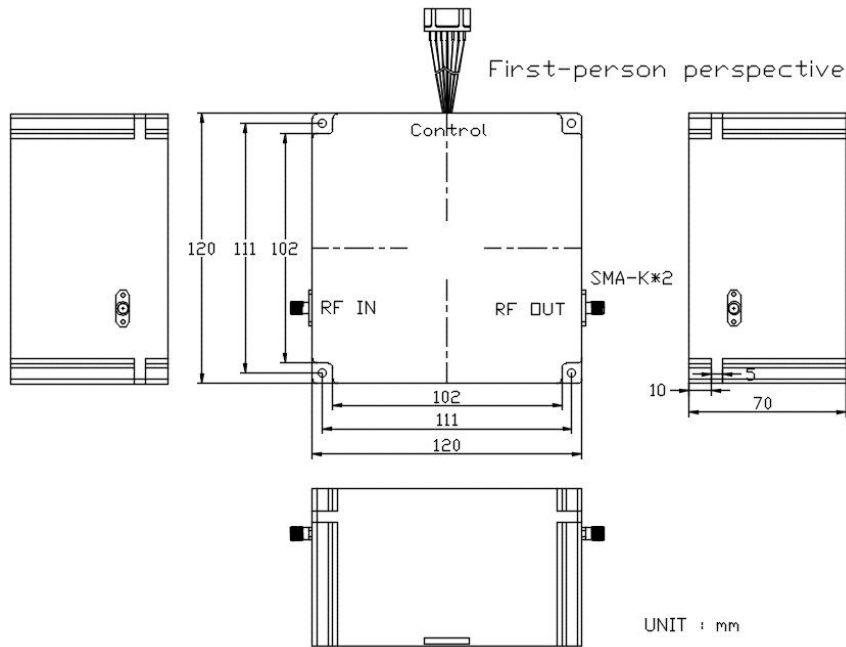


Electrical specifications

Parameter	Condition	Value	Unit	Note
Frequency Range	-	225-400M	-	
Insertion Loss	Normal	≤2.3	dB	
Related Bandwidth	BW-3dB	BW-3dB : F0*1%~F0*1.45%	MHz	
Selectivity	Sel	≥7@Fo±4MHz ≥25@Fo±8MHz ≥12@Fo±30MHz	dBc	
VSWR	-	≤1.6	-	50Ω system, forward and reverse testing
Voltage/Current	-	Icc≤50mA@+5 (+4.9~+5.1) ; Ibb≤20mA@+400(390~410) ; -Icc≤2.8A@-3.3 (-3.2~-3.4) ;	-	
Input RF Power	P-1dB	≥50	dBm	
Average power	CW	≥48	dBm	
Peak power	PEP	52	dBm	
Frequency-Hopping Rate	Tt	≤30	μs	
Center Frequency Drift	-	≤80	PPm/°C	
RF port impedance	Z	50	Ω	
Operating Temperature	To	-40~+85	°C	
Storage Temperature	Ts	-50~+105	°C	

Outline drawing



Product Marking:	
Brand Name	SHOUFEI
Part Number	HHP8131A
Batch Number	MMYDDXX
Port Mark	Refer to the drawing

Batch Numbering Logic			
Month MM	Year Y	Day DD	Suffix Digit XX
01	A: 2023	01	01
02	B: 2024	02	02
03	C: 2025	03	03
...	...	...	...
12	Z: 2049	31	99

Low-frequency connector: JL23-20TKY, protruding 210 mm ±10 mm from enclosure.
RF connector: SMA-K series.

Pin Definition

No.	Name	Description
1	-3.3V	Power
2	GND	Ground
3	A0	Address code (lsb)
4	A1	Address code
5	A2	Address code

6	A3	Address code
7	NC	Blank
8	+5V	Power
9	GND	Ground
10	NC	Blank
11	-3.3V	Power
12	GND	Ground
13	A4	Address code
14	A5	Address code
15	A6	Address code
16	A7	Address code
17	NC	Blank
18	GND	Ground
19	NC	Blank
20	+400V	Power

Note: Direction definition references the filter module. "O" denotes output signal from the filter module, "I" denotes input signal to the filter module.

Control Interface

Address code: A 8-bit parallel binary code (A0-A7) compatible with CMOS and TTL levels. The control voltage for A0-A7 is 0~0.7V at low level. The high level is 2.4~3.3V; A0~A7 are segment address codes, where a low- level address code corresponds to the lowest frequency.

Address code calculation formula: $\{(fx-flow) / (fhigh-flow)\} * 250$

fx is the center frequency to be tuned within the segment.

flow is the lowest frequency within the segment.

fhigh is the highest frequency within the segment.

250 Total steps in the section.

If the calculation result has decimal places, round it to the nearest integer.

In the frequency band calculation formula for 225-400MHz, the parameters are set as flow=225MHz and fhigh=400MHz.

Power-Up/-Down Sequencing

Power-up: +5 V first, then -3.3 V, finally +400 V.

Power-down: +400 V off first, then -3.3 V, finally +5 V.

If the required sequence cannot be guaranteed, remove all supplies within 100 ms.

Environmental Suitability

Item	Requirement
Operating temperature	-40℃~+85℃
Storage temperature	-50℃~+105℃
Lash	-40℃~+85℃impact 5 times Each temperature point was kept at 1h, and the electrical performance was in line with the requirements in Table 1 after recovery 24h
Vibrate	Conduct vibration test in accordance with Appendix A05 of GJB367A-20015. 5Hz~5.5 Hz , Double amplitude 25.4mm 5.5Hz ~ 30Hz, acceleration 15m/ S² 43Hz ~ 50Hz, double amplitude 0.8mm 50Hz ~ 500Hz, acceleration 42m/S² scan period: 15 min Four times in each other three axes, a total of 3h. Requirements: The electrical performance shall meet the requirements in Table 1 after the test.
Preprocessing	Store at (85±5)℃ for continuous aging without charging for over 48 hours.