

TOSHIBA CMOS Digital Integrated Silicon Monolithic

# TC9309AF-119

## Single Chip Digital Tuning System for CD Radio Cassette

TC9309AF-119 is a CMOS LSI designed for a PLL frequency synthesizer radio system corresponded to the requirement of the whole world.

Since TC9309AF-119 can be used for TC9284BF the CD processor and receive remote control signal, a low cost compact CD radio system can be constructed.

### Features

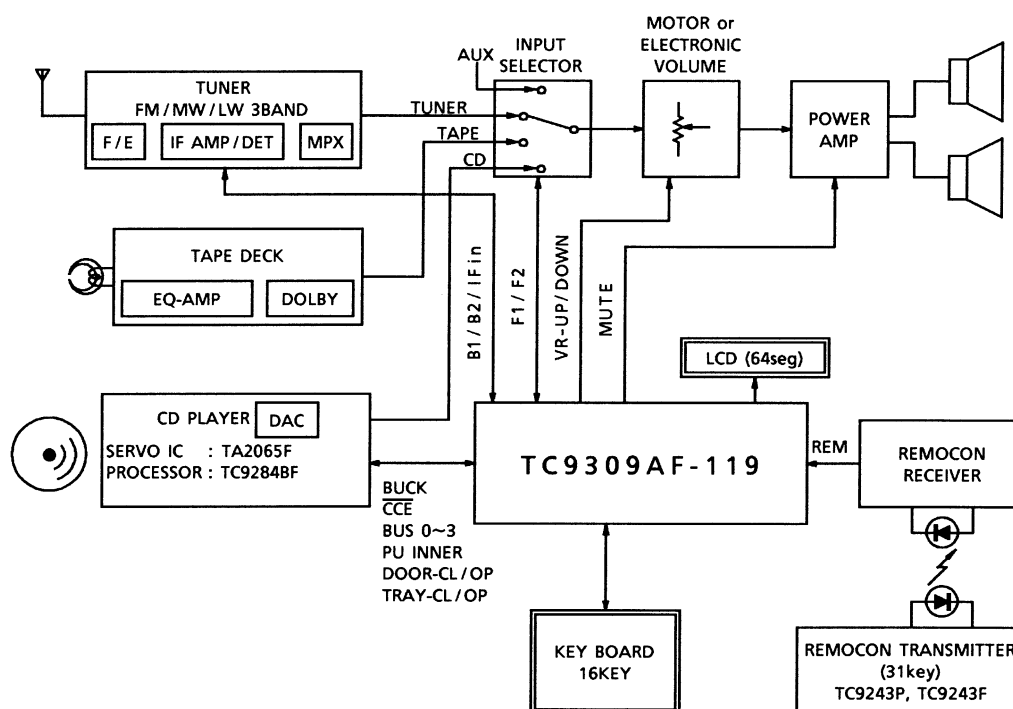
#### Receiving Band and Preset Memory

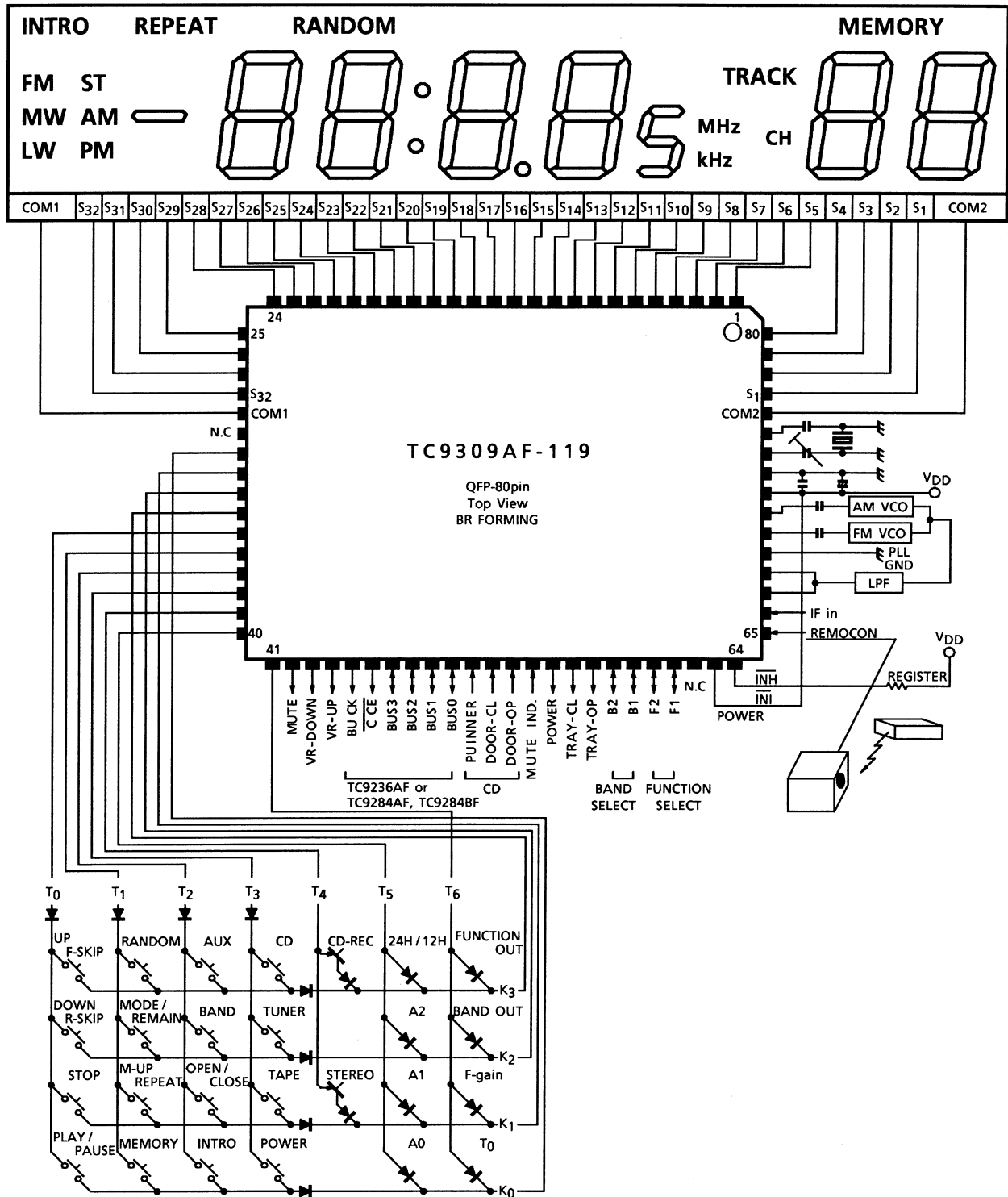
AREA	CODE			BAND	FREQUENCY RANGE [Hz]	STEP [Hz]	FREF [Hz]	IF [Hz]	NOTE
	A2	A1	A0						
EUROPE	0	0	0	FM	87.50~108.00M	50k	50k	+10.70M	*: Except the case that A <sub>0</sub> , A <sub>1</sub> , A <sub>2</sub> = 000, B <sub>2</sub> INPORT must fixed to "L"
				MW	522~1620k	9k	9k	+450k	
				LW	150~285k	1k	1k	+450k	
	0	0	1	FM	87.50~108.00M	50k	50k	+10.70M	
				AM	522~1620k	9k	9k	+450k	
USA1	0	1	0	FM	87.5~107.9M	200k	50k	+10.7M	
				AM	520~1710k	10k	10k	+450k	
USA2	0	1	1	FM	87.5~108.0M	100k	50k	+10.7M	
				AM	520~1710k	10k	10k	+450k	
LATIN AMERICA	1	0	0	FM	87.5~108.0M	100k	50k	+10.7M	
				AM	520~1620k	5k	5k	+450k	
AUSTRALIA MIDDLE AND NEAR EAST	1	0	1	FM	87.5~108.0M	100k	50k	+10.7M	
				AM	531~1602k	9k	9k	+450k	
SOUTH AFRICA	1	1	1	FM	87.50~108.00M	50k	50k	-10.7M	
				AM	531~1602k	9k	9k	+450k	

**Outline of Functions**

- Tuning functions and preset memory
  - Manual up/down tuning
  - Seek up/down tuning
  - Scan up tuning
  - IF count (FM =  $\pm 10.7$  MHz, MW (AM) = 450 kHz)
  - FM: 10 stations, MW (AM): 10 stations, LW: 5 stations
- Clock functions
  - 12 H/24 H clock
- CD functions
  - Random play
  - Intro play
  - Repeat play or track repeat play
  - Memory play (max 20 preset)
  - CD FF/REW
  - Synchronous recording mode
  - Tray open/close control
  - Indication of CD remain time
  - CD graphic
- Remote control functions
  - Mute ON/OFF
  - Volume up/down
  - Direct selecting of preset memory and track number
- Other functions
  - Function change (CD/TUNER/TAPE/AUX)
  - Indication of STEREO mark
  - Power ON/OFF key
  - Mute indicator

## Block Diagram





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