

Name	4B3 Anti-jamming module	编制部门	技术中心	版本修订	2101
<p><b>1. Functions and indicators of anti-interference module</b></p> <p>This module supports Beidou-3 and adopts a 4 - element BDS single B3 anti-jamming system, which can resist suppression interference from no more than three directions. The details are as follows:</p> <p>a) Complete the down-conversion and anti-jamming processing of the BDS single B3 navigation signal . After the anti-jamming processing is completed, the BDS single B3 satellite navigation signal is up-converted and output;</p> <p>b) With interference state detection and output function;</p> <p>c) It has seamless connection with ordinary satellite navigation receivers and high-precision dual-frequency direction finding receivers.</p> <p><b>1.1 Main performance indicators</b></p> <p>a) Working frequency and bandwidth: BDS B3: <math>(1268.52 \pm 10.23\text{MHz})</math>;</p> <p>b) Output standing wave ratio: <math>\leq 2.0</math>;</p> <p>c) Number of antenna signal input array elements: 4;</p> <p>d) Anti-interference data update rate: 1Hz;</p> <p>e) Anti-interference performance index requirements</p> <p>(1) Anti-jamming system: BDS/GPS anti-jamming system;</p> <p>(2) Anti-interference type: continuous wave interference, broadband noise interference and multi-point sweep interference, etc.;</p> <p>(3) Anti-broadband interference bandwidth: <math>\geq 20.46\text{MHz}</math> (B3 band);</p> <p>(4) Number of anti-interference sources: Simultaneously anti-interference from 1 to 3 different directions;</p> <p>(5) Anti-single interference ability: (connected to Beisan receiver)</p> <p>Interference signal ratio <math>\geq 105\text{dB}</math>;</p> <p>(6) Anti-multi-interference ability: signal-to-interference ratio <math>\geq 95\text{dB}</math>;</p> <p>f) Power supply and power consumption:</p> <p>Working voltage: DC <math>5\text{V} \pm 0.25\text{V}</math>;</p> <p>Power consumption : <math>\leq 9\text{W}</math>;</p> <p>g) Module weight: <math>\leq 130\text{g}</math>;</p> <p>h) Module size: <math>\leq 100\text{mm} \times 55\text{mm} \times 16\text{mm}</math>;</p> <p>I) Communication interface: RS422 full duplex, baud rate 115200bps, 1 start bit, 1 stop bit , 8 data bits, no parity.</p> <p>J) Electrical interface: RF input and output port SMP-J type connector; power supply/serial port J30J-9ZK series;</p> <p><b>1.2 Environmental suitability</b></p> <p>a ) Working temperature: <math>-50 - + 55^{\circ}\text{C}</math>;</p> <p>b ) Storage temperature: <math>-50 - + 65^{\circ}\text{C}</math>;</p> <p>c ) Other environmental test conditions meet GJB 150A-2009 Requirements for "Experimental Environment Test Methods for Military Equipment". Temperature -humidity-vibration-altitude test regulations are</p>					

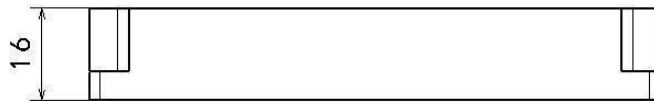
implemented.

### 1.3 Interface Definition

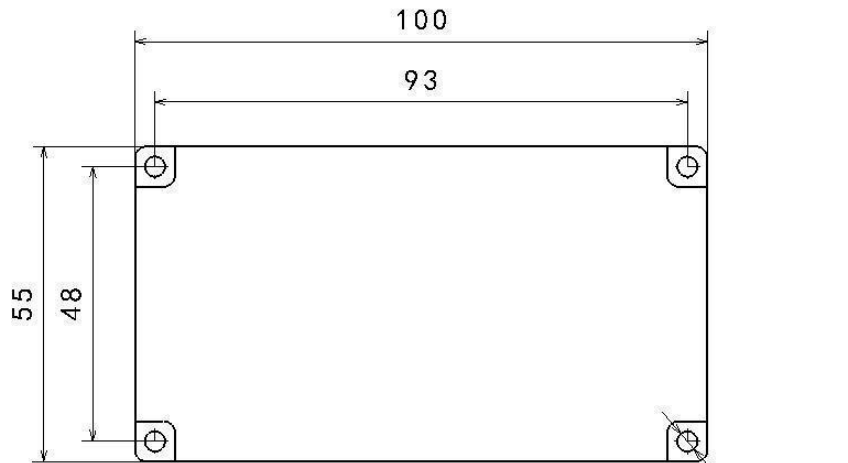
Jamming antenna power supply and digital communication control interface: The connector model of the power supply and digital communication control interface is J30J-9ZK , and the interface definition is shown in Table 1 below:

No.	Definition	Signal	Description
1	DC 5V	-	Power IN, 5V
2	DC 5V	-	Power IN, 5V
3	GND	-	Grounding
4	GND	-	Grounding
5	RXA+	I	RS422 serial A
6	RXA-	I	
7	TXA+	O	
8	TXA-	O	
9	GND	-	

### 2. Product size chart



仰视图  
缩放: 1:1



正视图  
缩放: 1:1