

TSPI_ACCELEROMETER

1. Operation Outline

The sample program controls the accelerometer on the evaluation board using TSPI function.

X-axis, Y-axis and Z-axis angle from the accelerometer is displayed on the terminal emulator.

Also, the LED display pattern changes according to the shaking strength or the degree of inclination of the evaluation board.

2. Board setting

Connect the terminal on the evaluation board as follows.

CN5	1-2	CN5	11-12	CN9	1-2
	3-4		13-14		3-4
			15-16		5-6
			17-18		7-8

3. Each Setting

TSPI

: TSPI8CS0(PW0)
: TSPI8SCK(PW1)
: TSPI8RXD(PW2)
: TSPI8TXD(PW3)

LED

: PE4 D10
: PE5 D9
: PE6 D8
: PE7 D7

UART

: UT0RXD(PE2)
: UT0TXDA(PE3)

Serial port setting

Baud rate : 115200(bps)
Data : 8(bit)
Parity : None
Stop : 1(bit)
Flow control : None

3. Basic Operation

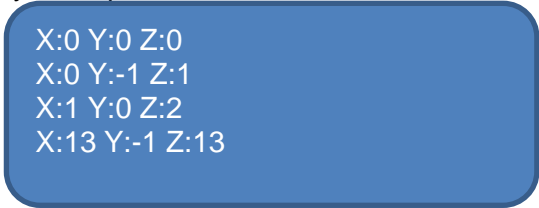
X-axis, Y-axis and Z-axis angle from the accelerometer is displayed on the terminal emulator every second.

By the shaking strength or the degree of inclination of the evaluation board, the LED display pattern changes as follows:

Operation	D10	D9	D8	D7
Weak shaking, or Small inclination	ON	OFF	OFF	OFF
Slightly strong shaking, or Slightly Large inclination	ON	ON	OFF	OFF
Strong shaking, or Large inclination	ON	ON	ON	ON

When the back side of the board is facing up, "Detection angle over !!" is displayed on the terminal emulator.

Display example:



```
X:0 Y:0 Z:0  
X:0 Y:-1 Z:1  
X:1 Y:0 Z:2  
X:13 Y:-1 Z:13
```

4. Note

Nothing.