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NTE1565 Integrated Circuit Phase Lock Loop (PLL) FM Demodulator for Portable Car Radio

Features:

- Phase Locked Loop System
- Wide Operating Supply Voltage Range
- Automatic Stereo/Monaural Switching when supply voltage goes down. No shock Noise is generated at ST/Mono switching.
- Lamp-lighting corresponds to the ST/Mono switching

Functions:

- Stereo Demodulator
- Automatic ST/Mono Switching Circuit
- Indicator Lamp Driver

Absolute Maximum Ratings:

Supply Voltage, V_{CC} 16V
 Lamp Driving Current, I_C
 Constant 75mA
 Peak 100mA
 Power Dissipation (Note 1), P_D 400mW
 Operating Temperature Range, T_{opr} -30° to +75°C
 Storage Temperature Range, T_{stg} -55° to +125°C

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 9\text{V}$, $P = 20\text{mV}$, $L+R = 180\text{mV}$, $f = 1\text{kHz}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CC}		-	10	-	mA
Input Impedance	Z_{in}		23.5	50	-	k Ω
Channel Separation	Sep	f = 100Hz	-	40	-	dB
		f = 1kHz	30	50	-	dB
		f = 10kHz	-	40	-	dB
Stereo Total Harmonic Distortion	ST THD		-	0.2	-	%
Output Voltage	V_{out}	$V_{in} = 200\text{mV}$	-	170	-	mV
Channel Balance	CB		1.5	0.5	1.5	dB
Monaural Total Harmonic Distortion	Mono THD		-	0.3	-	%
Lamp-ON Level	L_{on}		4	7	10	mV

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Lamp ON/OFF Hysteresis			-	4	-	dB
Carrier Leak	CL	19kHz	-	32	-	dB
		38kHz	-	35	-	dB
SCA Rejection Ratio	SCA _{Rej}	SCA = 20mV, f _{sca} = 67kHz	-	75	-	dB
Signal to Noise Ratio	S/N	R _g = 4.7kΩ	-	82	-	dB
Capture Range	CR	P = 20mV	-	4	-	%
Max. Input Voltage	V _{in max}	P = 10%, L+R = 90%, THD ≤ 2%	-	450	-	mV

Pin Connection Diagram

