staccato

The Open Sound Hybrid pure class A OSH-Opamp for high-end Audio

The Open sound OpAmp improving the sound of high-end DACs and preamplifier.

The use of J-FET, in both input and output stage, in combination with high bias current, had result in low Open loop distortion with dominating of 2. harmonic. The source follower at the output using an active current source which allow higher output current than the bias current.

The highest output Current is ±30mA

		Measurement		
Absolute Maximum Ratings		Min	Typ	Max
Supply Voltage (Operating Ambient Temperature –25° to 45℃)		±8 V		± 15V
Supply Voltage (Operating Ambient Temperature –25° to 30℃)		±8 V		± 18V
Operating Ambient Temperature		–25℃		45℃
Storage temperature range		–65℃		65℃

DC Characteristics	Conditions	Testing Temperature 25℃ Supply Voltage ±15V	
Sypply Current（mA)			Single 30mA Dual 60mA	Single 35mA Dual 70mA
Input offset voltage (mV)			1mV	3mV
Input offset current （nA)				0.8nA
Input BIAS current (nA)				1nA
Output Current		±30mA		

AC Characteristics	Conditions	Testing Temperature 25℃ Supply Voltage ±15V	
Open-loop gain (dB)			80dB	
Gain Bandwidth Product （MHz）			1.5 MHz	
Phase margin@ unity gain		40º		

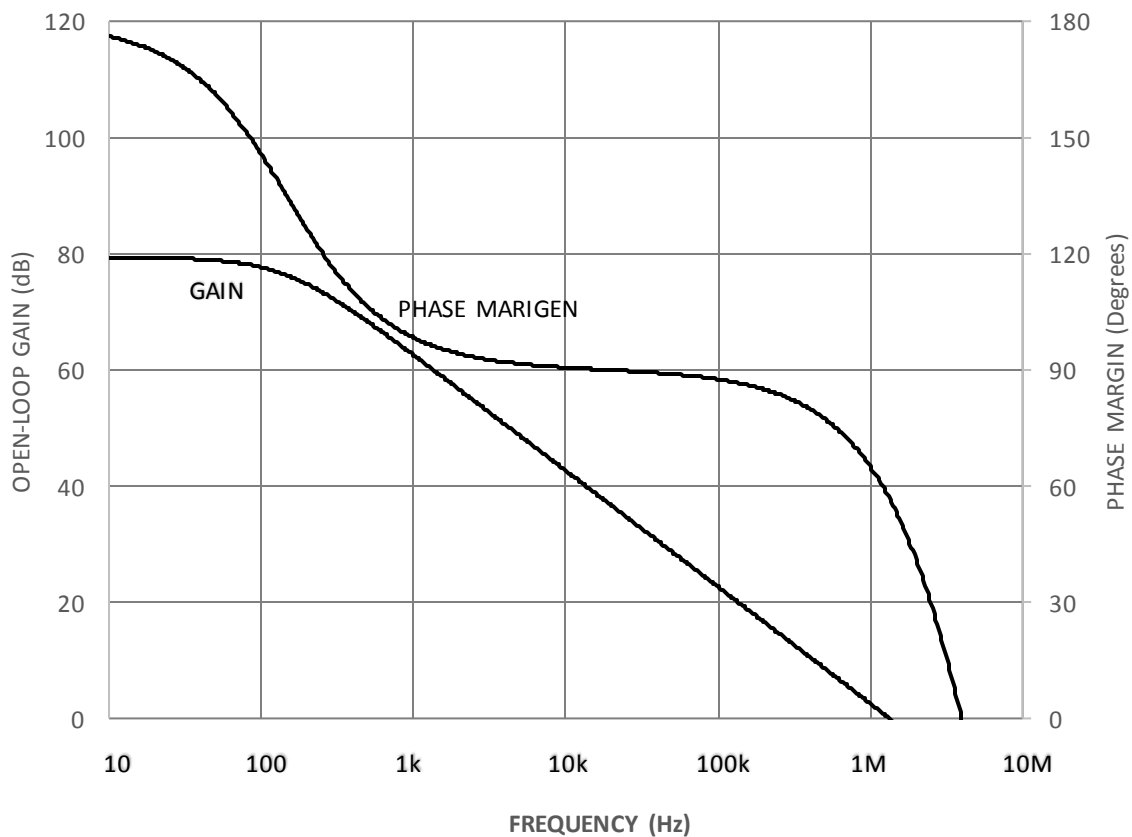| Slew Rate	R_L=1kΩ		4V/μs	
Input Resistant (MOhm)		100MΩ		
Total Harmonic Distortion (%) 1Khz @ 1V rms output	RL =1kΩ Gain=1 @1kHz 1Vrms	0.0002%	0.0003%	0.001%
Total Harmonic Distortion (%) 1Khz @ 1V rms output Open loop gain 60dB@1kHz	RL =1kΩ Gain=1000 @1kHz 1Vrms		0.06%	
Output Impedance (Ohm)			20Ω	
Input related Voltage noise	0kHz-20kHz		$15\dfrac{nV}{\sqrt{Hz}}$	$20\dfrac{nV}{\sqrt{Hz}}$
		Dual	Single	
Dimension:				
Weight:				

figure 1. Open-Loop Gain and Phase Margin vs. Frequency
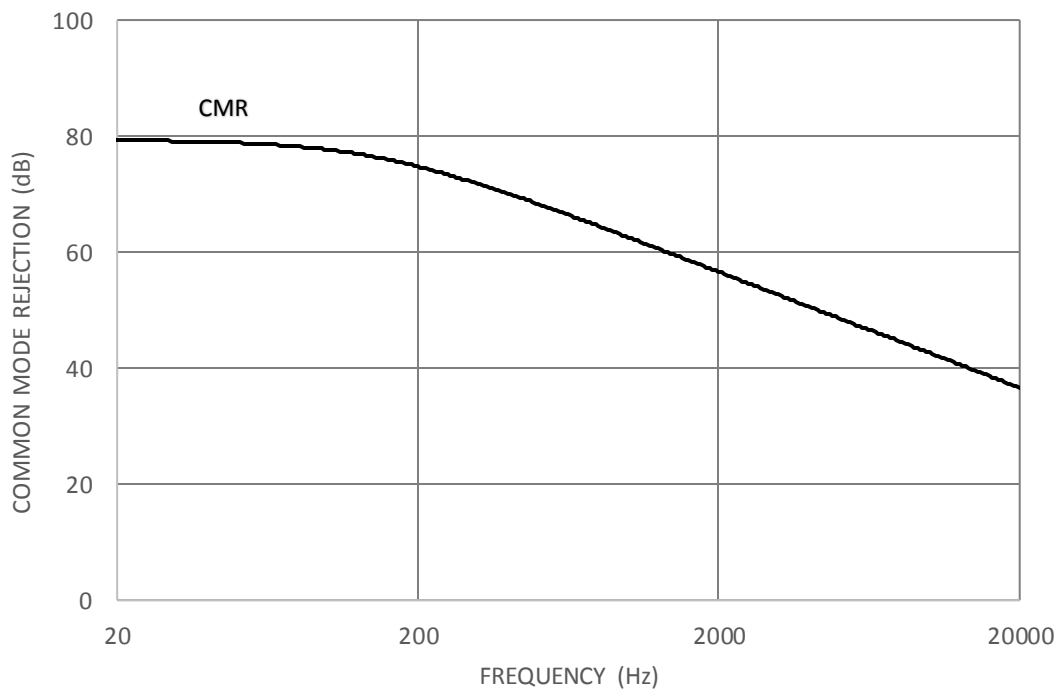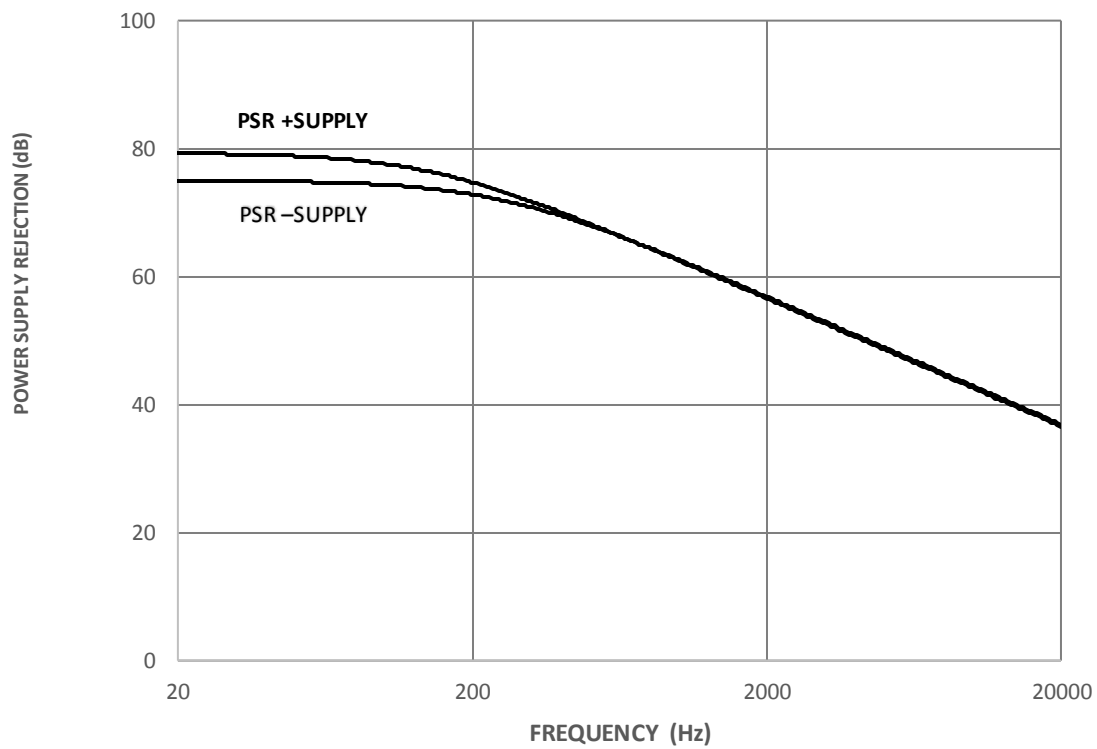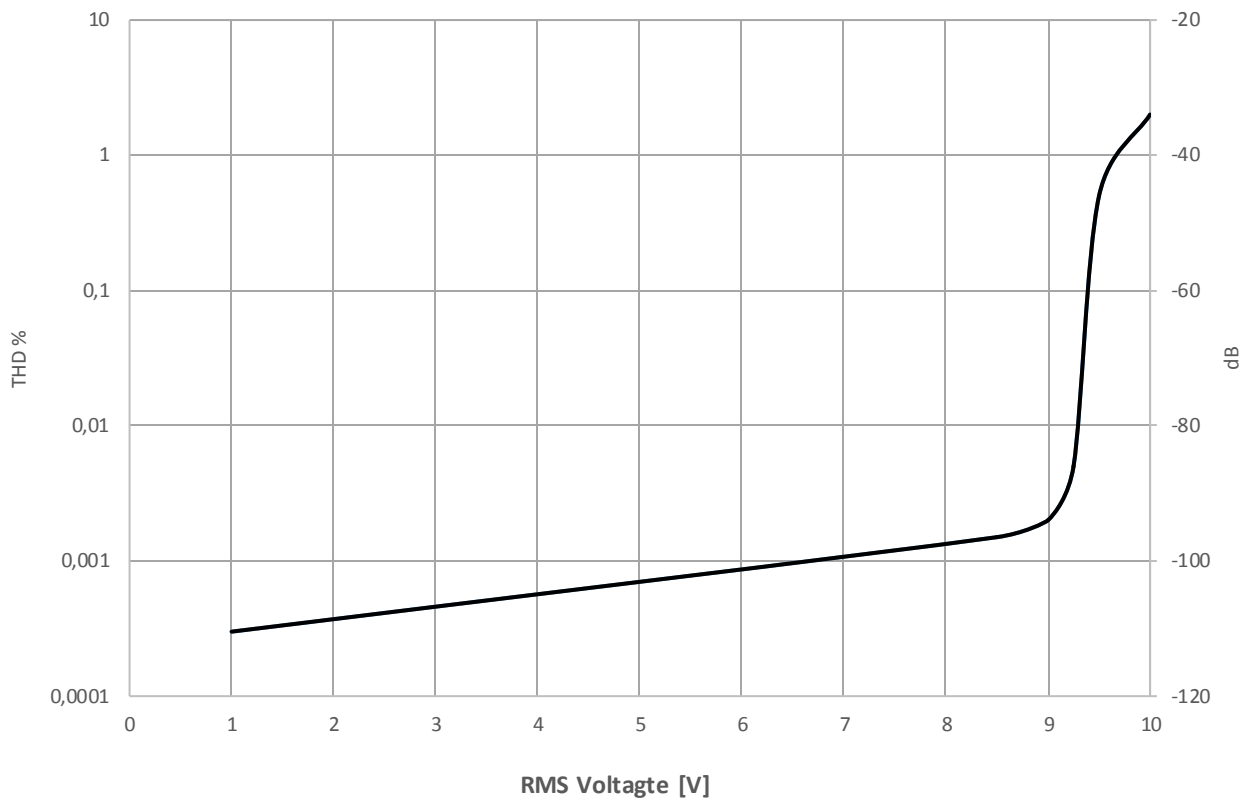
figure 2. Common-Mode Rejection vs. Frequency

Figure 3. Power Supply Rejection vs. Frequency

figure 4 Total harmonic distortion vs. amplitude
frequency :1kHz load:1k ohm   unity gain