

LIS protocol for A50/A5000/i50 (Rev.2)

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The communication between one of Boditech's instrument
"A50/A5000/i50/A5000Plus/i50Plus/A10/A3000/" and the host computer can be via:

a serial connection using RS-232C cable.

A frame in Boditech LIS contains all information for one transaction. The A50/A5000/i50/A5000Plus/i50Plus/A10/A3000 will always include only one record in a frame when sending frames to the host.

Generally a frame looks like this:

<Header> <Record> <Tail>

1. <Header> is always "%\$2"
:it means protocol version is 2
2. <Record> consists of fields divided by a delimiter.
The filed delimiter is "|"

Please refer below table for the all field information.

Field Name	Description	Type
Device number	Devices Serial Number	String
Date	Test date (YYYYMMDDHHMMSS)	String
User ID	Operator ID	String
Default PID	Default Patient ID(YYYYMMDD_XXX) Device will generate automatically	String
User input PID	User input ID to the specimen	String
Barcode PID	Barcode ID assigned to the specimen	String
Age	Patient age This field is not used by A50/A5000/i50 (The value will be always empty)	String
Gender	Patient gender This field is not used by A50/A5000/i50 (The value will be always empty)	String
Sub Item name	Item name (example CRP, PCT) If it is single item, sub item name is same as the representative item name	String
Lot name	Item lot name	String
Expire date	Item expire date	String
Result 1	Test result 1	String
Result 2	Test result 2	String

Result 3	Test result 3	String
Result 4	Test result 4	String
Result 5	Test result 5	String
Unit 1	Unit for the Test result 1	String
Unit 2	Unit for the Test result 2	String
Unit 3	Unit for the Test result 3	String
Unit 4	Unit for the Test result 4	String
Unit 5	Unit for the Test result 5	String
Result flag	Test result positive / negative flag	(P / N / Empty)
Test type	General test, QC mode, QC calibration mode This field is not used by A50/A5000/i50 (The value will be always G)	G / Q / C
Tip type	Tip Type information (General tip, C-Tip) This field is not used by A50/A5000/i50 (The value will be always G)	G / C
Slot number	Device Slot information This field is not used by A50/A5000/i50 (The value will be always empty)	Number
Control name	Control Name This field is not used by A50/A5000/i50 (The value will be always empty)	String
Control lot name	Control Lot This field is not used by A50/A5000/i50 (The value will be always empty)	String
Control Exp	Control Expire date This field is not used by A50/A5000/i50 (The value will be always empty)	String
Control Flag	Positive / Negative flag This field is not used by A50/A5000/i50 (The value will be always empty)	1 / 0
Item Name	Representative item name	String
Reserved 2	Reserved field 2	String
Reserved 3	Reserved field 3	String
Reserved 4	Reserved field 4	String
Reserved 5	Reserved field 5	String

3. <Tail> is always <CR><LF>

<CR> : Carriage Return (ascii value 0x0d, \r)

<LF> : Line Feed (LF, ascii value 0x0a, \n)

*Boditech LIS Frame example

In case of single item :PCT

```
%$2|A1234567890|20210709154900|admin|210709_018|||PCT|PCFDA04X|20221229|2.50|||ng/mL|||
||G|G|||PCT|||<CR><LF>
```

In case of combo item:COVID-19 Ab

```
%$2|A1234567890|20210619080613|admin|210619_019|||IgM|WHCA85G|20221104|0.94|||COI|||
I|G|G|||COVID-19 Ab|||<CR><LF>
```

```
%$2|A1234567890|20210619080613|admin|210619_019|||IgG|WHCA85G|20221104|0.86|||COI|||
N|G|G|||COVID-19 Ab|||<CR><LF>
```