

FT020T LoRa Data Format

Nibble No.	Name	Bit No.	Bit Name	Function	Value	Description	
1	START_H	3		Start	1	0xd4	
		2			1		
		1			0		
		0			1		
2	START_L	3			0		
		2		1			
		1		0			
		0		0			
3	DEV	3		device	1	0x0c	
		2			0		
		1			1		
		0			0		
4	SCODE_H	3		fix ID		factory fixed value is unique to each sensor: 00 to ff	
		2					
		1					
		0					
5	SCODE_L	3					
		2					
		1					
		0					
6		3	LB	low battery flag		0:normal 1:low battery	
		2				bit8 of wind direction	
		1				Bit8 of gust wind speed	
		0				Bit8 of AVG wind speed	
7	AVG_H	3		Average wind speed		0.0 to 50.0m/s	
		2					
		1					
		0					
8	AVG_L	3					
		2					
		1					
		0					
9	GUST_H	3		Gust wind speed		0.0 to 50.0m/s	
		2					
		1					
		0					
10	GUST_L	3					
		2					
		1					
		0					
11	DIRECT_H	3		wind direction		0 to 359 degree	
		2					
		1					
		0					
12	DIRECT_L	3					
		2					
		1					
		0					
13	RAIN_HH	3		rainfall		Cumulative rainfall value 0.0 to 6553.5mm	
		2					
		1					
		0					
14	RAIN_HL	3					
		2					
		1					
		0					
15	RAIN_LH	3					
		2					
		1					
		0					
16	RAIN_LL	3					
		2					
		1					
		0					
17		3				fix 0	
		2				1:have rcc, 0:not rcc	
		1				bit9 of light	
		0				bit8 of light	
18	Temp_H	3		temperature		value in hex 10.5 F = 0x1f9 -10.5 F = 0x127 with 400 offset added (Range: - 40.0 to 140.0 F) Invalid value:0x7fa Below minimum:0x7fc Above maximum:0x7fd	
		2					
		1					
		0					
19	Temp_M	3					
		2					
		1					
		0					
20	Temp_L	3					
		2					
		1					
		0					
21	HM_H	3		Humidity		humidity data in hex 80%=50h Invalid humidity fill with 0x7a (Range: 10% to 99%)	
		2					
		1					
		0					
22	HM_L	3					
		2					
		1					
		0					
23	LIGHT_HH	3		Light		Light value 0 to 262klux Invalid value:0x3fffa No light:0x3fffb Above maximum:0x3fffd	
		2					
		1					
		0					
24	LIGHT_HL	3					
		2					
		1					
		0					
25	LIGHT_LH	3					
		2					
		1					
		0					
26	LIGHT_LL	3					
		2					
		1					
		0					
27	UV_H	3		UVI		0 to 20.0 Invalid value:0xfa No UVI:0xfb Above maximum:0xfd	
		2					
		1					
		0					
28	UV_L	3					
		2					
		1					
		0					
29	CRC	3	CRC 7	CRC checksum value (check range: Start to UV)			
		2	CRC 6				
		1	CRC 5				
		0	CRC 4				
30	CRC	3	CRC 3				
		2	CRC 2				
		1	CRC 1				
		0	CRC 0				

LORA Format
bandwidth: 500kHz,
data rate: SF7,
code rate: C4/5,
Send period is 16 seconds.
Frequency: 915.8MHz or 868.35MHz or 433.92MHz

