

TC9314F-026

Single Chip Digital Tuning System for CD Radio Cassette

TC9314F-026 is a CMOS LSI designed for a PLL frequency synthesizer radio system corresponded to the requirement of the whole world.

Since TC9314F-026 can be used for TC9284BF the CD processor and receive remote control signal, a low cost compact CD radio system can be constructed.

Features

Receiving Band

AREA	JUMPER SETTING			BAND	FREQUENCY RANGE [Hz]	STEP [Hz]	FREF [Hz]	IF
	A1	A0	FM STEP					
			MW STEP					
USA	0	0	0	FM	87.5 ~ 107.9M	200k	25k	+ 10.7M
			1		87.5 ~ 108.0M	100k		
			0	AM (Note 1)	530 ~ 1710k	10k	5k	+ 450k
			1		531 ~ 1602k	9k	3k	
general	0	1	0	FM	87.50 ~ 108.00M	50k	25k	+ 10.7M
			1		87.5 ~ 108.0M	100k		
			0	MW / AM	522 ~ 1602k	9k	3k	+ 450k
			1		530 ~ 1602k	10k	5k	
			—	LW	146 ~ 281k	1k	1k	
EAST EUROPE	1	0	0	FM	65.00 ~ 74.0M 87.50 ~ 108.00M	50k	25k	+ 10.7M
			1		65.00 ~ 74.0M 87.50 ~ 108.00M	50k 100k		
			0		MW / AM	531 ~ 1602k		
			1	530 ~ 1610k		10k	5k	
			—	LW	146 ~ 281k	1k	1k	
JAPAN	1	1	— (Note 2)	FM	76.0 ~ 90.0M	100k	25k	− 10.7M
			—	MW / AM	522 ~ 1629M	9k	3k	+ 450k
			— (Note 3)	TV	1 ~ 12ch	1ch	25k	− 10.7M

Note 1: AM mark is indicated, even if band is MW with SW band in USA area.

Note 2: In case that there is not TV band, FM band extends. (76.0-90.0 MHz + TV 1-3 ch).

Note 3: If TV band is selected, prescaler (TD7104P) is need.

There are SW bands with bands as shown above by setting of SW₀, SW₁ Jumper.

	JUMPER SETTING			BAND	FREQUENCY RANGE [Hz]	STEP [Hz]	FREF [Hz]	IF	NOTE
	SW ₁	SW ₀							
	0	0	—	no SW					
	0	1	—	SW _A	3.8~ 12.5M	5k	5k	+ 450k	
	1	0	—	SW _B	5.95~ 15.6M				
	1	1	—	SW ₁	2.3~ 7.3M				
			—	SW ₂	9.5~ 26.1M				

Note 4: Only SW mark is indicated for SW_A or SW_B.

Note 5: If jumper setting is SW₁, SW₂ when there is LW/TV band, SW₁, SW₂ bands are no set. (maximum 4 band)

Tuning Functions and Preset Memory

- Manual up/down tuning
- Seek up/down tuning

Preset Memory

- Fixed

FM/AM	20/20	stations
FM/MW/LW or TV	20/10/10	stations
FM/MW/SW-A or B	20/10/10	stations
FM/MW/LW or TV/SW-A or B	20/10/5/5	stations
FM/MW/SW ₁ /SW ₂	20/10/5/5	stations
- Random

total	30	stations
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Clock Functions

- 12 H/24 H clock
- Timer on/off
- Sleep

CD Functions

- Random play
- Intro play
- Repeat play or track repeat play
- Memory play (max 20 preset)

CD FF/REW

- Synchro rec mode
- Tray open/close control
- Indication of CD remain time
- Music calendar display

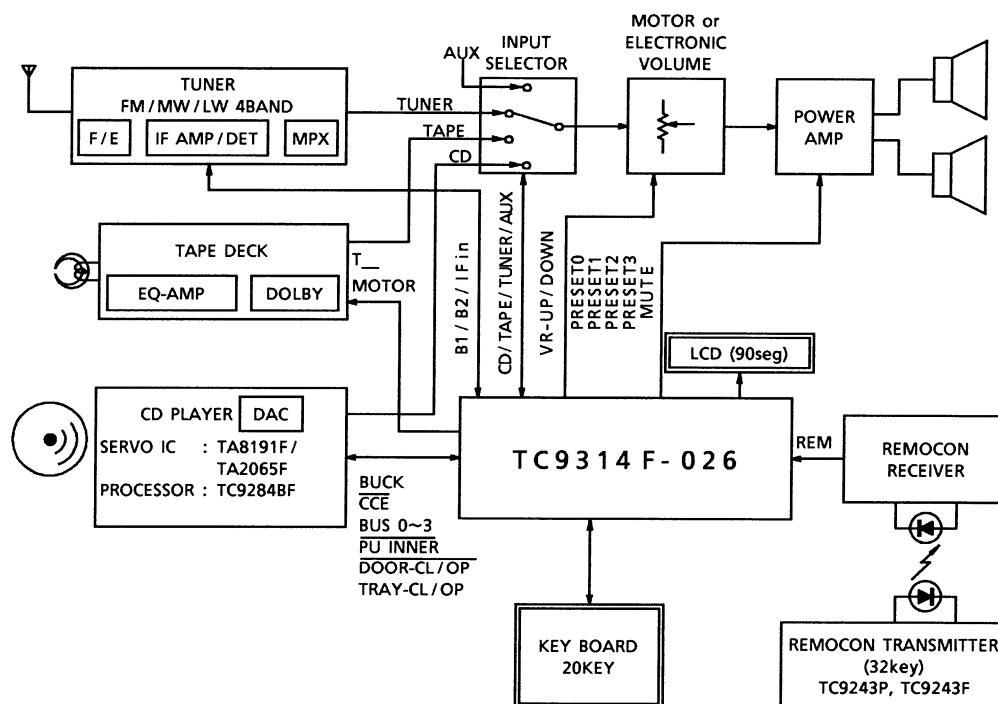
Remote Control Functions

- Volume up/down control
- Direct selecting of preset memory and track number

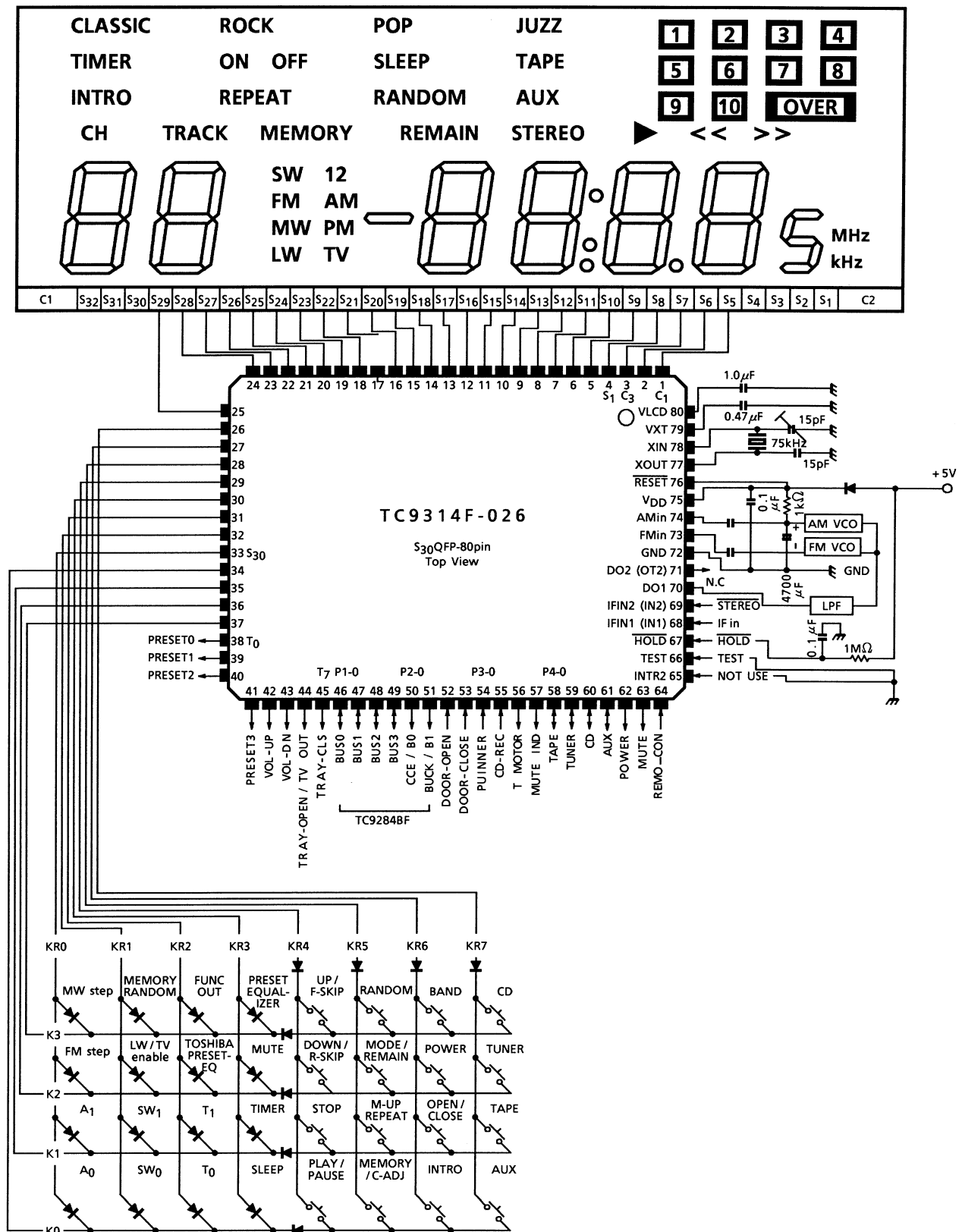
Other Functions

- Preset equalizer control
- Function change (CD/TUNER/TAPE/AUX)
- Indication of STEREO mark
- Power on/off key
- Mute on/off control

Block Diagram



Layout



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