

**Echo Processor with Music Mix IC**

Part No.	Package	Channel	Supply Voltage	RAM	THD+N	SNR
MS6300	MSOP10	1	4.5~5.5V	44K	-70dB	90dB

**General Purpose Operational Amplifier**

Part No.	Package	Channel	Supply Voltage	Output	SR	GBWP	Quiescent Current	Feature	Reference
MSV358	MSOP 8 SOP 8	2	2.4~6.5V	RRO	1V/us	1MHz	170uA@2.7V	Voice band	TI LMV358 NS LMV358
MS2100	SOP 8	2	2.7~6.5V	RRO	6V/us	12MHz	2.1mA@2.7V	Audio band	ROHM BA4510 JRC NJM2100
MSV932	MSOP 8 SOP 8	2	2.1~6.5V	RRIO	0.5V/us	1MHz	180uA@2.1V		NS LMV932 NS LMV922

**Headphone Driver**

Part No.	Package	Channel	Supply Voltage	Fixed Gain	Mute	THD+N	PSRR	Max Output Power	Feature	Reference
MS6308	SOP 8	2	2.8~6.5V	-	-	-75dB	70dB	124mW@5V	124mW@5V ESD 6000V	Philips TDA1308
MS6544	SOP 8 MSOP8	2	2.7~6.5V	6dB	v	-64dB	60dB	140mW@5V	Pop noise free	ROHM BH3544F

TP: Thermal pad

**Audio Power Amplifier**

Part No.	Package	Channel	Supply Voltage	Stereo HP	I <sub>SD</sub> (5V)	HP THD+N	PSRR	Max Po	Feature	Reference
MS6853	MSOP10(TP)	1 Stereo 1 BTL	2.4~6.5V	v	18uA @5V	-73dB	BTL 73dB SE 64dB	1.9W@5V, R <sub>L</sub> =4Ω 1.2W@5V, R <sub>L</sub> =8Ω	HP sense Compact package Enhance TP	ADI SSM2250 NS LM4853 NS LM4858
MS6863	TSSOP20(TP)	1 Stereo 2 BTL	2.4~6.5V	v	0.4uA @5V	-75dB	BTL 63dB SE 55dB	2W@5V, R <sub>L</sub> =4Ω 1.2W@5V, R <sub>L</sub> =8Ω	Pop noise free control (extra function for Pin7) Enhance TP	NS LM4863

TP: Thermal pad      HP: Stereo Headphone

**Audio DAC**

Part No.	Package	Channel	Supply Voltage	Audio Format	Input Level	Output Voltage	THD+N	PSRR	Feature	Reference
MS6610	SOP8	2	2.7~6.5V	Right justified	TTL	1.0mA@5V	-85dB	60dB	Current output	Philips TDA1545
MS6309	SOP8	2	2.7~6.5V	I2S	TTL	0.5V <sub>DD</sub>	-60dB	-	Low cost	
MS6310	SOP8	2	2.7~6.5V	Right justified	TTL	0.5V <sub>DD</sub>	-60dB	-	Low cost	Philips TDA1311
MS6313	SOP8	2	2.7~6.5V	Right justified	TTL	0.4V <sub>DD</sub>	-68dB	65dB	Excellent PSRR	Philips TDA1311
MS6324	MSOP8 SOP8 DFN8	2	2.5~6.5V	I2S	TTL	0.5V <sub>DD</sub>	-68dB	65dB	Control inputs can be 1.8V@ 5V	
MS6326	MSOP8 SOP8 DFN8	2	2.5~6.5V	Right justified	TTL	0.5V <sub>DD</sub>	-68dB	65dB	Control inputs can be 1.8V@ 5V	Philips TDA1311

**Audio DAC with Headphone driver**

Part No.	Package	Channel	Supply Voltage	Audio Format	Input Level	Output Voltage	Volume Control	Control Interface	THD+N	PSRR	PD Current	Feature
MS6331	SOP8	2	2.5~6.5V	Right justified	TTL	0.568 * V <sub>DD</sub>	-	-	-60dB	66dB	-	Component less
MS6333	SSOP 16 QFN 16	2	2.5~6.5V	Right justified	TTL	0.023663 * R <sub>F</sub> * V <sub>DD</sub>	-	-	-65dB	72dB	12uA	Excellent PSRR TTL input level

**Audio DAC with HP and Volume Control**

Part No.	Package	Channel	Supply Voltage	Audio Format	Input Level	Output Voltage	Volume Control	Control Interface	THD+N	PSRR	PD Current	Feature
MS6335	SSOP 16 QFN16	2	2.7~6.5V	Right justified I <sup>2</sup> S	CMOS	0.02 * R <sub>F</sub> * V <sub>DD</sub>	6~-39dB	I <sup>2</sup> C (CMOS)	-65dB	72dB	11uA	Flexibility Power Management

**Audio DAC with Power Amplifier**

Part No.	Package	Channel	Supply Voltage	Audio Format	Input Level	Output Voltage	Control Interface	THD+N	PSRR	PD Current	Max Output Power
MS6336	TSSOP16(TP)	1 HP 2 SPK	2.4~6.5V	RJF LJF I <sup>2</sup> S	TTL	0.72 * V <sub>DD</sub>	I <sup>2</sup> C (TTL)	-65dB	65dB	0.3uA	1.6W@5V, R <sub>L</sub> =4Ω
MS6337	SSOP 24 QFN24	1 HP 2 SPK	2.7~6.5V	RJF I <sup>2</sup> S	1.6V@5V	0.01578 * R <sub>F</sub> * V <sub>DD</sub>	-	-65dB	61dB	17uA	1.8W@5V, R <sub>L</sub> =4Ω

RJF: Right Justified Format      LJF: Left Justified Format

**Volume Controller**

Part No.	Package	Input Channel	Output Channel	Supply Voltage	Mute	Control Interface	Gain	Volume	THD+N	PSRR	Feature
MS6257	SOP8	1 Stereo	1 Stereo	2.7~6.5V	v	I <sup>2</sup> C (CMOS)	0~15dB	-79~0dB	-68dB	-	-
MS6258	SSOP16	4 Stereo	1 Stereo	2.7~6.5V	v	I <sup>2</sup> C (CMOS)	0~15dB	-79~0dB	-69dB	53dB	Excellent PSRR Pop noise free
MS6260	MSOP10	1 Stereo	1 Stereo	2.7~6.5V	v	I <sup>2</sup> C (CMOS)	0~15dB	-79~0dB	-69dB	53dB	Compact package Pop noise free
MS6266	SSOP20	6	6	2.7~6.5V	v	I <sup>2</sup> C (CMOS)	0~16dB	-79~0dB	-69dB	53dB	Pop noise free
MS6272	MSOP10	1 Stereo	1 Stereo	2.5~6.5V	v	I <sup>2</sup> C (TTL)	0~15dB	-79~+15dB	-75dB	55dB	Excellent PSRR Soft-step volume differential Input
MS6274	SSOP16	4 Stereo	1 Stereo	2.5~6.5V	v	I <sup>2</sup> C (TTL)	0~15dB	-79~+15dB	-75dB	55dB	Excellent PSRR Soft-step volume differential Input

**Volume Controller with Headphone**

Part No.	Package	Input Channel	Output Channel	Supply Voltage	Mute	Control Interface	Gain	Volume	THD+N	PSRR	Feature
MS6282	MSOP10	1 Stereo	1 Stereo	2.5~6.5V	v	I <sup>2</sup> C (TTL)	0~15dB	-79~+15dB	-65dB	55dB	Excellent PSRR Soft-step volume
MS6283	SSOP16	3 Stereo	1 Stereo	2.5~6.5V	v	I <sup>2</sup> C (TTL)	0~15dB	-79~+15dB	-65dB	55dB	Excellent PSRR Soft-step volume differential Input

**Volume Controller with Power Amplifier**

Part No.	Package	Input Channel	Output Channel	Supply Voltage	Mute	Control Interface	Gain Attenuation	THD+N	PSRR	PD Current	Max Output Power
MS6864	TSSOP16(TP)	1 Stereo	1 Stereo 2 BTL	2.4~6.5V	v	I <sup>2</sup> C (TTL)	-77.5~+21dB	-65dB	BTL 61dB SE 64dB	0.3uA	RL=4Ω, 2W at 5V
MS6865	TSSOP20(TP)	3 Stereo	1 Stereo 2 BTL	2.4~6.5V	v	I <sup>2</sup> C (TTL)	-77.5~+21dB	-65dB	BTL 61dB SE 64dB	0.3uA	RL=4Ω, 2W at 5V

**Audio Processor**

Part No.	Package	Input Channel	Output Channel	Supply Voltage	Gain	Volume	Output Attenuation	Treble Bass	Loudness	Mute	Control Interface	THD+N
MS6712	SOP32	4 Stereo	4	2.7~6.5V	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	v	I <sup>2</sup> C (TTL)	-75dB
MS6713	SSOP28	3 Stereo	4	2.7~6.5V	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	v	I <sup>2</sup> C (TTL)	-75dB
MS6714	SSOP28	4 Stereo	2	2.7~6.5V	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	v	I <sup>2</sup> C (TTL)	-75dB
MS6715	SSOP20	1 Stereo	2	2.7~6.5V	-	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	v	I <sup>2</sup> C (TTL)	-75dB
MS6720	SSOP20	3 Stereo	4	2.7~6.5V	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-	-	v	I <sup>2</sup> C (TTL)	-75dB
MS6741	SSOP36	4 Stereo	4	3.3~5V	0~15dB	-79~15dB	-79~15dB Mute	-15~+15dB	v	v	I <sup>2</sup> C (TTL)	-85dB
MS6742	SSOP28	4 Stereo	2	3.3~5V	0~15dB	-79~15dB	-79~15dB Mute	-15~+15dB	v	v	I <sup>2</sup> C (TTL)	-85dB

## Audio Processor(Low Cost)

Part No.	Package	Input Channel	Output Channel	Supply Voltage	Control Interface	Gain	Volume	Output Attenuation	Treble Bass	Loudness	THD+N	Reference
MS6712L	SOP32	4 Stereo	4	2.7~6.5V	I <sup>2</sup> C (TTL)	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	-65dB	MS6712
MS6713L	SSOP28	3 Stereo	4	2.7~6.5V	I <sup>2</sup> C (TTL)	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	-65dB	MS6713
MS6714L	SSOP28	4 Stereo	2	2.7~6.5V	I <sup>2</sup> C (TTL)	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	-65dB	MS6714
MS6715L	SSOP20	1 Stereo	2	2.7~6.5V	I <sup>2</sup> C (TTL)	-	-78.5~0dB	-37.5~0dB Mute	-14~+14dB	v	-65dB	MS6715
MS6720L	SSOP20	3 Stereo	4	2.7~6.5V	I <sup>2</sup> C (TTL)	0~11.25dB	-78.5~0dB	-37.5~0dB Mute	-	-	-65dB	MS6720

## Audio Combo

Part No.	Package	Input Channel	Output Channel	Supply Voltage	Audio Format	Control Interface	Gain Attenuation	THD+N	PSRR	PD Current	Max Output Power
MS6821	TSSOP28(TP)	4 Stereo DAC	1 Stereo 2 BTL	2.4~6.5V	RJF LJF I <sup>2</sup> S	I <sup>2</sup> C (TTL)	21~-77.5dB	-65dB	BTL 61dB SE 65dB	0.3uA	2W at 5V, RL=4Ω,

RJF: Right Justified Format

LJF: Left Justified Format

## DTMF

Part No.	Package	Input Channel	Supply Voltage	Input Level	Standby Current
MS8870	SOP18(300mils) SSOP20(209mils)	1	4.5~5.5V	CMOS	10uA