5.1.2.1. Packets

header packet description : type T			
Byte location	format size	description	notes
1 - 6	A6	$$TXMB	Header pattern
7 - 8	B2	AA	AA = packet type N number, 2 bytes in binary. MSB then LSB.
9 - 10	B2	BB	BB = packet type N size, 2 bytes in binary. MSB then LSB.
11 – 12	B2	CC	CC = packet type H number, 2 bytes in binary. MSB then LSB.
13 - 14	B2	DD	DD = packet type H size, 2 bytes in binary. MSB then LSB.
15 - 16	B2	EE	checksum = LSB sum from 1 to 14 includes bytes. 2 bytes in binary.
TOTAL size = 16 bytes			

result packet description : type N			
Byte location	size	description	notes
1-251	251	Light Format packet	Matches exactly with light format described previously
TOTAL size = 251 bytes			

histogram packet description : type H, size = 261 bytes			
Byte location	size	description	notes
1	1	STX (02h)	Binary
2	1	type	ASCII, 'R' = RBC histogram, 'W' = WBC histogram 'P' = PLT histogram
3 - 258	256	128 channels	Binary, 2 bytes for each channel, MSB then LSB
259 - 260	2	checksum	Binary, LSB sum of bytes from 1 to 258 included
261	1	ETX (03h)	
TOTAL size = 261 bytes			

TOTAL = Header + result + 3 * histograms + EOT = 16 + 251 + 261 +261 + 261 + 1 = **1051 bytes**

5.1.3. CHECKSUM

For frames with few numbers of lines, the block is finished with an end line containing a checksum. This checksum is calculated from the beginning of the headline to the end of the line finishing the block.
The algorithm of the calculation for the checksum is :

CRC = 0xFFFF
For each byte
Work on high order byte:
Index = byte XOR CRC
Index = Index AND 000F
CRC = Table(Index) XOR (CRC divided by 16)
Work on low order byte:
Index = byte divided by 16
Index = Index XOR CRC
Index = Index AND 000F
CRC = Table(Index) XOR (CRC divided by 16)