

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

TC9309F-107

SINGLE CHIP DIGITAL TUNING SYSTEM FOR CD RADIO SYSTEM

TC9309F-107 is a CMOS LSI designed for a PLL frequency synthesizer radio system corresponded to the requirement of the whole world.

Since TC9309F-107 can be used for TC9236F(AF) the CD processor and receive remote control signal, a low cost compact CD radio system can be constructed.

FEATURES

○ Receiving band and preset memory

AREA	CODE	BAND	FREQUENCY RANGE [Hz]	STEP [Hz]	FREF [Hz]	IF [Hz]
	A2A1A0					
EUROPE	000	FM	87.50~108.00M	50k	50k	+ 10.70M
	or	MW	522~ 1620k	9k	9k	+ 450k
	001	LW	153~ 281k	1k	1k	
USA1	010	FM	87.5~ 107.9M	200k	50k	+ 10.7M
		MW	520~ 1710k	10k	10k	+ 450k
USA2	011	FM	87.5~ 108.0M	100k	50k	+ 10.7M
		MW	520~ 1710k	10k	10k	+ 450k
LATIN AMERICA	100	FM	87.5~ 108.0M	100k	50k	+ 10.7M
		MW	520~ 1620k	10k	10k	+ 450k
AUSTRALIA MIDDLE AND NEAR EAST	101	FM	87.5~ 108.0M	100k	50k	+ 10.7M
		MW	531~ 1602k	9k	9k	+ 450k
JAPAN	110	UNUSED				
SOUTH AFRICA	111	FM	87.50~108.00M	50k	50k	- 10.7M
		MW	531~ 1602k	9k	9k	+ 450k

(Note 1) CODE = 0, 0, 0 : 3Band (FM / MW / LW), CODE = 0, 0, 1 : 2Band (FM / MW)
In case of CODE = 0, 0, 0, B2 Input Port must fixed to "L".

(Note 2) Except for CODE = 0, 0, 0, Band indicator is FM / AM display.

(Note 3) Receiving frequency of FM is as shown below by area.

Europe,	... ↔ 107.9 ↔ 107.95 ↔ 108.0 ↔ 87.5 ↔ 87.55 ↔ 87.6 ↔ ...
South Africa	... ↔ 107.9 ↔ 107.95 ↔ 108.0 ↔ 87.5 ↔ 87.55 ↔ 87.6 ↔ ...
USA1	... ↔ 107.5 ↔ 107.7 ↔ 107.9 ↔ 87.5 ↔ 87.7 ↔ 87.9 ↔ ...
OTHERS	... ↔ 107.8 ↔ 107.9 ↔ 108.0 ↔ 87.5 ↔ 87.6 ↔ 87.7 ↔ ...

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○ Tuning functions and preset memory

- manual up / down tuning
- seek up / down tuning
- IF count (FM = ± 10.7 MHz, MW (AM) = 450kHz)

○ Preset memory functions

- FM : 10 stations, MW (AM) : 10 stations, LW : 5 stations total max. 25 stations

○ Clock functions

- 12H / 24H clock
- on / off timer
- sleep timer (max 90 minutes. minimum 10 minute.)

○ CD functions for top loading mecha only

- random play
- intro play
- memory play
- repeat play or track repeat play
- indication of CD remain time

○ Remote control functions

- volume up / down
- appointment of preset memory and track number directly

○ Other functions

- indication of STEREO mark
- power on / off key
- mute on / off key

BLOCK DIAGRAM



