
IMU650-G 组合惯导系统

用户手册 V2.1



北京华微中测科技有限公司

1.	.....	1
2.	.....	1
3.	.....	2
4.	.....	2
5.	.....	3
6.	.....	3
7. IMU Assistant	.....	9
7.1	.....	10
7.2	.....	10
8. IMU650-G	.....	11
	.....	13
	.....	14

1.

IMU650-G

特性

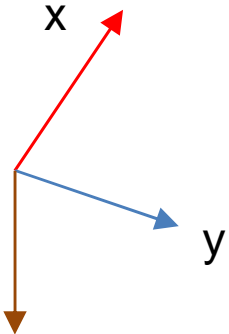
			1v /h
		1mg	2g
IMU	VG	GPSINS	

2.

POS



3.



1.IMU650-G

IMU650-G	NED		1
X		X	
Y		Z	

4.

- 1. 5V <50mV 0.5A
- 2. IMU M4
- 3. IMU 15 IMU
- 4.

5.

6. IMU

5.

1 DI 15

1	"5V	
2	GND	
3	#S422\$%X\$P	#S422
4	#S422\$%X\$N	#S422
5	#S422\$#X\$P	#S422
6	#S422\$#X\$N	#S422
7	AUX\$#S232\$%XA	
8	AUX\$#S232\$#XA	
9	SGND	
10-15	N/A	N/A

6.

IMU650-G

1. VG

IMU650-G

VG
2 VG

Byte No.	Content	Description
1	0xBD	First header byte
2	0xDB	!e"#nd header byte
3	0x65	Attit\$de %&ith ' ea(e and !ens#r) * \$t+\$t "# , , and byte
4	0x03	-he".s\$, / B te-&ise 0 * 1 #2 byte 1 t# 3.

3

Byte No.	Content	Description
0	0xBD	First header byte
1	0xDB	!e"#nd header byte
2	!tat\$s	0x04
3	1#33	4!B #2 1#33
4		M!B #2 1#33
5	5it"h	4!B #2 5it"h
6		M!B #2 5it"h
7	6a&	4!B #2 6a&
8		M!B #2 6a&
9	D7BUG0	4!B #2 D7BUG0
10		M!B #2 D7BUG0
11	D7BUG1	4!B #2 D7BUG1
12		M!B #2 D7BUG1
13	G0	4!B #2 x-axis 8 r#s"#+e
14		M!B #2 x-axis 8 r#s"#+e
15	G6	4!B #2 -axis 8 r#s"#+e
16		M!B #2 -axis 8 r#s"#+e

17	G9	4! B #2 :-axis 8 r#s"#+e
18		M! B #2 :-axis 8 r#s"#+e
19	A0	4! B #2 x-axis a""e3er# , eter
20		M! B #2 x-axis a""e3er# , eter
21	A6	4! B #2 -axis a""e3er# , eter
22		M! B #2 -axis a""e3er# , eter
23	A9	4! B #2 :-axis a""e3er# , eter
24		M! B #2 :-axis a""e3er# , eter
25	; e , +	4! B #2 te , +erat\$re sens#r
26		M! B #2 te , +erat\$re sens#r
27	; i , esta , +	4! B #2 ti , esta , +
28		Mid1 #2 ti , esta , +
29		Mid2 #2 ti , esta , +
30		M! B #2 ti , esta , +
31	ln2#	4! B #2 |<F *
32		M! B #2 |<F *
33	-he".s\$,	B te-&ise 0 * 1 #2 b te 0 t# 32

16&'()'*(16+
 360/32, 6-.
 16&'()'*(16+ /
 5, 3/32, 6-.
 16&'()'*(16+ g
 12/32, 6-.
 16&'()'*(16+
 200/32, 6-.
 %'m. /(0m1 32
)2'*(32+
 l*34

4 I*34

15	14	13	12
M45.62	M45.61	M45.60	S8 ;.:2
11	10	>	-
S8 ;.:1	S8 ;.:0	=8 ;.:1	=8 ;.:0
,	6	5	4

M45.6<2..07

000 IMU-00

001 IMU620

010 8S602

011 M*'IMU

1xx 92(2:.. m45.6/

S8 ;.: <2..07 S43(<0:.. m0'* ;.:/'4*

=8 ;.:<1..07 =0:5<0:.. m0'* ;.:/'4*

G#0*g. <2..07 Gy:4 m.0/2:..m. *(:0*g.

000 , 55.g//

001 1505.g//

010 2005.g//

011 3005.g//

100 5, 35.g//

101 >005.g//

A#0*g. <1..07

00 2g
 01 3g
 10 5g
 11 12g
 Sy/ <0:***g?

*(16

1

Sy/ E::?

S. */4: S0(2:0('4* <0:***g?

1

5-100=

6

	BUaY : cfaUh	G|nY f|knhY	GM] b[	I b] h	8YgM] dh] cb
0	0xBD				First header b te
1	0xDB				! e"#nd header b te
2	! tat\$				0x09
3		int	4	1e-7	de8
7		int	4	1e-7	de8
11		int	4		, ,
15	(e3<	int	4		" , =S
19	(e37	int	4		" , =S

	BUaY	: cfaUh	G nY f k n h Y	GM] b[	l b] h	8YgM] dh] cb
23	(e3D	int	4		" , =S	
27	3D	Uint	4		" , =S	
31		Uint	4		" , =S	
35		int	4	1e-5	de8	
39		int	4		' ,	
43		int	4		' ,	
47		Uint	4		" , =S	
51		Uint	4	1e-5	de8	30. , =h
55	Fix	U1	1			ran8e 0..5 0x00 > <# Fix 0x01 > Dead 1e" .#nin8 #n3 0x02 > 2D-Fix 0x03 > 3D-Fix 0x04 > G5! ? Dead 1e" .#nin8

Bit	Symbol	Unit	Resolution	Scale	Notes
					0x05 > ;i , e #n3 2ix
56	F3a8 s	U1	1		bit0/ G5 !2ix * @ bit1/ Di22 ! #3n bit2/ A @ < ! 7 ; bit3/ ; * A ! 7 ;
57		U1	1		< \$, ber #2 ! Bs \$sed in <a(! #3 \$ti #n
58	5D * 5	U2	2	0.01	
60	-		6		
66	' ea dF3a 8	U1	1		Bit1/ 1

' eadF3a8

bit1 1

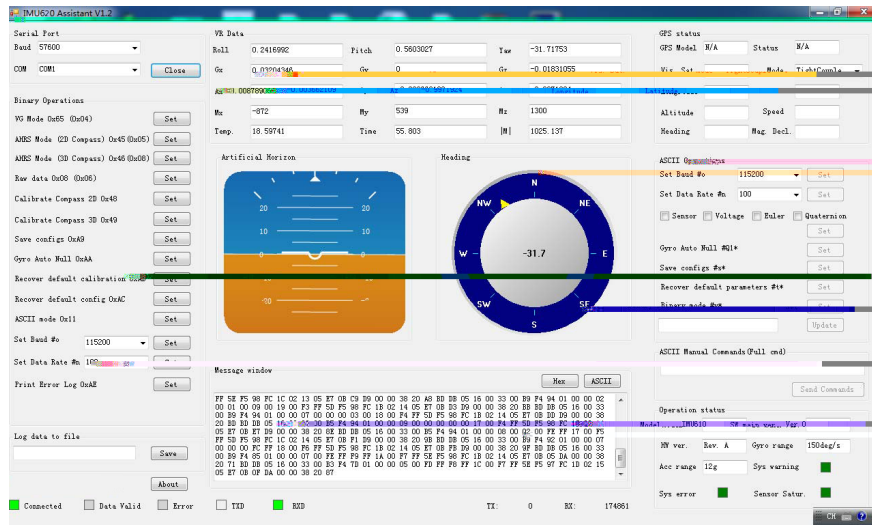
IMU

6a&

7. IMU Assistant

IMU A//'(0*(

IMU650-G



2. IMU650-G Assistant

7.1

1. /. (21..x.

2. <'*54</.*.(3:0m.<4:@

7.2

1. S.: '06 P4:(01.*

230400&1/

2. A:('3'A'06 =4:' 4*
=.05'*g)

+ V# D0(0

3. A(('(25. 0*5

S.* /4: 50(0 0x65

4. 2D A=#S A=#S MODE)2D A4m10//+

5.

B /10/

VG A=#S 5,600&1/

100= 115200&1/

250=

6. 2D C06'&:0(.

C4m10// 2D.

60

S0; . A4*3'g/

.. P: '* (E::4: 64g 16

>. D4g 50(0 (4 3'6. S0; .

10. ASCII ASCII

U150(.

DD#

U150(.

8. IMU650-G

	250v =s 500v =s
	1v =h
1s	10v =h
	10v =h

	200v =h		
	200++ ,		
	200++ ,		
	0.005		
	10v =h=8		
	0.15v = hr		
	250 ' :		
	28 48 168		
	0.15 , 8		
	2 , 8		
	300++ ,		
	0.3 , 8		
	0.05 CF!		
	125 ' :		
	G5! 41 -=AD!BA! 41 -=ADG4 * <A!! 41 * FFB7ID * U B1		
	29s	1s	
	-166dB ,		
	0.05 , =s		
	0.3v 5>50C E 30 , =s		
	2.0 ,		
	50000 ,	500 , =s)	48
= 1F	0.3v	0.1v	1v
G5!			
	G !		C"
	60 , E 3 , in		

	30 , E 3 , in
	0.3v E , in
	5B
	45G39G28 , ,
	100 8
	Mi" r#-DB15 1 !422
	IMU650
	IMU650-B
	IMU650-G

18

100024

4006-910-991

4006-910-991-2

