



FM MODULATOR - INFRARED TRANSMITTER

GENERAL DESCRIPTION

The hs9501B is high speed ic types are frequency modulator. fabricated with silicon gate CMOS technology .

There are two triggers input. These inputs are valid for slow rising/falling signal $\langle T_r = T_f \text{ about } 1 \text{ sec} \rangle$. When one is triggered while another is also triggered. Because of they connects with the sync.

It achieves the high speed operation similar to equivalent LSTTL while maintaining the CMOS low power dissipation. all inputs are equipped with protection circuits against static discharge or transient excess voltage .

FEATURE:

- Output frequency range 50khz ~ 15Mhz .
- Automatic power on/off function .
- Low voltage and low power consumption .
- High speed ----- $\text{max}(3\text{v}=10\text{Mhz});(5\text{v}=15\text{Mhz})$
- Low power dissipation ----- $\text{icc}=40\text{uA}(\text{max.}) \text{ at } t_a=25^\circ\text{C}$
- Wide operating voltage range ----- $\text{vcc}(\text{opr})=2 \sim 5\text{v}$

* RECOMMENDED OPERATING CONDITIONS:

- Supply voltage vcc 5v

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Supply voltage range	Vcc	-0.5 ~ 7	V
Power dissipation	PD	180 (MFP)	mW
Storage temperature	Tstg	- 20 ~ 120	°C
Lead temperature 10sec	TL	300	°C

PACKAGE OUTLINES

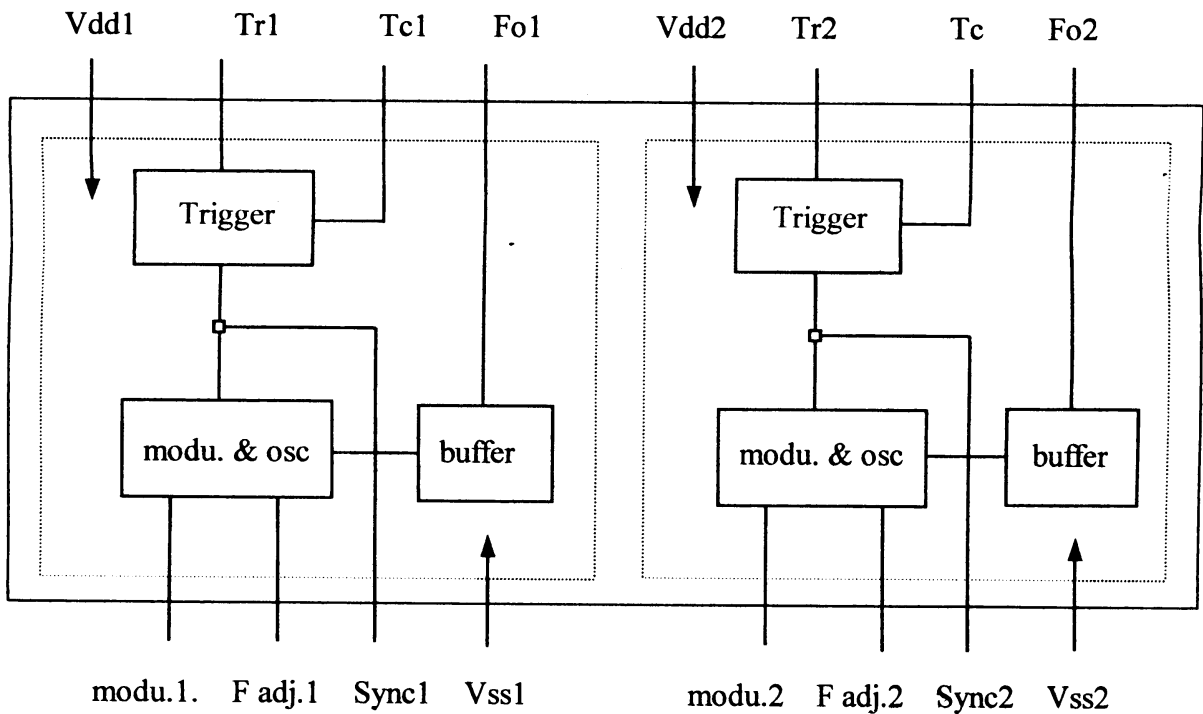
HS9501B : 8-lead DIL ; plastic (with internal heat spreader) (SOT97A) .

HS9501B:8-lead mini-pack ; plastic (DIP16 ; SOT96A) .

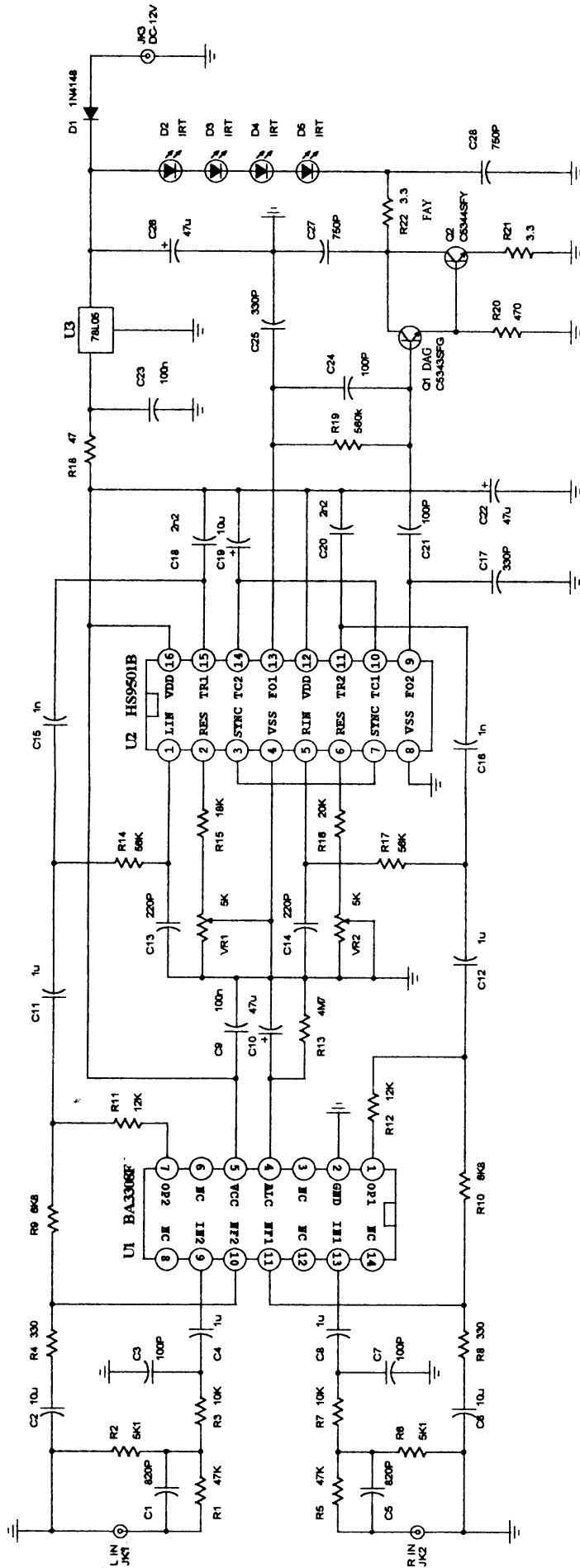
Pin functions

pin no.	symbol	Description	pin no.	symbol	Description
1	Modu.1	Fm modulation in	9	Fo2	Frequency out
2	F adj.1	Frequency adjust	10	Tc2	Off time control
3	Sync1	Ch1 & ch2 sync	11	Tr2	Trigger on
4	Vss1	GND	12	Vdd2	Power supply
5	Modu.2	Fm modulation in	13	Fo1	Frequency out
6	F adj.2	Frequency adjust	14	Tc1	Off time control
7	Sync2	Ch1 & ch2 sync	15	Tr1	Trigger on
8	Vss2	GND	16	Vdd1	Power supply

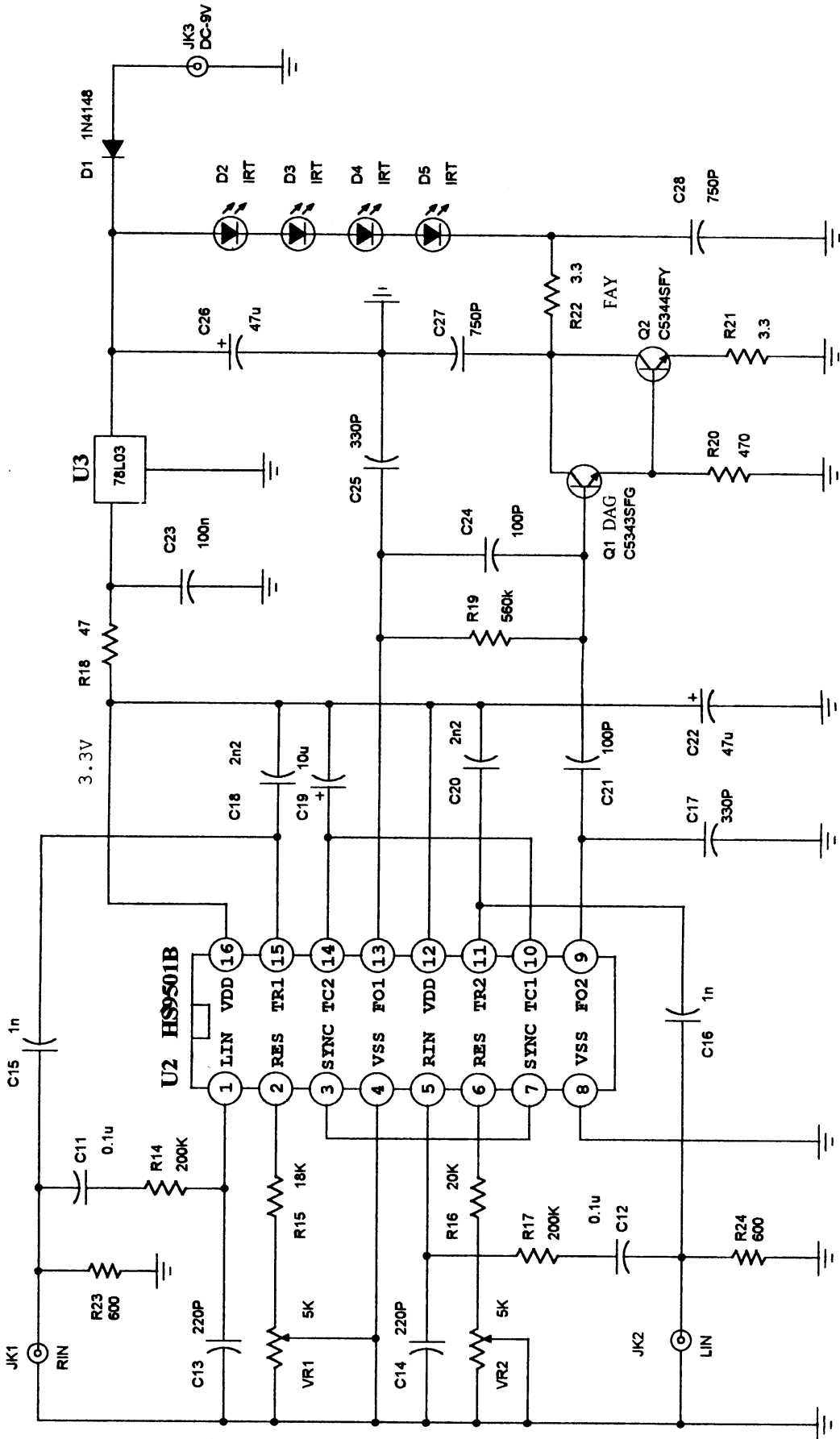
block diagram .



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