

Low Noise Preamplifiers

Type No.	Use	Circuit Description	Supply Voltage (V)	Electrical Characteristics		Package Outline
μ PC566H	Car stereo set Cassette-tape recorder Home stereo set	2-stage amplifier with high input impedance - Emitter-follower output	4~12	$(T_a = 25^\circ\text{C}, V_{CC} = 7\text{V}, f = 1\text{kHz}, R_L = 22\text{k}\Omega)$ I_{CC} 1~1.35 ~1.7 (mA) A_{vo} 67~71 ~ (dB) A_v 38.5~ ~43.5 (dB) V_{OM} 1.2~1.5 ~ (V) V_{nin} ~1.4 ~2.0 (μV) $R_{NF} = 22\text{k}\Omega$ NAB $NAB, R_G = 2.2\text{k}\Omega$		7-pin SIP A
μ PC566H3	Car stereo set Cassette-tape recorder Home stereo set	2-stage amplifier with high input impedance - Emitter-follower output	4~13	$(T_a = 25^\circ\text{C}, V_{CC} = 8\text{V}, f = 1\text{kHz}, R_L = 22\text{k}\Omega)$ I_{CC} 1.2~1.5 ~1.9 (mA) A_{vo} 67~72.5 ~ (dB) A_v 41.5 ~ ~46.5 (dB) V_{OM} 1.2~1.75 ~ (V) V_{nin} ~1.2 ~2.0 (μV) $R_{NF} = 22\text{k}\Omega$ NAB $NAB, R_G = 2.2\text{k}\Omega$		7-pin SIP A
μ PC573C	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	$(T_a = 25^\circ\text{C}, V_{CC} = 6\text{V}, f = 1\text{kHz})$ I_{CC} 5~7 ~10 (mA) A_{vo} 56~60 ~ (dB) A_v 46~50 ~54 (dB) V_{OM} 0.8~1.4 ~ (V) V_{nin} ~3.0 ~5.0 (μV) $R_{NF} = 120\Omega$ $R_{NF} = 120\Omega$ $R_G = 10\text{k}\Omega/470\text{pF}$ A_{vo} 66~72 ~ (dB) A_v 56~60 ~64 (dB) V_{OM} 0.8~1.4 ~ (V) V_{nin} ~3.0 ~4.0 (dB) $R_{NF} = 39\Omega$ $R_{NF} = 39\Omega$ $R_G = 10\text{k}\Omega/470\text{pF}$ A_v 12~14.5 ~17 (dB) V_{OM} 1.0~1.7 ~ (V) AGC 35~44 ~ (dB)		16-pin DIP J
μ PC592H2	Car stereo set Cassette-tape recorder Home stereo set	2-stage amplifier with high input impedance	5~13	$(T_a = 25^\circ\text{C}, V_{CC} = 8\text{V}, f = 1\text{kHz}, R_L = 5.1\text{k}\Omega)$ I_{CC} 0.7~1.3 ~1.9 (mA) A_{vo} 75~79 ~83 (dB) A_v 46.5~49.5 ~52.5 (dB) V_{OM} 1.0~1.3 ~ (V) V_{nin} ~1.5 ~2.0 (μV) V_{nin} ~1.2 ~ (dB) $R_{NF} = 35\text{k}\Omega$ $R_{NF} = 35\text{k}\Omega$ $R_G = 2.2\text{k}\Omega, NAB = 35\text{dB}$ $R_G = 2.2\text{k}\Omega, NAB = 51\text{dB}$		7-pin SIP A
μ PC1016C	Stereo set Stereo tape deck	- High impedance differential input 3-stage amplifier - Complementary output - Dual channel - Single or dual power supply operation	$\pm 8 \sim \pm 16$	$(T_a = 25^\circ\text{C}, V_{CC} = \pm 12\text{V}, f = 1\text{kHz}, R_L = 10\text{k}\Omega)$ I_{CC} 2.0~3.3 ~5.0 (mA) A_{vo} 85~100 ~ (dB) A_v 32.2~32.5 ~32.7 (dB) V_{OM} 7.0~7.7 ~ (V) $T.H.D.$ ~0.02 ~0.1 (%) R_i ~420 ~ (k Ω) V_{nin} ~0.7 ~1.3 (μV) NF ~1.8 ~ (dB) $C.S$ ~90 ~ (dB) R_{IAA} $R_{IAA}, V_O = 3\text{V}$ $R_{IAA}, R_G = 2.2\text{k}\Omega$ $R_G = 10\text{k}\Omega, f = 10\text{Hz}$ $R_G = 2.2\text{k}\Omega, V_O = 6\text{V}$		14-pin DIP G
μ PC1023H	Stereo set Cassette-tape recorder	- Direct coupled 2-stage amplifier - Common emitter output stage	30~40	$(T_a = 25^\circ\text{C}, V_{CC} = 35\text{V}, f = 1\text{kHz}, R_L = 47\text{k}\Omega)$ I_{CC} ~3.5 ~6.0 (mA) A_{vo} 87~92 ~ (dB) A_v 38.5~42.5 ~ (dB) V_{OM} 7.0~ (V) $T.H.D.$ ~0.015~ (%) R_i 78~100 ~ (k Ω) V_{nin} ~0.7 ~1.3 (μV) NF ~1.8 ~ (dB) $R_{NF} = 22\text{k}\Omega$ $R_{IAA}, V_O = 5\text{V}$ $R_{IAA}, R_G = 2.2\text{k}\Omega$ $R_G = 10\text{k}\Omega, f = 10\text{Hz}$		7-pin SIP A

Hearing Aid IC

Type No.	Use	Circuit Description	Supply Voltage (V)	Electrical Characteristics		Package Outline
μ PC12G	Hearing aid	4-stage high gain low noise amplifier	1.3	$(T_a = 25^\circ\text{C}, V_{CC} = 1.3\text{V}, f = 1\text{kHz})$ I_{CC} 0.8~1.5 ~3.2 (mA) A_{vo} 75~82 ~ (dB) NL ~2.5 (mV) V_{OM} ~450 ~ (mV) $R_a = 33\text{k}\Omega$ $V_i = 10\mu\text{V r.m.s.}$ $A_v = 75\text{ dB}$ $I_{c4} = 1.4\text{mA}$ clipping point		10-pin flat Package E