### RS232 Command Summary(Baud Rate is 115200bps, 8bits, non parity, 1 stop bit)

<cr> : carriage return character(hexidecimal: 0x0d)

<lf> : line feed character(hexidecimal: 0x0a)

<sp> : space character(hexidecimal: 0x20)

Note about multi-channel implementation:

All commands with [#] have three version:

1. **<COMMAND>#** which performs the command for a single channel, given by #. Takes one value for input **<value>**, or returns one value for output **<value>**.
2. **<COMMAND>U** which performs the command for all channels, with different input for each channel. Takes eight values for input **<value>,<value>,<value>,<value>,<value>,<value>,<value>,<value>**, comma delimited, and “\*” indicates the channel should be left unchanged, and returns eight values for output **<value>,<value>,<value>,<value>,<value>,<value>,<value>,<value>**, comma delimited, and the response “\*” indicates that the channel is not in the specific mode queried for.
3. **<COMMAND>0** which performs the command for all channels, with the same input for each channel. Takes one input **<value>**, or returns one output **<value>**. If all channels do not have the same response, the query returns an error.

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| **CMD** | **DESCRIPTION** | **Example** |
| **EO [0|1]** | Echo setting On/Off | (S): EO<sp><0 or 1><cr>  ®: |
| ID? | Get Product ID | (S): ID? <cr>  ®: DiCon Fiberoptics Inc, PROJECTNAME, FW 0.01, S/N<cr><lf> |
| FW? | Get Firmware Version | (S): FW? <cr>  ®: DiCon Fiberoptics Inc,PROJECTNAME1<cr><lf> |
| SN? | Get Serial Number | (S): SN?<cr>  ®:SN:1234567890 <cr><lf> |
| **RS** | Software Reset | (S): RS<cr>  ®: |
| **FR** | Factory Reset. Resets non-volatile memory to factory settings, including Offset and Initial Value | (S): FR<cr>  ®: |
| **ER?** | Query error log | (S): ER?<cr>  ®: ERR<error code><cr><lf> |
| **TP?** | Gets the board temperature (Celsius) | (S): TP?<cr>  ®:24<cr><lf> |

**Private Commands:**

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| **Command** | **Description** |
| EA<sp><block address>,<data address><cr> | Set the EEPROM address |
| EA?<cr> | Query the EEPROM address |
| ED<sp><Hexadecimal String><cr> | Write a page data of the EEPROM(16 bytes per page) |
| ED?<cr> | Query a page data from EEPROM(16 bytes per page) |
| EN<sp><Hexadecimal String><cr> | write the next page data of EEPROM |
| EN?<cr> | Query the next page data from EEPROM |
| ISP<cr> | Force Device into Firmware download mode |

*Error Log Codes*

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| **Return Code** | **Description** |
| 0 | Successful |
| 1 | Invalid Command |
| 2 | Value Out of Range |
| 3 | Command Fail |
| 4 | Checksum Fail |
| 16 | Busy signal from devices |
| 17 | Alarm signal from devices |