ML2870A Data Sheet

<Difference from ML2870>

Version 0.0.1

Revised on 7 February 2003

ANALOG CHARACTERISTICS

VDDIO=1.65-DVDD, DVDD=AVDD=XTVD=+2.7V-3.3V,
DGND=AGND=XTGND=DrvGND=0V, Ta=-20-+85°C

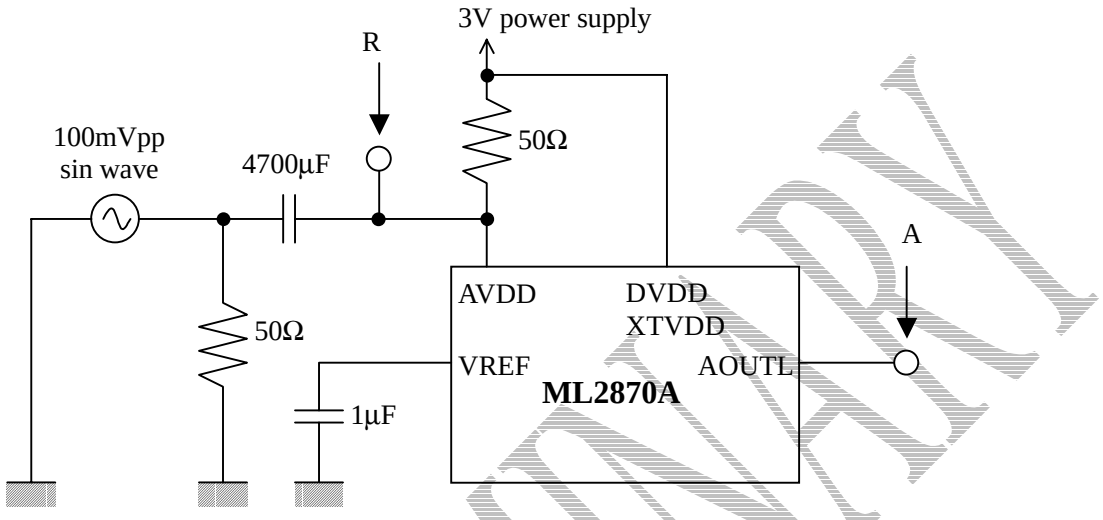
Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Load Impedance of AOUT	RAOUT	-	7	-	-	kΩ
THD of Analog output buffer	THD	VDD=3.0V Freq=1kHz No Load	-	0.05	-	%
Output Voltage of VREFL and VREFR	V_{REFO}	-	-	0.4xV_{DD}	-	V
Potential deference between bias level and output signal of amplifier.	V_{DBA}	VDD=3.0V Ta=+25°C	-40	-	40	mV
<additional characteristics>						
Center Voltage of AOUTL/R.	VSG	VDD=3.0V Ta=+25°C	-	0.6	-	V
PSRR *1 (Single output)	PSRR	VDD=3.0V Ta=+25°C Fnoise = 217Hz		-35		dB

<different characteristics between ML2870 and ML2870A>

Parameters	Symbol	condition	Typical value of ML2870A	Typical value of ML2870	Unit
Center Voltage of AOUTL/R.	VSG	VDD=3.0V Ta=+25°C	0.6	1.4	V
PSRR *1 (Single output)	PSRR	VDD=3.0V Ta=+25°C Fnoise = 217Hz	-35	-10	dB

(note)

*1) measurement circuit is shown as the figure below.



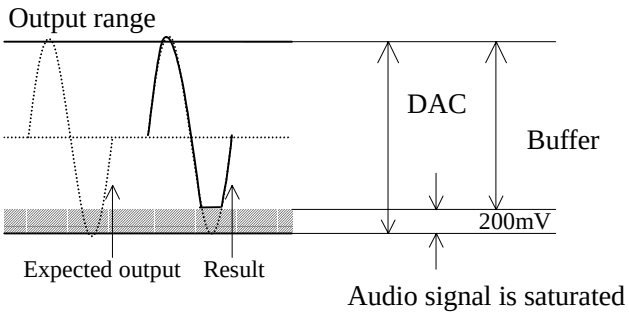
$PSRR = 20\log_{10}(A/R)$

NOTICE OF AUDIO OUTPUT SATURATION

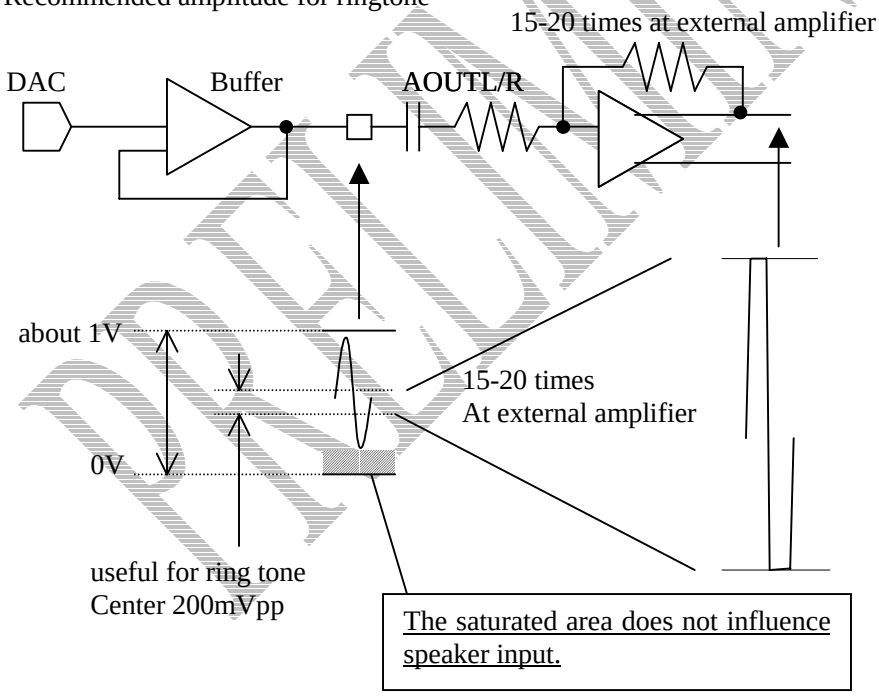
Audio output voltage of ML2870A is as same as ML2870.

ML2870 can not output lower 200mV.

However it does not influence sound quality.



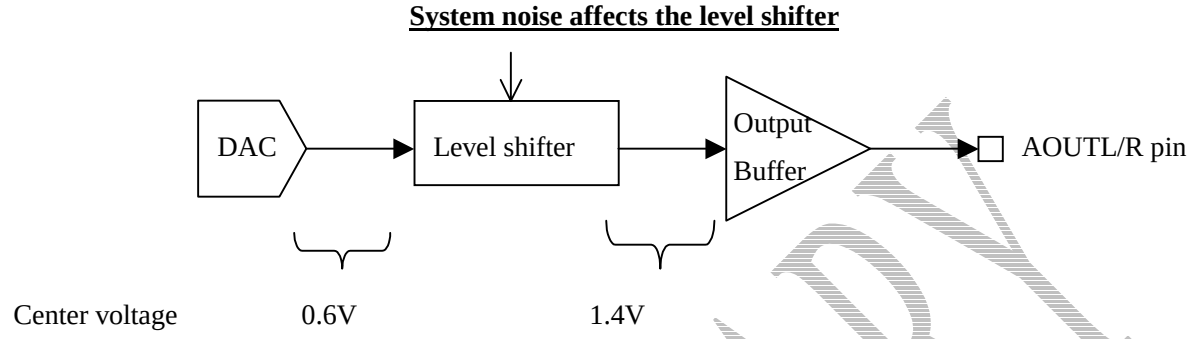
Recommended amplitude for ringtone



INTERNAL DIFFERENCE

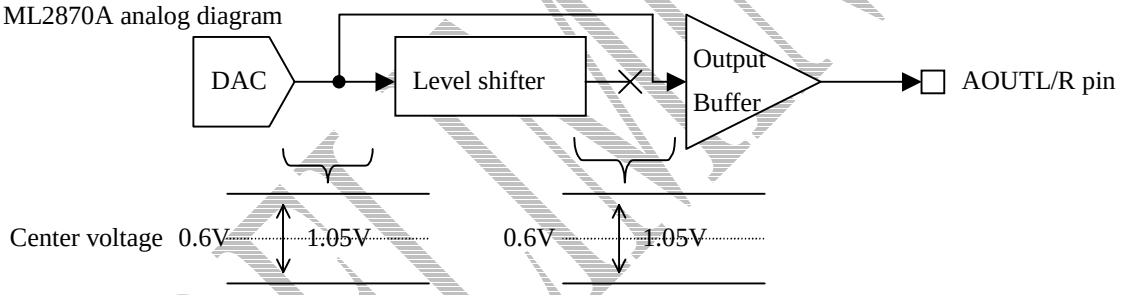
Following figure show analog diagram of ML2870.

ML2870 analog diagram



Level shifter is removed in ML2870A. Therefore, affect of system noise is lower than ML2870

ML2870A analog diagram



TYPICAL PERFORMANCE

PSRR (POWER SUPPLY REDUCTION RATIO)