 x AW-5.2T+
- FA-125.2

AW-2.1P/3.2P Museum Kiosk

AW-2.1P/3.2P
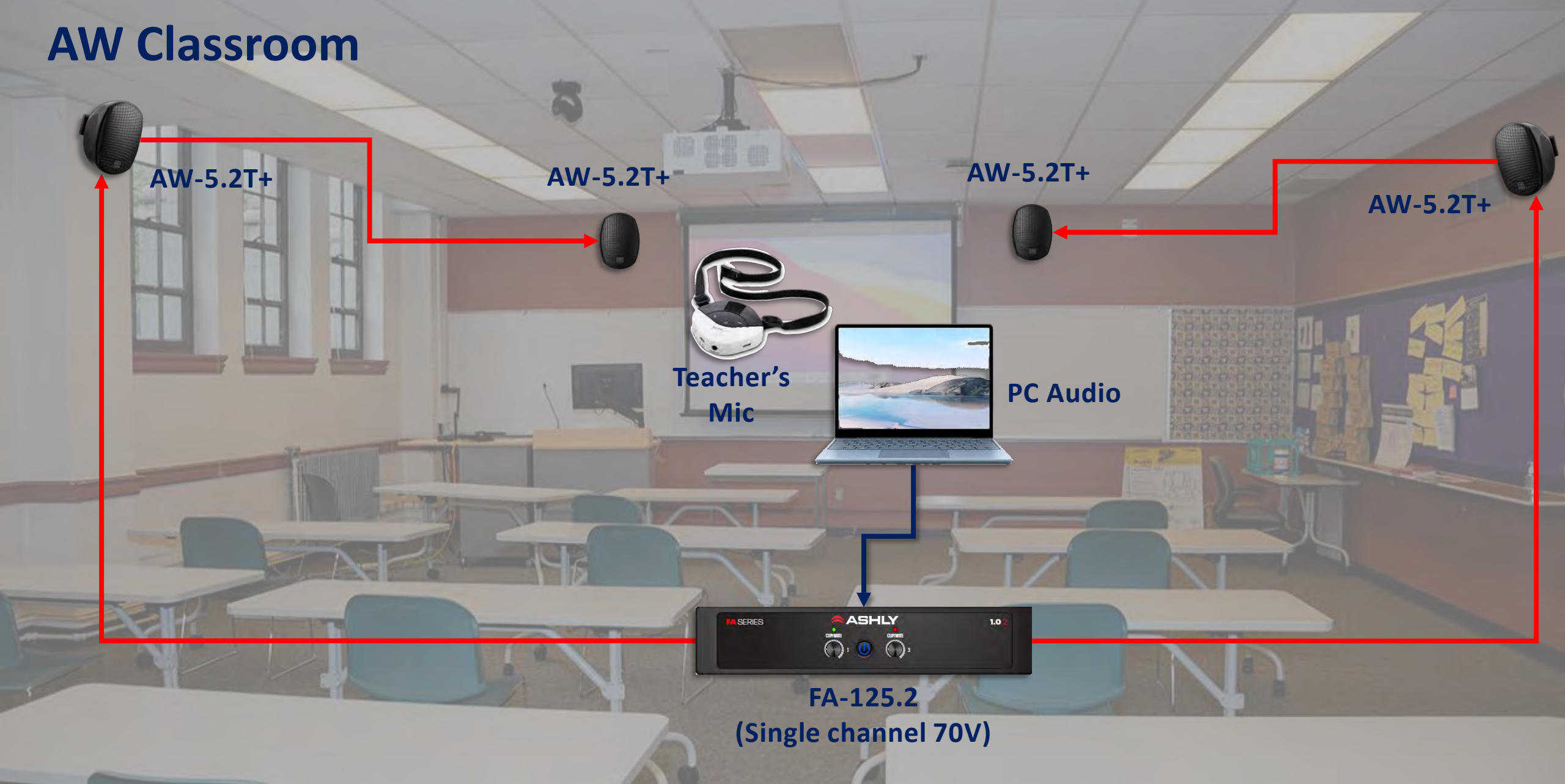(mounted above display)

Media Source

AW-2.1P/3.2P

Audio feeding TM-360

(inside kiosk or behind screen)

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Large AW Packages

Exercise Room (30 people)

- **4 x AW-5.2T+**

- **FA-125.2**

Add Subwoofer:
- SP-8.1P
- FA-125.2
- 3.6SP

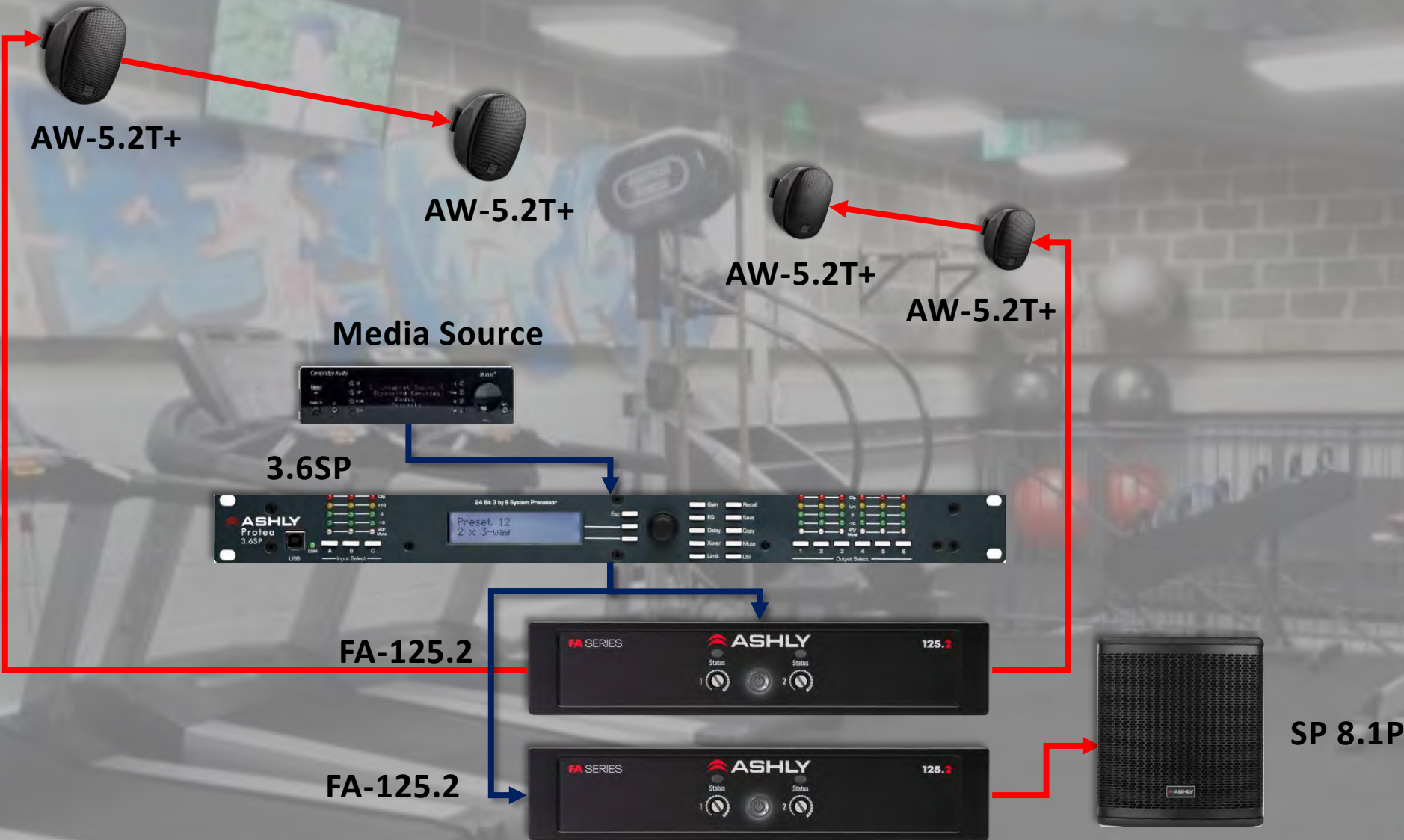## Aerobics Studio (40-50 people)

- **4 x AW-8.2T+**

- **nep4250**

Add Subwoofer:
- SP-12.1P

Large AW Package-Exercise Room

AW-5.2T+

AW-5.2T+

AW-5.2T+

AW-5.2T+

Media Source

3.6SP

FA-125.2

FA-125.2

SP 8.1P

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Large AW Package-Exercise Room

AW-8.2T+

Media Source

AW-8.2T+

AW-8.2T+

AW-8.2T+

Media Source

Instructor Headset

SP12.1P

nep4250
2 x 250W @ 4 Ohms, 500W@ 8 Ohms (Bridged)

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Large AW Package-Multi-Zone Retail

4 Zone BGM system -2,500-5,000 Sq ft

- 8 x AW-5.2T+
- Pema4125.70

8 zone BGM system-5,000-10,000 Sq ft

- 16 x AW-5.2T+
- Pema8125.70

Large AW Package-Multi-Zone Retail

AW-5.2T+

AW-5.2T+

Paging Mic

Media Source

Pema8125.70

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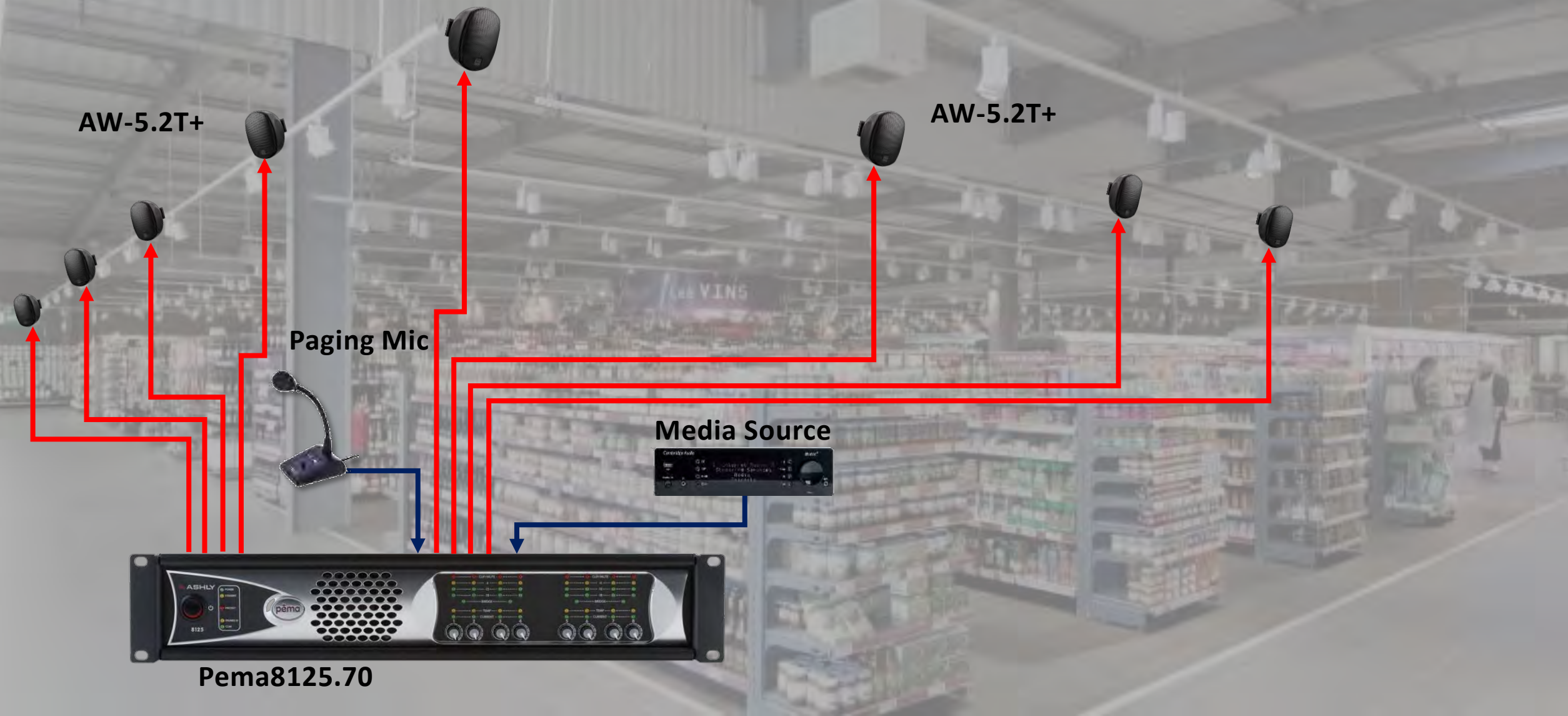
Large AW Package-Distributed HoW
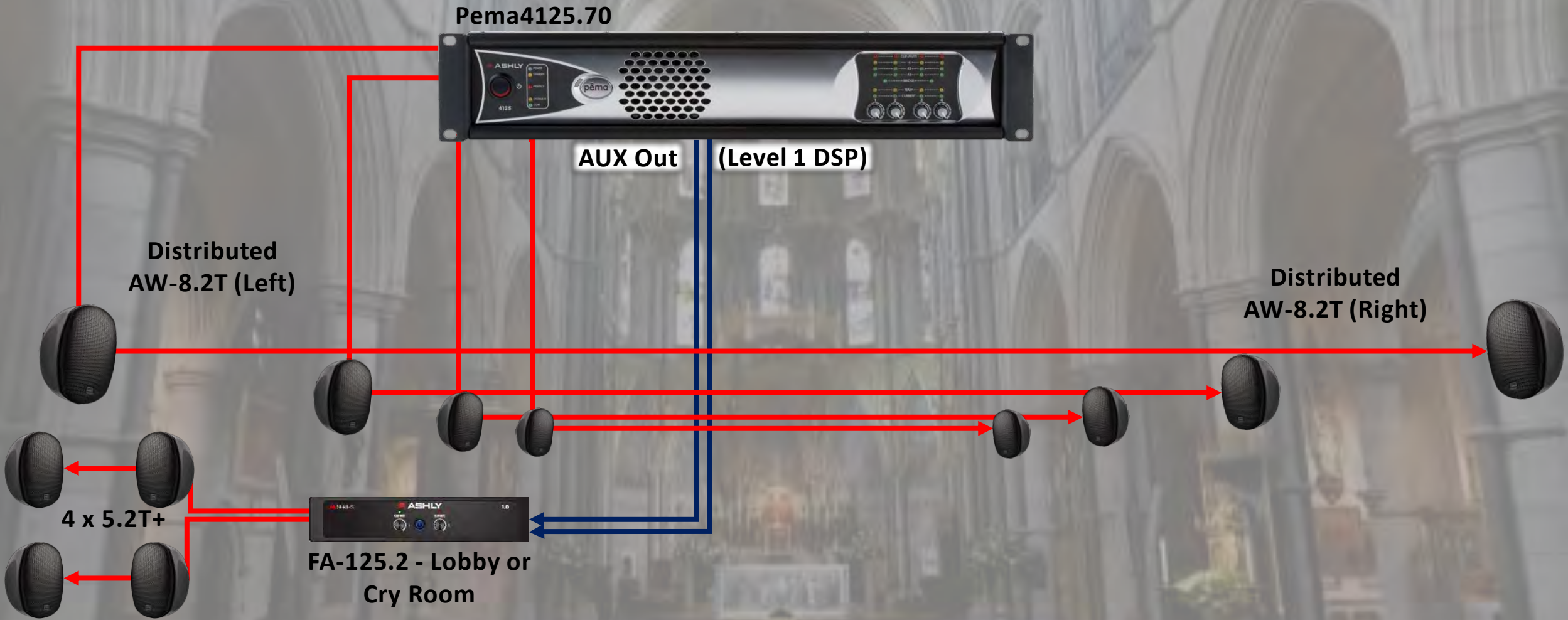
Liturgical HoW (300-600 seats)

- 10 x AW-8.2T+
- nep4125.70

Add Zones: (cry room, vestibule):
- FA-125.2
- 4 x AW-5.2T+

Large AW Package-Distributed HoW (liturgical)

Wrap-Up

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Conclusion – 3 Things to remember

IS Series

- Transformer-less design
- Wide-Dispersion
- Custom DSP

AW Series

- DOC for wider "sweet spot" in vocal range
- Custom DSP for enhanced performance
- Precise, locking wall mounts

The Ashly Equation

- *Proprietary Design & Custom DSP for optimized results not easily achievable w/other systems*

+

- *Resources (Presets, A&E & EASE files) downloadable from Ashly.com*

= Ashly amps, processors & speakers that work <u>together</u> for best performance!

It's Just the Tip Of the Iceberg!