

AN3316K

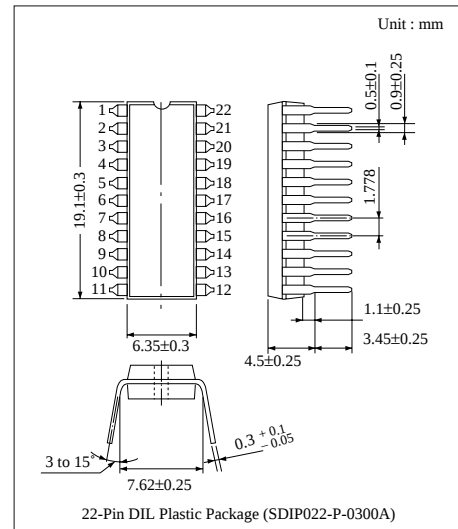
Recording/Playback Amplifier IC for VCR Hi-Fi Audio

■ Overview

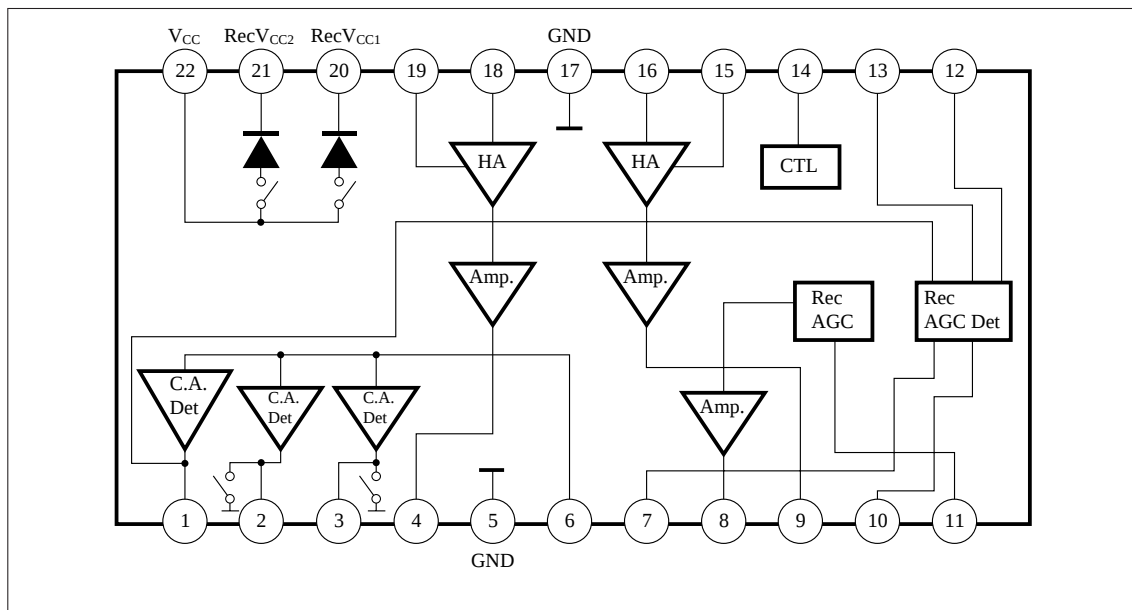
The AN3316K is an IC developed as a recording/playback amplifier for VCR Hi-Fi audio. In combination with the AN3970 and AN3976, it can configure the system.

■ Features

- Operating supply voltage : 5V(typ.).
- Adjustment-free recording current by built-in Rec AGC.
- 2-channel output through playback amplifier.



■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	6	V
Power dissipation	P_D	600	mW
Operating ambient temperature	T_{opr}	-20 to + 70	°C
Storage temperature	T_{stg}	-55 to + 150	°C

■ Recommended Operating Range (Ta=25°C)

Parameter	Symbol	Range
Operating supply voltage range	V_{CC}	4.5V to 5.5V

■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Rec circuit current	I_{REC}	Rec Mode, $V_{CC}=5V$	—	—	85	mA
Rec AGC level	I_{AGC}	Rec Mode, $V_{CC}=5V$	22.7	—	32.1	mA _{pp}
Rec AGC control characteristic	ΔI_{AGC}	Rec Mode, $V_{CC}=5V$	-1	—	1	dB
Recording current 2nd harmonics distortion CH1	D_{R2f-1}	Rec Mode, $V_{CC}=5V$	—	—	-35	dB
Recording current 2nd harmonics distortion CH2	D_{R2f-2}	Rec Mode, $V_{CC}=5V$	—	—	-35	dB
Rec Mode hold voltage	$V_{S\ REC}$	$V_{CC}=5V$	3.6	—	5	V
Rec Mute hold voltage	$V_{S\ Mute}$	$V_{CC}=5V$	2	—	2.6	V
PB circuit current	I_{PB}	PB Mode, $V_{CC}=5V$	—	—	25	mA
PB CH1 gain	G_{9-16}	PB Mode, $V_{CC}=5V$	53	—	63	dB
PB CH3 gain	G_{4-18}	PB Mode, $V_{CC}=5V$	53	—	63	dB
Inter-PB CH gain ratio	$G_{9-16} - G_{4-18}$	PB Mode, $V_{CC}=5V$	-1	—	1	dB
PB input-conversion noise CH1	N_{IN9-16}	PB Mode, $V_{CC}=5V$	—	—	1	μVrms
PB input-conversion noise CH2	N_{IN4-18}	PB Mode, $V_{CC}=5V$	—	—	1	μVrms
PB crosstalk CH1 to CH2	CT1	PB Mode, $V_{CC}=5V$	—	—	-30	dB
PB crosstalk CH2 to CH1	CT2	PB Mode, $V_{CC}=5V$	—	—	-30	dB
PB CH1 output 2nd harmonics distortion	D_{PB2f-1}	PB Mode, $V_{CC}=5V$	—	—	-35	dB
PB CH2 output 2nd harmonics distortion	D_{PB2f-2}	PB Mode, $V_{CC}=5V$	—	—	-35	dB
PB mode hold voltage	V_{SPB}	$V_{CC}=5V$	0	—	1	V