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NTE1482
Integrated Circuit
PLL FM Stereo Demodulator w/ Pilot Cancel

Features:

- External parts are small. Coil is not used.
- Pilot cancel function built–in.
- Other functions: stereo demodulation, stereo/monaural automatic changeover and stereo indicator lamp driving circuit.
- Stereo indicator lamp lighting and stereo/Monaural changeover operations are synchronous.
- Low distortion by the adoption of 100% local feedback circuit. (0.01% typ., 300mV Monoaural input.)
- High input impedance (75kΩ typ.)
- High S/N. (86dB typ. 300mV input)
- Distortion factor improved by PLL circuit (0.06% typ. 10kHz, Main–ch input)

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V_{CC} 16V
Power Dissipation (T_A = +75°C), P_D 500mW
Lamp Drive Current, I_L
  Continuos 75mA
  Peak 100mA
Operating Temperature Range, T_{opr} . . . . . –20° to +75°C
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

Electrical Characteristics: (T_A = +25°C, V_{CC} = 13V, f = 1kHz, unless otherwise specified)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Input Impedance	Z_{in}			30	75	–	kΩ
Channel Separation	Sep	P = 30mV L+R = 270mV	100Hz	–	40	–	dB
			1kHz	35	45	–	dB
Stereo Total Harmonic Distortion	ST, THD		100Hz	–	0.04	–	%
			1kHz	–	0.02	0.08	%
			10kHz	–	0.05	–	%

Electrical Characteristics (Cont'd): (T_A = +25°C, V_{CC} = 13V, f = 1kHz, unless otherwise specified)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Output Voltage	V_{OUT}	V_{in} = 300mV		185	240	310	mV
Channel Balance	CB			–	0	–	dB
Monaural Total Harmonic Distortion	M_{ono}, THD			–	0.01	0.08	%
Pilot Level for Lamp ON	$L_{(ON)}$			8	11.5	15	mV
Stereo Lamp Hysteresis				–	4	–	dB
Carrier Leak	CL	P = 30mV L+R = 270mV	19kHz	55	60	–	dB
			38kHz	–	35	–	dB
SCA Rejection Ratio	SCAm R_{ej}	P = 30mV L+R = 270mV, SCA = 30mV, f_{sca} = 67kHz		–	80	–	dB
Signal−to−Noise Ratio	S/N	V_{in} = 300mV, R_g = 4.7kΩ		80	86	–	dB
Capture Range	CR	P = 30mV		–	±3.5	–	%
Max Input Signal	V_{in}	P = 10%, L+R =90%, THD ≤ 0.5%		–	1.2	–	V
Total Current Drain	I_T			–	17	–	mA

Pin Connection Diagram