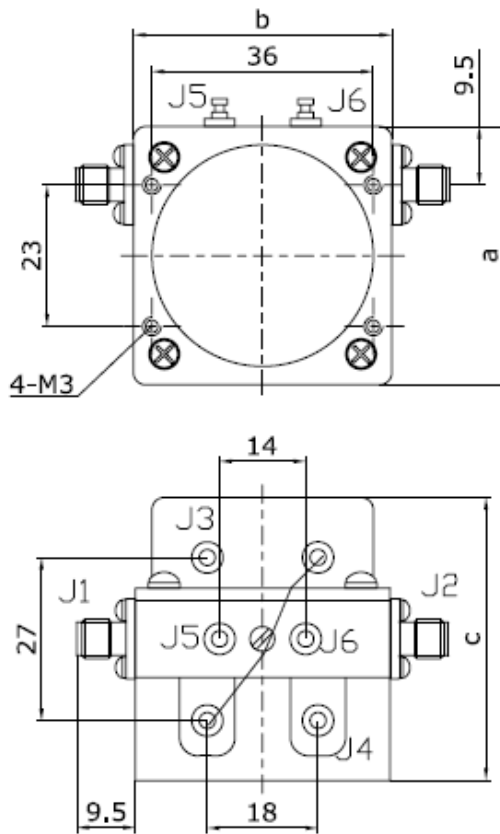
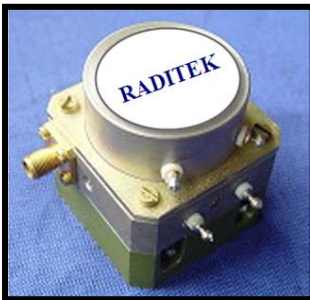


0.5-40.0GHz, 10-40MHz Bandwidth, YIG Bandpass Filter Split Bands



Conn.	Function
J1	RF Input
J2	RF Output
J3	Coil (+)
J4	Coil (-)
J5	Heater 24V(+)
J6	Heater 24V(-)

External Driver Optional Extra

-dd	Digital	optional
-ad	Analog	optional
-nd	No driver	standard

Outline	a	b	c
11	42	42	37
12	42	42	46
13	42	42	58
14	58	58	61

Units: mm
Not to Scale

Operating Temperature
0-60°C

Figure 1. YBPF-Nd no driver

YIG Bandpass Filters have wide working frequency range, good linearity, easy to tune. They have excellent selectivity within the working frequency range. They are widely use in Spectrum Analyzers, Sweep Generator, ECM Receivers, Broadband Test Equipment, Frequency Synthesizers, etc.

■ Characteristics

Wide frequency range; Excellent tuning linearity; High out of band rejection; Wide operating temperature range; Digital or analog continuous tuning control; Universal SMA input and output interface;

■ Application

Applied in microwave measuring instruments, broad band radar receivers and EW systems;

■ Description

Standard frequency band YIG-tuned band pass filters cover frequency ranges of 0.5~1 GHz, 1~2 GHz, 2~4GHz, 4~8 GHz, 8~12 GHz, 12~18 GHz, 18~26 GHz, and 26.5~ 40GHz, providing selective pass of desired microwave signals with electrical tuning. All the YIG-Tuned filters can be offered both independently and combining with special analog or digital drivers.

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Note:

- Operating Temperature Range from -20~60°C, Also Available to Custom Order
- All the parameters can be customized according to users' special requirements

Example Part Number: RYBPF-1-2-10M-SMAf-nd-i3

Specifications:									Units
Frequency range	0.5-1	1-2	2-4	4-8	8-12	12-18	18-26.5	26.5-40	GHz
3dB Bandwidth	10	10	15	20	25	25	30	40	MHz (min)
Insertion Loss	6	5	4	4	4	4	5	6	dB (max)
Detuning Isolation	70	70	70	70	70	70	50	40	dB (min)
Detuning Spurious Response	40	40	40	40	40	40	35	25	dB (min)
Ripple and Spurious Response Combinations	2	2	2	2	2	2	2	2	dB (min)
Tuning Linearity	±2	±3	±3	±5	±8	±10	±25	30	MHz (max)
Frequency Lag (Hysteresis)	4	4	6	8	15	15	30	60	MHz (max)
Temp. Drift of Center Frequency	6	8	8	12	15	20	25	30	MHz (max)
Tuning Sensitivity, Typ		10							MHz/mA
Frequency Drift (10-60°C)		5							MHz (max)
Working Temperature		10-60							°C
Weight		80							grams

Table 1. Specifications

■ **Typical frequency response curve**



0.5-40.0GHz, 10-40MHz Bandwidth, YIG Bandpass Filter Split Bands

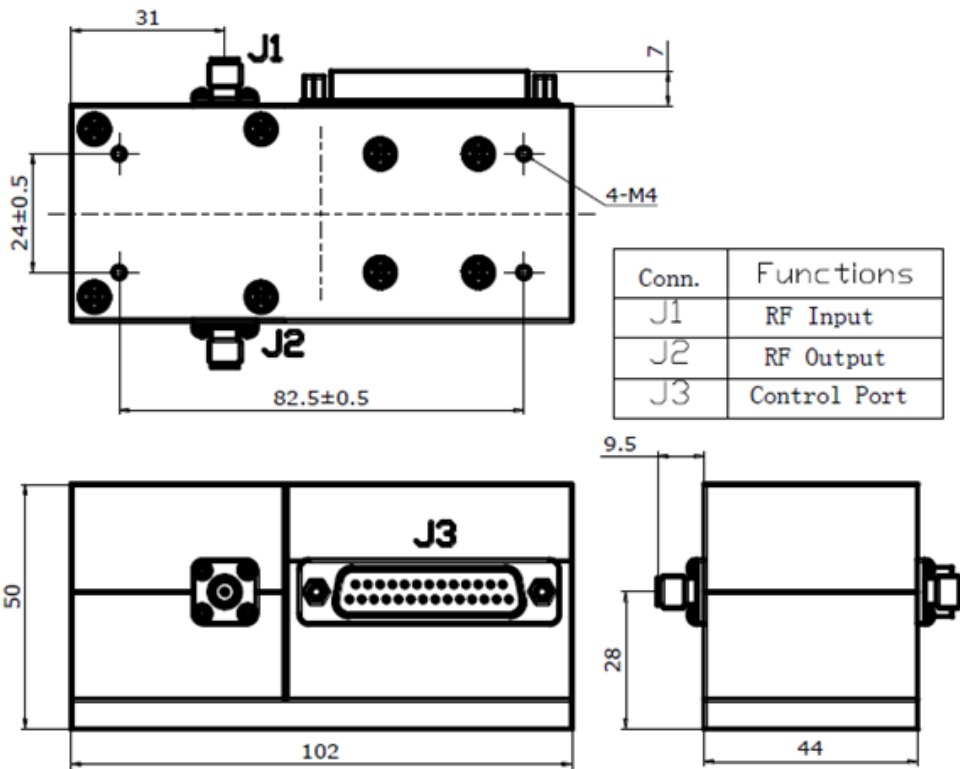


Figure 2; Outline of RYBPF-1-2-SMA(F)-dd-i3 (Unit: mm)

DB-25P PIN No.	Definitions	Note	DB-25P PIN No.	Definitions	Note
1	D11	MSB	14	+15V (DC)	Power Supply
2	D10	DB	15	Null	External Use Forbidden
3	D9	DB	16	-15V (DC)	Power Supply
4	D8	DB	17	Null	External Use Forbidden
5	D7	DB	18	Common	±15V Grounded
6	D6	DB	19	Null	External Use Forbidden
7	D5	DB	20	Ground	Grounded
8	D4	DB	21	24V (DC) Positive Pole	Heater Source
9	D3	DB	22	24V (DC) Negative Pole	24V (DC) Grounded
10	D2	DB	23	Null	External Use Forbidden
11	D1	DB	24	Null	External Use Forbidden
12	D0	LSB	25	Null	External Use Forbidden
13	Null	External Use Forbidden	--	--	--

0.5-40.0GHz, 10-40MHz Bandwidth, YIG Bandpass Filter Split Bands

Table 2. J3, DB-25 PIN Connections

Type: RYBPF-1-2-SMA(F)-dd-i3		SN#: 1001			
Specs	Freq(GHz)	IL(dB)	3dB Bandwidth	Off Resonance Spurious	Off Resonance Isolation
Required Specs	1-2	≤5	≥10	≥40	≥70
Room Temperature	1.0	2.7	18.8	75	80
	1.0	3.0	18.9		
	2.0	3.2	18.9		
Low Temperature(0°C)	1.0	2.6	19.5	75	80
	1.5	2.8	19.8		
	2.0	3.0	19.9		
High Temperature(60°C)	1.0	2.9	18.0	75	80
	1.5	3.2	18.1		
	2.0	3.4	18.0		
Tuning Linearity (MHz)	Required Specs	Test Specs	Hysteresis	Required Specs	Test Specs
	≤±3	±0.5		≤4	0.9
Frequency Drift (MHz)	Required Specs	≤5	Test Specs	0.8	
Dimensions (mm)	Required Specs	102*44*50 ± 0.5	Test Specs	101.94*43.76*50.18	
Tuning Sensitivity	Required Specs	20	Test Specs	19.5MHz/mA	

Table 3. Typical Test Results

SET UP

- 4 M3 threaded holes are at the bottom of the product for user to mount it.
- Connect the power and control line according to table 2, check before power is switched on.
- SMA (f) connectors used in I/O ports align carefully.
- This unit is stabilized 3 minutes after power is switched on.
- The working freq start when the 12 bit digital driver is all-0 state, end when it's all-1 state. Other frequency points are determined by relative digit code.
- ± 15V is the working voltage of the digital driver, the ripple of voltage should be less than 10mv.

CAUTIONS

- Avoid impact or shock.
- Advise any screw on the product that can not be fastened.
- Prevent products from direct contact with Ethanol, Acid, Alkali, and other chemicals and ferromagnetism material. To preserve the electronic performance and appearance.

STORAGE

- The product should be stored at -20°C to +70°C.
- In the unlikely event of a problem, please contact us
- Please DO NOT open the unit and attempt repair by yourself.