

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

# TC9304F-051

## SINGLE CHIP DTS MICRO CONTROLLER (DTS-10)

TC9304F-051 is a single chip digital tuning system for car audio use.

Having the capability corresponding to the requirement of the whole world with the abundant specification selecting jumpers, this system is provided with the functions for two bands or three bands, clock and tape.

### FEATURES

#### ○ Receiving band

| AREA         | CODE |    | BAND | RECEIVING BAND [Hz]  | STEP [Hz]    | FREF [Hz] | IF [Hz]     |
|--------------|------|----|------|----------------------|--------------|-----------|-------------|
|              | E0   | E1 |      |                      |              |           |             |
| Europe       | 0    | 0  | FM   | 87.50~108.00M        | 50k          | 25k       | + 10.7M     |
|              |      |    | MW   | 531~ 1602k           | 9k           | 9k        | (*1) + 450k |
|              |      |    | LW   | 153 / 155~279 / 281k | (*2) 1k / 9k | 1k        |             |
| USA          | 1    | 0  | FM   | 87.5~ 107.9M         | 200k         | 25k       | + 10.7M     |
|              |      |    | MW   | 530~ 1710k           | 10k          | 10k       | + 450k      |
| Japan        | 0    | 1  | FM   | 76.1~ 89.9M          | 100k         | 25k       | - 10.7M     |
|              |      |    | MW   | 522~ 1629k           | 9k           | 9k        | + 450k      |
| South Africa | 1    | 1  | FM   | 87.50~108.00M        | 50k          | 25k       | - 10.7M     |
|              |      |    | MW   | 531~ 1602k           | 9k           | 9k        | + 450k      |

(\*1) MW and LW are operating as one band. LW stop frequency is can be selected.  
 UP ...LW 279 / 281kHz ...→ MW 531kHz ...→ MW 1602kHz ...→ LW 153 / 155kHz...  
 DOWN...MW 1602kHz ←... LW 153 / 155kHz ←... LW 279 / 281kHz ←... MW 531kHz...

(\*2) LW manual tuning ; 153~281kHz  
 LW auto tuning (Stop frequency 9N) ; 153~279kHz  
 LW auto tuning (Stop frequency 9N + 2) ; 155~281kHz

#### ○ Tuning function

- Manual UP/DOWN tuning
- Auto-search tuning (SEEK)
- Hold-search tuning (SCAN)
- Memory scan tuning
- LW stop frequency on SEEK/SCAN selector

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○ Memory function

- Each band (FM1, FM2, MW / LW) : 6 stations, 3 bands×6 stations = 18 stations max.  
But the receiving range of each band of FM1 and FM2 are the same.
- Auto-memory function
- Preset method can be chosen 1 key type or 6 keys type.

○ Others

- Clock function is optional.
- Clock display is optional at radio off mode.
- The abundant function switches and display for tape deck control.

