

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

# TC9314F-017

## SINGLE CHIP DIGITAL TUNING SYSTEM FOR CD RADIO CASSETTE

TC9314F-017 is a CMOS LSI designed for a PLL frequency synthesizer radio system corresponded to the requirement of the whole world.

Since TC9314F-017 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	CODE		BAND	STEP	FREQUENCY RANGE [Hz]	STEP [Hz]	FREF [Hz]	IF [Hz]	NOTE	
	SW <sub>1</sub> / A <sub>1</sub>	SW <sub>0</sub> / A <sub>0</sub>		FMMW						
U.S.A.	0	0	FM	0	87.5~ 107.9M	200k	25k	+ 10.7M		
				1	87.5~ 108.0M	100k				
			AM	0	530~ 1710k	10k	5k	+ 450k		
				1	531~ 1602k	9k				3k
General	0	1	FM	0	87.50~108.00M	50k	25k	+ 10.7M		
				1	87.5~ 108.0M	100k				
			MW	0	531~ 1602k	9k	3k	+ 450k		
				1	530~ 1610k	10k				5k
			LW	— —	146~ 281k	1k	1k			
			East Europe	1	0	FM	0	65.00~ 74.0M		50k
1	87.50~108.00M	50k								
	65.00~ 74.0M	100k					87.50~108.00M			
MW	0	531~ 1602k				9k	3k	+ 450k		
	1	530~ 1610k				10k			5k	
LW	— —	146~ 281k				1k	1k			

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AREA	CODE		BAND	STEP	FREQUENCY RANGE [Hz]	STEP [Hz]	FREF [Hz]	IF [Hz]	NOTE
	SW <sub>1</sub> / A <sub>1</sub>	SW <sub>0</sub> / A <sub>0</sub>		FMMW					
JAPAN	1	1	(*) FM	—	76.0~ 90.0M	100k	25k	- 10.7M	TD7104P
			MW	—	522~ 1629k	9k	3k	+ 450k	
			(**) TV	— —	1~ 12ch	1ch	25k	- 10.7M	
SW	0	0	no SW						
	0	1	SWA	— —	3.8~12.5MHz	5k	5k	+ 450k	
	1	0	SWB	— —	5.95~15.6MHz				
	1	1	SW <sub>1</sub>	— —	2.3~ 7.3MHz				
			SW <sub>2</sub>	— —	9.5~26.1MHz				

(\*) In case of there is not TV band, FM band extends (76.0 – 90.0MHz + TV 1-3ch).

(\*\*) If TV band is selected, prescaler (TD7104P) is needed.

○ Tuning functions and preset memory

- manual up/down tuning
- seek up/down tuning

○ Preset memory

- Fixed
 

FM/MW	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 <sub>1</sub> /SW <sub>2</sub>	20/10/5/5	stations
- Random total 30 stations

○ Clock functions

- 12H/24H 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
- synchronous rec mode
- tray open/close control
- indication of CD remain time
- music calendar

- Remote control functions
  - volume up/down
  - 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

