SINGLE-CHIP FM/AM RADIO IC—YD1619

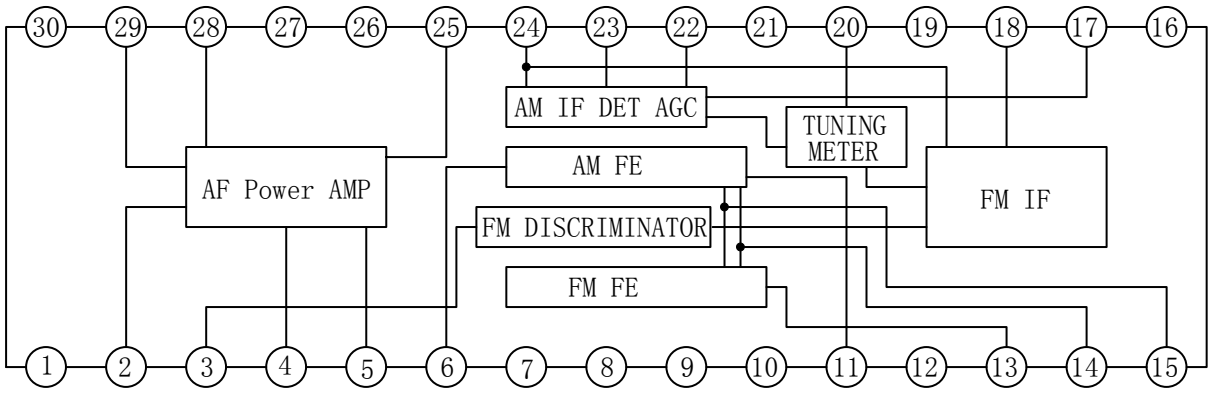
DESCRIPTION

The YD1619 is a one-chip FM/AM radio IC designed for radio-cassette tape recorders.

FEATURES

*Small number of peripheral components.
*Low current consumption (Vcc=3V)
For FM:ID=5.3mA (Typ.)
For AM:ID=3.4mA (Typ.)
*Built-in FM/AM select switch.
*Built-in RF AGC, IF AGC circuit.
*Large output of AF amplifier.
Vcc=6V,EIAJ output=500mW (Typ.)
When load impedance 8Ω

BLOCK DIAGRAM



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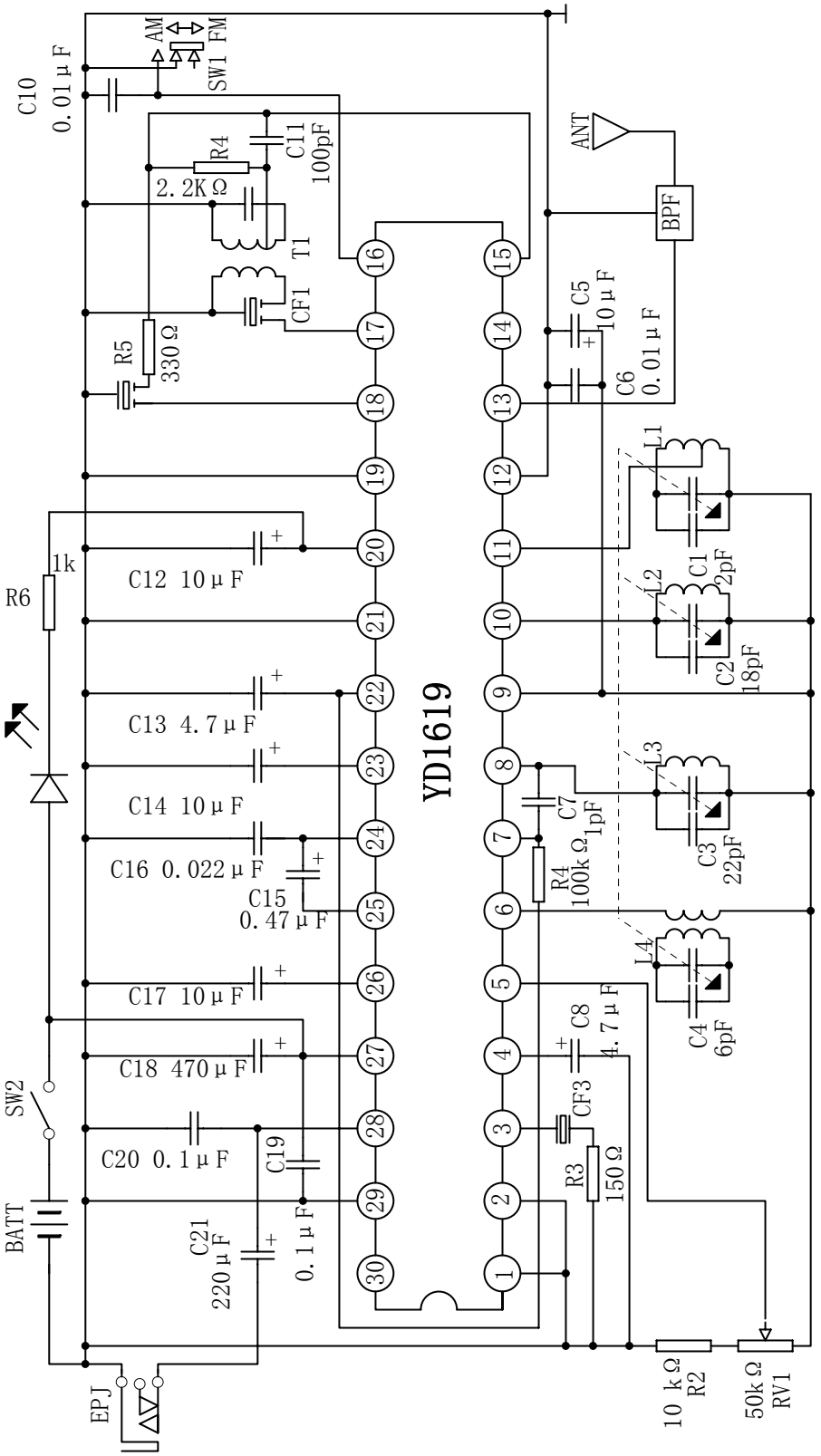
ABSOLUTE MAXIMUM RATINGS (Tamb=25℃)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	9	V
Power Dissipation	P_D	1500	mW
Operating Temperature	Topr	-10～+70	℃
Storage Temperature	Tstg	-50～+125	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃, V_{CC}=6V，Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent Current	Iccq	AM, Vin=0		3.5	10.0	mA
		FM, Vin=0		7.0	14.0	
FM：						
Front End Voltage Gain	A_{V1}	Vin1=40dBμV/100MHz	32	39	46	dB
Detection Output	V_{D1}	Vin1=90dBμV/10.7MHz (1kHz,22.5kHz DEV)	39	77.5	155	mV
IF Knee Level	V_{SEN1}	V_{in3}=level at a point 3dB down		24	32	dBμ
DetectionOutput Distortion Factor	THD1	Vin1=90dBμV/10.7MHz (1KHz, 75kHz DEV		0.3	2.0	%
FM Meter Current	I_{BI}	Vin3=60dBμV/10.7MHz	1.8	3.5	7.0	mA
AM：						
Front End Voltage Gain	Av2	Vin2=80dBμV/1660kHz	15	22	29	dB
IF Voltage Gain	V_{SEN2}	455kHz(kHz 30% MOD)，output is -3.4dBm	14	20	27	dBμ
Detector Output	V_{D2}	Vin3=85dBμV/455kHz (1kHz、 30%MOd)	39	77.5	155	mV
Meter Current	I_{B2}	Vin3=85dBμV/455kHz (kHz、 30%MOD)	1.3	3.0	7.0	mA
Detection Output Distortion Factor	THD2	Vin2=95dBμV/1660kHz (1kHz、 30%MOD), Vcc=7.8V		0.6	2.0	%
Audio Voltage Gain	Av3	Vin3=60dBμV/10.7MHz Vin4=30dBm/1kHz	27	31.5	36	dB
Audio Distortion Factor	THD3	Vin3=60dBμV/10.7MHz Vin4=-20dBm/1kHz Output is 50mW		0.3	2.5	%

APPLICATION CIRCUIT



OUTLINE DRAWING

