HDA-1600 Combination Low-Z & 70 Volt Configuration

Last Modified on 06/09/2021 11:42 am EDT

URC HDA devices and software provide countless options to configure and optimize audio settings to achieve performance and flexibility for almost any application.

One of those features is the HDA-1600 capability to be used in a combination Low-Z/70 Volt Application.

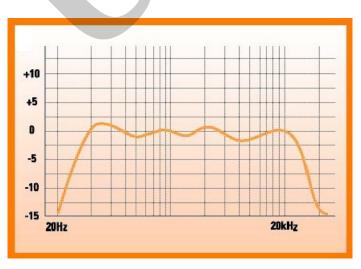
This article provides a better understanding of the HDA-1600 Amplifier that supports 2 amplifier channels, which "auto-detect" whether they are driving "Low-Z" (4 or 8 Ohm) or "70 Volt" speaker systems and the required settings when using Accelerator 3 or TC Flex 2 software.

A single HDA-1600 Amplifier can use one channel to power "Low-Z" speakers while the other channel powers "70 Volt" speakers. This is especially useful in outdoor applications where "70 Volt" outdoor speakers are used in conjunction with a "Low-Z" subwoofer. "Low-Z" speakers have better low frequency response than "70 Volt" speakers.

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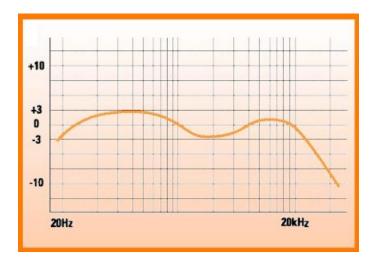
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Typical 70 Volt Speaker Frequency Response: (see image below)

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The graphs above show that a "Low-Z" speaker has a better low frequency response, which makes this type of speaker more suitable to be used as a subwoofer.



In Accelerator 3 and TC Flex 2, right click on the HDA-1600 in the product tree. By setting an amplifier channel to "70 Volt" operating mode, a High Pass filter is assigned to the 70 Volt amplifier channel. This **high pass filter** can be defeated in software.

Accelerator Step 9e, TC-Flex 2.0 Step 7e

	Device Properties 23
	Name HDA-1600-70V
	MAC Address 00: 1F:88:42:00:5A
	IP Address 192.168.1.4
	Amplifier Operating Mode
	Zone Out 11. 70 Volt * Zone Out 18. Low 7-4/8 Ohm *
	Balanced Input Mode 2 Mic Inputs *
	MIC Phantom Power 48 V *
	c 12 V Qutput
	Output 1 Turn on/off with pre-out *
	Output 2 Turn on/off with pre-out *
	C Split Zone for Two Mono Zones
	Zone 1
	Apply Cancel
	High pass filter settings:
	57
tep 9 URC Audio Setup: Zone Audio Se	attions.
ep 9 UKC Audio Setup: Zone Audio Se	
$\bigcirc \qquad \bigcirc \qquad$	
a.Inputs b.Input Settings c.Perm	anent Zone Groups d.Zone Assignment e.Zone Settings f.Sounds g.Room Link Groups
- Select Device with Outputs	Audio Settings: Zone IL Mono Connect To Zone
HDA 9100/06fee 910071D)	
HDA-8100(Office 8100Z1R) HDA-130 #1(Ktch 130#1Z1LR)	Zone Type: O Stereo Mono
HDA-1600-70V(Bed 1600Z1LR) HDA-4100(LivRm 4100Z1,2LR)	
THOULING THOUL LICEN	
HDA-IO (Output)(Lake IOZ1)	Zone Output:
	Zone Output: Variable Fixed
HDA-IO (Output)(Lake IOZ1)	
HDA-IO (Output)(Lake IOZ1)	Variable Fixed
HDA-IO (Output)(Lake IOZ1)	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global
HDA-IO (Output)(Lake IOZ1)	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume:
HDA-IO (Output)(Lake IOZ1)	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global
HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR)	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume:
HDA-IO (Output)(Lake IOZ1)	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global
HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR)	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global Turn On Volume: ④ Last Used Preset Z6 % Turn On Vol. Ramp Rate: 1.5 sec Apply Global
HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR) Available Zone Outputs Output Room Add No Zone IL	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global Turn On Volume: ③ Last Used ① Preset 26 % Turn On Vol. Ramp Rate: 1.5 sec Apply Global Filter
HDA-IO (Output)(Lake IOZ I) HDA-130 #2(Foye'r 130#2 Z ILR) Available Zone Outputs Output Room Add No	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global Turn On Volume: @ Last Used Preset 26 % Turn On Vol. Ramp Rate: 1.5 sec Apply Global Filter Off @ High Pass C Low Pass
HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR) Available Zone Outputs Output Room Add No Zone IL	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global Turn On Volume: ① Last Used ① Preset 26 % Turn On Vol. Ramp Rate: 1.5 sec Apply Global Filter Off ② High Pass ① Low Pass High Pass Filter Setting Slope
HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR) Available Zone Outputs Output Room Add No Zone IL	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global Turn On Volume: @ Last Used
HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR) Available Zone Outputs Output Room Add No Zone IL	Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global Turn On Volume: @ Last Used
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HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR) Available Zone Outputs Output Room Add No Zone IL	 Variable Fixed Input Change Fade In Time: 1.5 sec Apply Global Volume: Max Volume: 100 % Apply Global Turn On Volume: Last Used Preset 25 % Turn On Vol. Ramp Rate: 1.5 sec Apply Global Filter Off High Pass Low Pass Filter Setting Slope Slope
HDA-IO (Output)(Lake IOZ1) HDA-130 #2(Foye'r 130#2 Z ILR) Available Zone Outputs Output Room Add No Zone IL	Implify Change Fade In Time: 1.5 sec Volume: Apply Global Volume: Max Volume: 100 % Max Volume: 100 % Apply Global Turn On Volume: Incenter of the second seco

Additional Information & Resources:

To learn more about HDA products and programming, please see the HDA Programmers Guide or the Accelerator 3 online Programming Guide.