



# **UF-1000i Host Interface Specifications**

**Revision 1.4**

Revised on August 19, 2006

**SYSMEX CORPORATION**

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## REVISION HISTORY

Revision	Date	Content
1.3	June 16, 2006	Initial version
1.4	August 19, 2006	<ul style="list-style-type: none"> <li>• Corrected typing mistakes.</li> <li>• Re-numbered the tables and figures.</li> </ul>

## 1. SCOPE

The communication format in this specification is applied to bit-serial communication or TCP/IP (Ethernet) communication between UF-1000i and the host computer.

## 2. General

UF-1000i will perform the "output analysis results" and "output QC analysis results" to the host computer. UF-1000i will also perform an order inquiry to the host computer and obtains a "download of analysis order information", which allows UF-1000i to analyze the samples automatically according to the analysis information.

Moreover, analysis results can be output in the "UF-100 compatible format". Refer to the "UF-100i Host Interface Specifications" for more details in the "UF-100 compatible format". However, following limitations will apply if the UF-100 compatible format is used.

- (1) The least 13 digits will be output for the Sample ID number.  
Note that when "NEW SIS" is selected in the service settings, 15 digits of the Sample ID number will be output.
- (2) The least 4 digits will be output for the Rack number. (The least 3 digits will be output in the analysis information inquiry.)  
Note that when "NEW SIS" is selected in the service settings, 6 digits of the Rack number will be output.
- (3) Raw Count Data (F) will output the Raw Count Data in SEDch. Here, the upper limit is 10000.
- (4) Raw Count Data (I) will not be output, but output with all zeros "0".
- (5) Total Cell Count will output the Total Cell Count in SEDch.
- (6) Only the Quality Control parameters; RBC, WBC, EC, CAST, BACT, Cond. will be output, and all other sensitivity parameters will be output with zero "0".

### 2.1 Output Analysis Results

#### (1) Output Analysis Results

The analysis data text is divided into five types of block for transmission: a sample information block, a particle count block 1, a particle count block 2, a comment block 1, and a comment block 2. Depending on the destination, output or not-output of a particle count block 2 and a comment block 2 will be changed.

Europe: A particle count block 2 and a comment block 2 will be output.

America: A particle count block 2 and a comment block 2 will not be output.

These three blocks are classified by the text distinction code 2, with the sample information block defined as "S", the particle count block as "P", and the comment block as "C".

These blocks are transmitted in the order of the sample information block→ the particle count block→ the comment block.

#### (2) Output QC Analysis Results

The QC Analysis Data text is divided into two blocks; QC Analysis Data Block and the QC Assay Data Block, and the data controlled in the X-bar or L-J control will be output.

#### (3) "Reserved" area in each block

The reserved area is not currently used, and all zeros "0" are transmitted for the specified number of digits. However Sysmex reserves the right to use this area in the future and suggests the host computer program not to check the value in this area.

### 2.2 Downloading Analysis Information

UF-1000i has a function to download from the host computer the analysis information, such as analysis order information and the patient information, and to automatically analyze the samples according to the analysis information.

### 3. HARDWARE

#### 3.1 Serial Communication

##### (1) Connector and Cable

Following connector and cable are used.

- Output connector is located in the IPU (Information Processing Unit) of the UF-1000i, and uses a 9-pin, D-SUB male connector.
- Connector on the cable uses a 9-pin, D-SUB female connector.
- Cable should be a 9-pin, D-SUB, RS-232C cross-cable.
- Fixing screws adopt the inch size screw pitch.

##### (2) Connector Signal

UF-1000i connector pin assignment is shown below.

**Table 3-1: Connector Signal**

Pin No.	Signal name	Signal direction
1		
2	Receive data (RxD)	IN
3	Transmit data (TxD)	OUT
4	Data terminal ready (DTR)	OUT
5	Signal ground (SG)	
6	Data set ready (DSR)	IN
7	Request to send (RTS)	OUT
8	Clear to send (CTS)	IN
9		

##### (3) Signal Level

Signal level conforms to JIS C6361, as shown below.

**Table 3-2: Signal Level**

Level	Data signal	Control signal
+3V or Higher	Logic "0", start bit	ON
-3V or Lower	Logic "1", stop bit	OFF

#### 3.2 TCP/IP Communication

The network interface layer is described below.

- This port conforms to the IEEE 802.3.
- Communication is done with 10Base-T or 100Base-T.
- The connector hub in the UF-1000i uses RJ45 socket.
- Connection cable should be the un-shielded twisted pair cable (UTP cable category 5).

## 4. SOFTWARE

### 4.1 Serial Communication

#### 4.1.1 Output to the Host Computer

##### (1) Communication Parameters

The communication is start-stop asynchronous half duplex, and followings can be set.

**Table 4-1: Communication Parameters**

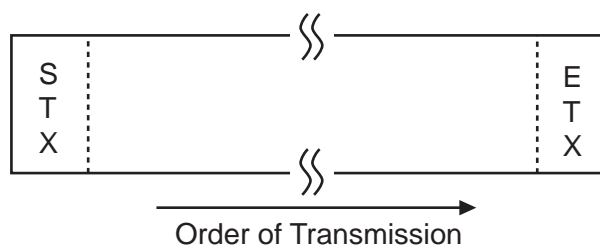
Parameter	Selection of Settings
Baud rate	600, 1200, 2400, 4800, <u>9600</u> , 14400, 19200, 38400 (bps)
Code	7 bits, <u>8 bits</u>
Stop bit	<u>1 bit</u> , 2 bits
Parity	<u>None</u> , Even, Odd
Protocol	Class A, <u>Class B</u>
Interval	0, 1, <u>2</u> , 3, 5, 7, 10, 15 (seconds)

Notes 1: Underlined parameters are the factory default settings.

##### (2) Transmission protocol

Data code: ASCII codes

**Text Format:** "STX" is sent at the beginning, and "ETX" is sent at the end of data.



**Figure 4-1: Text Format**

##### (3) Transmission Procedure

Two classes are prepared and can be selected depending on the system requirements.

###### Class A

One-way data transmission that requires no response from the host computer.

###### Class B

Two-way communication that requires response (ACK or NAK) from the host computer.

[UF-1000i]		[Host computer]
Sends data of oneText	→	
	←	Sends ACK (06H) if no error, or NAK (15H) if an error is detected.
Sends the following data if ACK (06H), or resends the same data if NAK (15H) is received. Resending is performed up to 3 times.	→	

**Figure 4-2: Transmission Procedure**

#### (4) Transmission Error Treatment

If an error is detected, the transmission is terminated and the error message is displayed on the IPU screen. Cases of errors are as follows.

**Table 4-2: Transmission Error Treatment**

Error	Description	Treatment
Transmission error	When receiving, Frame Error, Parity Error, or Overrun Error is detected	Terminate transmission
Offline	The control signal DSR in the host computer is inactive.	Terminate transmission
Response time-out	After sending data, no response is received within 15 seconds from the host computer. (Class B only)	Terminate transmission
Resend	After sending data, a response NAK is sent from the host computer. (Class B only)	Re-transmit
Resend	After sending data, any other response than ACK and NAK is sent from the host computer. (Class B only)	Re-transmit
Retry over	After sending data, any other response than ACK is sent from the host computer. (Class B only)	Terminate transmission
Transmission time-out	After sending data, CTS does not become active in 5 seconds. (Applicable only when communication protocol RTS/CTS control is selected.)	Terminate transmission
STX time-out	(1) After requesting to send, STX is not received in 15 seconds. (Class A only) (2) After requesting to send, STX is not received in 15 seconds after ACK was received. (Class B only) (3) After receiving sub-text in the previous transmission, STX of the next sub-text is not received in 15 seconds. (Class A only) (4) After receiving sub-text in the previous transmission, STX of the next sub-text is not received in 15 seconds after ACK was received. (Class B only)	Terminate transmission
ETX time-out	After receiving STX, ETX is not received in 15 seconds.	Terminate transmission

#### (5) Transmission Timing

By the setting in the IPU, a real-time transmission or a batch transmission can be selected. The data transmission interval can be set (possibly set to zero second).

#### (6) Transmission Interval

The transmission interval can be set in the IPU. The transmission interval is defined as the time period after ACK or NAK is responded until starting the next data transmission.

### 4.1.2 Obtain Analysis Information from the Host Computer

#### (1) Communication Parameters

Same as 4.1.1.

#### (2) Transmission protocol

Data code: Same as 4.1.1.

Text Format: Same as 4.1.1.

### (3) Transmission Procedure

Following shows the transmission procedures when the UF-1000i inquires the analysis information to the host computer.

- UF-1000i sends the Analysis Information Inquiry Text to the host computer.
- Host computer returns NAK if an error is detected or ACK if no error is detected, and sends the Analysis Information Text for the inquired sample.
- UF-1000i resends the Analysis Information Inquiry Text if the response is NAK. If the response is ACK, then following text is received without any error, UF-1000i sends ACK. If an error is detected, UF-1000i sends NAK.
- Host computer ends the communication for one sample if the response for the Analysis Information Text is ACK, or resends the Analysis Information Text if the response is NAK.

[UF-1000i]		[Host computer]
Sends Analysis Information Inquiry Text	→	
	←	Sends ACK (06H) if no error, or NAK (15H) if an error is detected.
	←	Sends Analysis Information for the inquired sample.
Sends ACK (06H) if no error, or NAK (15H) if an error is detected.	→	Resends if NAK. Resending is performed up to 3 times.

**Figure 4-3:** Transmission Procedures

### (4) Transmission Error Treatment

If an error is detected, the transmission is terminated and the error message is displayed on the IPU screen. Transmission error is recovered by the operator's action. Cases of errors are as follows.

- Control signal "DSR" is OFF.
- After the data transmission, there is no response from the host computer within 15 seconds.
- The fourth "NAK" is sent back from the host computer after the data transmission.

### (5) Transmission Timing

- Real-time inquiry using the sample ID number  
Inquiry is made when the bar code is scanned and the sample ID number is read. However, no inquiry is made if UF-1000i is set to analyze with the analysis information stored in the UF-1000i and if the UF-1000i has the analysis information for the sample.
- Batch inquiry using the Rack number and tube position number  
Inquiry is made for the specified rack with the tube position 1 through 10 in order. Received order is once stored in the work list. This order is not used in the manual mode, but is used in the sampler mode only.

### (6) Transmission Interval

The transmission interval can be set in the IPU. The transmission interval is defined as the time period after UF-1000i receives the analysis information text from host computer and sends ACK until UF-1000i starts to send the next analysis information inquiry text. This transmission interval is common to the one for the analysis data transmission.

### (7) Precaution on the automatic analysis data output

When UF-1000i is set to automatically output the analysis data, there is a potential that the analysis data output and the analysis information exchange occurs in random and in disorder. If it is suspected that the host computer response becomes delayed when two sets of information reached simultaneously, output the analysis data not in a real-time automatic mode, but manually in a batch mode after completing all the analyses.

## 4.2 TCP/IP Communication

### (1) TCP/IP

The IP address for the host computer can be set using the setting screen in the IPU of UF-1000i. The IP address may be selected other than "192.168.28.151" that is used for the UF-1000i analyzer.

The TCP port number of the IPU of UF-1000i for host communication is fixed. The default value is 5000. This value may be changed in the IPU setting screen.

### (2) TCP/IP Connection

TCP/IP connection is established with the host computer as a server and the UF-1000i as a client. UF-1000i confirms TCP/IP connection when starting up. If the connection is failed, UF-1000i attempts to make a connection in a certain period of time. If the connection is once established and the server becomes down, UF-1000i attempts to establish connection when a data communication occurs.

### (3) Application Layer

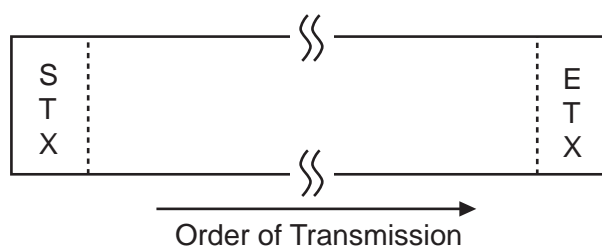
Communication is performed by the bit serial interface class A.

Communication is performed by setting the text format including STX and ETX to the TCP data portion.

### (4) Text and Transmission protocol

Data code: ASCII codes

**Text Format:** "STX" is sent at the beginning, and "ETX" is sent at the end of data.



**Figure 4-4: Text Format**

### (5) Transmission Error Treatment

If an error is detected, the transmission is terminated and the error message is displayed on the IPU screen. Transmission error is recovered by the operator's action. Cases of errors are as follows.

- After the data transmission, there is no response from the host computer within 30 seconds.

### (6) Transmission Timing

By the setting in the IPU, a real-time transmission or a batch transmission can be selected.

## 5. FORMAT

### 5.1 Output of Analysis Results

#### 5.1.1 Analysis Results Data Format

##### 5.1.1.1 Analysis Data Block

Analysis results are output using following 5 types of block.

**Table 5-1: Analysis Data Block**

Category	Block
Sample Information, Analysis data	Sample Information Block, Particle Count Block 1, Particle Count Block 2, Comment Block 1, Comment Block 2



### 5.1.1.2 Particle Code

Particle Count Block and Comment Block may output the Particle Code, which is assigned for each particle. The Particle Code to be output is listed in the following table.

**Table 5-2: Particle Code**

Analysis parameter	Particle Code	Remarks
RBC	0201	Five quantitative analysis parameters • Output in the Particle Count Block 1
WBC	0202	
EC	0100	
CAST	0000	
BACT	0401	
Path. CAST	00D9	Flagging parameters Data • Output in the Particle Count Block 2 Flags • Output in the Comment Block 1
SRC	0107	
SPERM	0501	
X'TAL	0300	
YLC	0402	
MUCUS	00DA	Urine conductivity • Output in the Particle Count Block 2 Information • Output in the Comment Block 2
Cond.	0502	
RBC-Info.	0C00	
Cond.-Info.	0C01	
UTI-Info.	0C02	

### 5.1.2 Sample Information, Particle Count and Comment

Sample Information, Particle Count and Comment are output respectively in the Sample Information Block, Particle Count Block 1, Particle Count Block 2, Comment Block 1, and Comment Block 2.

#### 5.1.2.1 Common Parameters

Common parameters output in the Sample Information Block, Particle Count Block 1, Particle Count Block 2, Comment Block 1, and Comment Block 2 are explained as follows.

- 1) Text Distinction Code 1  
Output of analysis results is the text data only, and the text distinction code 1 is always "D".
- 2) Text Distinction Code 2  
Sample Information Block, Particle Count Block 1, Particle Count Block 2, Comment Block 1, and Comment Block 2 are classified by the text distinction code 2, with the sample information block defined as "S", the particle count block 1 as "P", the particle count block 2 as "Q", the comment block 1 as "C", and the comment block 2 as "D".
- 3) Text Distinction Code 3  
The text distinction code 3 indicates the UF-1000i format, and is fixed as "44".

- 4) Block Number:  
This is a serial number of the blocks to be output.  
The first block to be output is the sample information block, which will be block number "01", and following blocks to be output will accompany block number "02", "03", and so on.  
The biggest possible block number will be "99".
- 5) Total number of blocks:  
This indicates the total number of blocks to be output.
- 6) Communication software protocol version number:  
This indicates the communication software protocol version number. Prefixed by the software.
- 7) Instrument model name:  
This indicates the instrument model name. Prefixed by the software.
- 8) Caret:  
This is a separator character "^" (5EH).
- 9) PS Code:  
This indicates the product specification code. Prefixed by the factory, and there are four variations for the UF-1000i, as shown below.  
"05366719" Japan domestic specifications
- 10) Caret:  
This is a separator character "^" (5EH).
- 11) Instrument serial number:  
This indicates the analyzer's unique serial number. This is useful if multiple analyzers are running and transmit the data to the host computer. This serial number is used to identify which analyzer measured which data.

#### **5.1.2.2 Sample Information Block**

In the sample information block, output are the analysis information such as the sample ID number, the date and time when analyzed, the sample characteristics such as the color and clarity, and analysis result information such as the review judgment, the low reliability mark. Output parameters in the sample information block are explained as follows.

- 1) Sample Distinction Code:  
Sample distinction code is "U" for the patient sample data, and "Q" for the QC data.
- 2) Date Analyzed:  
Expressed in the format of YYYYMMDD. Zero-suppression is not carried out.  
Regardless of the date format displayed, the output format is fixed.  
(e.g. November 6, 2005 → "20051106")

- 3) Time Analyzed:  
Expressed in the format of HHMMSS. Zero-suppression is not carried out.  
(e.g. 13:06:01 → "130601")
- 4) Rack number:  
This indicates the rack number, which is a 6-digit numeral. Zero-suppression is not carried out. In case of manual mode analysis, all spaces "ΔΔΔΔΔΔ" are output.  
"Δ" indicates a space (20H).
- 5) Tube Position number:  
This indicates the sample location within the rack, and two digits of number. If the number is less than two digits, the number is aligned to the right and a space (20H) is padded to the most significant digit. In case of manual mode analysis, all spaces "ΔΔ" are output.  
"Δ" indicates a space (20H).  
The tube position on the turntable is output in 2 characters, right-justified and space-padded.
- 6) Sample ID number:  
A 15-digit alpha-numeric is used for the Sample ID number, which may include a hyphen "-" (2DH) between characters as needed. Hyphens "-" are counted in 15 digits. If the characters are less than 15, right-aligned and spaces are padded to the most significant digits. Zero-suppression is not carried out.
- 7) ID Information:  
This indicates if the Sample ID number was read by the ID reader.  
"I" ID was read from bar code label by the ID Reader.  
"Δ" ID was entered any other method than ID reader. "Δ" indicates a space (20H).
- 8) Sex:  
"0" Unknown  
"1" Male  
"2" Female
- 9) Review Flag:  
This indicates the necessity of a re-run.  
"0" Normal, or not necessary to re-run  
"1" suggests a re-run
- 10) Error Flag:  
This indicates the occurrence of the analysis error.  
"0" Normal, without any analysis error  
"1" Analysis error occurred.
- 11) ID Read Error:  
This indicates the occurrence of the ID read error.  
"0" Normal, without ID read error  
"1" ID read error occurred.

- 12) Sample ID Attribute:  
This indicates how the sample ID number was entered or read.  
"M" Manually entered  
"A" Automatically assigned  
"B" Bar code was read  
"C" Host computer specified
- 13) Date Collected:  
Expressed in the format of YYYYMMDD. Zero-suppression is not carried out.  
Regardless of the date format displayed, the output format is fixed.  
(e.g. November 6, 2005 → "20051106")  
If the date collected is unknown, all asterisks "\*\*\*\*\*" is placed.
- 14) Collection Time:  
Expressed in the format of HH:MM. Zero-suppression is not carried out.  
(e.g. 13:06 → "13:06")  
If the time collected is unknown, all asterisks "\*\*\*\*\*" is placed.
- 15) Sample Source:  
This indicates the sample source.  
"0" Sample collected optionally  
"1" Sample collected in the morning  
"2" Sample accumulated during a period of time (ex. from 8:00 a.m. to 11:00 p.m.)  
"3" Sample collected after meal  
"4" Sample collected through Catheter  
"\*" Uncertain sample
- 16) Sample Color:  
This indicates the sample color.  
"0" water-white  
"1" light yellow brown  
"2" yellow  
"3" yellow brown  
"4" orange  
"5" red  
"6" dark brown  
"7" green  
"8" blue  
"9" milky white  
"\*" Uncertain
- 17) Sample Clarity:  
This indicates the sample clarity.  
"0" clear  
"1" slight hazy  
"2" hazy  
"3" slight cloudy  
"4" cloudy  
"\*" Uncertain

- ### Table 5-3: Review Comment Listing

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**Table 5-4: Sample Information Block**

Parameter	Size	Right-/Left-align	Space-padding/ Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"D": Analysis Data
Text Distinction Code 2	1	-	-	"S": Sample Information
Text Distinction Code 3	2	-	-	"44": UF-1000i
Block No.	2	Right-align	Zero-padding	"01"
Total No. of Blocks	2	Right-align	Zero-padding	"01" through "99"
Protocol Version	4	-	-	"0.00"
Instrument Model	20	Right-align	Space-padding	"ΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔUF-1000i"
Caret	1	-	-	"^" (5EH)
PS Code	8	-	-	"05366719"
Caret	1	-	-	"^" (5EH)
Instrument Serial No.	5	Left-align	Space-padding	"A1001": A unique serial number
Sample Distinction Code	1	-	-	"U": Patient sample, "Q": QC sample
Analysis Date	8	-	-	"20051106": November 6, 2005
Analysis Time	6	-	-	"130601": 13:06:01
Rack No.	6	Right-align	Space-padding	"ΔΔΔΔΔ1" - "999999", "ΔΔΔΔΔΔ" for manual mode
Tube Position No.	2	Right-align	Space-padding	"Δ1" - "10", "ΔΔ" for manual mode
Sample ID No.	15	Right-align	Space-padding	15-digit alpha-numeric, may include "-" (2DH)
ID Information	1	-	-	"I": Read by ID bar code reader, "Δ" (space): ID reader unused
Sex	1	-	-	"0": Unknown, "1": male, "2": female
Review Flag	1	-	-	"0": Normal, "1": Review
Error Flag	1	-	-	"0": Normal, "1": Analysis error
ID Read Error	1	-	-	"0": Normal, "1": ID Read error
Sample ID Attribute	1	-	-	"M": Manual entry, "A": Automatic assign, "B": Bar code reader, "C": Host computer
Collection Date	8	-	-	"20051106": November 6, 2005, or "*****": uncertain
Collection Time	5	-	-	"00:00" - "23:59", or "*****": uncertain
Sample Source	1	-	-	"0": OP.CLCT, "1": Morning, "2": Timed "3": AF. Meal, "4": Cath, "5": Uncertain
Sample Color	1	-	-	"0": None, "1": LyBrown, "2": Yellow, "3": YBrown, "4": Orange, "5": Red, "6": DBrown, "7": Green, "8": Blue, "9": White, "10": uncertain
Sample Clarity	1	-	-	"0": Clear, "1": SIHazy, "2": Hazy, "3": SICldy, "4": Cloudy, "5": Uncertain
Sample Volume SEDch	5	-	-	"07.80"
Sample Volume BACch	5	-	-	"01.00" not for Bacteria close exam. mode, "06.00" for Bacteria close exam. mode
Raw Data Number SEDch	5	Right-align	Zero-padding	"00000" to "65535"
Raw Data Number BACch	5	Right-align	Zero-padding	"00000" to "65535"
Total Particle Count SEDch	6	Right-align	Zero-padding	"000000" to "999999" "*****" if number exceeds "999999"
Total Particle Count BACch	6	Right-align	Zero-padding	"000000" to "999999" "*****" if number exceeds "999999"
Flag (RBC)	1	-	-	"Δ": Normal, "1": Low reliability, "+": Positive
Flag (WBC)	1	-	-	"Δ": Normal, "1": Low reliability, "+": Positive
Flag (EC)	1	-	-	"Δ": Normal, "1": Low reliability, "+": Positive
Flag (CAST)	1	-	-	"Δ": Normal, "1": Low reliability, "+": Positive
Flag (BACT)	1	-	-	"Δ": Normal, "1": Low reliability, "+": Positive
Flag (Cond.)	1	-	-	"Δ": Normal, "1": Low reliability, "+": Positive
Review Comment	40	Left-align	Space-padding	"12345678ABCDEF G H Δ Δ Δ . . . . Δ Δ Δ"
ETX	1	-	-	(03H)
Total	187			

"Δ" indicates a space (20H).

### 5.1.2.3 Particle Count Block 1

In the particle count block 1, output are the analysis results of the quantitative 5 parameters in the pair of the "particle code" and the "number of particles". The "number of pairs" to be output is variable, and is output as "number of pairs (N)".

1) Number of Pairs (N):

This indicates the number of pairs of the particle code and the number of particles included in this block.

2) Particle Code, and Number of Particles (0 – N):

Up to the number of pairs specified, the particle code and the number of particles are output in the pair, as shown below.

**Table 5-5: Particle Code and No. of Particles**

Analysis parameter	Particle Code	No. of Particles
RBC	0201	"00000.00" through "99999.99" "*****. **" if exceeded display range. "-----" if analysis error. The unit is [ $\mu$ L].
WBC	0202	
EC	0100	
CAST	0000	
BACT	0401	

**Table 5-6: Particle Count Block 1**

Parameter	Size	Right-/Left-align	Space-padding/Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"D": Analysis data
Text Distinction Code 2	1	-	-	"P": Particle count block 1
Text Distinction Code 3	2	-	-	"44": UF-1000i
Block No.	2	Right-align	Zero-padding	"02" through "99"
Total No. of Blocks	2	Right-align	Zero-padding	"02" through "99"
Protocol Version	4	-	-	"0.00"
Instrument Model	20	Right-align	Space-padding	" $\Delta\Delta\Delta\Delta\Delta\Delta\Delta\Delta\Delta\Delta\Delta\Delta$ UF-1000i"
Caret	1	-	-	"^" (5EH)
PS Code	8	-	-	"05366719"
Caret	1	-	-	"^" (5EH)
Instrument Serial No.	5	Left-align	Space-padding	"A1001": A unique serial number
Number of Pairs (N)	2	-	-	"01": for analyzing BACT only. "05": for analyzing sediment
Particle Code (1 - )	4	-	-	
Particle Count (1 - )	8	-	-	
:				
:				
Particle Code ( - N)	4	-	-	
Particle Count ( - N)	8	-	-	
ETX	1	-	-	(03H)
Total	51+ 12*N			

" $\Delta$ " indicates a space (20H).

### 5.1.2.4 Comment Block 1

In the comment block 1, output are the particle code of the flagged parameter, out of all the flagging parameters. The number of "particle codes" to be output is variable, and is output as "number of comments (N)".

1) Number of Comments (N):

This indicates the number of particle codes included in this block.

2) Particle Code (0 – N):

Up to the number of particle codes specified, the particle codes are output. The particle code to be output in this block is shown below.

**Table 5-7: Particle Code**

Analysis parameter	Particle Code
Path. CAST	00D9
SRC	0107
SPERM	0501
X'TAL	0300
YLC	0402
MUCUS	00DA

**Table 5-8: Comment Block 1**

Parameter	Size	Right-/Left-align	Space-padding/Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"D": Analysis data
Text Distinction Code 2	1	-	-	"C": Comment block 1
Text Distinction Code 3	2	-	-	"44": UF-1000i
Block No.	2	Right-align	Zero-padding	"03" through "99"
Total No. of Blocks	2	Right-align	Zero-padding	"03" through "99"
Protocol Version	4	-	-	"0.00"
Instrument Model	20	Right-align	Space-padding	"ΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔUF-1000i"
Caret	1	-	-	"^" (5EH)
PS Code	8	-	-	"05366719"
Caret	1	-	-	"^" (5EH)
Instrument Serial No.	5	Left-align	Space-padding	"A1001": A unique serial number
Number of Comments (N)	2	-	-	"00" through "06": No. of comments
Particle Code (1 - )	4	-	-	
:				
Particle Code ( - N)	4	-	-	
ETX	1	-	-	(03H)
Total	51+ 4*N			

"Δ" indicates a space (20H).



### 5.1.2.5 Particle Count Block 2

In the particle count block 2, output are the analysis results of the conductivity and so on in the pair of the "particle code" and the "number of particles". The "number of pairs" to be output is variable, and is output as "number of pairs (N)".

1) Number of Pairs (N):

This indicates the number of pairs of the particle code and the data included in this block.

2) Particle Code, and Number of Particles (0 – N):

Up to the number of pairs specified, the particle code and the data are output in the pair, as shown below.

**Table 5-9: Particle Code and No. of Particles**

Analysis parameter	Particle Code	No. of Particles	Unit
Path. CAST	00D9	"00000.00" through "99999.99" "*****.*)" if exceeded display range. "-----" if analysis error.	[μL]
SRC	0107		
SPERM	0501		
X'TAL	0300		
YLC	0402		
MUCUS	00DA		
Cond.	0502		[mS/cm]

**Table 5-10: Particle Count Block 2**

Parameter	Size	Right-/Left-align	Space-padding/Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"D": Analysis data
Text Distinction Code 2	1	-	-	"Q": Particle count block 2
Text Distinction Code 3	2	-	-	"44": UF-1000i
Block No.	2	Right-align	Zero-padding	"04" through "99"
Total No. of Blocks	2	Right-align	Zero-padding	"04" through "99"
Protocol Version	4	-	-	"0.00"
Instrument Model	20	Right-align	Space-padding	"ΔΔΔΔΔΔΔΔΔΔΔΔUF-1000i"
Caret	1	-	-	"^" (5EH)
PS Code	8	-	-	"05366719"
Caret	1	-	-	"^" (5EH)
Instrument Serial No.	5	Left-align	Space-padding	"A1001": A unique serial number
Number of Pairs (N)	2	-	-	"07"
Particle Code (1 - )	4	-	-	
Particle Count (1 - )	8	-	-	
:				
:				
Particle Code ( - N)	4	-	-	
Particle Count ( - N)	8	-	-	
ETX	1	-	-	(03H)
Total	51+ 12*N			

"Δ" indicates a space (20H).

### 5.1.2.6 Comment Block 2

In the comment block 2, output are the morphological and flagged information which is paired by the particle code and the data. The number of "particle codes" to be output is variable, and is output as "number of pairs (N)".

1) Number of Pairs (N):

This indicates the number of pairs, consisted of the particle code and the data, included in this block.

2) Particle Code and Data (0 – N):

Up to the number of pairs specified, the particle codes and data are output. The particle code and the data to be output in this block are shown below.

**Table 5-11: Particle Code and Data**

Analysis parameter	Particle Code	Data
RBC-Info.	0C00	RBC morphological information, as "00000000": RBC Negative "00000001": Isomorphic? "00000002": Dysmorphic? "00000003": Mixed?
Cond.-Info.	0C01	Urine Condensation Information, as "00000000": Not Flagged "00000001": RANK1 "00000002": RANK2 "00000003": RANK3 "00000004": RANK4 "00000005": RANK5
UTI-Info.	0C02	UTI Information, as "00000000": Not Flagged "00000001": UTI?

**Table 5-12: Comment Block 2**

Parameter	Size	Right-/Left-align	Space-padding/Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"D": Analysis data
Text Distinction Code 2	1	-	-	"D": Comment block 2
Text Distinction Code 3	2	-	-	"44": UF-1000i
Block No.	2	Right-align	Zero-padding	"05" through "99"
Total No. of Blocks	2	Right-align	Zero-padding	"05" through "99"
Protocol Version	4	-	-	"0.00"
Instrument Model	20	Right-align	Space-padding	"ΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔUF-1000i"
Caret	1	-	-	"^" (5EH)
PS Code	8	-	-	"05366719"
Caret	1	-	-	"^" (5EH)
Instrument Serial No.	5	Left-align	Space-padding	"A1001": A unique serial number
Number of Pairs (N)	2	-	-	"00" through "03": No. of pairs
Particle Code (1 - )	4	-	-	
Data (1 - )	8			
:				
:				
Particle Code ( - N)	4	-	-	
Data ( - N)	8			
ETX	1	-	-	(03H)
Total	51+ 12*N			

"Δ" indicates a space (20H).

### 5.1.3 Output of QC Data

#### 5.1.3.1 QC Data Block

QC data block output the QC analysis data to the host computer, as follows.

- 1) Text Distinction Code 1:  
Output of analysis results is the text data only, and the text distinction code 1 is always "D".
- 2) Text Distinction Code 2:  
The text distinction code 2 is "1".
- 3) Control Distinction Code:  
The control distinction code for the Control materials is "C".
- 4) Instrument model name:  
This indicates the instrument model name. Prefixed by the software.
- 5) Instrument serial number:  
This indicates the instrument serial number to identify one of the multiple UF-1000i's.
- 6) QC Number:  
This indicates the QC file number, as shown below.

"1"	QC01	"9"	QC09	"H"	QC17
"2"	QC02	"A"	QC10	"I"	QC18
"3"	QC03	"B"	QC11	"J"	QC19
"4"	QC04	"C"	QC12	"K"	QC20
"5"	QC05	"D"	QC13	"L"	QC21
"6"	QC06	"E"	QC14	"M"	QC22
"7"	QC07	"F"	QC15	"N"	QC23
"8"	QC08	"G"	QC16	"O"	QC24

- 7) Date Analyzed:  
Expressed in the format of YYYYMMDD. Zero-suppression is not carried out.  
Regardless of the date format displayed, the output format is fixed.  
(e.g. November 6, 2005 → "20051106")

**Table 5-13: QC Analysis Data Block**

Parameter	Size	Right-/Left-align	Space-padding/ Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"D": Analysis Data
Text Distinction Code 2	1	-	-	"1": Sample Data
Text Distinction Code 3	2	-	-	"44": UF-1000i
Sample Distinction Code	1	-	-	"C": Control materials
Protocol Version	4	-	-	"0.00"
Instrument Model	20	Right-align	Space-padding	"ΔΔΔΔΔΔΔΔΔΔΔΔΔΔUF-1000i"
Caret	1	-	-	"^" (5EH)
PS Code	8	-	-	"05366719"
Caret	1	-	-	"^" (5EH)
Instrument Serial No.	5	Left-align	Space-padding	"A1001": A unique serial number
QC Number	1	-	-	"1" - "O", as stated above

Analysis Date	8	-	-	"20051106": November 6, 2005
(Reserved)	4	-	-	"00 ... 00": all zeros, fixed
RBC	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [ $\mu$ L]. "*****.*" if exceeded display range. "-----.-" if analysis error.
WBC	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [ $\mu$ L]. "*****.*" if exceeded display range. "-----.-" if analysis error.
EC	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [ $\mu$ L]. "*****.*" if exceeded display range. "-----.-" if analysis error.
CAST	7	Right-align	Zero-padding	"0000.00" - "9999.99", unit in [ $\mu$ L]. "*****.*" if exceeded display range. "-----.-" if analysis error.
BACT	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [ $\mu$ L]. "*****.*" if exceeded display range. "-----.-" if analysis error.
Cond.	4	Right-align	Zero-padding	"00.0" - "99.9", unit in [mS/cm]. "***.*" if exceeded display range. "---.-" if analysis error.
S_FSC	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
S_FSCW	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
S_FLH	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
S_FLL	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
S_FLLW	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
S_SSC	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
B_FSC	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
B_FSCW	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
B_FLH	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "***.*" if exceeded display range. "---.-" if analysis error. "ΔΔΔΔΔ" if UFII CONTROL -L is analyzed.
(Reserved)	112	-	-	"00 ... 00": all zeros, fixed
ETX	1	-	-	(03H)
Total	255			

"Δ" indicates a space (20H).

### 5.1.3.2 QC Assay Data Block

QC assay data block output the QC targets and limits data to the host computer, as follows.

- 1) Text Distinction Code 1:  
Output of QC targets and limits data is the text data only, and the text distinction code 1 is always "A".
- 2) Text Distinction Code 2:  
The text distinction code 2 is "A".
- 3) Text Distinction Code 3:  
The text distinction code 3 is "44".
- 4) Sample Distinction Code:  
The sample distinction code for the QC data is "C".
- 5) Instrument model name:  
This indicates the instrument model name. Prefixed by the software.
- 6) QC Number:  
This indicates the QC file number, as shown below.

"1"	QC01	"9"	QC09	"H"	QC17
"2"	QC02	"A"	QC10	"I"	QC18
"3"	QC03	"B"	QC11	"J"	QC19
"4"	QC04	"C"	QC12	"K"	QC20
"5"	QC05	"D"	QC13	"L"	QC21
"6"	QC06	"E"	QC14	"M"	QC22
"7"	QC07	"F"	QC15	"N"	QC23
"8"	QC08	"G"	QC16	"O"	QC24

- 7) Date Registered:  
Date registered is the date when the QC file was first registered. Expressed in the format of YYYYMMDD. Zero-suppression is not carried out. Regardless of the date format displayed, the output format is fixed.  
(e.g. November 6, 2005 → "20051106")

**Table 5-14: QC Analysis Data Block**

Parameter	Size	Right-/Left-align	Space-padding/ Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"A": Targets and Limits Data
Text Distinction Code 2	1	-	-	"A": QC Assay Data
Text Distinction Code 3	2	-	-	"44": UF-1000i
Sample Distinction Code	1	-	-	"C": Control
Protocol Version	4	-	-	"0.00"
Instrument Model	20	Right-align	Space-padding	"ΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔΔUF-1000i"
Caret	1	-	-	"^" (5EH)
PS Code	8	-	-	"05366719"
Caret	1	-	-	"^" (5EH)
Instrument Serial No.	5	Left-align	Space-padding	"A1001": A unique serial number
QC Number	1	-	-	"1" - "O", as stated above
Date Registered	8	-	-	"20051106": November 6, 2005
(Reserved)	4	-	-	"00 ... 00": all zeros, fixed
Material	1	-	-	"0": UFII CONTROL –H, "1": UFII CONTROL –L
Lot Number	8	Right-align	Space-padding	8-characters of alpha-numeric
Expiration Date	6	-	-	"YYMMDD", ex) "051106": November 6, 2005
RBC Target	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
RBC Limit	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
WBC Target	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
WBC Limit	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
EC Target	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
EC Limit	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
CAST Target	7	Right-align	Zero-padding	"0000.00" - "9999.99", unit in [μL].
CAST Limit	7	Right-align	Zero-padding	"0000.00" - "9999.99", unit in [μL].
BACT Target	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
BACT Limit	7	Right-align	Zero-padding	"00000.0" - "99999.9", unit in [μL].
Cond. Target	4	Right-align	Zero-padding	"00.0" - "99.9", unit in [mS/cm].
Cond. Limit	4	Right-align	Zero-padding	"00.0" - "99.9", unit in [mS/cm].
S_FSC Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FSC Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FSCW Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FSCW Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FLH Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FLH Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FLL Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FLL Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FLLW Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_FLLW Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_SSC Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
S_SSC Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch].
B_FSC Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "000.0" fixed if Material is UFII CONTROL –L.
B_FSC Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "000.0" fixed if Material is UFII CONTROL –L.
B_FSCW Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "000.0" fixed if Material is UFII CONTROL –L.
B_FSCW Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "000.0" fixed if Material is UFII CONTROL –L.
B_FLH Target	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "000.0" fixed if Material is UFII CONTROL –L.
B_FLH Limit	5	Right-align	Zero-padding	"000.0" - "999.9", unit in [ch]. "000.0" fixed if Material is UFII CONTROL –L.
(Reserved)	13	-	-	"00 ... 00": all zeros, fixed
ETX	1	-	-	(03H)
Total	255			

"Δ" indicates a space (20H).

## 5.2 Download of Analysis Order Information

### 5.2.1 Analysis Order Inquiry Format

#### 5.2.1.1 Analysis Data Block

The Text Distinction Code 1 in the "Analysis order Inquiry Format" sent from UF-1000i to the host computer is always "R".

- 1) Order of transmission  
The order of transmission is from the top parameter to the bottom. The data sent is the most significant digit first. Zero-suppression is not performed.
- 2) Inquiry Mode  
The mode of inquiry is indicated.  
"1" Real-time inquiry by the sample ID number as a keyword.  
"2" Batch inquiry by the rack number and the tube position number as keywords.
- 3) Inquiry Sample ID Number  
This parameter becomes effective with the real-time inquiry by the sample ID number as a keyword. It consists of 15-digit alpha-numerics, and may include hyphen "-" (2DH) between characters depending on the usage. The hyphen "-" is included in 15 digits. In the batch inquiry mode with the rack number and the tube position number as keywords, the value is not assured.
- 4) Rack Number  
This parameter becomes effective with the batch inquiry with the rack number and the tube position number as keywords. This is the number assigned to a sample rack. It consists of 6-digit number. In the real-time inquiry mode with the sample ID number as a keyword, the value is not assured.
- 5) Tube Position Number  
This parameter becomes effective with the batch inquiry with the rack number and the tube position number as keywords. This is the tube position number in the rack, and consists of numeric between 1 and 10. In the real-time inquiry mode with the sample ID number as a keyword, the value is not assured.

**Table 5-15: Analysis Order Inquiry Format**

Parameter	Size	Right-/Left-align	Space-padding/Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"R" (fixed)
Text Distinction Code 2	1	-	-	"1" (fixed)
Text Distinction Code 3	2	-	-	"44": UF-1000i
Inquiry Mode	1	-	-	"1": Real-time, "2": Batch
Inquiry Sample ID Number	15	Right-align	Space-padding	"ΔΔΔΔ12345678901"
Rack Number	6	Right-align	Space-padding	"ΔΔ1234"
Tube Position Number	2	Right-align	Space-padding	"Δ8"
(Reserved)	18	-	-	"00 ... 00": all zeros, fixed
ETX	1	-	-	(03H)
Total	51+ 12*N			

"Δ" indicates a space (20H).

## 5.2.2 Analysis Order Information Format

### 5.2.1.1 Analysis Order Information Format

The Text Distinction Code 1 in the "Analysis order Information Format" sent from the host computer to UF-1000i is always "S".

- 1) Order of transmission  
The order of transmission is from the top parameter to the bottom. The data sent is the most significant digit first. Zero-suppression is not performed.
- 2) Information Status  
This parameter indicates if the inquired sample information is registered. If the required sample is not registered, make sure to return "0" (zero: not registered) in the analysis order information format.  
"0" Not registered  
"1" Registered  
"2" Quality Control
- 3) Date Ordered:  
This parameter indicates the order date of the inquired sample.  
"YYYYMMDD"      YYYY: year, MM: month, and DD: day
- 4) Sample ID Number  
In the real-time inquiry by the sample ID number as a keyword, this number becomes the same with that in the inquiry text. In the batch inquiry by the rack Number and tube position number as keywords, the sample ID number corresponding to the specified rack number and tube position number will be assigned. When the sample ID number is not assigned by the host computer, the ID number sent in the Order Inquiry Format should be used and returned.  
It consists of 15-digit alpha-numerics, and may include hyphen "-" (2DH) between digits depending on the usage. The hyphen "-" is included in 15 digits.
- 5) Rack Number  
This number is assigned to a sample rack, and consists of 6-digit number.  
In the batch inquiry by the rack number and tube position number as keywords, this number becomes the same with that in the Order Inquiry Format. In the real-time inquiry by the sample ID number as a keyword, this number is not set. When the rack number is not assigned by the host computer, the rack number sent in the Order Inquiry Format should be used and returned.
- 6) Tube Position Number  
This is the analysis position of the inquired sample in the sample rack, and consists of number from 1 to 10.  
In the batch inquiry by the rack number and tube position number as keywords, this number becomes the same with that in the Order Inquiry Format. In the real-time inquiry by the sample ID number as a keyword, this number is not set. When the tube position number is not assigned by the host computer, the tube position number sent in the Order Inquiry Format should be used and returned.
- 7) Inquiry Mode  
The mode of inquiry is indicated.  
"1" Real-time inquiry by the sample ID number as a keyword.  
"2" Batch inquiry by the rack number and the tube position number as keywords.
- 8) Order  
Analysis order is specified.  
"0" Not analyzed  
"1" Analyze in SEDch and BACch  
"2" Analyze in BACch only



9) Patient ID

This parameter is the patient ID for the inquired sample, and is unique to a patient.

It consists of 16-digit alpha-numerics, and may include hyphen "-" (2DH) between digits depending on the usage. The hyphen "-" is included in 16 digits.

When no patient ID No. is available, enter all spaces (20H).

NOTE: · When the patient information is to be exchanged between the host computer and the IPU, a unique patient ID number has to be entered.

10) Sample Comment

This is the comments for the inquired sample, and consists of up to 40 alphabets.

When no sample comment is available, enter all spaces (20H).

11) Collection Time

This indicates the collection time of the sample, and is expressed in the format of HH:MM in the 24-hour system. Zero-suppression is not carried out.

(e.g. 13:06 → "13:06")

12) Sample Source:

This indicates the sample source.

"0" Sample collected optionally

"1" Sample collected in the morning

"2" Sample accumulated during a period of time (ex. from 8:00 a.m. to 11:00 p.m.)

"3" Sample collected after meal

"4" Sample collected through Catheter

"\*" Uncertain sample

13) Sample Color:

This indicates the sample color.

"0" water-white

"1" light yellow brown

"2" yellow

"3" yellow brown

"4" orange

"5" red

"6" dark brown

"7" green

"8" blue

"9" milky white

"\*" Uncertain

14) Sample Clarity:

This indicates the sample clarity.

"0" clear

"1" slight hazy

"2" hazy

"3" slight cloudy

"4" cloudy

"\*" Uncertain

15) Patient Name

This is the patient name for the sample inquired. The order for patient name should be Family name (20 characters or less) first, then Given name (20 characters or less).

When no patient name information is available, enter all spaces (20H).

- 16) Sex  
This is the sex of the patient inquired.  
"0": Unknown  
"1": Male  
"2": Female
- 17) Date of Birth  
This is the date of birth of the inquired patient.  
"YYYYMMDD"  
Here, YYYY: Year, MM: Month, DD: Day  
When no date-of-birth information is available, enter all spaces (20H).
- 18) Patient Comment  
This is the comments of the patient for the inquired sample, and consists of up to 100 alphabets.  
When no patient comment is available, enter all spaces (20H).
- 19) Attending Physician  
This is the name of the attending physician for the inquired patient, and consists of up to 20 alphabets.  
When no physician information is available, enter all spaces (20H).
- 20) Ward  
This is the ward (medical section) in which the patient is staying, and consists of up to 20 alphabets.  
When no ward information is available, enter all spaces (20H).

**Table 5-16: Analysis Order Format 1**

Parameter	Size	Right-/Left-align	Space-padding/Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"S" (fixed)
Text Distinction Code 2	1	-	-	"1" (fixed)
Text Distinction Code 3	2	-	-	"44": UF-1000i
Information Status	1	-	-	"0": Not registered, "1": Registered, "2": QC
Date Ordered	8	-	-	"20051106": November 6, 2005
Sample ID No.	15	Right-align	Space-padding	15-digit alpha-numeric, may include "-" (2DH) "ΔΔΔ123-4567-890"
Rack No.	6	Right-align	Space-padding	"ΔΔΔΔΔ1" - "999999"
Tube Position No.	2	Right-align	Space-padding	"Δ1" - "10"
Inquiry Mode	1	-	-	"1": Real-time, "2": Batch
Order	1	-	-	"0": Not analyze, "1": Sediment (SEDch + BACch), "2": Only Bacteria (BACch)
Patient ID	16	Left-align	Space-padding	"123-4567-890AAAAΔΔ . . . ΔΔ"
Sample Comment	40	Left-align	Space-padding	"abcdefgΔΔ . . . ΔΔ"
Analysis Date	8	-	-	"20051106": November 6, 2005
Collection Time	5	-	-	"00:00" - "23:59"
Sample Source	1	-	-	"0": OP.CLCT, "1": Morning, "2": Timed "3": AF. Meal, "4": Cath, "**": Uncertain
Sample Color	1	-	-	"0": None, "1": LyBrown, "2": Yellow, "3": YBrown, "4": Orange, "5": Red, "6": DBrown, "7": Green, "8": Blue, "9": White, "**": uncertain
Sample Clarity	1	-	-	"0": Clear, "1": SIHazy, "2": Hazy, "3": SICldy, "4": Cloudy, "**": Uncertain
(Reserved)	143	-	-	"00 ... 00": all zeros, fixed
ETX	1	-	-	(03H)
Total	255			

"Δ" indicates a space (20H).

**Table 5-17: Analysis Order Format 2**

Parameter	Size	Right-/Left-align	Space-padding/ Zero-padding	Data Format
STX	1	-	-	(02H)
Text Distinction Code 1	1	-	-	"S" (fixed)
Text Distinction Code 2	1	-	-	"2" (fixed)
Text Distinction Code 3	2	-	-	"44": UF-1000i
Information Status	1	-	-	"0": Not registered, "1": Registered, "2": QC
Date Ordered	8	-	-	"20051106": November 6, 2005
Sample ID No.	15	Right-align	Space-padding	15-digit alpha-numeric, may include "-" (2DH) "ΔΔΔ123-4567-890"
Rack No.	6	Right-align	Space-padding	"ΔΔΔΔΔ1" - "999999"
Tube Position No.	2	Right-align	Space-padding	"Δ1" - "10"
Inquiry Mode	1	-	-	"1": Real-time, "2": Batch
Patient ID	16	Left-align	Space-padding	"123-4567-890AAAAΔΔ . . . ΔΔ"
Family Name	20	Left-align	Space-padding	"BrownΔΔ . . . ΔΔ"
Given Name	20	Left-align	Space-padding	"JamesΔΔ . . . ΔΔ"
Sex	1	-	-	"0": Unknown, "1": male, "2": female
Date of Birth	8	-	-	"19551106": November 6, 1955
Patient Comment	100	Left-align	Space-padding	"abcdefgΔΔ . . . ΔΔ"
Attending Physician	20	Left-align	Space-padding	"DoctorΔSmithΔΔ . . . ΔΔ"
Ward	20	Left-align	Space-padding	"EastΔWardΔΔ . . . ΔΔ"
(Reserved)	11	-	-	"00 ... 00": all zeros, fixed
ETX	1	-	-	(03H)
Total	255			

"Δ" indicates a space (20H).

[ End of document ]