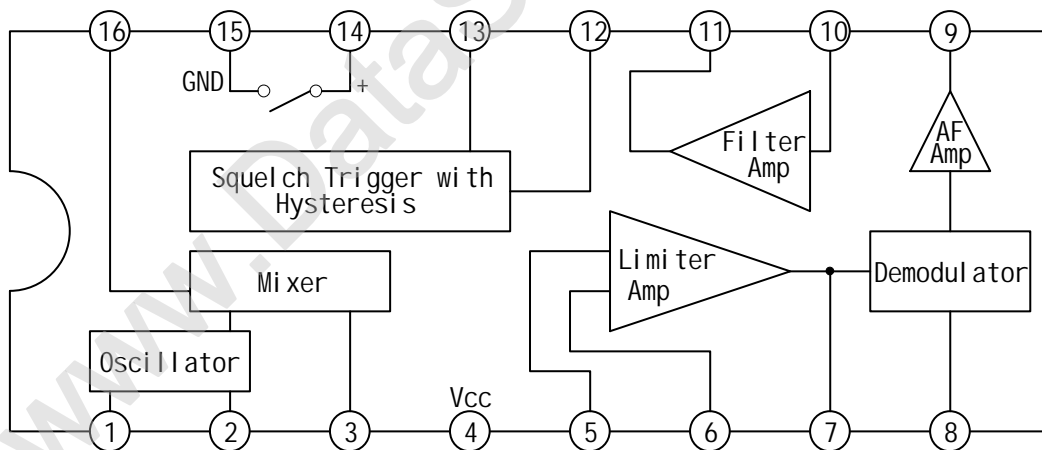


LOW POWER NARROW BAND IF AMPLIFIER**—YD3361****DESCRIPTION**

The YD3361 includes an Oscillator, Mixer, Limiting Amplifier, Quadrature Discriminator, Active Filter, Squelch, Scan Control ND mute Switch. This device is designed for use in FM dual conversion communications equipment.

FEATURES

- *Operates from 2.0 to 8.0 V supply.
- *Low drain current 3.9 mA Typical (VCC=4.0 Vdc).
- *Excellent sensitivity: input limiting voltage $-3.0 \text{ Db} = 2.6 \mu \text{ V}$ typical.
- *Low number of external parts required.
- *Operating frequency up to 60 MHz.

BLOCK DIAGRAM**WuXi YouDa Electronics Co., Ltd**

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ABSOLUTE MAXIMUM RATINGS($T_{amb}=25$)

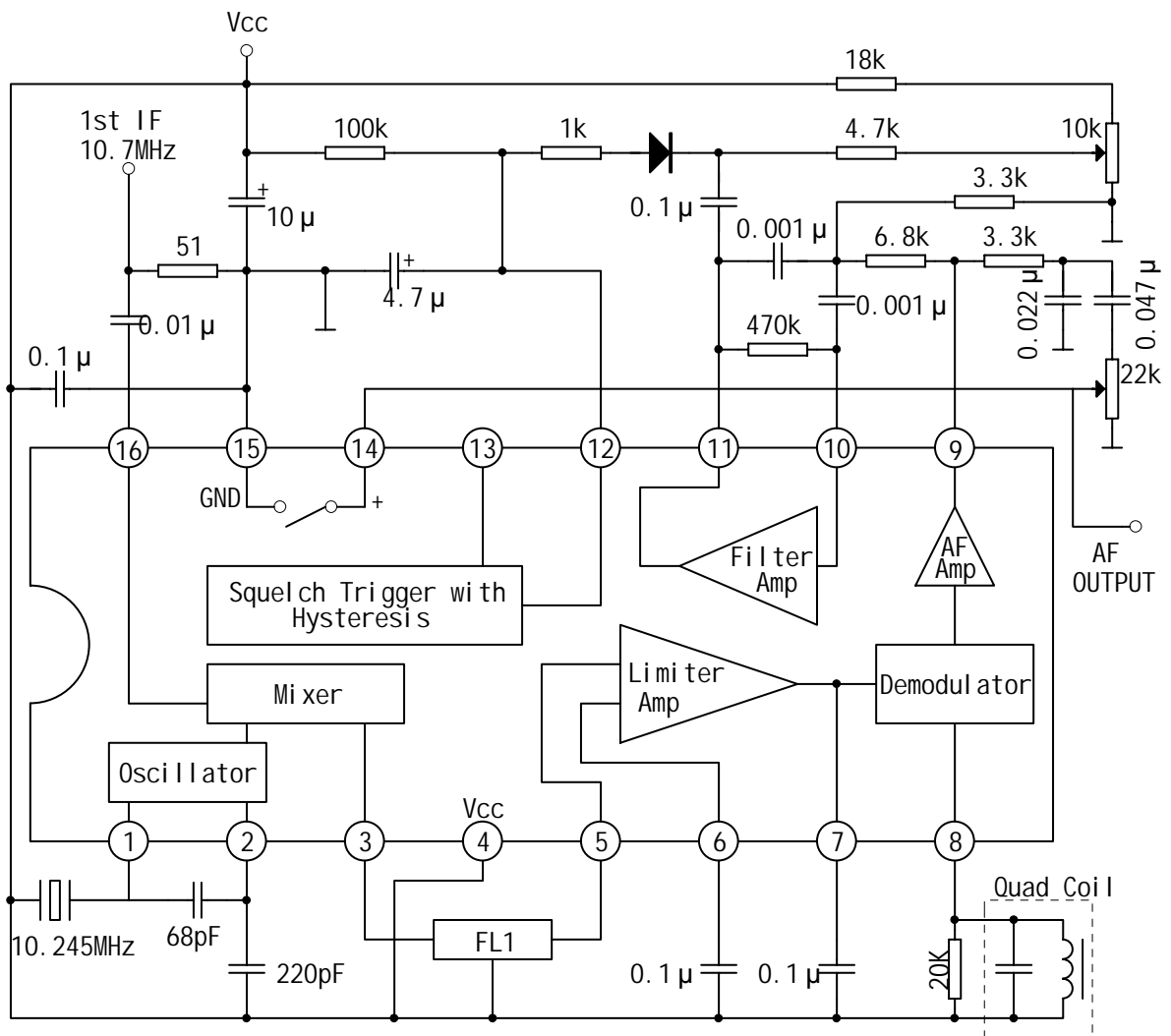
PARAMETERS	SYMBOL	VALUE	UNIT
Power Supply Voltage	V_{CC}	10	V
Input Voltage($V_{CC} = 4.0V$)	V_{15}	1.0	V
Mute Function	V_{14}	-0.5 ~ 5.0	V
Detector Input Voltage	V_8	1.0	V
Junction Temperature	T_j	150	
Power Dissipation	P_D	1.5	W
Operating Temperature	T_{opr}	-20 ~ +70	
Storage Temperature	T_{stg}	-65 ~ +150	

ELECTRICAL CHARACTERISTICS

($T_{amb}=25$, $V_{CC}=1.3V$, $f_m=1MHz$, $MOD=30\%$ unless otherwise specified)

PARAMETERS	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	V_{CC}		2.0		8.0	V
Drain Current	I_{CC}	Mute OFF	2.9	3.9	4.9	mA
		Mute ON	4.4	5.4	6.4	
Input Limiting Voltage	V_{ILIM}	-3dBlimiting		2.6	6.0	μV
Recovered Audio Output Voltage	V_{od}	$V_{IN}=10mV$	130	160	200	mV
Distortion	THD			0.86		%
Recovered Output Voltage	V_9	No Input Signal	1.2	1.5	1.8	V
Detector Output Impedance	R_9			450		
Drop Voltage AF Gain Loss	A_F		-3.0	-0.6		dB
Filter Gain	A_{VF}	$f=10kHz$, $V_{in}=0.3mV$	40	50		dB
Filter Output Voltage	V_{OF}		1.0	1.3	1.6	V
Mute Function	R_{OL}			30	50	
	R_{OH}		1.0	11		m
Scan Level	V_{13L}	$V_{12}=1.0V$		0	0.4	V
	V_{13H}	$V_{12}=0V$	3.0	3.5		
Trigger Hysteresis	V_{TH}			45	100	mV
Mixer Conversion Gain	A_{VM}			28		dB
Mixer Input Resistance	R_{16}			3.3		k
Mixer Input Capacitor	C_{16}			2.2		pF

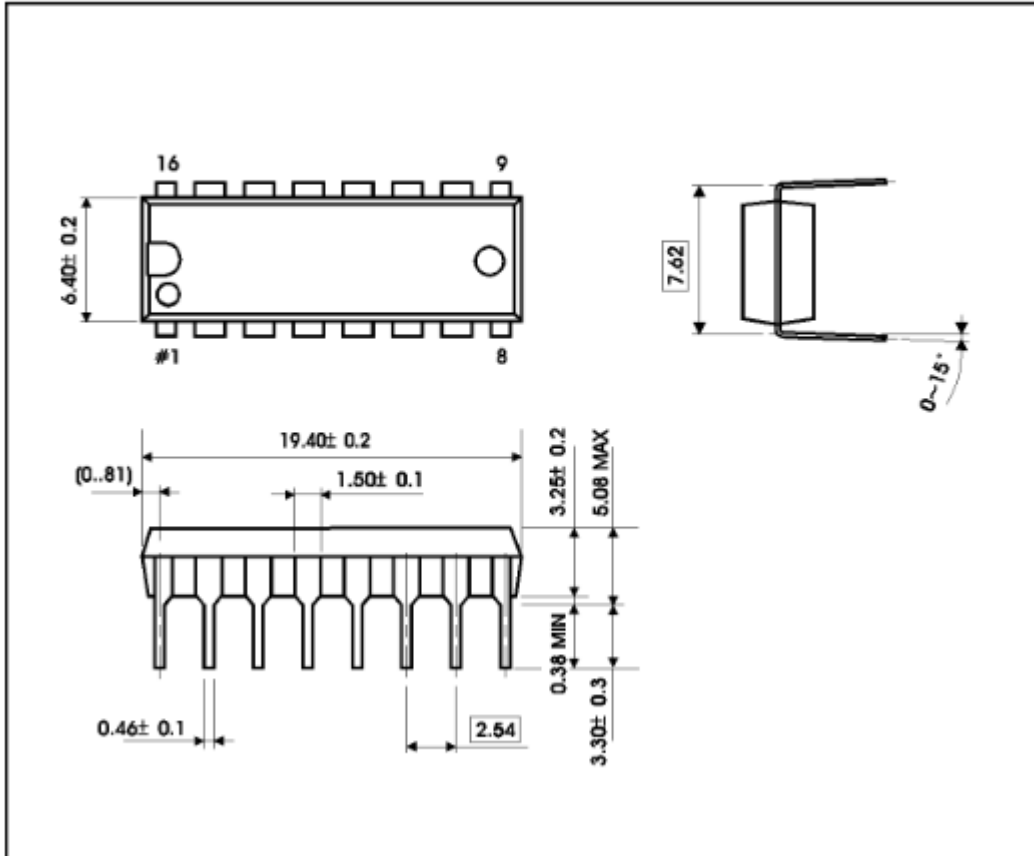
APPLICATION CIRCUIT



OUTLINE DRAWING

DIP-16

unit:mm



SOP-16



unit:mm

