Low Noise Preamplifiers

Type No.	Use	Circuit Description	Supply Voltage (V)	Electrical Characteristics					Package Outline
μPC566H	Car stereo set Cassette-tape recorder Home stereo set	• 2-stage amplifier with high input impedance • Emitter-follower output	4~12	(Ta = 25°C, V_{CC} = 7V, f = 1kHz, R_L = 22kΩ)					7-pin SIP Ⓐ
				I_{CC}	1~1.35	~1.7	(mA)		
				Avo	67~71	~	(dB)		
				Av	38.5~	~43.5	(dB)	R_{NF} = 22kΩ	
				V_{OM}	1.2~1.5	~	(V)	NAB	
				V_{nin}	~1.4	~2.0	(μV)	NAB, R_G = 2.2kΩ	
μPC566H3	Car stereo set Cassette-tape recorder Home stereo set	• 2-stage amplifier with high input impedance • Emitter-follower output	4~13	(Ta = 25°C, V_{CC} = 8V, f = 1kHz, R_L = 22kΩ)					7-pin SIP Ⓐ
				I_{CC}	1.2~1.5	~1.9	(mA)		
				Avo	67~72.5	~	(dB)		
				Av	41.5 ~	~46.5	(dB)	R_{NF} = 22kΩ	
				V_{OM}	1.2~1.75	~	(V)	NAB	
				V_{nin}	~1.2	~2.0	(μV)	NAB, R_G = 2.2kΩ	
μPC573C	Cassette-tape recorder Tape recorder	Contains four circuit blocks: Differential-type AGC amp., 2-stage direct coupled tone amp. with emitter follower output stage, Recording amp., and Level meter amp.	3~9	(Ta = 25°C, V_{CC} = 6V, f = 1kHz)					16-pin DIP Ⓙ
				I_{CC}	5~7	~10	(mA)		
				Tone Amp Avo	56~60	~	(dB)		
				Tone Amp Av	46~50	~54	(dB)	R_{NF} = 120Ω	
				Tone Amp V_{OM}	0.8~1.4	~	(V)	R_{NF} = 120Ω	
				Tone Amp V_{nin}	~3.0	~5.0	(μV)	R_{NF} = 120Ω R_G = 10kΩ//470pF	
				Rec Amp Avo	66~72	~	(dB)		
				Rec Amp Av	56~60	~64	(dB)	R_{NF} = 39Ω	
				Rec Amp V_{OM}	0.8~1.4	~	(V)	R_{NF} = 39Ω	
				Rec Amp V_{nin}	~3.0	~4.0	(dB)	R_{NF} = 39Ω R_G = 10kΩ//470pF	
				Meter Amp Av	12~14.5	~17	(dB)		
				Meter Amp V_{OM}	1.0~1.7	~	(V)		
				AGC	35~44	~	(dB)		
μPC592H2	Car stereo set Cassette-tape recorder Home stereo set	• 2-stage amplifier with high input impedance	5~13	(Ta = 25°C, V_{CC} = 8V, f = 1kHz, R_L = 5.1kΩ)					7-pin SIP Ⓐ
				I_{CC}	0.7~1.3	~1.9	(mA)		
				Avo	75~79	~83	(dB)		
				Av	46.5~49.5	~52.5	(dB)	R_{NF} = 35kΩ	
				V_{OM}	1.0~1.3	~	(V)	R_{NF} = 35kΩ	
				V_{nin}	~1.5	~2.0	(μV)	R_G = 2.2kΩ, NAB = 35dB	
				V_{nin}	~1.2	~	(μV)	R_G = 2.2kΩ, NAB = 51dB	
μPC1016C	Stereo set Stereo tape deck	• High impedance differential input • 3-stage amplifier • Complementary output • Dual channel • Single or dual power supply operation	±8~±16	(Ta = 25°C, V_{CC} = ±12V, f = 1kHz, R_L = 10kΩ)					14-pin DIP Ⓖ
				I_{CC}	2.0~3.3	~5.0	(mA)		
				Avo	85~100	~	(dB)		
				Av	32.2~32.5	~32.7	(dB)	RIAA	
				V_{OM}	7.0~7.7	~	(V)	RIAA	
				T.H.D.	~0.02	~0.1	(%)	RIAA, V_O = 3V	
				Ri	~420	~	(kΩ)		
				V_{nin}	~0.7	~1.3	(μV)	RIAA, R_G = 2.2kΩ	
				NF	~1.8	~	(dB)	R_G = 10kΩ, f = 10Hz	
				C.S	~−90	~	(dB)	R_G = 2.2kΩ, V_O = 6V	
μPC1023H	Stereo set Cassette-tape recorder	• Direct coupled 2-stage amplifier • Common emitter output stage	30~40	(Ta = 25°C, V_{CC} = 35V, f = 1kHz, R_L = 47kΩ)					7-pin SIP Ⓐ
				I_{CC}	~3.5	~6.0	(mA)		
				Avo	87~92	~	(dB)		
				Av	38.5~42.5	~	(dB)	R_{NF} = 22kΩ	
				V_{OM}	7.0~		(V)		
				T.H.D.	~0.015~		(%)	RIAA, V_O = 5V	
				Ri	78~100	~	(kΩ)		
				V_{nin}	~0.7	~1.3	(μV)	RIAA, R_G = 2.2kΩ	
				NF	~1.8	~	(dB)	R_G = 10kΩ, f = 10Hz	

Hearing Aid IC

Type No.	Use	Circuit Description	Supply Voltage (V)	Electrical Characteristics					Package Outline
μPC12G	Hearing aid	4-stage high gain low noise amplifier	1.3	(Ta = 25°C, V_{CC} = 1.3V, f = 1kHz)					10-pin flat Package Ⓔ
				I_{CC}	0.8~1.5	~3.2	(mA)	Ra = 33kΩ	
				Avo	75~82	~	(dB)	V_i = 10μVr.m.s.	
				NL		~2.5	(mV)	Av = 75 dB	
				V_{OM}	~450	~	(mV)	I_{CC} = 1.4mA clipping point	