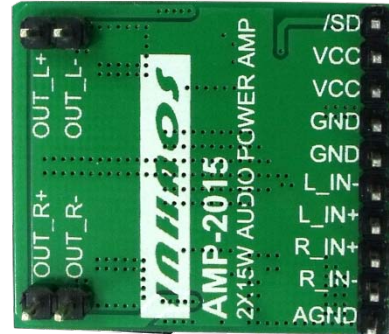
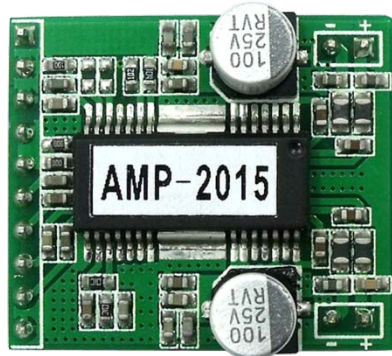


AMP-2015

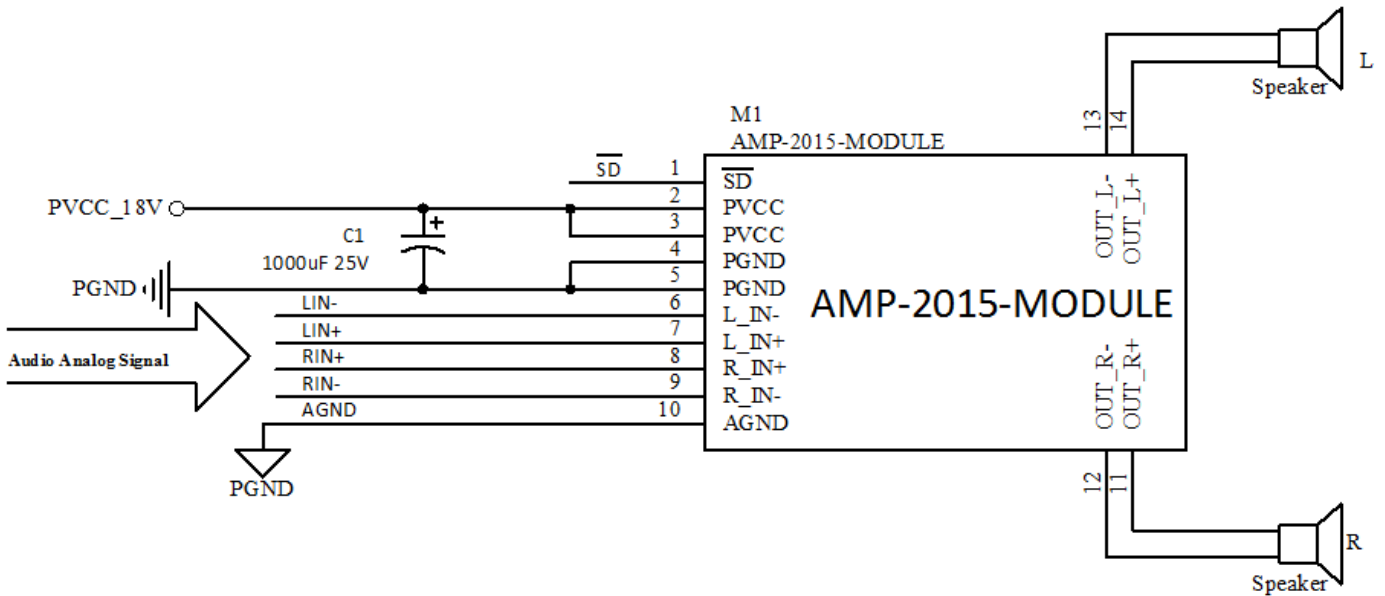
2x15W Stereo CLASS-D Audio Power Amplifier

Overview

The AMP-2015 module consists of a 2x15W Class-D Stereo audio power amplifier, complete with a small number of external components mounted on a circuit board that can be used to directly drive speakers with an external analog audio source as the input.



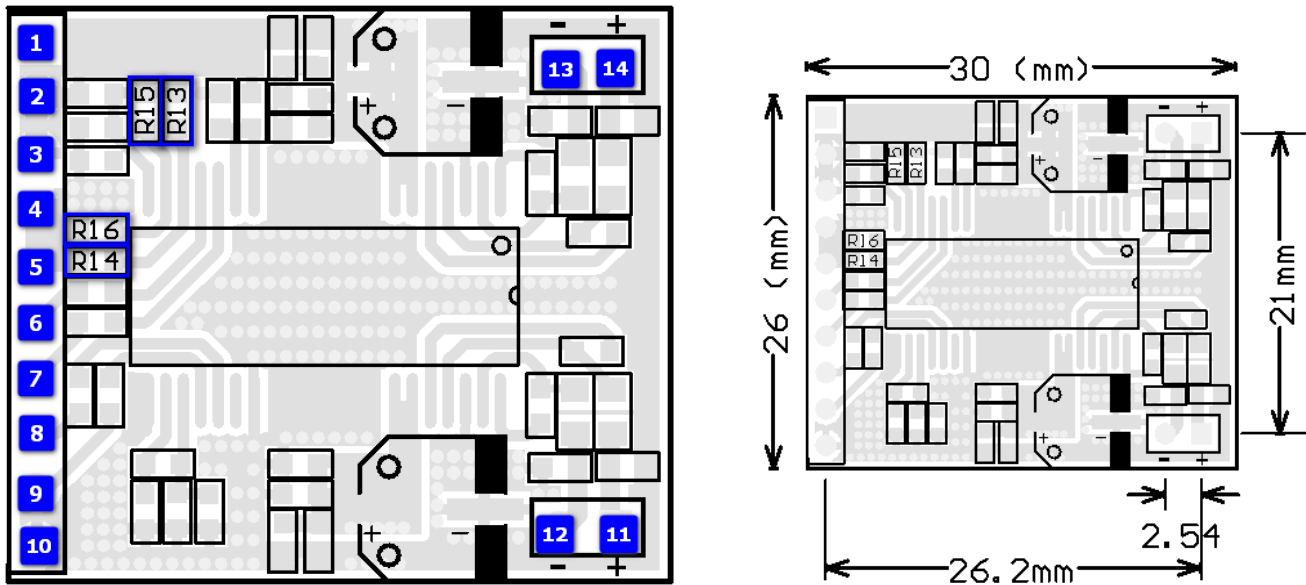
Typical Application



Specifications

No.	Symbol	Parameter	Test Conditions	Unit	Min	Max	Remark
1	Vcc	Supply Voltage	PVCC	V	8	25	
2	Vih	High-level input voltage	SD	V	2	VCC	
3	Vil	Low-level input voltage	SD	V	0	0.8	
4	G	Gain	GAIN1 = 0, GAIN0 = 0	dB	19	21	Rin = 60KΩ
		Rf = 600KΩ Gain = Rf / Rin	GAIN1 = 0, GAIN0 = 1	dB	25	27	Rin = 30KΩ
			GAIN1 = 1, GAIN0 = 0	dB	31	33	Rin = 15KΩ
			GAIN1 = 1, GAIN0 = 1	dB	35	37	Rin = 9KΩ
5	Po	Output Power	THD+N = 10%, f=1KHz,Vcc=16V	W	14.5	15.5	
6	THD+N	Total harmonic distortion + noise	Vcc = 16V, F = 1KHz, Po = 7.5W	%	0.05	0.15	
7	SNR	Signal-to-Noise ratio	Gain = 20dB, THD+N<1%, f = 1KHz	dB	100	105	
8	Fosc	Oscillator frequency	---	KHz	250	350	
9	RL	Rated Load	---	Ω	3.2	---	

Pin Description



No.	Pin No.	Symbol	Function	Remark
1	1	SD	Standby signal, Active LOW, floating is Hi	Default is High
2	2,3	PVCC	Power supply	
3	4,5	PGND	Power ground	
4	6	LIN-	Negative audio input for Left channel	
5	7	LIN+	Positive audio input for Left channel	
6	8	RIN+	Positive audio input for Right channel	
7	9	RIN-	Negative audio input for Right channel	
8	10	AGND	Analog ground , connected to PGND on the module	
9	11	ROU+	Class –D 1/2 H-bridge Positive output for Right channel	
10	12	ROU-	Class –D 1/2 H-bridge negative output for Right channel	
11	13	LOU-	Class –D 1/2 H-bridge negative output for Left channel	
12	14	LOU+	Class –D 1/2 H-bridge Positive output for Left channel	

Gain Setting

User can be modify the whole system gain by change the R13,14,15,16 , **the default is 20dB.**

NO.	GAIN1	GAIN0	R13	R14	R15	R16	GAIN (dB)	Input Impedance(KΩ)	INPUT DC Shift protect (mV)
1	0	0	NC	OR	NC	OR	20	60	112
2	0	1	OR	NC	NC	OR	26	30	56
3	1	0	NC	OR	OR	NC	32	15	28
4	1	1	OR	NC	OR	NC	36	9	17

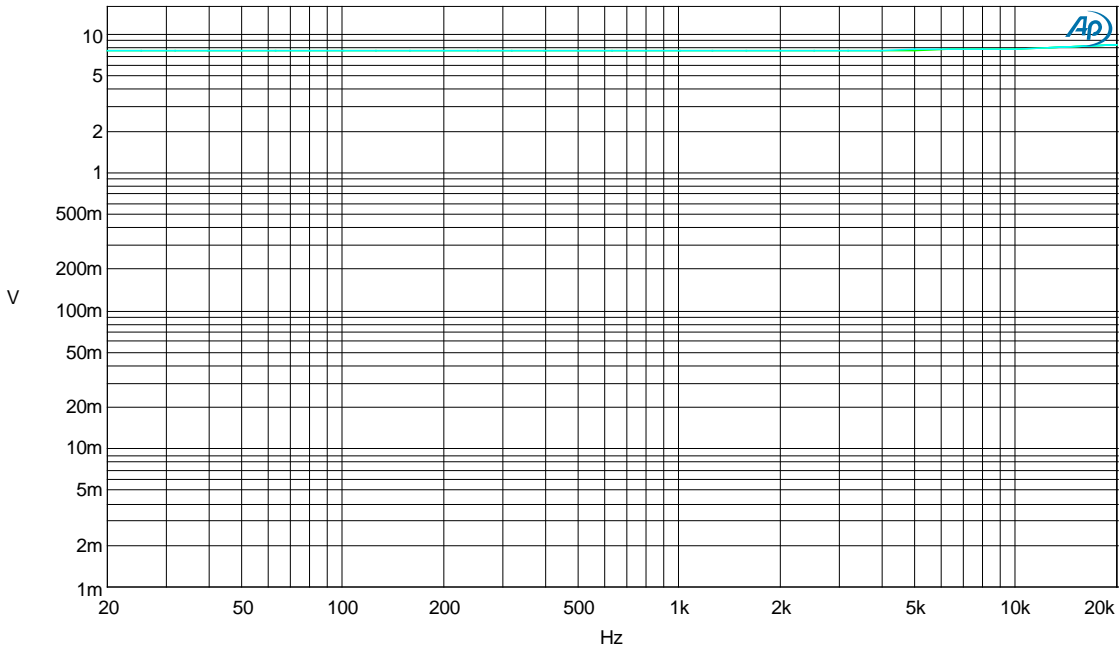
AMP-2015

2x15W Stereo CLASS-D Audio Power Amplifier

ATS-2 Test Result

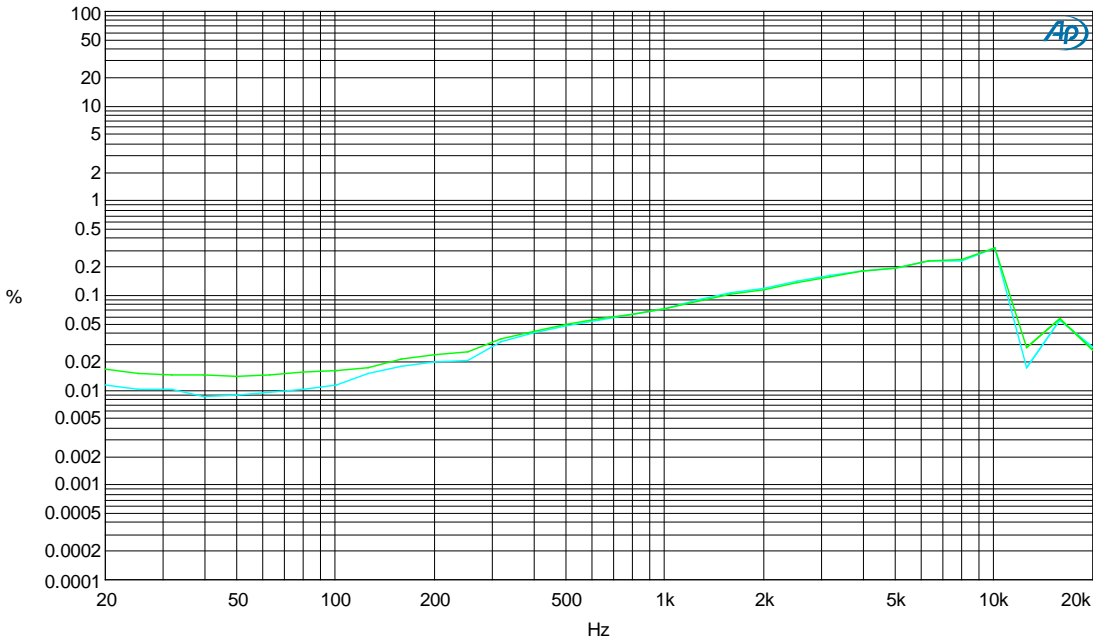
Audio Precision

12/17/15 20:27:33



Audio Precision

12/17/15 20:32:50

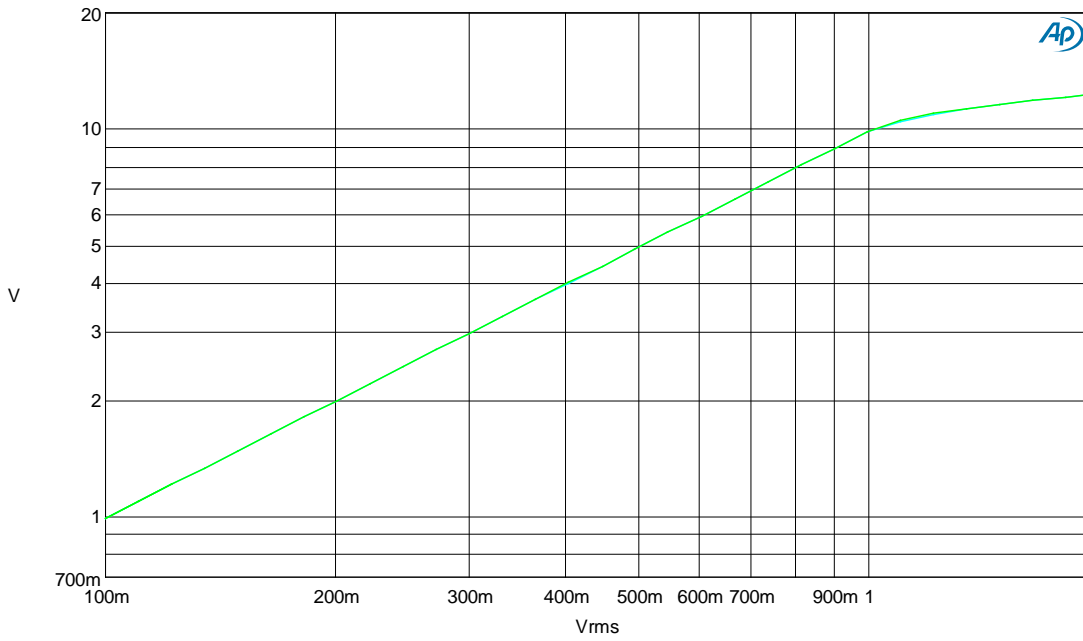


AMP-2015

2x15W Stereo CLASS-D Audio Power Amplifier

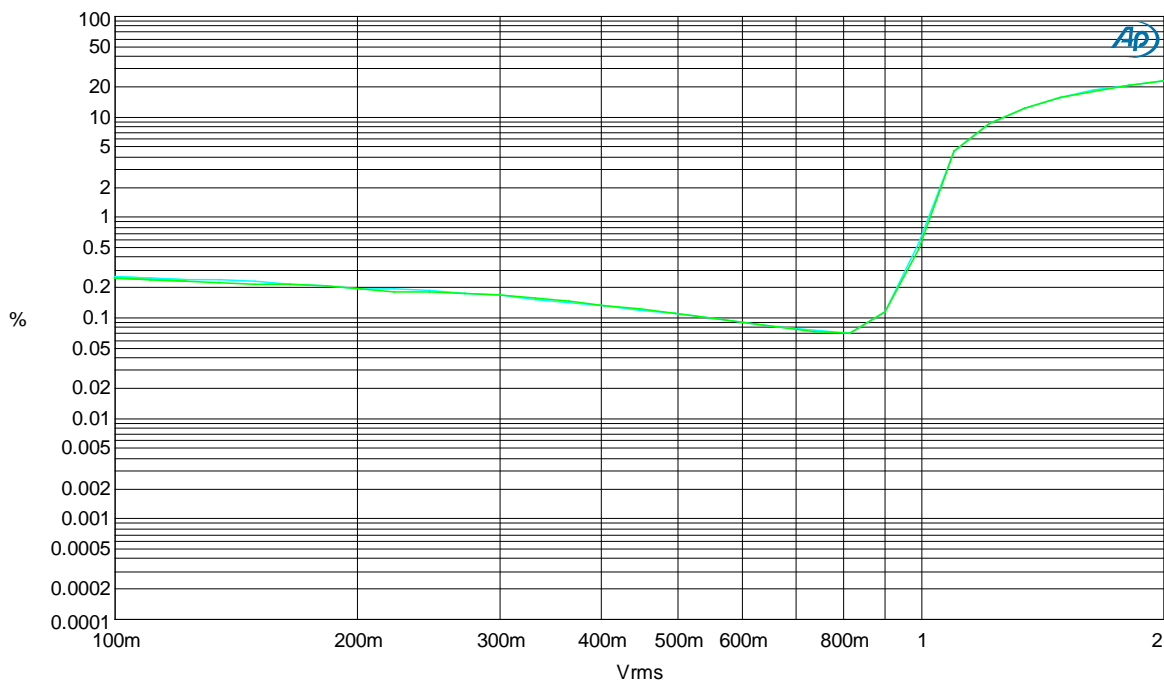
Audio Precision

12/17/15 20:34:34



Audio Precision

12/17/15 20:33:45



AMP-2015

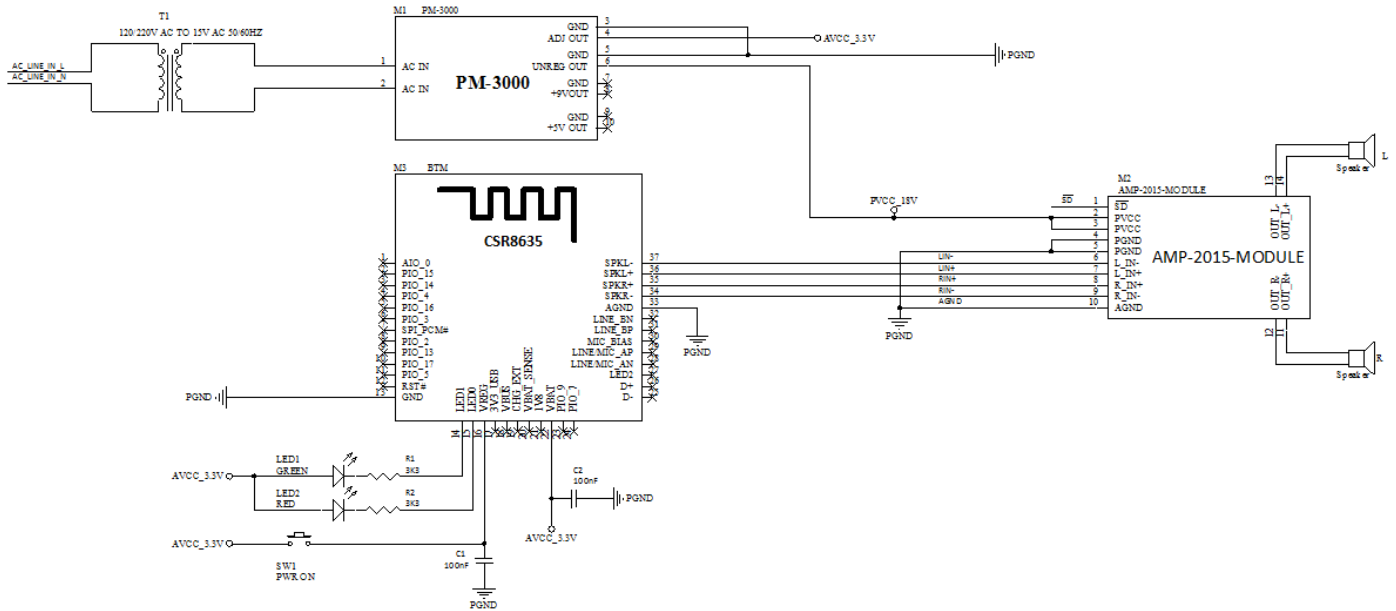
2x15W Stereo CLASS-D Audio Power Amplifier

Input DC Shift protect

When input signal contain a DC shift , and continuous over 420mS , the output protect will be active , so if the audio signal patch have big capacitor , please pull-low and hold the SD pin until the system become stable , otherwise the output stage maybe entry protect mode and no signal output.

Application example

Connected the AMP-2015 to a Bluetooth module .



INHAOS Headquarter :

1111 Oakmont Drive #C, San Jose, CA 95117

E-mail : support@inhaos.com

INHAOS China office :

No.6 Building,Songke Estate,Songshan Lake National Hi-tech Industrial Development Zone,Dongguan,Guangdong Province, 523808,China

E-mail: Support@inhaos.com