SRR Key Data Protocol based on mmWave Platform

v04.03

Abstract:

This document dedicated description for SRR Key Data Protocol based on mmWave Platform

For more easier to connect to microproessor's UART port baud rate as 115200/8/n/1

Description:

The Key Data Protocol structure as followings, <Structure> := H F L I X Y T (more detail see Appendix A1)

Alert: the data will be reported when $r \le 2$ meter the distance r between Objects and Antenna computed by $r = \frac{sqrt(X^2 + Y^2)}{128.0}$

Appendix:

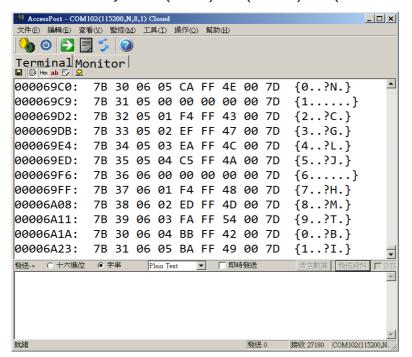
(A1) Key Data Protocol for SRR project, total 9 bytes per SINGLE point

//	′* It ′*	tem	Name	Location	Length	Туре	Description	
, ,	· ′* 1		н	0	1	U8	Header (0x7B) or ('{')	
//	′* 2		F	1	1	'0''9'	Flow for readable; (flow % 10) +	'0'
//	′* 3		L	2	1	U8	Length of total points per frame	
//	′* 4		I	3	1	U8	Index of point	
//	′* 5		Χ	4 5	2	I16	<pre>X value; (x=X/128.0, unit:m)</pre>	
//	′* 6		Υ	6 7	2	I16	Y value; (y=Y/128.0, unit:m)	
//	′* 7		T	8	1	U8	Tail (0x7D) or ('}')	
		Notes	: Type d	efinition as	followings,			
		U8 := unsigned char			(1 bytes)			
					(a. l			

I16 := integer (2 bytes in LittleEndian format)

(A2) Frame Period Time :
30 ms (based on mmWave board firmware v04.05)

(A3) example on data logged in Real case, convert X example see following, see on line 6, X is (C5 FF) => (0xFFC5) => (0+0xFFC5-65536)/128.0 => -0.46 meter



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