

# 3-Axis Digital Compass(HMC5883L)

20140106

Reference;  
i2c\_utility\_0.1.f  
HMC5883L\_0.3.f

```
Prop0 Cog6 ok
i2c_detect
  0 1 2 3 4 5 6 7 8 9 A B C D E F
00: - - - - -
10: - - - - - 1E -
20: - - - - -
30: - - - - -
40: - - - - -
50: 50 - - - - -
60: - - - - -
70: - - - - -
i2c_device:2
```

```
Prop0 Cog6 ok
Test      <-- Communication test
data(H43)=H43
```

Display register value (After power on)

```
Prop0 Cog6 ok
disp_reg
Address  value(hex)
  0      70
  1      20
  2      00
  3      00
  4      0A
  5      FE
  6      A6
  7      01
  8      0E
  9      03
 10      48
 11      34
 12      33
```

Prop0 Cog6 ok

Status register(address9)'s LOCK(bit1) is 1, because word'disp\_reg' read out byte step byte.

This is different from default values on manual.

I have no idea.  
But it seems to operate finely.

Prop0 Cog6 ok

contMeasure

...

X=-1 Y=272 Z=-345 <--- Rotating chip on horizontal

X=-1 Y=272 Z=-345

X=-1 Y=272 Z=-345

X=-1 Y=272 Z=-345

X=-1 Y=272 Z=-345

X=-1 Y=272 Z=-345

X=-1 Y=272 Z=-345

X=0 Y=273 Z=-345

X=0 Y=273 Z=-345

X=0 Y=273 Z=-345

X=0 Y=273 Z=-345

...

X=-273 Y=-1 Z=-336 <--- Rotating chip on horizontal

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

X=-273 Y=-1 Z=-336

...

X=28 Y=402 Z=-3 <--- Tilting chip on vertical

X=28 Y=402 Z=-3

X=28 Y=402 Z=-3

X=28 Y=402 Z=-3

X=28 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

X=27 Y=401 Z=-6

Not yet self-test operation.