

DIGITAL MONOLITHIC INTEGRATED CIRCUITS (MOS)

MOS IC, LSI

MOS IC, LSI			Electrical Characteristics (Ta=25°C)							
Type No.	Function	Maximum Ratings (Ta=25°C)	Item	Symbol	Condition	min.	typ.	max.	Unit	
△ MN3206	128-Stage Low Voltage Operation BBD for Audio Signal Delays	VTE=-0.3~+11V	Signal Delay Time	tD	fCP=10kHz~200kHz	0.32		6.4	ms	
		V0=-0.3~+11V	Input Signal Frequency	fi	fCP=40kHz, 3dB down			12	kHz	
		Topr=-20~+70℃	Input Signal Swing	Vi	fCP=40kHz	THD=2.5%		0.6	Vrms	
		Tstg=-55~+125℃	Insertion Loss	Li	fi=1kHz		0	dB		
			Total Harmonic Distortion	THD	Vi=0.25Vrms	0.3	%			
		Operating Condition	Output Noise Voltage	Vno	fCP=100kHz		0.1	mVrms		
			Signal to Noise Ratio	S/N	Weighted "A" curve	83	dB			
			VDD=5V VGG=4.67V							
MN3207	1024-Stage Low Voltage Operation BBD for Audio Signal Delays	VTE=-0.3~+11V	Signal Delay Time	tD	fCP=10kHz~200kHz	2.56		51.2	ms	
		V0=-0.3~+11V	Input Signal Frequency	fi	fi=40kHz, Vi=0.44Vrms 3dB down(0dB at fi=1kHz)			12	kHz	
		Topr=-20~+60℃	Input Signal Swing	Vi	fCP=40kHz	THD=2.5%		0.44	Vrms	
		Tstg=-55~+125℃	Insertion Loss	Li	fi=1kHz		0	dB		
			Total Harmonic Distortion	THD	Vi=0.25Vrms	0.4	%			
		Operating Condition	Output Noise Voltage	Vno	fCP=100kHz		0.2	mVrms		
			Signal to Noise Ratio	S/N	Weighted "A" curve	73	dB			
			VDD=5V VGG=4.6V							
△ MN3209	256-Stage Low Voltage Operation BBD for Audio Signal Delays	VTE=-0.3~+11V	Signal Delay Time	tD	fCP=10kHz~200kHz	0.64		12.8	ms	
		V0=-0.3~+11V	Input Signal Frequency	fi	fCP=40kHz, 3dB down			12	kHz	
		Topr=-20~+60℃	Input Signal Swing	Vi	fCP=40kHz	THD=2.5%		0.5	Vrms	
		Tstg=-55~+125℃	Insertion Loss	Li	fi=1kHz		0	dB		
			Total Harmonic Distortion	THD	Vi=0.25Vrms	0.4	%			
		Operating Condition	Output Noise Voltage	Vno	fCP=100kHz		0.12	mVrms		
			Signal to Noise Ratio	S/N	Weighted "A" curve	80	dB			
			VDD=5V VGG=4.6V							
△ MN3210	Dual 512-Stage Low Voltage BBD for Audio Signal Delays	VTE=-0.3~+11V	Signal Delay Time	tD	fcp=10kHz~200kHz 512+512stages	2.56		51.2	ms	
		V0=-0.3~+11V	Input Signal Frequency	fi	fcp=40kHz 3dB down from value at fi=1kHz			12	kHz	
		Topr=-20~+60℃	Input Signal Swing	Vi	fCP=40kHz	THD=2.5%		0.5	Vrms	
		Tstg=-55~+125℃	Insertion Loss	Li	fi=1kHz		0	dB		
			Total Harmonic Distortion	THD	Vi=0.25Vrms	0.4	%			
		Operating Condition	Output Noise Voltage	Vno	fcp=100kHz		0.14	mVrms		
			Signal to Noise Ratio	S/N	Weighted "A" curve	77	dB			
			VDD=5V VGG=4.6V							

△ Preliminary

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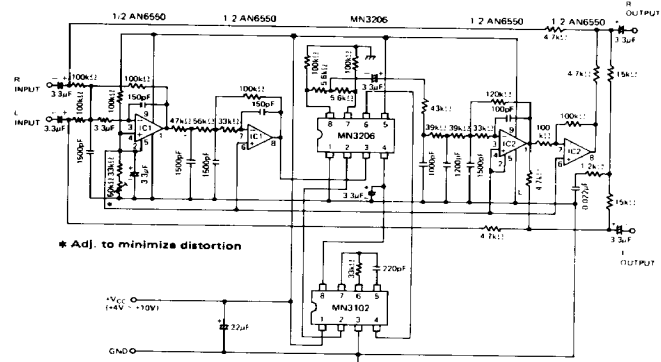
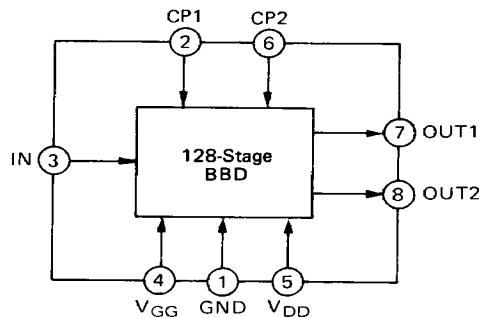
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Block Diagram

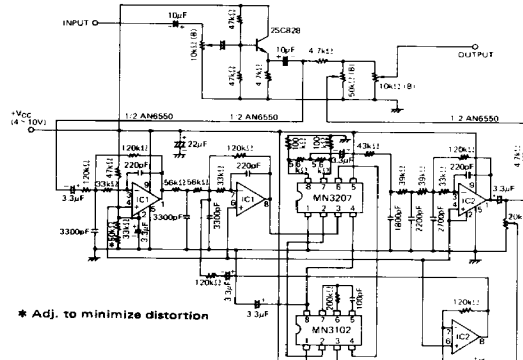
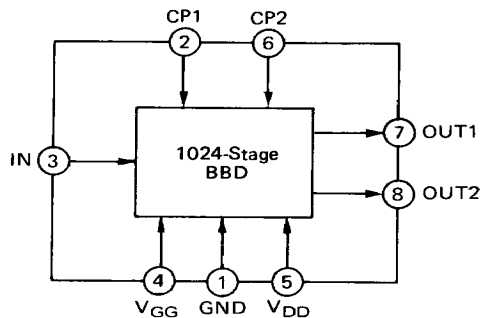
Application Circuit

MN3206 (Package L—9, 8—Lead Plastic DIL)



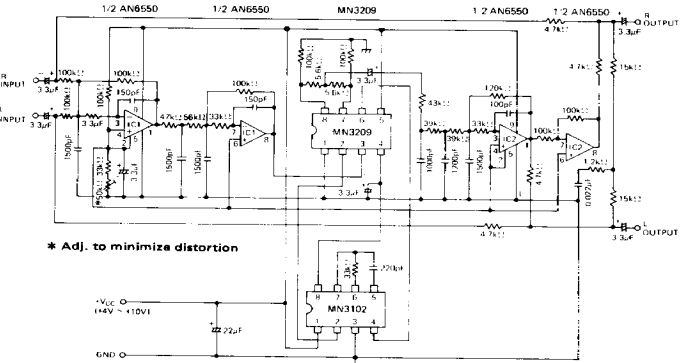
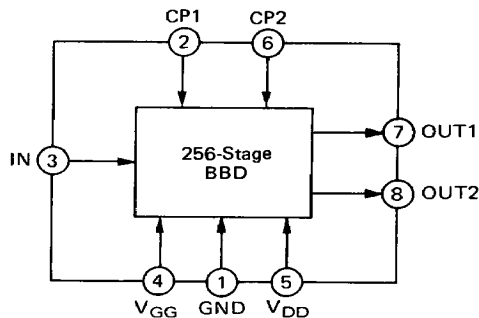
Ambience Circuit (Stereo Input)

MN3207 (Package L—9, 8—Lead Plastic DIL)



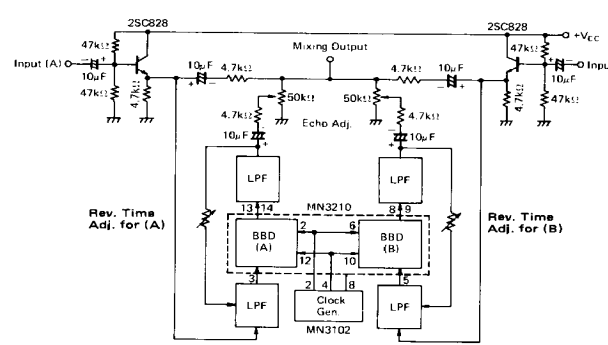
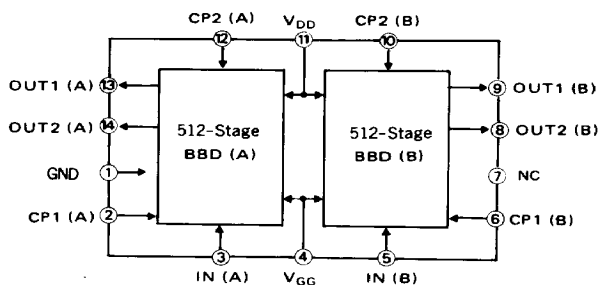
Echo Effect (Signal delay over 10ms)

MN3209 (Package L—9, 8—Lead Plastic DIL)



Ambience Circuit (Stereo Input)

MN3210 (Package L—12, 14—Lead Plastic DIL)



Duet Circuit