

## LEMI-417M Binary Data Block Structure and Definition

Byte number	Data name/description	Code example	Meaning (Symbol or value)
1	Station name	0x4c	"L"
2		0x34	"4"
3		0x31	"1"
4		0x37	"7"
5		0x56	"V"
6	GPS Status	0x41 (0x50)	"A" – Active ("P" – Passive)
7	Block number (BCD-coded)	0x13	13
8	Year (BCD-coded)	0x11	2011
9	Month (BCD-coded)	0x05	05
10	Day (BCD-coded)	0x09	09
11	Hours (BCD-coded)	0x23	23
12	Minutes (BCD-coded)	0x59	59
13	Seconds (BCD-coded)	0x17	17
14	Average (BCD-coded)	0x04	4
15	Not used	0x00	=0x00
16	Data BX (nT) *100	0x12	0x141312 => 1315602/100 = 13156.02 (nT)
17		0x13	
18		0x14	
19	Data BY (nT) *100	0xef	0x7270ef => 7500015/100 = 75000.15 (nT)
20		0x70	
21		0x72	
22	Data BZ (nT) *100	0xb7	0xed1db7 => -1237577/100 = -12375.77 (nT)
23		0x1d	
24		0xed	
25	DATA E1 (μV/m) *100	0x8f	0x0000008f => 143/100 = 1.43 (μV/m)
26		0x00	
27		0x00	
28		0x00	
29	DATA E2 (μV/m) *100	0x3f	0x0580c73f => 92325695/100 = 923256.95 (μV/m)
30		0xc7	
31		0x80	
32		0x05	
33	DATA E3 (μV/m) *100	0x74	0xfffe7874 => -100236/100 = -1002.36 (μV/m)
34		0x78	
35		0xfe	
36		0xff	
37	DATA E4 (μV/m) *100	0x67	0x01234567 => 19088743/100 = 190887.43 (μV/m)
38		0x45	
39		0x23	
40		0x01	
41	TF (°C) *100	0x3f	0x083f => 2111/100 = 21.11 (°C)
42		0x08	
43	TE (°C) *100	0xef	0xfdef => -529/100 = -5.29 (°C)
44		0xfd	
45	Operation mode	0x02 (0x03)	0x02 - PC 0x03 - FLASH+PC
46	Free space of FLASH (%)	0x55	0x55 => 85 (%)
47	U <sub>IN</sub> (V) *10	0x76	0x76 => 118/10 = 11.8 (V)

Each data block containing 47 bytes is transmitted every second at the rate 115200 baud.

RS-232 interface: UART protocol - start bit, 8 data bits, stop bit, no parity.