**EM Firmware Error Message**

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**Revision History**

|  |  |  |
| --- | --- | --- |
| **Date** | **Description** | **Comment** |
| 2018-05-21 | Create this doc |  |
|  |  |  |
|  |  |  |

## Introduction

### System Architecture

In an EM system, errors may arise from hardware (vacuum, high voltage, EDS etc.), or software (Netburner uOS, process issue, etc). To clearly describe the errors for users and developments, we define the error messages used in EMFW.

### Naming Rule

Any error message consists of an error code and an error description. An error code has the general format: “ERR\_[*TYPE*]\_[*STATE]*”.

## Error Message

### Command(指令)

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Code | Causes | Comments |
| 0x00010000 | ERR\_CMD\_UNDEFINED | 未定義指令 |  |
| 0x00010001 | ERR\_ACCKV\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010002 | ERR\_ACCKV\_INV\_PARAM1\_VAL | Param1 值0~2 |  |
| 0x00010003 | ERR\_ACCKV\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x00010004 | ERR\_ACK\_INV\_PARAM\_VAL | 值只能設0或2 |  |
| 0x00010005 | ERR\_ SCANPAUSE \_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010006 | ERR\_SCANPAUSE\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010007 | ERR\_ SCANSTOP \_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010008 | ERR\_SCANSTOP\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010009 | ERR\_DACT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001000A | ERR\_DACT\_INV\_PARAM1\_VAL | 值只能設0或1 |  |
| 0x0001000B | ERR\_FILACNST\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001000C | ERR\_FILACNST\_INV\_PARAM\_VAL | Mode值0~2 |  |
| 0x0001000D | ERR\_ADDR\_RW\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001000E | ERR\_APERMM\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001000F | ERR\_APERMM\_INV\_PARAM1\_VAL | 只能是0 for coil |  |
| 0x00010010 | ERR\_APERMM\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x00010011 | ERR\_APERMM\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x00010012 | ERR\_AUTOVAC\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010013 | ERR\_AUTOVAC\_ INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010014 | ERR\_BLANKING\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010015 | ERR\_BLANKING\_INV\_PARAM\_VAL | 值只能設3以下 |  |
| 0x00010016 | ERR\_BAUD\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010017 | ERR\_BAUD\_INV\_PARAM1\_VAL | 值只能設5以下 |  |
| 0x00010018 | ERR\_BAUD\_INV\_PARAM2\_VAL | 值只能設大於0 |  |
| 0x00010019 | ERR\_BINPKT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001001A | ERR\_BINPKT\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001001B | ERR\_BRSEL\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001001C | ERR\_BSEMODE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001001D | ERR\_BSEMODE\_INV\_PARAM\_VAL | 值只能設1或2 |  |
| 0x0001001E | ERR\_CALVID\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001001F | ERR\_CHKTP\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010020 | ERR\_CHKTP\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010021 | ERR\_CSHUNT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010022 | ERR\_CSHUNT\_INV\_PARAM1\_VAL | 值只能設12以下 |  |
| 0x00010023 | ERR\_DEBUG\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010024 | ERR\_DEBUG\_INV\_PARAM\_VAL | 值只能設22以下 |  |
| 0x00010025 | ERR\_DELAY\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010026 | ERR\_DELAY\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x00010027 | ERR\_DELAY\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x00010028 | ERR\_DELAY\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x00010029 | ERR\_ENEDS\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001002A | ERR\_ENEDS\_INV\_PARAM\_VAL | 值只能設2以下 |  |
| 0x0001002B | ERR\_ENFIFO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001002C | ERR\_ENFIFO\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001002D | ERR\_EDSDWT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001002E | ERR\_EDSDWT\_INV\_PARAM\_VAL | 參照 firmware command doc (不能是負值) |  |
| 0x0001002F | ERR\_EDSHS\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010030 | ERR\_EDSHS\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010031 | ERR\_EDSONHW\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010032 | ERR\_EDSONHW\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010033 | ERR\_ENCL\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010034 | ERR\_ENCL\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010035 | ERR\_ENCOILSW\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010036 | ERR\_ENCOILSW\_INV\_PARAM\_VAL | 值只能設3以下 |  |
| 0x00010037 | ERR\_ENVENT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010038 | ERR\_ENVENT\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010039 | ERR\_ENVADC\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001003A | ERR\_ENVADC\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001003B | ERR\_ENWDT\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001003C | ERR\_ERROR\_NOT\_QUESTIONMARK\_OR\_0 | 值只能設?或1 |  |
| 0x0001003D | ERR\_FASTCLOCK\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001003E | ERR\_FASTCLOCK\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001003F | ERR\_FOCUS\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010040 | ERR\_FOCUS\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x00010041 | ERR\_FOCUS\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x00010042 | ERR\_FOCUS\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x00010043 | ERR\_FREQGEN\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010044 | ERR\_FREQGEN\_INV\_PARAM1\_VAL | 值只能設0~3 |  |
| 0x00010045 | ERR\_GETAI\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010046 | ERR\_GETAI\_INV\_PARAM2\_VAL | 值只能設0~23 |  |
| 0x00010047 | ERR\_GETAII\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010048 | ERR\_GETAII\_INV\_PARAM\_VAL | 值只能設0~2 |  |
| 0x00010049 | ERR\_GETSET\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001004A | ERR\_GETSET\_INV\_PARAM\_VAL | 值只能設0~8 |  |
| 0x0001004B | ERR\_GV\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001004C | ERR\_GV\_INV\_PARAM1\_VAL | 值只能設0~4 |  |
| 0x0001004D | ERR\_GV\_INV\_PARAM2\_VAL | 值只能設0~1 |  |
| 0x0001004E | ERR\_HISTO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001004F | ERR\_HISTO\_INV\_PARAM\_VAL | 值只能設0~1 |  |
| 0x00010050 | ERR\_HISTOCH\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010051 | ERR\_HISTOCH\_INV\_PARAM\_VAL | 值只能設0~1 |  |
| 0x00010052 | ERR\_HVACC\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010053 | ERR\_HVBIAS\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010054 | ERR\_HVON\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010055 | ERR\_HVON\_INV\_PARAM\_VAL | 值只能設0~1 |  |
| 0x00010056 | ERR\_HVMAX\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010057 | ERR\_HVMAX\_INV\_PARAM1\_VAL | 值只能設0 |  |
| 0x00010058 | ERR\_HVPARAM\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010059 | ERR\_HVPARAM2\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001005A | ERR\_HVPARAM2\_INV\_PARAM1\_VAL | 值只能設0 |  |
| 0x0001005B | ERR\_HVTYPE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001005C | ERR\_HVTYPE\_INV\_PARAM\_VAL | 值只能設0~2 |  |
| 0x0001005D | ERR\_IDLET\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001005E | ERR\_IMGNUM\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001005F | ERR\_IMGNUM\_INV\_PARAM\_VAL | 值只能設1~8 |  |
| 0x00010060 | ERR\_IO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010061 | ERR\_IOINV\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010062 | ERR\_IOINV\_INV\_PARAM\_VAL | 值只能設1~8 |  |
| 0x00010063 | ERR\_IPLEAK\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010064 | ERR\_IPLEAK\_INV\_PARAM1\_VAL | 值只能設0~2 |  |
| 0x00010065 | ERR\_IPLEAK\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x00010066 | ERR\_IPON\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010067 | ERR\_IPON\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010068 | ERR\_MOTOGV\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010069 | ERR\_IPTYPE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001006A | ERR\_IPTYPE\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001006B | ERR\_IRQACK\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001006C | ERR\_IRQACK\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001006D | ERR\_LEDAUTO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001006E | ERR\_LEDAUTO\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001006F | ERR\_LED\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010070 | ERR\_LED\_INV\_PARAM1\_VAL | 值只能設0~3 |  |
| 0x00010071 | ERR\_LED\_INV\_PARAM2\_VAL | 值只能設0~3 |  |
| 0x00010072 | ERR\_LEDON\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010073 | ERR\_LEDON\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010074 | ERR\_LEDTEST\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010075 | ERR\_LEDTEST\_INV\_PARAM\_VAL | 值只能設3~20 |  |
| 0x00010076 | ERR\_MAG\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010077 | ERR\_MAG\_INV\_PARAM\_VAL | 值只能設20~100000 |  |
| 0x00010078 | ERR\_MAG\_SETMAGNIFICATION\_FAIL | Set magnification fail |  |
| 0x00010079 | ERR\_MRESET\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001007A | ERR\_MRESET\_INV\_PARAM\_VAL | 值只能設0~2 |  |
| 0x0001007B | ERR\_NOKTH\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001007C | ERR\_NOKTH\_INV\_PARAM1\_VAL | 值只能設0或1 |  |
| 0x0001007D | ERR\_OBJMODE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001007E | ERR\_OBJMODE\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001007F | ERR\_OBJON\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010080 | ERR\_OBJON\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010081 | ERR\_OBJIMAX\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010082 | ERR\_OBJIMAX\_INV\_PARAM1\_VAL | 值只能設0~4 |  |
| 0x00010083 | ERR\_OBJIMAX\_INV\_PARAM2\_VAL | 值只能設0.15~1.42 |  |
| 0x00010084 | ERR\_OBJIMIN\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010085 | ERR\_OBJIMIN\_INV\_PARAM1\_VAL | 值只能設0~4 |  |
| 0x00010086 | ERR\_OBJIMIN\_INV\_PARAM2\_VAL | 值只能設0.15~1.42 |  |
| 0x00010087 | ERR\_OBJR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010088 | ERR\_OBJR\_INV\_PARAM\_VAL | 值只能設1~3 |  |
| 0x00010089 | ERR\_OBJSTBYR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001008A | ERR\_OBJSTBYR\_INV\_PARAM\_VAL | 值只能設0.0~1.0 |  |
| 0x0001008B | ERR\_ONEPKT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001008C | ERR\_OVERSCAN\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001008D | ERR\_OVERSCAN\_INV\_PARAM1\_VAL | 值只能設0或1 |  |
| 0x0001008E | ERR\_OVERSCAN\_INV\_PARAM2\_VAL | 值只能設0.0~3.0 |  |
| 0x0001008F | ERR\_PIDGET\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x00010090 | ERR\_PIDSET\_INV\_PARAM\_VAL | 值只能1或2 |  |
| 0x00010091 | ERR\_PLSET\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010092 | ERR\_PLSET\_INV\_PARAM1\_VAL | 參照韌體code |  |
| 0x00010093 | ERR\_PLSET\_INV\_PARAM2\_VAL | 參照韌體code |  |
| 0x00010094 | ERR\_POINTSET\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010095 | ERR\_POINTSET\_INV\_PARAM1\_VAL | 參照韌體code(default 2.2/2) |  |
| 0x00010096 | ERR\_POINTSET\_INV\_PARAM2\_VAL | 參照韌體code |  |
| 0x00010097 | ERR\_POS\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010098 | ERR\_POS\_INV\_PARAM1\_VAL | 值只能設0~PIXEL\_NUM\_X\_MAX-1 |  |
| 0x00010099 | ERR\_POS\_INV\_PARAM2\_VAL | 值只能設0~PIXEL\_NUM\_Y\_MAX-1 |  |
| 0x0001009A | ERR\_POINTMODE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001009B | ERR\_POINTMODE\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x0001009C | ERR\_PUMPON\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001009D | ERR\_PUMPON\_INV\_PARAM1\_VAL | 值只能設0~2 |  |
| 0x0001009E | ERR\_PUMPON\_INV\_PARAM2\_VAL | 值只能設0或1 |  |
| 0x0001009F | ERR\_PWRON\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100A0 | ERR\_PWRON\_INV\_PARAM1\_VAL | 值只能設0~9 |  |
| 0x000100A1 | ERR\_PWRON \_INV\_PARAM2\_VAL | 值只能設0或1 |  |
| 0x000100A2 | ERR\_RAMDUMP\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100A3 | ERR\_RAMSET\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100A4 | ERR\_RAMTEST\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100A5 | ERR\_REGION\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100A6 | ERR\_REGION\_INV\_PARAM1\_VAL | 值只能設0或1 |  |
| 0x000100A7 | ERR\_REGION\_INV\_PARAM2\_VAL | 當PARAM1 = 1時值只能設0.1~0.9 |  |
| 0x000100A8 | ERR\_RETURN\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100A9 | ERR\_RETURN\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x000100AA | ERR\_RESEND\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100AB | ERR\_RESET\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100AC | ERR\_RESET\_INV\_PARAM\_VAL | 值只能1~5 |  |
| 0x000100AD | ERR\_ROTATE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100AE | ERR\_ROTATE\_INV\_PARAM\_VAL | 值只能設0~359 |  |
| 0x000100AF | ERR\_SCALE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100B0 | ERR\_SCALE\_INV\_PARAM\_VAL | 值只能設1~4 |  |
| 0x000100B1 | ERR\_SCANSTART\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100B2 | ERR\_SCANSTART\_INV\_PARAM1\_VAL | 值只能設0~65535 |  |
| 0x000100B3 | ERR\_SCANSTART\_INV\_PARAM2\_VAL | 值只能設0~60000 |  |
| 0x000100B4 | ERR\_SETAO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100B5 | ERR\_SETAO\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x000100B6 | ERR\_SETAO\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100B7 | ERR\_SETAO\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x000100B8 | ERR\_SETAOIW\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100B9 | ERR\_SETAOI\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100BA | ERR\_SETAOI\_INV\_PARAM1\_VAL | 值只能設0或1 |  |
| 0x000100BB | ERR\_SETAOI\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100BC | ERR\_SETAVGNUM\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100BD | ERR\_SETAVGNUM\_INV\_PARAM\_VAL | 值只能設1，2，4，8或16 |  |
| 0x000100BE | ERR\_SETBRX\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100BF | ERR\_SETBRX\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x000100C0 | ERR\_SETBRX\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100C1 | ERR\_SETBR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100C2 | ERR\_SETBR\_INV\_PARAM\_VAL | 參照 firmware command doc |  |
| 0x000100C3 | ERR\_SETCI\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100C4 | ERR\_SETCOX\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100C5 | ERR\_SETCOX\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x000100C6 | ERR\_SETCOX\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100C7 | ERR\_SETCO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100C8 | ERR\_SETCO\_INV\_PARAM\_VAL | 參照 firmware command doc |  |
| 0x000100C9 | ERR\_SENRSEL\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100CA | ERR\_SENRSEL\_INV\_PARAM\_VAL | 值只能設0或1 |  |
| 0x000100CB | ERR\_SETDO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100CC | ERR\_SETDO\_INV\_PARAM1\_VAL | 值只能設0或1 |  |
| 0x000100CD | ERR\_SETDOB\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100CE | ERR\_SETDOB\_INV\_PARAM1\_VAL | 值只能設0或1 |  |
| 0x000100CF | ERR\_SETDOB\_INV\_PARAM2\_VAL | 值只能設0~15 |  |
| 0x000100D0 | ERR\_SETDOB\_INV\_PARAM3\_VAL | 值只能設0或1 |  |
| 0x000100D1 | ERR\_SETHV\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100D2 | ERR\_SETLDR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100D3 | ERR\_SETOBJ\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100D4 | ERR\_SETOBJ\_INV\_PARAM\_VAL | 值只能設0~100 |  |
| 0x000100D5 | ERR\_SETOFSAD\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100D6 | ERR\_SETOFSAD\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x000100D7 | ERR\_SETOFSAD\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100D8 | ERR\_SETOFSAD\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x000100D9 | ERR\_SETOFSDA\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100DA | ERR\_SETOFSDA\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x000100DB | ERR\_SETOFSDA\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100DC | ERR\_SETOFSDA\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x000100DD | ERR\_SETSLPDA\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100DE | ERR\_SETSLPDA\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x000100DF | ERR\_SETSLPDA\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100E0 | ERR\_SETSLPDA\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x000100E1 | ERR\_SETPITR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100E2 | ERR\_SETPITR\_INV\_PARAM\_VAL | 值只能設 > 0 |  |
| 0x000100E3 | ERR\_SETPIXN\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100E4 | ERR\_SETPIXN\_INV\_PARAM1\_VAL | 值只能設 < PIXEL\_NUM\_X\_MAX 或 \*(1.0+fOverscan)<PIXEL\_NUM\_X\_MAX |  |
| 0x000100E5 | ERR\_SETPIXN\_INV\_PARAM2\_VAL | 值只能設 < PIXEL\_NUM\_Y\_MAX |  |
| 0x000100E6 | ERR\_SETR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100E7 | ERR\_SETR\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x000100E8 | ERR\_SETR\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x000100E9 | ERR\_SETSTIGX\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100EA | ERR\_SETSTIGX\_INV\_PARAM\_VAL | 值只能設 -50~50 |  |
| 0x000100EB | ERR\_SETSTIGY\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100EC | ERR\_SETSTIGY\_INV\_PARAM\_VAL | 值只能設 -50~50 |  |
| 0x000100ED | ERR\_SETV2IR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100EE | ERR\_SETZOOM\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100EF | ERR\_SETZOOM\_INV\_PARAM3\_VAL | 參照 firmware command doc |  |
| 0x000100F0 | ERR\_SETZOOM\_INV\_PARAM4\_VAL | 參照 firmware command doc |  |
| 0x000100F1 | ERR\_SETZOOM\_INV\_PARAM5\_VAL | 參照 firmware command doc |  |
| 0x000100F2 | ERR\_SETZOOM\_INV\_PARAM\_IS\_SCANNING | 還在掃描中 |  |
| 0x000100F3 | ERR\_SHADOW\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100F4 | ERR\_SHADOW\_INV\_PARAM\_VAL | 值只能設 0~18 |  |
| 0x000100F5 | ERR\_SIMUVAC\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100F6 | ERR\_SIMUVAC\_INV\_PARAM1\_VAL | 值只能設 0~5 |  |
| 0x000100F7 | ERR\_SIMU\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100F8 | ERR\_SIMU\_INV\_PARAM\_VAL | 值只能設 0或1 |  |
| 0x000100F9 | ERR\_SO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100FA | ERR\_SO\_INV\_PARAM1\_VAL | 參照 firmware command doc && firmware code |  |
| 0x000100FB | ERR\_SO\_INV\_PARAM2\_VAL | 參照 firmware command doc && firmware code |  |
| 0x000100FC | ERR\_SOE\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x000100FD | ERR\_SOE\_INV\_PARAM\_VAL | 值只能設 0或1 |  |
| 0x000100FE | ERR\_START\_INV\_PARAM\_VAL | 參照 firmware command doc && firmware code |  |
| 0x000100FF | ERR\_SYSCLK\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010100 | ERR\_SYSCLK\_INV\_PARAM\_VAL | 值只能設 20或40 |  |
| 0x00010101 | ERR\_TEST\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010102 | ERR\_TEST\_INV\_PARAM\_VAL | 值只能設 0或1 |  |
| 0x00010103 | ERR\_TEMPLIM\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010104 | ERR\_TEMPLIM\_INV\_PARAM1\_VAL | 參照 firmware command doc && firmware code |  |
| 0x00010105 | ERR\_TEMPLIM\_INV\_PARAM2\_VAL | 參照 firmware command doc && firmware code |  |
| 0x00010106 | ERR\_TEMPLIM\_INV\_PARAM3\_VAL | 參照 firmware command doc && firmware code |  |
| 0x00010107 | ERR\_TURBO\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010108 | ERR\_TURBO\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x00010109 | ERR\_TURBO\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x0001010A | ERR\_TURBOSP\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001010B | ERR\_TURBOSP\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x0001010C | ERR\_TURBOT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001010D | ERR\_TURBOT\_INV\_PARAM\_VAL | 值只能設 0~2 |  |
| 0x0001010E | ERR\_UP2DN\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001010F | ERR\_UP2DN\_INV\_PARAM\_VAL | 值只能設 0或1 |  |
| 0x00010110 | ERR\_UDPPORT\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010111 | ERR\_UDPPORT\_INV\_PARAM\_VAL | 值只能設 0或1 |  |
| 0x00010112 | ERR\_VACERR\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010113 | ERR\_VACOK\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010114 | ERR\_VACOK\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x00010115 | ERR\_VACOK\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
| 0x00010116 | ERR\_VACON\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010117 | ERR\_VACON\_INV\_PARAM\_VAL | 值只能設 0~3 |  |
| 0x00010118 | ERR\_VACPARA\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x00010119 | ERR\_VACPARA\_INV\_PARAM1\_VAL | 值只能設 0~22 |  |
| 0x0001011A | ERR\_VIEWW\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001011B | ERR\_VIEWW\_INV\_PARAM\_VAL | 值只能設 < 10.0 |  |
| 0x0001011C | ERR\_WAITEOC\_INV\_PARAM\_NUM | 輸入參數個數不符 |  |
| 0x0001011D | ERR\_WAITEOC\_INV\_PARAM1\_VAL | 參照 firmware command doc |  |
| 0x0001011E | ERR\_WAITEOC\_INV\_PARAM2\_VAL | 參照 firmware command doc |  |
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### Vacuum(真空)

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| --- | --- | --- | --- |
| ID | Code | Causes | Comments |
| 02001 | ERROR1 | 低真空異常 |  |
|  | ERROR2 | 高真空異常 |  |
|  |  | 抽氣時間過久 | 抽氣時間過久, 但沒到目標torr |
|  |  | 洩氣時間過久 | 洩氣時間過久, 但沒到目標torr |
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### Communication(通訊)

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| --- | --- | --- | --- |
| ID | Code | Causes | Comments |
| 03001 | ERR\_ | TCP連線失敗 |  |
|  |  | UDP連線失敗 |  |
|  |  | RS485通訊失敗 | 加註node id |
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### Peripheral(周邊)

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| --- | --- | --- | --- |
| ID | Code | Causes | Comments |
| 04001 | ERR\_SPUMP\_ | Scroll pump |  |
| 04002 | ERR\_TPUMP\_ | Turbo pump |  |
|  | ERR\_IPUMP\_ | Ion pump |  |
|  | ERR\_IG\_ | Ion Gauge |  |
|  | ERR\_PG\_ | Pirani Gauge |  |
|  | ERR\_INV\_VERSION | Board | 檢查版本配對 |
|  | ERR\_OVER\_HEAT | Board |  |
|  |  | EDS |  |
|  |  | HV |  |
|  |  | Detector |  |
|  |  | FPGA |  |
|  |  | Chamber | door沒關 |

### Software(軟體)

#### System (uOS/Process…)

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Code | Causes | Comments |
| 05101 | ERR\_ | 行程Interlock |  |
|  |  | uOS |  |
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