|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **GestureID** | | **@ 0x01** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **GestureID** | | |  |  |  |
|  | **Bit Name** | |  | **description** | |  |  |  |  |
|  | **[7: 0] GestureID** | |  | **Gesture code 0x00: no** | | |  |  |  |
|  |  |  |  | **gesture 0x01: on a** | |  |  |  |  |
|  |  |  |  | **slippery 0x02: decline** | | |  |  |  |
|  |  |  |  | **0x03: Left slip 0x04:** | |  |  |  |  |
|  |  |  |  | **Right slide 0x05: Click** | | |  |  |  |
|  |  |  |  | **0x0B: Double-click** | |  |  |  |  |
|  |  |  |  | **0x0C: Press** | |  |  |  |  |

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| **FingerNum** | | **@ 0x02** |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **FingerNum** | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |
|  | **[7: 0] FingerNum** | |  | **The number of fingers. 0: No 1 finger: a finger** | | |  |  |
| **XposH** | | **@ 0x03** |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  |  |  | **Xpos [11: 8]** | |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |
|  | **[3: 0] XPos** | |  | **X coordinate of the upper 4 bits** | |  |  |  |
| **XposL** | | **@ 0x04** |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **Xpos [7: 0]** | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |
|  | **[7: 0] XPos** | |  | **X coordinate of the lower 8 bits** | |  |  |  |
| **YposH** | | **@ 0x05** |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  |  |  | **Ypos [11: 8]** | |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |
|  | **[3: 0] YPos** | |  | **Y coordinate of the upper 4 bits** | |  |  |  |
| **YposL** | | **@ 0x06** |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **Ypos [7: 0]** | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |
|  | **[7: 0] YPos** | |  | **Y coordinate of the lower 8 bits** | |  |  |  |
| **BPC0H** | | **@ 0xB0** |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **BPC0 [15: 8]** | |  |  |  |

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|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
|  | **[7: 0] BPC0H** | |  | **BPC0 value of upper 8 bits** | | | |  |  |  |
| **BPC0L** | | **@ 0xB1** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **BPC0 [7: 0]** | | | |  |  |  |
|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
|  | **[7: 0] BPC0L** | |  | **The lower 8 bits of the value BPC0** | | | |  |  |  |
| **BPC1H** | | **@ 0xB2** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **BPC1 [15: 8]** | | | |  |  |  |
|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
|  | **[7: 0] BPC1H** | |  | **BPC1 high value 8** | |  |  |  |  |  |
| **BPC1L** | | **@ 0xB3** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **BPC1 [7: 0]** | | | |  |  |  |
|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
|  | **[7: 0] BPC1L** | |  | **The lower 8 bits of the value BPC1** | | | |  |  |  |
| **ChipID** | | **@ 0xA7** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **ChipID** | |  |  |  |  |  |
|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
|  | **[7: 0] ChipID** | |  | **DH** | |  |  |  |  |  |
| **ProjID** | | **@ 0xA8** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **ProjID** | |  |  |  |  |  |
|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
|  | **[7: 0] ProjID** | |  | **Project Number** | |  |  |  |  |  |
| **FwVersion** | | **@ 0xA9** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **FwVersion** | | | |  |  |  |
|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
|  | **[7: 0] FwVersion** | |  | **Software version number** | | | |  |  |  |
| **MotionMask** | | **@ 0xEC** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  |  |  |  | **EnConLR EnConUD EnDClick** | | | |
|  | **Bit Name** | |  | **description** | |  |  |  |  |  |
| **[2]** | | **EnConLR** |  | **Continuous operation can slide around** | | | | |  |  |
| **[1]** | | **EnConUD** |  | **Slide up and down to enable continuous operation** | | | | |  |  |
| **[0]** | | **EnDClick** |  | **Enable Double-click action** | | | |  |  |  |

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| **IrqPluseWidth** | | **@ 0xED** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **IrqPluseWidth** | | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |
|  | **[7: 0] IrqPluseWidth** | |  | **Interrupt output low pulse width.** | | |  |  |  |
|  |  |  |  | **Unit 0.1ms, optional values: 1-200. The default value is 10.** | | | | |  |
| **NorScanPer** | | **@ 0xEE** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **NorScanPer** | | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |
|  | **[7: 0] NorScanPer** | |  | **Rapid detection of the normal cycle.** | | |  |  |  |
|  |  |  |  | **This value will affect the LpAutoWakeTime and AutoSleepTime. Units of 10ms,** | | | | | |
|  |  |  |  | **selectable values: 1 to 30. The default is 1.** | | | |  |  |
| **MotionSlAngle** | | **@ 0xEF** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **MotionSlAngle** | | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |
|  | **[7: 0] MotionSlAngle** | |  | **Sliding partition gesture detection angle control. Angle = tan (c) \* 10 c is a** | | | | | |
|  |  |  |  | **positive x-axis direction as a reference angle.** | | | |  |  |
| **LpScanRaw1H** | | **@ 0xF0** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **LpScanRaw1H** | | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |
|  | **[7: 0] LpScanRaw1H** | |  | **Scanning the reference channel 1 low power 8-bit value is high.** | | | | |  |
| **LpScanRaw1L** | | **@ 0xF1** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **LpScanRaw1L** | | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |
|  | **[7: 0] LpScanRaw1L** | |  | **The lower 8 bits of the reference value of the low-power scanning No. 1 channel.** | | | | | |
| **LpScanRaw2H** | | **@ 0xF2** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **LpScanRaw2H** | | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |
|  | **[7: 0] LpScanRaw2H** | |  | **Scanning the reference channel 1 low power 8-bit value is high.** | | | | |  |
| **LpScanRaw2L** | | **@ 0xF3** |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** |  | **Bit2** | **Bit1** | **Bit0** |
| **Desc.** |  |  |  | **LpScanRaw2L** | | |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |
|  | **[7: 0] LpScanRaw2L** | |  | **The lower 8 bits of the reference value of the low-power scanning No. 1 channel.** | | | | | |
| **LpAutoWakeTime** | | **@ 0xF4** |  |  |  |  |  |  |  |



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| **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** | **Bit1** | **Bit0** |

**Desc.** **LpAutoWakeTime**

**Bit Name** **description**



**[7: 0] Auto-calibration cycle LpAutoWakeTime low power consumption.**

**Unit 1 minute optional value: 1-5. The default is 5.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **LpScanTH** | |  | **@ 0xF5** |  |  |  |  |  |  |  |  |  |
|  |  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  |  | **LpScanTH** | |  |  |  |  |  |  |
|  |  | **Bit Name** | |  | **description** | |  |  |  |  |  |  |
|  |  | **[7: 0] LpScanTH** | |  | **Low-power scanning wake threshold. The smaller the more** | | | | | | |  |
|  |  |  |  |  | **sensitive. Optional Value: 1 to 255. The default value is 48.** | | | | | | |  |
| **LpScanWin** | |  | **@ 0xF6** |  |  |  |  |  |  |  |  |  |
|  |  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  |  | **LpScanWin** | | | |  |  |  |  |
|  |  | **Bit Name** | |  | **description** | |  |  |  |  |  |  |
|  |  | **[7: 0] LpScanWin** | |  | **Low-power scanning range. The greater the sensitivity, the higher the** | | | | | | |  |
|  |  |  |  |  | **power consumption. Optional value: 0,1,2,3. The default is 3.** | | | | | | |  |
| **LpScanFreq** | |  | **@ 0xF7** |  |  |  |  |  |  |  |  |  |
|  |  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  |  | **LpScanFreq** | | | |  |  |  |  |
|  |  | **Bit Name** | |  | **description** | |  |  |  |  |  |  |
|  |  | **[7: 0] LpScanFreq** | |  | **Low-power scanning frequency. The smaller the** | | | | |  |  |  |
|  |  |  |  |  | **more sensitive. Optional Value: 1 to 255. The default value is 7.** | | | | | | |  |
| **LpScanIdac** | |  | **@ 0xF8** |  |  |  |  |  |  |  |  |  |
|  |  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  |  | **LpScanIdac** | | | |  |  |  |  |
|  |  | **Bit Name** | |  | **description** | |  |  |  |  |  |  |
|  |  | **[7: 0] LpScanIdac** | |  | **Low power scan current. The smaller the more** | | | | |  |  |  |
|  |  |  |  |  | **sensitive. Optional Value: 1 to 255.** | | | |  |  |  |  |
| **AutoSleepTime** | |  | **@ 0xF9** |  |  |  |  |  |  |  |  |  |
|  |  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  |  | **AutoSleepTime** | | | |  |  |  |  |
|  |  | **Bit Name** | |  | **description** | |  |  |  |  |  |  |
|  |  | **[7: 0] AutoSleepTime** | |  | **When no touch, into low power mode automatically x seconds.** | | | | | | |  |
|  |  |  |  |  | **Unit 1S, default is 2S.** | | | |  |  |  |  |
| **IrqCtl** | |  | **@ 0xFA** |  |  |  |  |  |  |  |  |  |
|  |  | **Bit7** | **Bit6** | **Bit5** | **Bit4** |  | **Bit3** |  | **Bit2** | **Bit1** |  | **Bit0** |
| **Desc.** |  | **EnTest EnTouch EnChange OnceWLP place** | | | |  |  |  |  |  |  |  |
|  |  | **name** |  |  | **description** | |  |  |  |  |  |  |
|  |  | **[7]** | **EnTest** |  | **Interrupt pin to test, enable automatic periodic issued after a low pulse.** | | | | | | |  |
|  |  | **[6]** | **EnTouch** |  | **When a touch is detected, a periodic pulsed Low.** | | | | |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **[5]** | | **EnChange** |  | **Upon detecting a touch state changes, pulsed Low.** | | | |  |  |  |
| **[4]** | | **EnMotion** |  | **When the detected gesture is pulsed Low.** | | | |  |  |  |
| **[0]** | | **OnceWLP** |  | **Press gesture only issue a pulse signal is low.** | | | |  |  |  |
| **AutoReset** | | **@ 0xFB** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** |  | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  | **DebouceTime** | |  |  |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |  |
|  | **[7: 0] DebounceTime** | |  | **X seconds but no valid touch gesture, automatically reset. Unit 1S, do** | | | | | |  |
|  |  |  |  | **not enable this function is zero. The default is 5.** | | | |  |  |  |
| **LongPressTime** | | **@ 0xFC** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** |  | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  | **LongPressTime** | |  |  |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |  |
|  | **[7: 0] LongPressTime** | |  | **Press automatically reset after x seconds.** | | | |  |  |  |
|  |  |  |  | **Unit 1S, do not enable this function is zero. The default is 10.** | | | | | |  |
| **IOCtl** | | **@ 0xFD** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** |  | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  |  |  | **SOFT\_RST IIC\_OD** | | |  | **En1v8** |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |  |
| **[2]** | | **SOFT\_RST** |  | **Master reset by pulling the soft touch IRQ pin implemented. 0: Disable** | | | | | | |
|  |  |  |  | **soft reset. 1: Enable soft reset.** | |  |  |  |  |  |
| **[1]** | | **IIC\_OD** |  | **IIC pin drive mode, the default pull-up resistor. 0: pull-up** | | | | | |  |
|  |  |  |  | **resistor 1: OD** |  |  |  |  |  |  |
| **[0]** | | **En1v8** |  | **IIC and IRQ pin level selected, the default is the VDD level. 0: VDD 1:** | | | | | |  |
|  |  |  |  | **1.8V** |  |  |  |  |  |  |
| **DisAutoSleep** | | **@ 0xFE** |  |  |  |  |  |  |  |  |
|  | **Bit7** | **Bit6** | **Bit5** | **Bit4** | **Bit3** | **Bit2** |  | **Bit1** |  | **Bit0** |
| **Desc.** |  |  |  | **DisAutoSleep** | |  |  |  |  |  |
|  | **Bit Name** | |  | **description** |  |  |  |  |  |  |
|  | **[7: 0] DisAutoSleep** | |  | **The default is 0, automatically enabled into low power mode. Is a** | | | | | |  |
|  |  |  |  | **non-zero value, to disable automatic into low power mode.** | | | | | |  |

