

Software Programming Guide For E410SA And E810SA

1. Diagnostics Packet

These packets are issued from the host for querying some device information. The controller firmware will report the corresponding data to the host. The packet format is as follows:

0x0A	LengthInByte	Command	Response
1 Byte	1 Byte	1 Byte	(LengthInByte-1) Bytes

The maximum packet size is 16 bytes. The first byte is Start of Packet as 0X0A. The second byte is the length of Response. The third byte is the issued command and the last part (length is defined in second byte) is the response from controller firmware.

1. Check active: this packet is to check if the device is working properly.

Host issues

0x0A	1	'A'
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Device responds when active

0x0A	1	'A'
------	---	-----

2. Get firmware version

Host issues

0x0A	1	'D'
------	---	-----

Controller firmware responds

0x0A	Length	'D'	Response
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The response is an ASCII string, such as '1.05'

3. Get type

This packet is to request the controller type. The possible responses are '4 wire' or '8 wire'.

Host issues

0x0A	1	'E'
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Controller firmware responds

0x0A	Length	'E'	Response
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1.1 Report Packet

Each report packet contains 5 bytes. The packet format is as follows:

	MSB							LSB
Byte1	1	0	0	0	0	0	0	Status
Byte2	0	0	0	0	A10	A9	A8	A7
Byte3	0	A6	A5	A4	A3	A2	A1	A0
Byte4	0	0	0	0	B10	B9	B8	B7
Byte5	0	B6	B5	B4	B3	B2	B1	B0

Status: indicates the touch status: 1 for touch down and 0 for touch up.

A10 – A0: 11 bits of 1st direction raw data

B10 – B0: 11 bits of 2nd direction raw data

Note that A and B just represent 2 resolution directions of the touch panel.

1.2 RS232 Interface

RS232 controller uses the following parameters:

- **Baud rate: 9600 bps**
- **Data bits: 8 bit**
- **Stop bit: 1 bit**