PoE

keiga

Audio Amplifiers

PoE / PoE+ / PoE++ • IEEE802.3at / af / bt • Up to 71W

25 Years of **Reliability**

Audio Amplifier & IoT Device JDM / ODM / OEM

Software / Hardware / Manufacturing

Power Over Ethernet

PoE

The Future Is Now...

Market Studies are on
PoE Products in general

The market will be ACCELERATING growing at a CAGR of nearly 6%

INCREMENTAL GROWTH $12.52 bn

The year-over-year growth rate for 2018 is estimated at

INCREMENTAL GROWTH $1.1 bn

39% of the market share originated from the

The market will be ACCELERATING growing at a CAGR of over 11%

Global Market Insights
Insights to innovation.

POWER OVER ETHERNET (POE) SOLUTION MARKET

U.S. Power over Ethernet Solutions Market Size, By Type, 2018 & 2025 (USD Million)

Power Sourcing Equipment (PSE)

Powered Device (PD)

■ 2018 ■ 2025

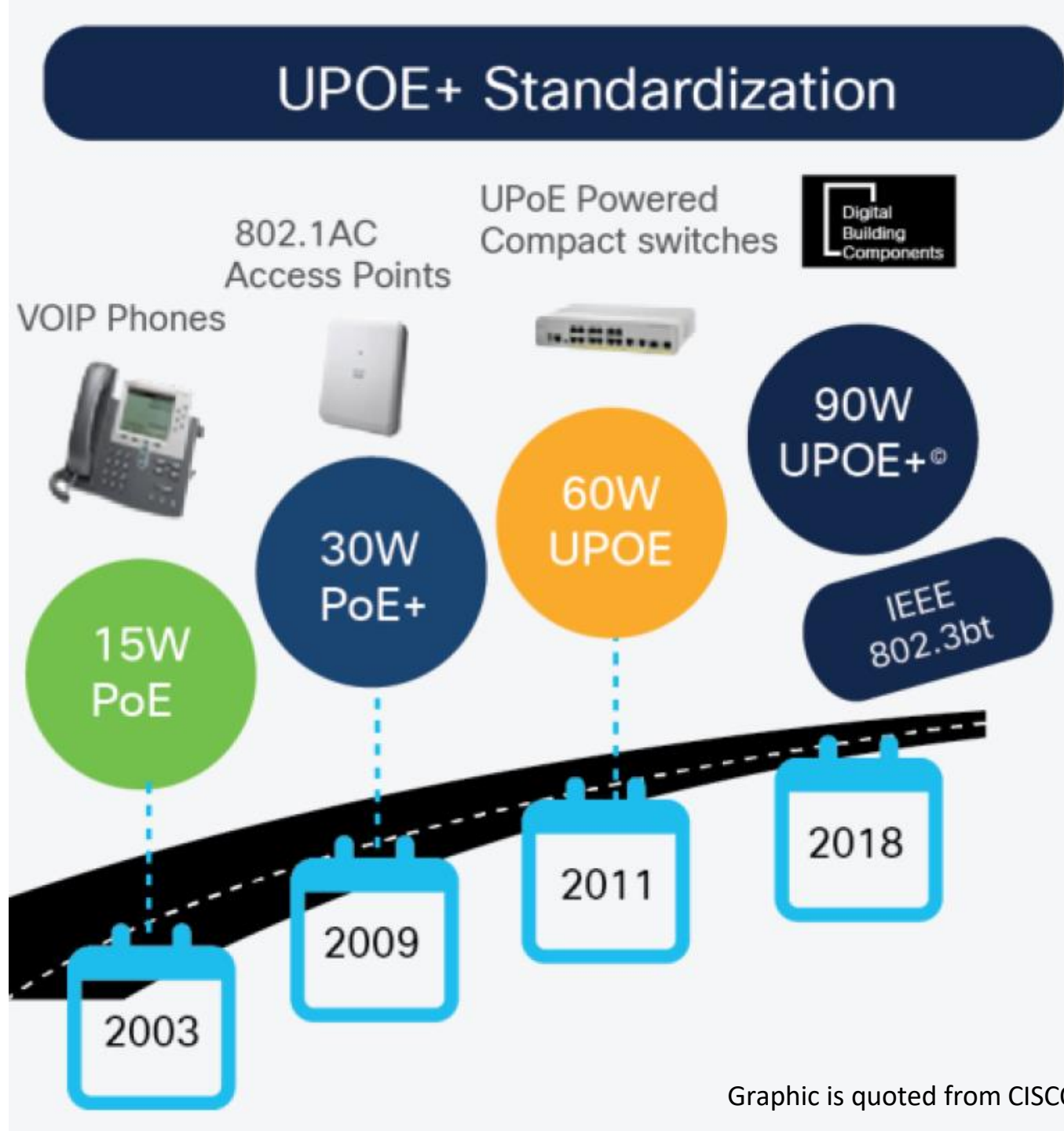Source: www.gminsights.com

The Future Is Now...

IEEE Standard 30W, 60W and 90W PSE (Power Source Equipment) **are Available Now!**

Audio Amps become IoT Addressable Devices!

**PoE Audio is the Profit Generator Today!**

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UPOE+ Standardization

802.1AC Access Points

UPoE Powered Compact switches

Digital Building Components

VOIP Phones

90W UPOE+©

60W UPOE

30W PoE+

IEEE 802.3bt

15W PoE

2003

2009

2011

2018

Graphic is quoted from CISCO.

Standards up to 71W (PoE++ / IEEE802.3bt)

IEEE Standards	802.3af Type 1 PoE	802.3at Type 2 PoE+	802.3bt Type 3 PoE++	802.3bt Type 4 PoE++
PD Rated Power	**12.95W**	**25.50W**	**51W**	**71W**
PSE Max. Power	15.4W	30W	60W	100W
PSE Voltages	44 to 57V	50 to 57V		
PD Voltages	37 to 57V	42.5 to 57V		41.1 to 57V
Max. Current	350 mA	600 mA	600 mA per pair	960 mA per pair
Cable Supported	CAT3 and CAT5	CAT5		

PD (Powered Device, e.g., Audio **Amplifiers**)

PSE (Power Sourcing Equipment, e.g., **Network PoE Switches**)

The Future Is Now...

Every **IoT** device can be **remotely** **centralized, controlled** and **managed**.

Graphic is quoted from CISCO.
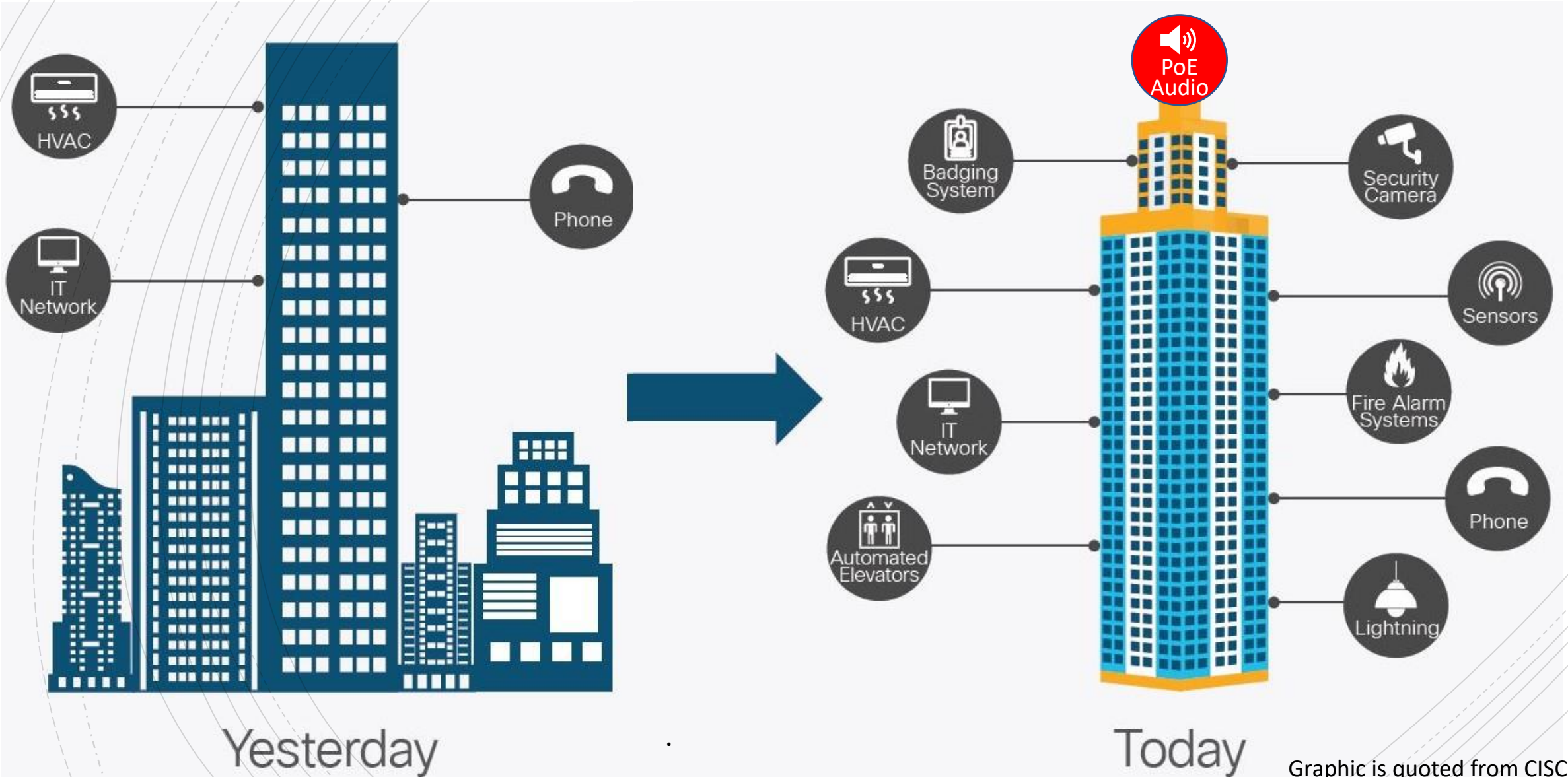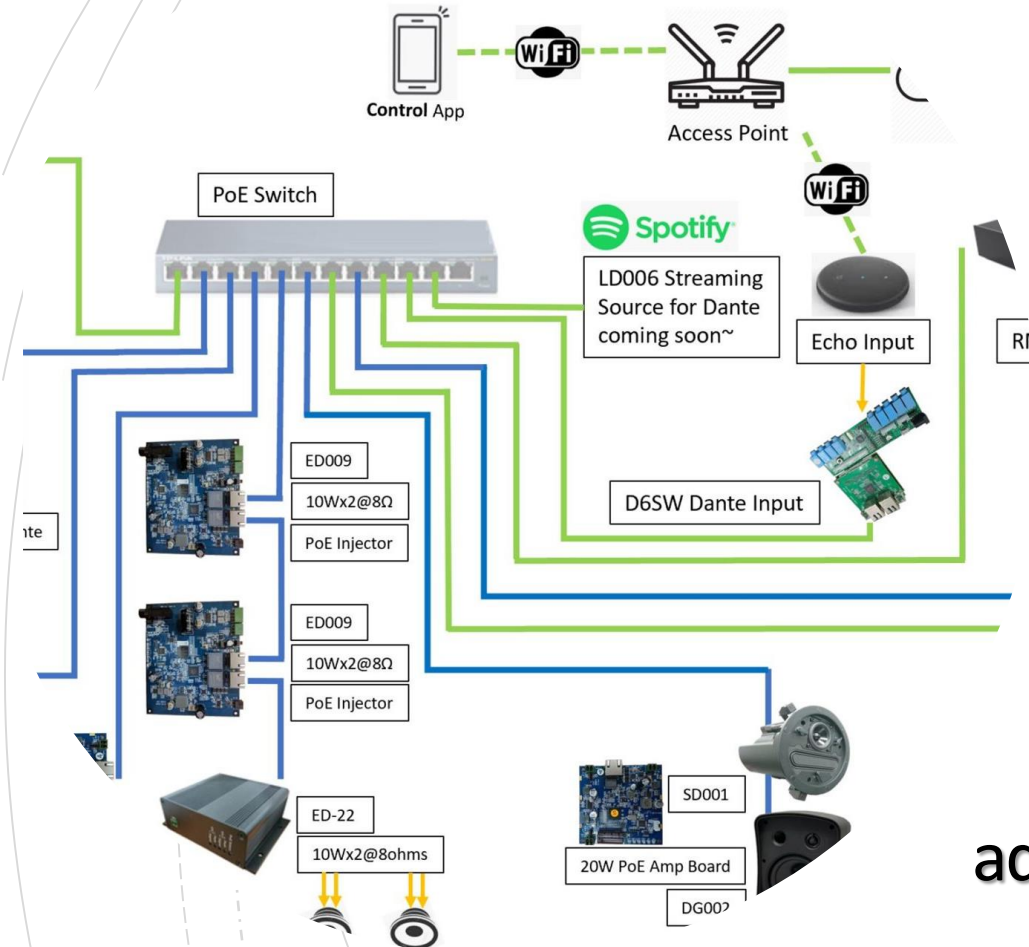
A **Keiga** DSP Amplifier
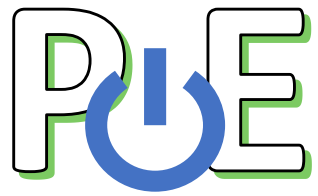
can drive **multiple speakers**

to deliver up to **71W** of sound

via one Ethernet cable, **no power cable**,

and each amplifier can be **remotely**

addressable, discoverable, profileable and controllable.

Keiga

PoE Amplifier Experience

- In 2017 CEDIA launched the industry's first **Amazon Echo Dot Distribution Amp***
via Keiga's proprietary balun over Cat5 cable to deliver both power and audio signals

- In 2018 CEDIA exhibited the industry's first **Amazon Echo Dot In-Wall 60-Watt Amp***

- In 2019 ISE announced the Industry's first IEEE standard **PoE++ built-in 60/100-Watt Ceiling Speaker***

- In 2020 released a line of IEEE standard **2ch and 4ch PoE/PoE+/PoE++ DSP Amplifiers**

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*Products developed by Keiga for various 3rd parties.

Keiga

Power Over Ethernet

P⏻E
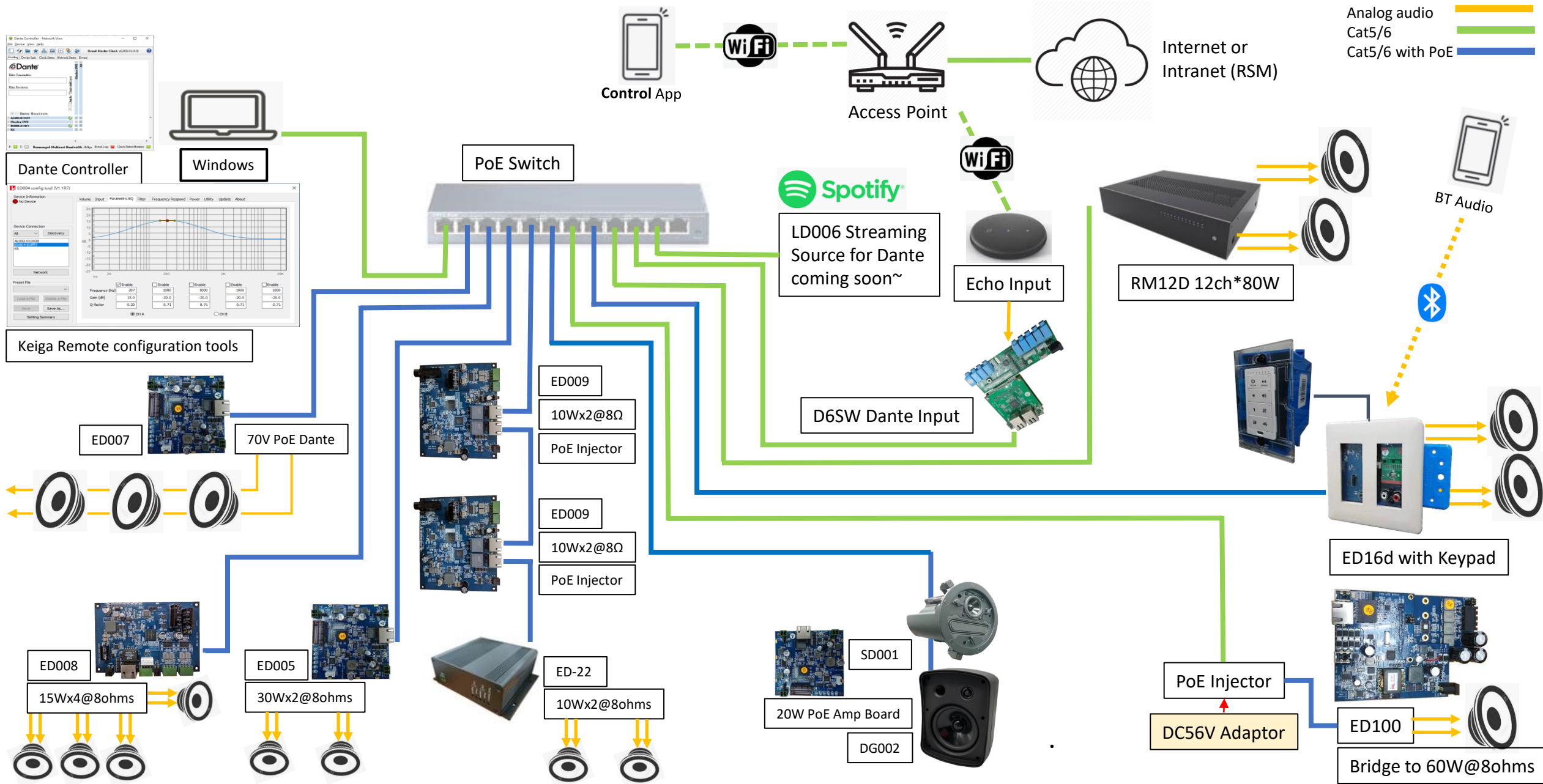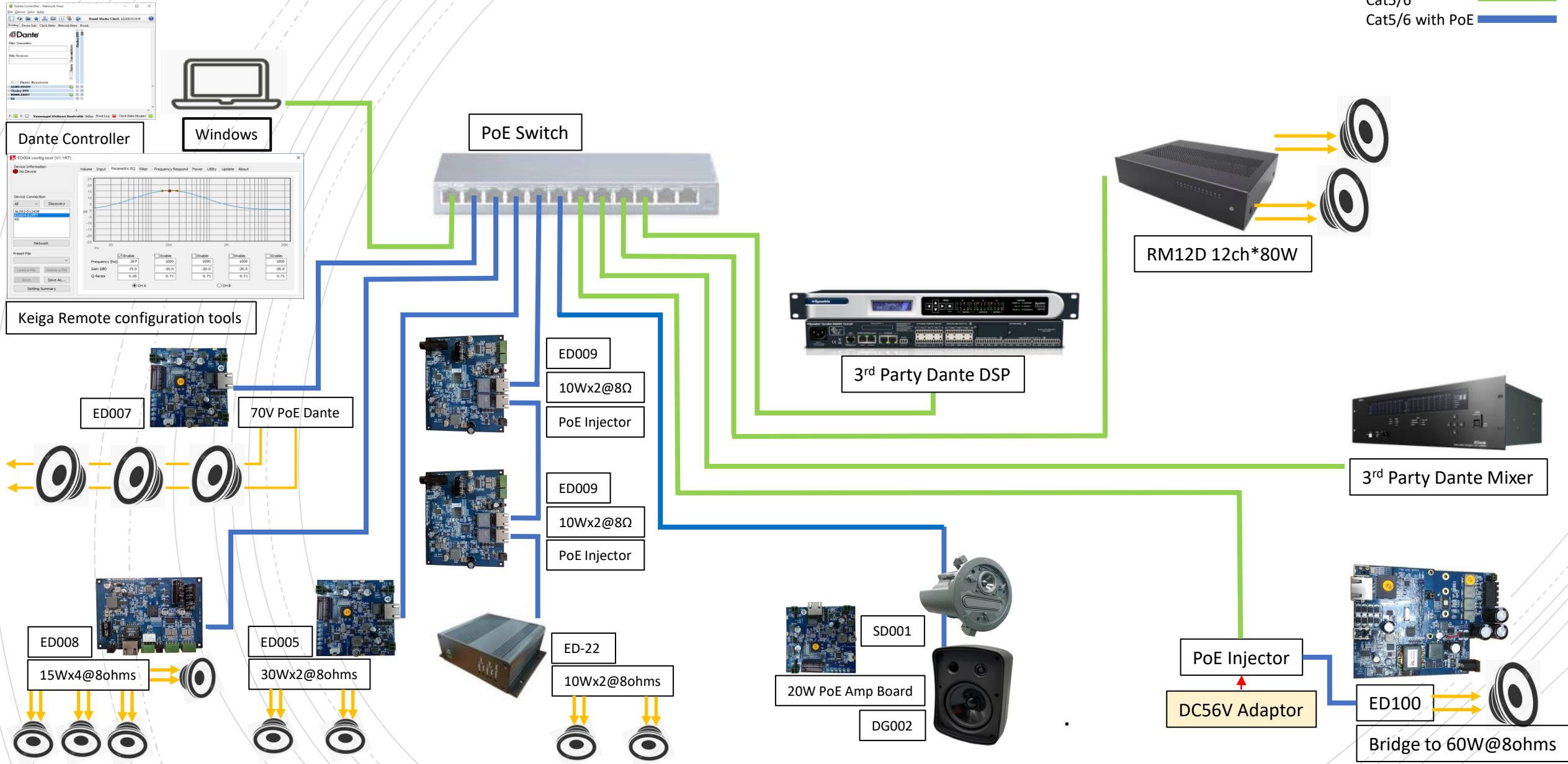
Product Lines >>>

Hard...
Software
Ecosystem
Commercial
Residential

Awaiting Your Customization

Keiga Dante PoE Commercial PA Applications

Analog audio
Cat5/6
Cat5/6 with PoE

Dante Controller

Windows

Keiga Remote configuration tools

PoE Switch

RM12D 12ch*80W

3rd Party Dante DSP

ED007

70V PoE Dante

ED009
10Wx2@8Ω
PoE Injector

ED009
10Wx2@8Ω
PoE Injector

3rd Party Dante Mixer

ED008
15Wx4@8ohms

ED005
30Wx2@8ohms

ED-22
10Wx2@8ohms

SD001

20W PoE Amp Board

DG002

PoE Injector

DC56V Adaptor

ED100

Bridge to 60W@8ohms

Keiga ◢Dante® PoE Residential Applications

Analog audio ▬▬▬
Cat5/6 ▬▬▬
Cat5/6 with PoE ▬▬▬

Keiga AMOR™
Volume and Mute control
by Group or Each
Assign music from LD006U

WiFi

Internet or
Intranet (RSM)

Access Point

Control App

LD006U Streaming
Source for Dante
Coming soon~

Passive Speaker

PoE Switch

ED-22U

10Wx2@8ohms

ED-71U

30Wx2@8ohms

DG002U

20W@4ohms

SD001U

20W@4ohms

Contact Us for the Details of all These Applications

Passive Speaker
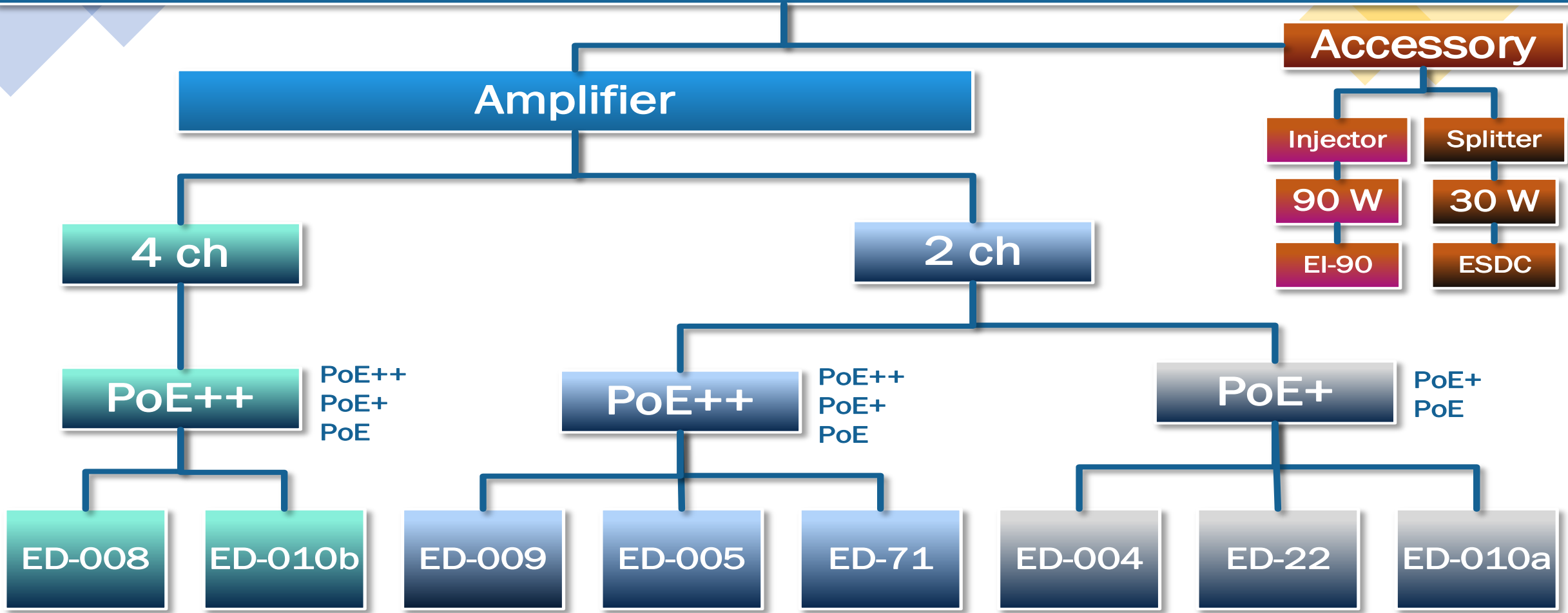
Passive Speaker
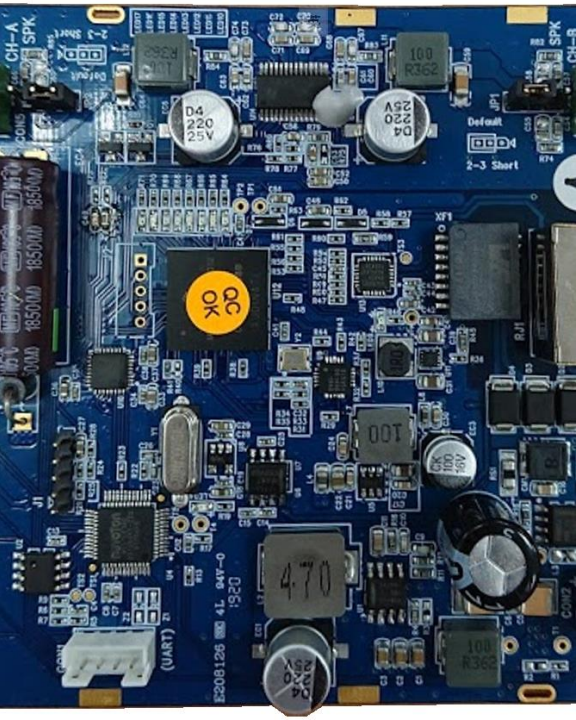
PoE Amps in Two Formats

An **End Device**

to be installed
near your regular speakers.

or

A **Board**

to be customized
into your speaker housing
to become your own
PoE Ready speaker

Model	ED-008	ED-010 b
PoE Chip	TI: PoE++, PoE+, PoE	
Audio Chip	Dante Ultimo	
Max. Power	PD: 71W	
KAP DSP	Yes	No
FQ Response	20Hz - 20KHz	
Signal Ratio	> 90dB	
FIND ME	**Yes**	No
Specials	**GPIOx2**	
Audio Amp **RMS**	15Wx4@8Ω 30Wx2@8Ω	
Audio Network	Dante/AES67	
Compliance	IEEE802.3at/af/bt	
Protection	OCP, OTP, OVP Auto Recovery Surge Protection	
DC Power	DC48V/1.6A, Optional	

4ch PoE++

ED-008

ED-010 b

To Be Released Q2, 2021

*Specifications are subject to update without notification

Model	ED-009	ED-71 / ED-005
PoE Chip	TI: PoE++, PoE+, PoE	
Audio Chip	Dante Ultimo	
Max. Power	PD: 71W; **PSE: 90W**	PD: 71W
KAP DSP	Yes	
FQ Response	20Hz - 20KHz	
Signal Ratio	> 90dB	
FIND ME	Yes	
Specials	**MIC In/Line In** **PoE+ Daisy Chain**	
Audio Amp **RMS**	10Wx2@8Ω 20W@4Ω PoE+ Extension w/o DC	35Wx2@8Ω 70W@4Ω
Audio Network	Dante/AES67	
Compliance	IEEE802.3at/af/bt	
Protection	OCP, OTP, OVP, Auto Recovery, Surge Protection	
DC Power	DC48V/1.6A, Optional	

2ch PoE++

ED-009

ED-071

ED-005

*Specifications are subject to update without notification
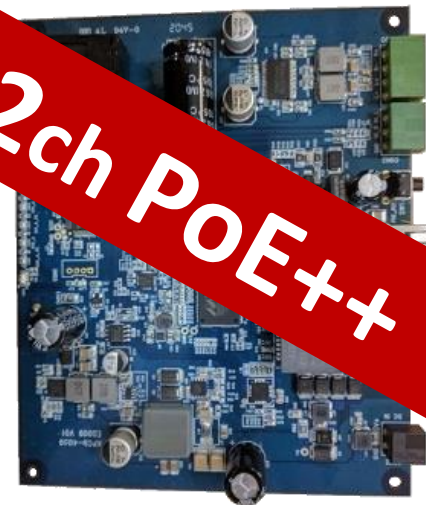
Model	ED-22 / ED-004	ED-010 a
PoE Chip	TI: PoE+, PoE	
Audio Chip	Dante Ultimo	
Max. Power	PD: 22W	
KAP DSP	Yes	No
FQ Response	20Hz - 20KHz	
Signal Ratio	> 90dB	
FIND ME	Yes	No
Audio Amp RMS	10Wx2@8Ω 20W@4Ω	
Audio Network	Dante/AES67	
Compliance	IEEE802.3at, IEEE802.3af	
Protection	OCP, OTP, OVP, Auto Recovery Surge Protection	
DC Power	DC24V/2.5A, Optional	

**2ch PoE+**

ED-022

ED-004

ED-010 a

To Be Released Q2, 2021

*Specifications are subject to update without notification

Model	EI-90	ESDC
PoE Chip	LTC: PoE++	TI: PoE+, PoE
Audio Chip	N/A	
Max. Power	PSE: 90W	PD: 30W
KAP DSP	N/A	
FQ Response	N/A	
Signal Ratio	N/A	
FIND ME	N/A	
Product Type	PoE Injector	PoE Splitter for DC5/12V
Audio Network	N/A	
Compliance	IEEE802.3bt	IEEE802.3at / af
Protection	SCP, OTP Surge Protection	OTP, OVP, OCP, SCP, Surge Protection
DC Power	DC56V/2A, Optional	DC5V/12V Output

Injector & Splitter
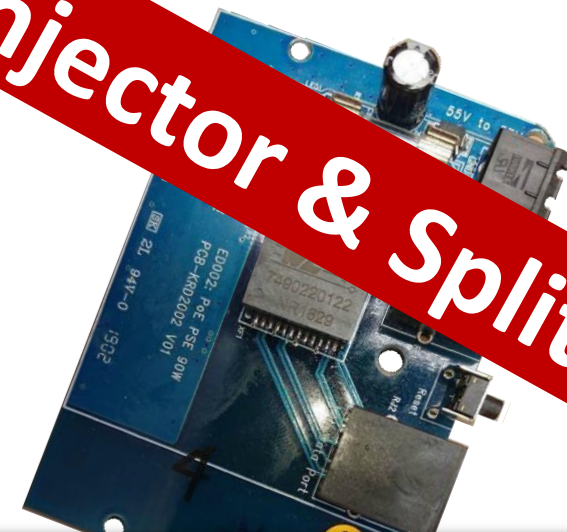
All Boards can be Customized to Your Own Shapes and Sizes.

*Specifications are subject to update without notification

Keiga

Power Over Ethernet

Exclusive

DSP Configuration Software

PoEKAP™

Keiga   Audio   Performance
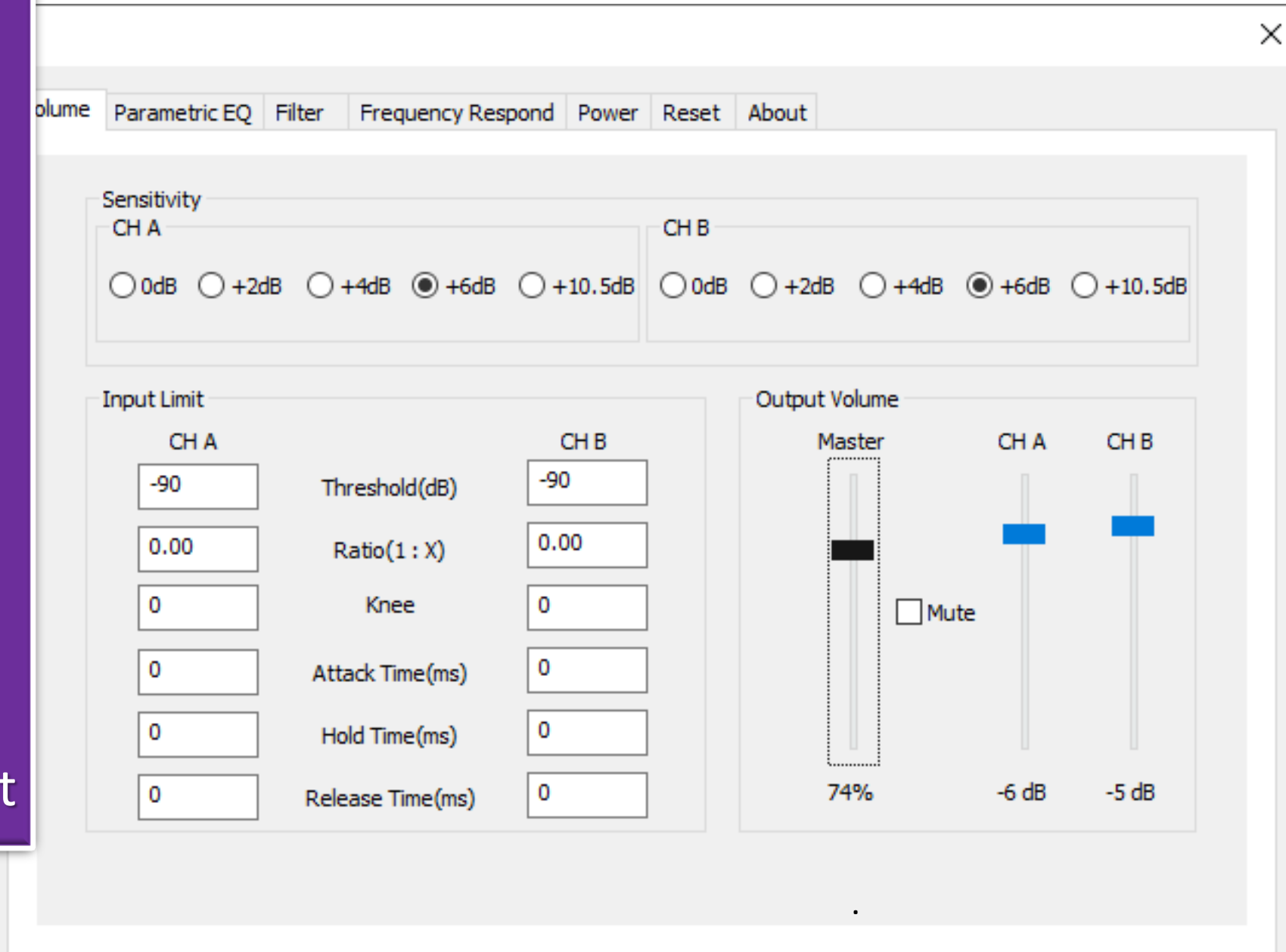
• Up to **5 sets of PEQ** for each Ch A and Ch B

• Uses number key to input values or mouse to move the curve to **match speaker's characteristics**
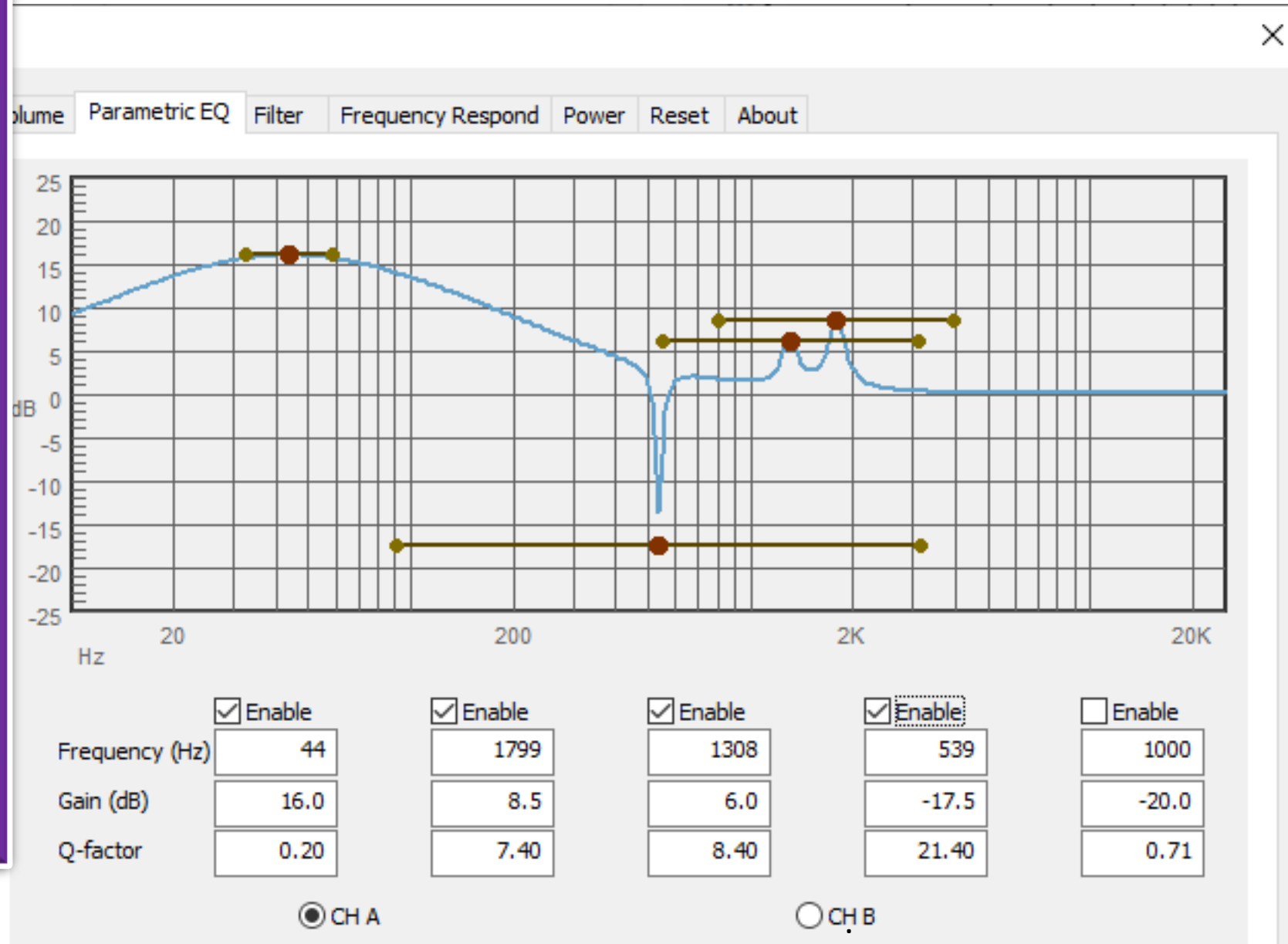
Keiga **KAP**™

Volume | Parametric EQ | Filter | Frequency Respond | Power | Reset | About

	Enable	Enable	Enable	Enable	Enable
Frequency (Hz)	44	1799	1308	539	1000
Gain (dB)	16.0	8.5	6.0	-17.5	-20.0
Q-factor	0.20	7.40	8.40	21.40	0.71

◉ CH A   ○ CH B

Save | Save As...

Preset Status
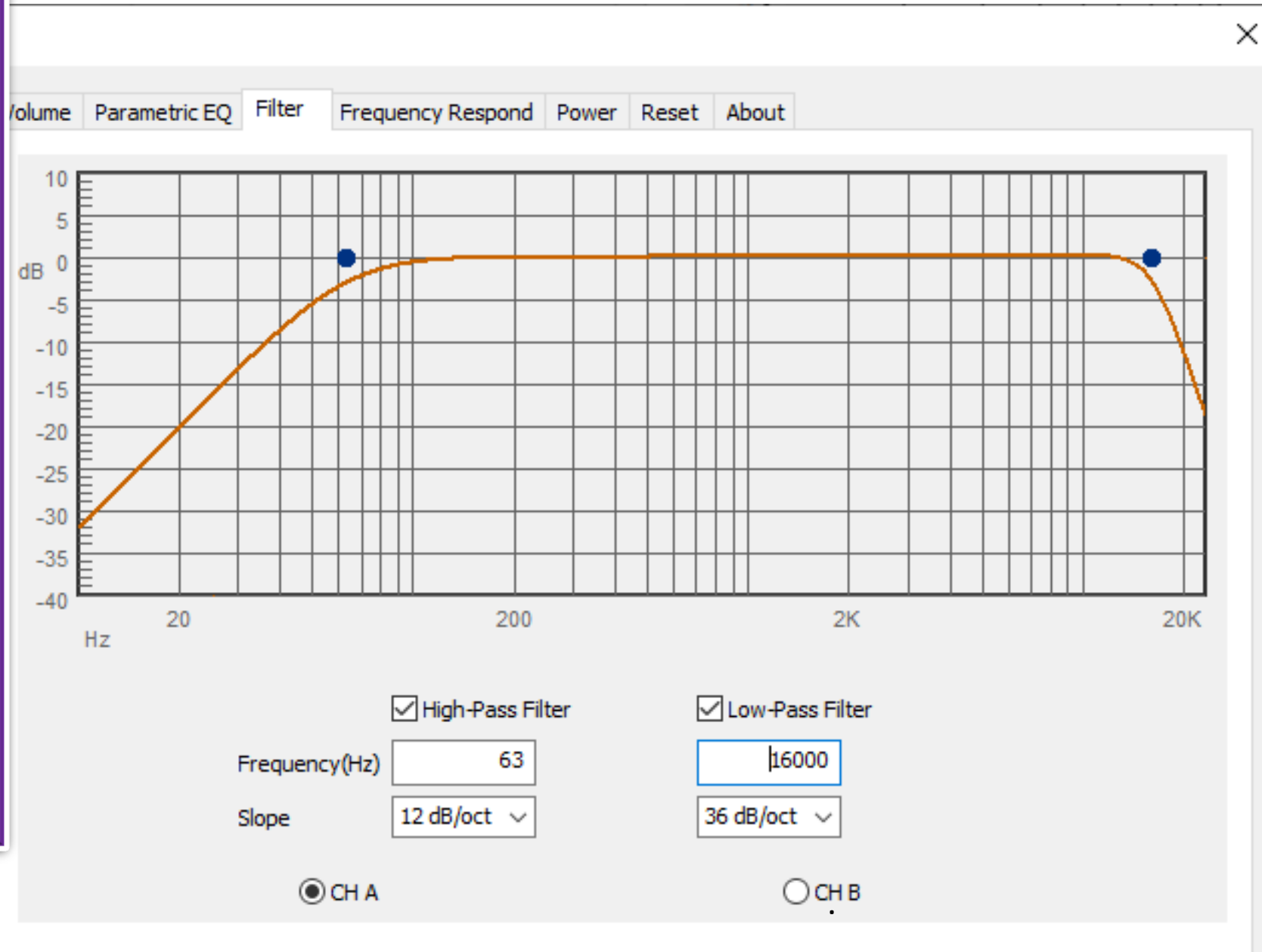
- Summary of a frequency response emulation; **easy** for installers to have a view of the whole scope of the configuration
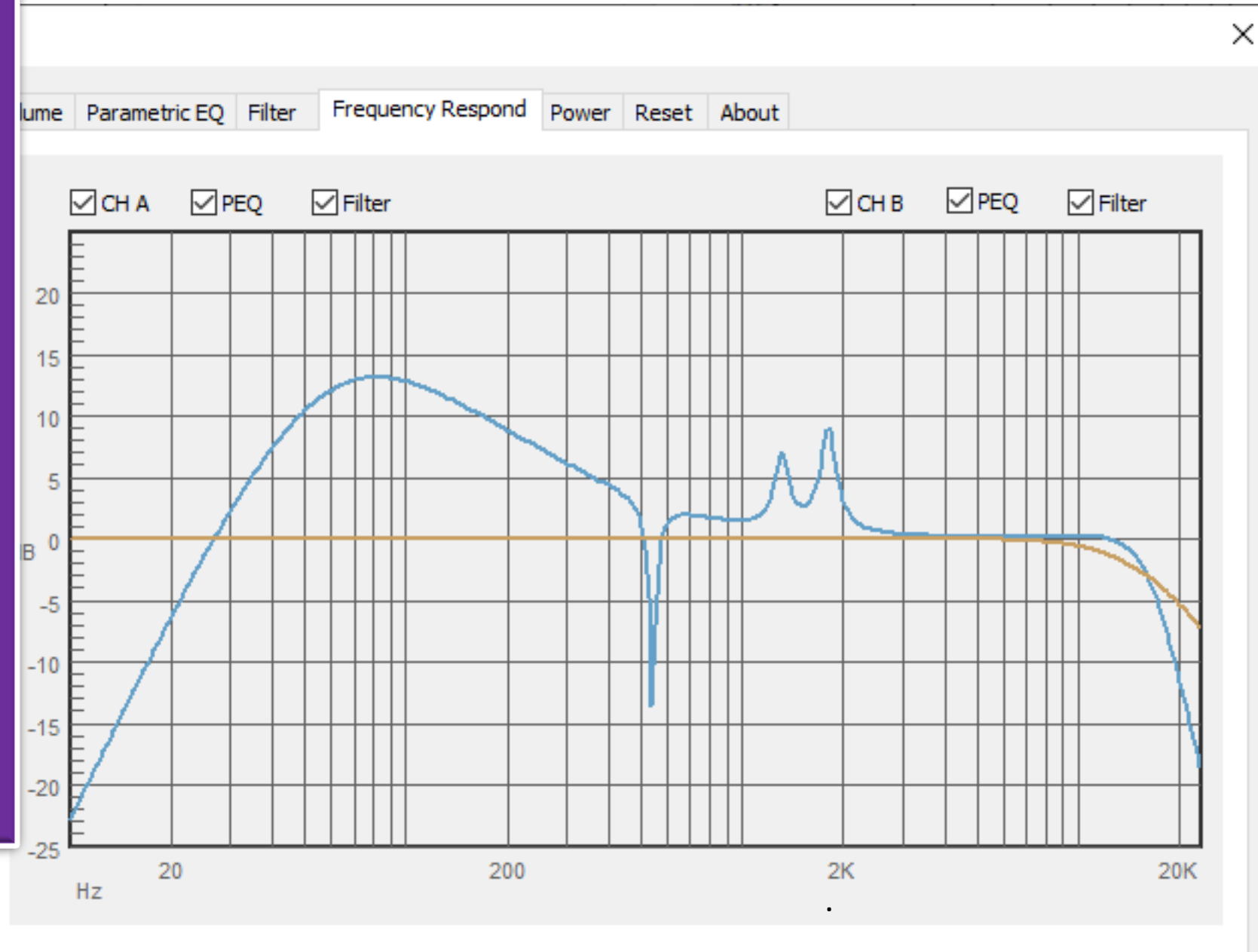
- Shows PoE connections **status**

- Provides setting for power limiter to **keep system stable**

- Selects the mode for **stereo or bridge** to mono and speaker parameters
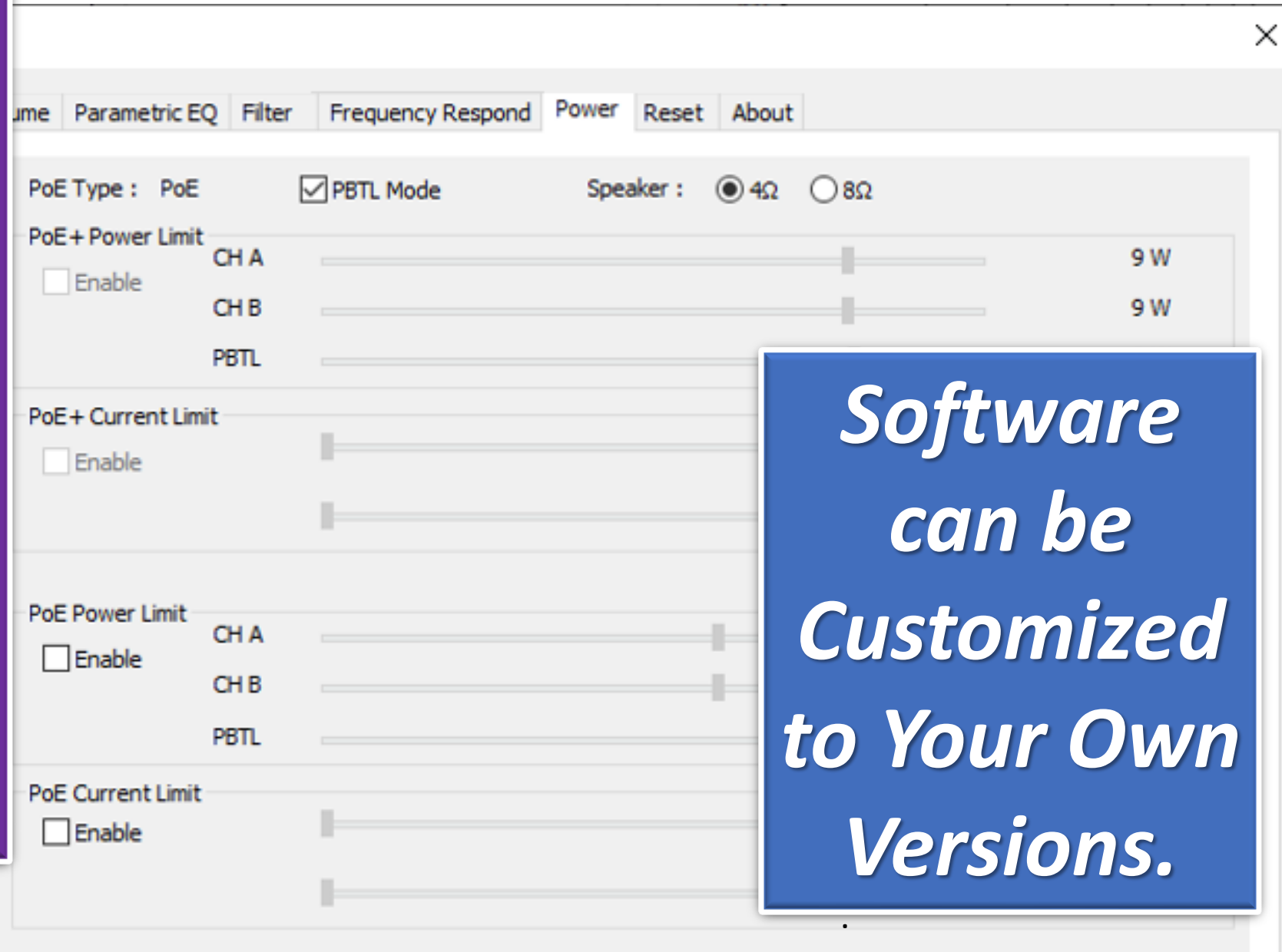
Software can be Customized to Your Own Versions.

keiga KAP™

| | Parametric EQ | Filter | Frequency Respond | Power | Reset | About |

PoE Type :   PoE   ☑ PBTL Mode   Speaker : ◉ 4Ω   ○ 8Ω

PoE+ Power Limit
☐ Enable   CH A   9 W
                  CH B   9 W
                  PBTL

PoE+ Current Limit
☐ Enable

PoE Power Limit
☐ Enable   CH A
                  CH B
                  PBTL

PoE Current Limit
☐ Enable

Save   Save As...

Preset Status

Our **PoE** Amps and **Software** are **Ready** for your brands **Now!**

We Love to
JDM / ODM / OEM
Your Products

High Quality Production Facilities in Taiwan and China

Custom Installation S models

Keiga

INDUSTRY: ___ al Custom Installation

PRODUCT: ___ Switch-mode Power Supply
DESCRIPTION: Multichannel Class-D Amplifiers

TYPE: ☐ Design only ☐ JDM ■ ODM ☐ OEM

Keiga's Contributions in Design & Development

■ CD
Concept Design
■ ID ■ EE ■ ME ☐ SE ■ Features ☐ GUI

■ EE
Electronic and Electrical Engineering
☐ AC Power Unit ☐ DC Power Unit ■ AC/DC Power Unit
■ Select Key Components ■ I/O ■ PCBA Circuitry
☐ Customized Layout ☐ RF ☐ Bluetooth ☐ Infrared ☐ Wi-Fi
☐ DECT ☐ UART ☐ USB ☐ I2C ☐ RS-232

■ ME
Mechanical and Heat Engineering
■ Chassis ■ Industry Design ■ Cables & Wires ■ Connectors
■ Heat Dissipation ■ Tooling ■ Metal ■ Plastic ■ Packaging
■ User Manual

■ SE
Software & Firmware Engineering
☐ GUI ☐ System ☐ DSP ■ Firmware

■ CE
Compliance and Certification Engineering
☐ EMI ■ FCC/IC ■ CE ☐ UL ■ ETL ■ RoHS

■ PE
Purchasing & Production Engineering
■ Key Component Purchasing ■ Long Lead-Time Component Purchasing
■ Engineering Sample ■ Engineering Transfer

THANK YOU!

PLEASE CONTACT US FOR THE
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