

Diplexer

WGDP-WIFI6EX002

2.4~2.5 GHz /5.15~7.125GHz

Ver. A

20250317

Maximum Rating

Operating Temperature -40°C~+85°C

Storage Temperature -40°C~+85°C

RF Input Power 2W max at 25°C

Pin Connections

Low Band Port 3

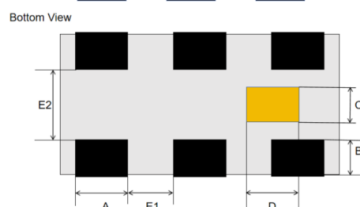
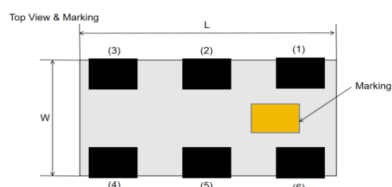
High Band Port 1

Common Port 5

Ground 2,4,6

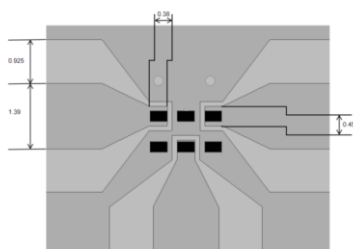
Dimension & Layout

Length--L(mm)	1.6±0.05
Width--W(mm)	0.8±0.05
Height--H(mm)	0.6±0.05



Pad 尺寸: 300um*200um

Symbol	Distance (mm)	Description
A	0.3±0.01	pin 长度
B	0.2±0.01	pin 宽度
C	0.2±0.01	Mark 宽度
D	0.3±0.01	Mark 长度
E1	0.25±0.01	pin 平行间距
E2	0.4±0.01	Pin 垂直间距



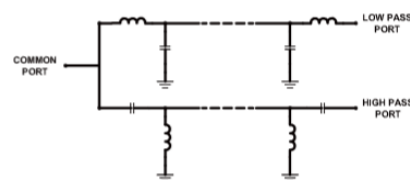
单位: mm

Features

- High Performance
- 2.4~2.5GHz/5.15-7.125GHz Dual Wifi6E bands
- New circuit topology for excellent return loss and low insertion loss
- High balance performance on LTCC Technology



RoHS Compliant

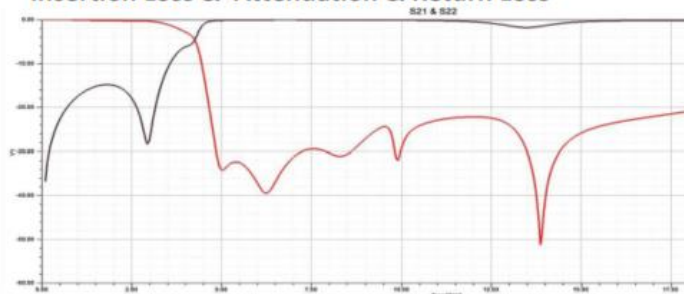


Functional Schematic

Frequency Characteristics

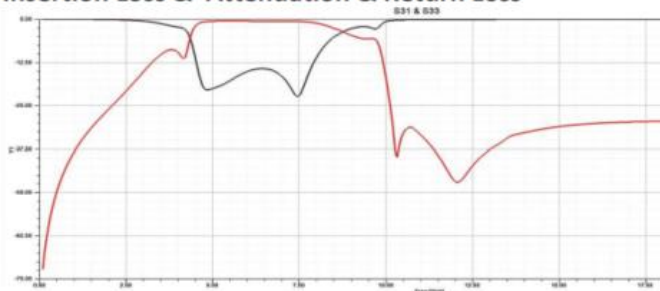
• Low Band

Insertion Loss & Attenuation & Return Loss



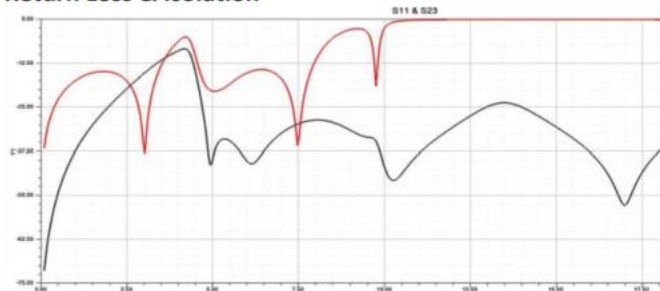
• High Band

Insertion Loss & Attenuation & Return Loss



• Common

Return Loss & Isolation



Notes

- The specifications are tested at 25°C±5°C, relative humidity 55~75%.
- Other quality and characteristic not specify in this datasheet. Please contact us for detail requirements.



Well Genius Technology (Shanghai) Ltd.

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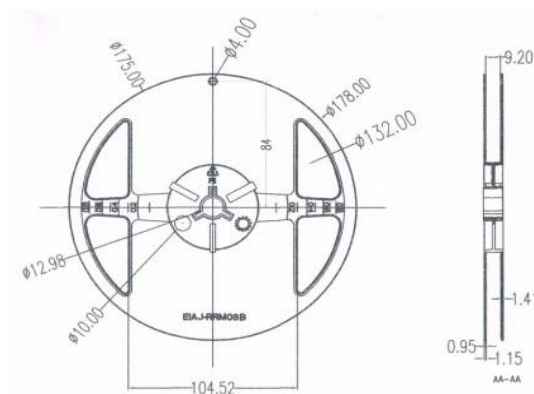
Electrical Specifications⁽¹⁾ at 25 °C

Low-Band					
Parameter	Frequency (MHz)	MIN	Typ.	MAX	Unit
Insertion Loss	2400-2500	-	0.38	0.6	dB
Return Loss	2400-2500	12	22	-	dB
Attenuation	4800-5000	30	35	-	dB
	5150-7125	30	35	-	
	7200-7500	34	36	-	
	10300-14250	25	30	-	
	15450-21375	10	18	-	
Characteristic Impedance	50				Ω
High-Band					
Parameter	Frequency (MHz)	MIN	Typ.	MAX	Unit
Insertion Loss	5150-5875	-	0.55	0.8	dB
	5875-7125	-	0.8	1.0	
Return Loss	5150-7125	10	14	-	dB
Attenuation	300-1000	37	45	-	dB
	1000-2300	23	26	-	
	2400-2500	22	25	-	
	2700-3500	10	15	-	
	10300-11900	32	40	-	
	11900-14250	32	40	-	
	15450-17850	25	40	-	
	17850-21375	15	20	-	
Characteristic Impedance	50				Ω
Common					
Parameter	Frequency (MHz)	MIN	Typ.	MAX	Unit
Return Loss	2400-2500	10	16	-	dB
	5150-7125	10	14	-	
Isolation	4800-5000	30	35	-	dB
	5150-7125	30	35	-	
	7200-7500	34	36	-	
	10300-14250	25	30	-	
	15450-21375	10	18	-	
Characteristic Impedance	50				Ω



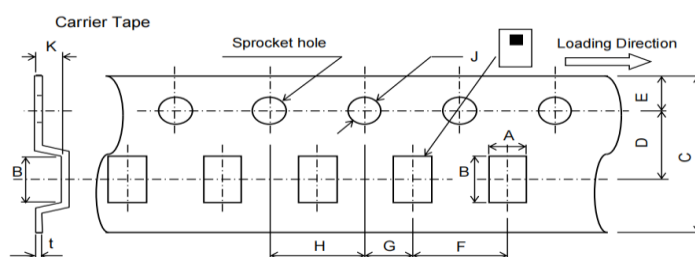
Product Coding Information

■ Tray Specifications



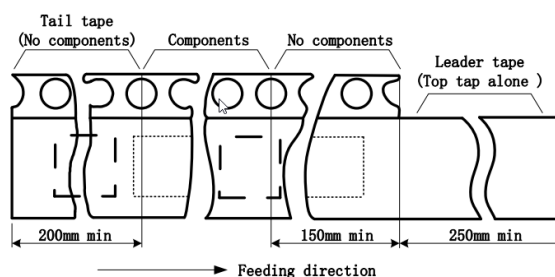
Material: Plastic

■ Carrier Specifications



Material: Plastic

■ Strip Information



Component size	A	B	C	D	E	F	G	H	J	K	t
1.6 x 0.8 mm	0.98	1.8	8.0	3.5	1.75	4.0	2.0	4.0	1.6	0.8	0.25

The length of the cavity at the tail of the carrier tape should be at least 200mm, the length of the cavity at the head of the carrier tape should be at least 150mm, and the length of the cover tape at the head should be extended by at least 250mm.



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