

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

1.

1.1.

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- 
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- 
- 
- 

1.2.

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- 
- 
- 
- 

1.3.

1	3S	8S	
2			168MHz
3			-1200°/sec ~+1200°/sec
4			-8g ~+8g

# 1.4.

1

- 14 PWM
- 1 sbus
- 6 RS422    2    4    RS232
- 2 AD        0    5V
- 2
- 4 IO        5V
- 1 CAN
- 2            5V

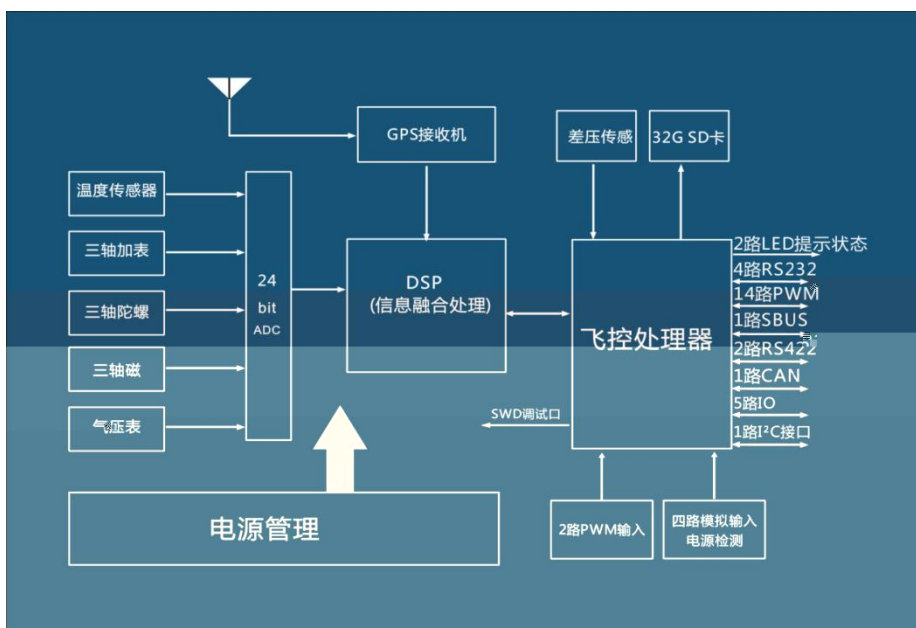
2

GPS

3

LED

4



5

	o
	o
	o
	o
	o


3

70 100 35mm

200g

4

-40 50

-50 65

95% 35

GJB

AHRS

GPS/INS

## 5.1

$$\mathbf{g}^0 = \mathbf{C}^0 \mathbf{g} \quad 5.1.1$$

$$\mathbf{g} = [0 \quad 0 \quad -]^T$$

$$\dot{\mathbf{C}}^0 = \mathbf{C}^0(\dot{\mathbf{q}} \times) = \mathbf{C}^0(\dot{\mathbf{q}} \times) \quad 5.1.2$$

$$\mathbf{f}^0 = \mathbf{C}^0 \mathbf{f} \quad 5.1.3$$

$$\dot{\mathbf{C}}^0 = \mathbf{C}^0(\dot{\mathbf{q}} \times) = \mathbf{C}^0(\dot{\mathbf{q}} \times)$$

$$\mathbf{C}^0(0) = \mathbf{I}$$

$$\mathbf{C}^0$$

$$\mathbf{C}^0$$

$$2.13$$

$$\mathbf{C}^0$$

$$\mathbf{C}^0(\mathbf{C}^0 \tilde{\mathbf{f}} - \tilde{\mathbf{V}}) = \mathbf{C}^0(-\mathbf{g}) \quad 5.14$$

$$\mathbf{C}_0^0(\mathbf{C}^0 \tilde{\mathbf{f}} - \tilde{\mathbf{V}}^0) = -\mathbf{g}^0 \quad 5.1.5$$

$$\tilde{\mathbf{V}}^0 = \mathbf{C}^0 \mathbf{f} + \dot{\mathbf{v}}^0$$

$$\mathbf{C}_0^0$$

## 5.2

$$\dot{\mathbf{q}} = \frac{1}{2} \mathbf{q} \quad 5.2.1$$

$$= - = -C = -(C)^T \quad 5.2.2$$

$$= + \quad 5.2.3$$

$$=[0 \ \omega \cos \ \omega \sin ]^T \quad 5.2.4$$

$$= \left[ -\frac{\quad}{+} \quad -\frac{\quad}{+} \quad -\frac{\quad}{+} \tan \right]^T \quad 5.2.5$$

2

$$\dot{v} = f + g - (\quad + 2 \quad) \times v \quad 5.2.6$$

$$f = C f \quad 5.2.7$$

$$g = [0 \ 0 \ - ]^T \quad 5.2.8$$

3

$$\dot{\quad} = \frac{\quad}{+} \quad 5.2.9$$

$$\dot{\lambda} = \frac{\quad}{+} \text{sec} \quad 5.2.10$$

$$\dot{\quad} = \quad 5.2.11$$

### 5.3 AHRS

WMM2000 n

$\sim$  b  $\sim$

$$\sim = -((\quad) \times) \psi \quad 5.4.1$$

$\sim$   $\delta$

$$\sim = + \delta \quad 5.4.2$$

Z

V

$$= + \quad 5.4.3$$

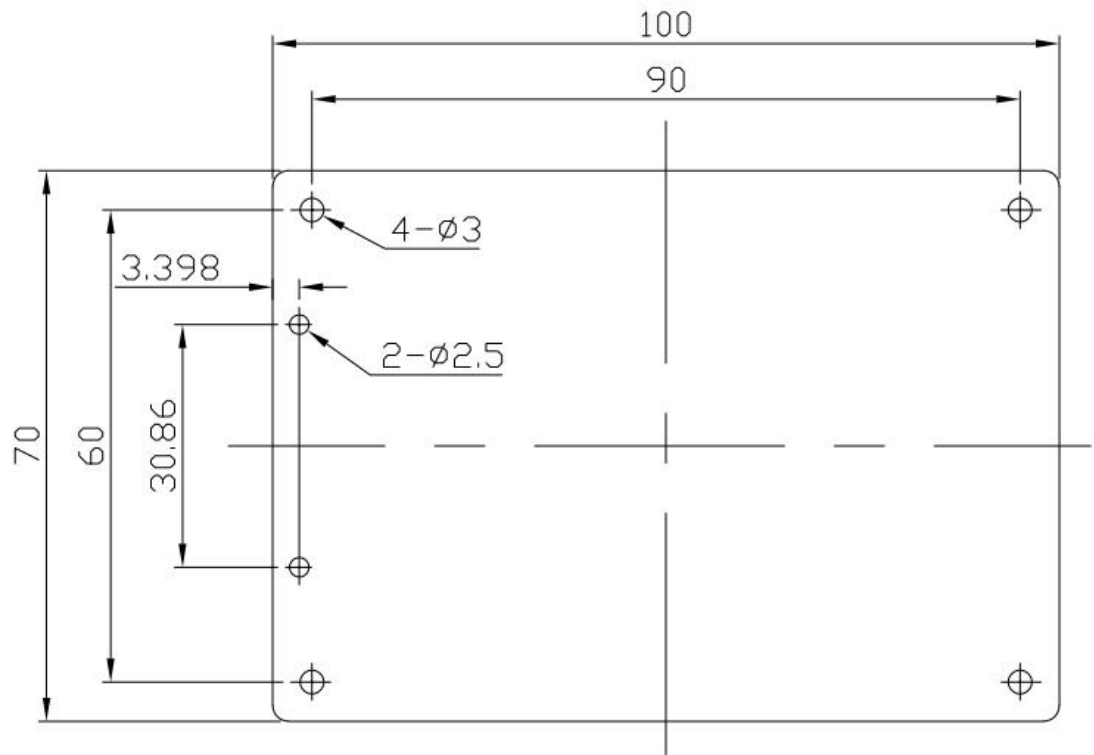


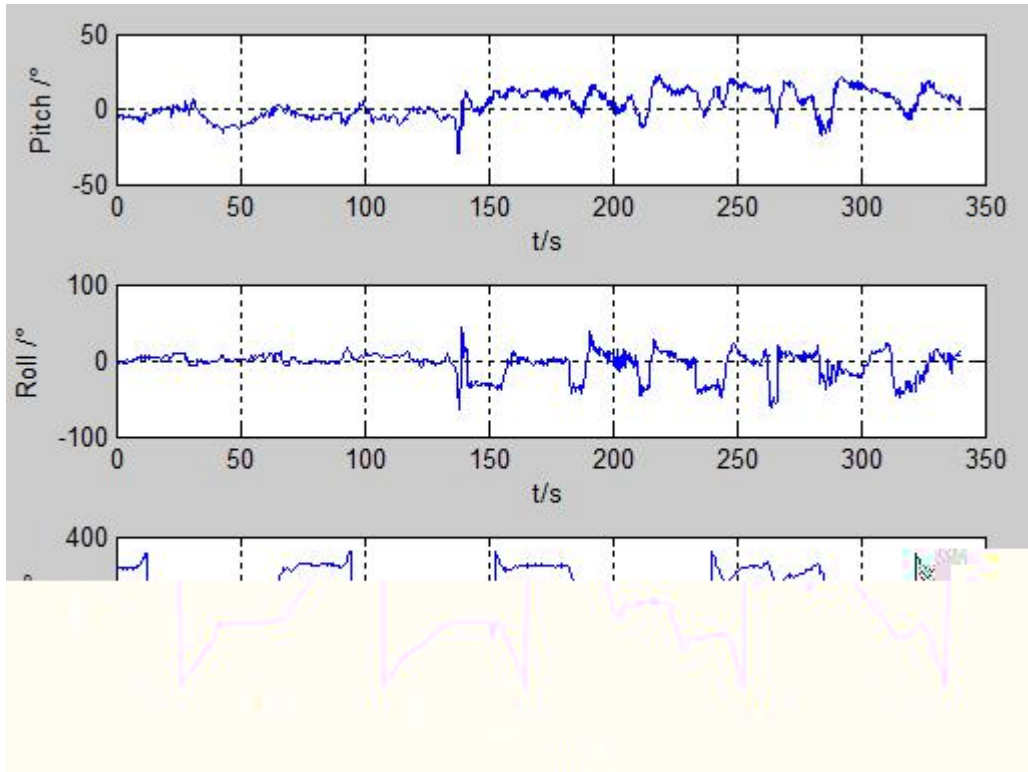
## J30J-51ZKWP7

1	VDC_24V	27	J30J_PWM_OUT1
2	VDC_24V	28	J30J_PWM_OUT2
3	GND	29	J30J_PWM_OUT5
4	GND	30	J30J_PWM_OUT6
5	GND	31	J30J_PWM_OUT9
6	GND	32	J30J_PWM_OUT10
7	GND	33	J30J_PWM_OUT13
8	GND	34	J30J_PWM_OUT14
9	VCC5V	35	J30J_IO5V_OUT3
10	VCC5V	36	J30J_RS422_TX7+
11	J30J_5V_IN1	37	J30J_RS422_TX7-
12	J30J_5V_IN2	38	J30J_RS422_RX7-
13	J30J_CAN_H	39	J30J_RS422_RX7+
14	J30J_CAN_L	40	J30J_RS232_RXD2
15	J30J_PWM_HV1	41	J30J_RS232_TXD2
16	J30J_PWM_HV2	42	J30J_UART7_TXD_SLAVE
17	J30J_SBUS_RXD	43	J30J_UART7_RXD_SLAVE
18	J30J_IO5V_OUT4	44	J30J_PWM_OUT3
19	J30J_RS422_TX5+	45	J30J_PWM_OUT4
20	J30J_RS422_TX5-	46	J30J_PWM_OUT7
21	J30J_RS422_RX5-	47	J30J_PWM_OUT8
22	J30J_RS422_RX5+	48	J30J_PWM_OUT11
23	J30J_RS232_TXD3	49	J30J_PWM_OUT12
24	J30J_RS232_RXD3	50	J30J_IO5V_OUT2
25	J30J_RS232_TXD8	51	J30J_IO5V_OUT1
26	J30J_RS232_RXD8		



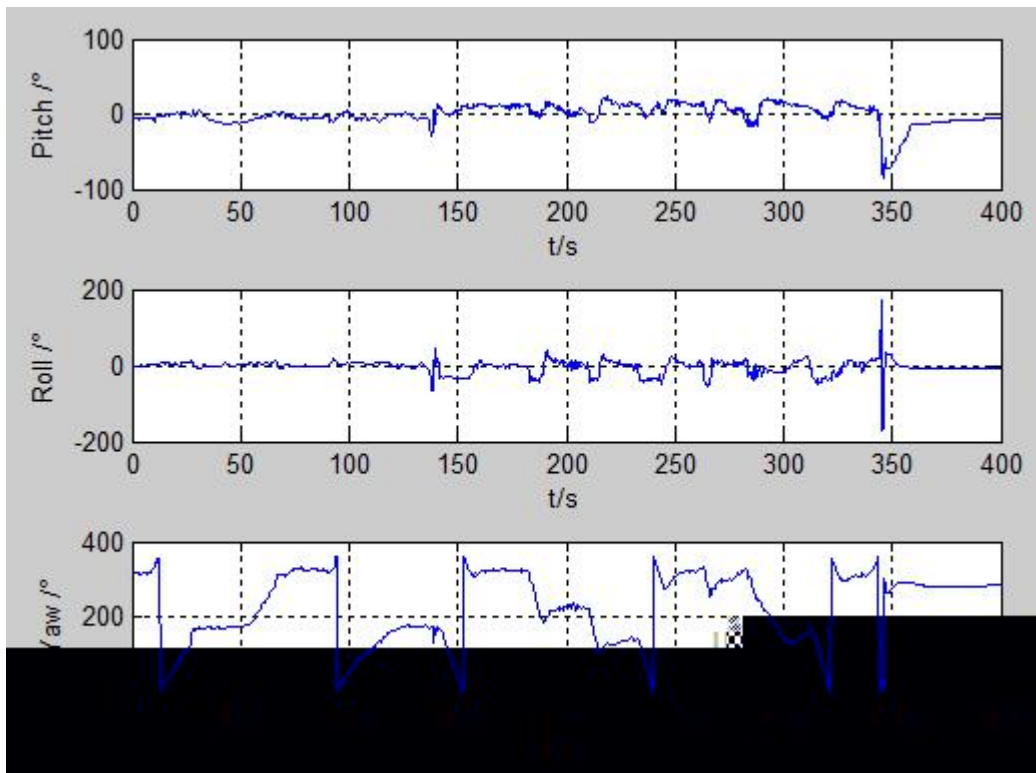
2





1:

1



2:

2

