

**BF2002G**

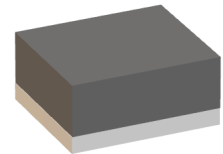
**5665 MHz  
BAW Filter**

Akoustis product A10256 recommended for new designs ([click here](#))

- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 3**

**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Input Power	30	dBm
Maximum DC Voltage Between any Two Terminals	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +125	°C
Symbolization: G2, YW (Y = year, W = week)		
Case Style: SM2520-8 (2.5 x 2.00 nominal footprint)		



SM2520-8

**Electrical Characteristics**

Terminating source impedance:  $Z_s = 50 \Omega$

Terminating load impedance:  $Z_L = 50 \Omega$

Parameters Description	Unit	Min.	Typ.	Max.	Note
<b>Center Frequency</b> <b>Fc</b>	MHz	-	5665	-	-
<b>Insertion Loss</b> (5490 ~ 5835 MHz) <b>IL</b>	dB	-	2.3	2.7	(*1)(*2)(*3)
<b>Amplitude Ripple</b> (5490 ~ 5835 MHz)	dB	-	0.2	1.2	(*1)(*2)(*3)
<b>Return Loss</b> (5490 ~ 5835 MHz)	dB	12	19	-	(*1)(*2)(*3)
<b>Attenuation</b> (Reference level from 0 dB)					
30 ~ 2700 MHz	dB	38	44	-	-
3300 ~ 5000 MHz	dB	25	30	-	-
5170 ~ 5330 MHz	dB	33	43	-	-
5950 ~ 6500 MHz	dB	6	23	-	-
6500 ~ 8500 MHz	dB	31	37	-	-

**Note:**

- (\*1) The specifications are averaged over specified pass band frequency.
- (\*2) The specifications include loss that comes from the test board and connector.
- (\*3) The specifications are 25°C only.

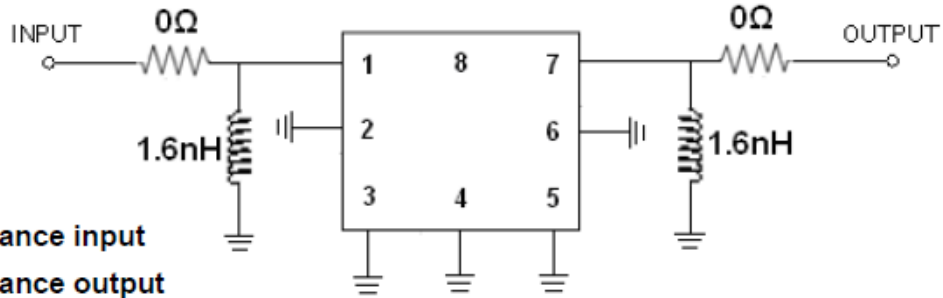


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. This component was always RoHS compliant from the first date of manufacture.

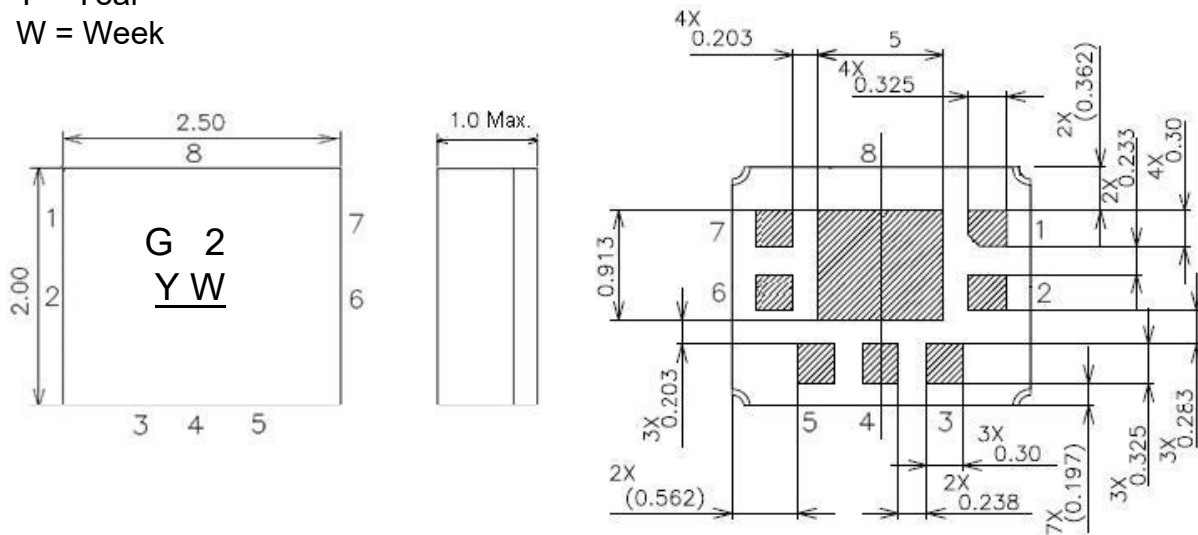
## Measurement Circuit



(1): Unbalance input  
 (7): Unbalance output  
 Others: Ground

## Outline Drawing

Y = Year  
 W = Week



All tolerances are +/-0.1 mm unless otherwise specified.

Unit: mm

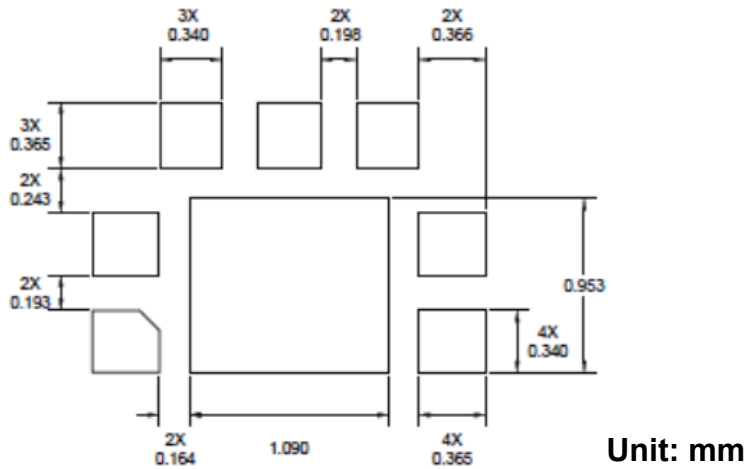
Pin No.	Symbol	Function
1	IN	Input
2	GND	Ground
3	GND	Ground
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	OUT	Output
8	GND	Ground

△ : Year Code (2019 →9, 2020 →0, 2021 →1, 2022 →2, etc...)

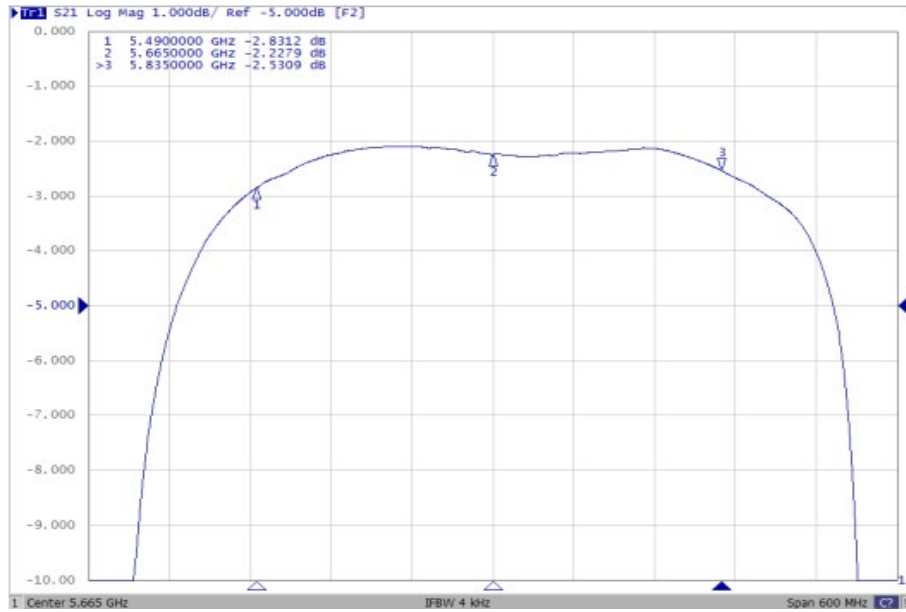
□ : Date Code

Date Code Table												
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

## PCB Footprint

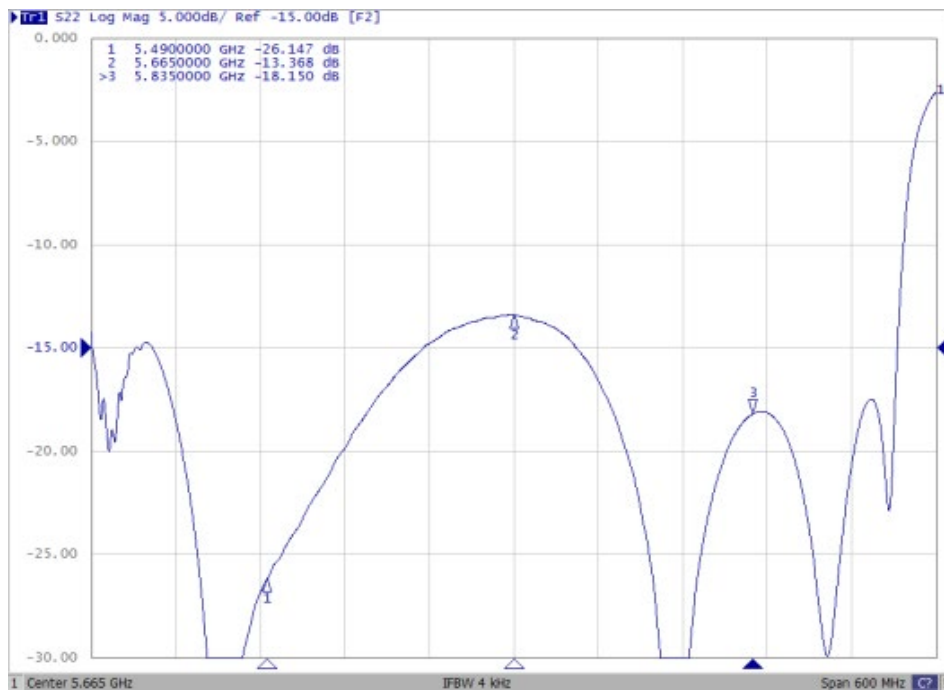
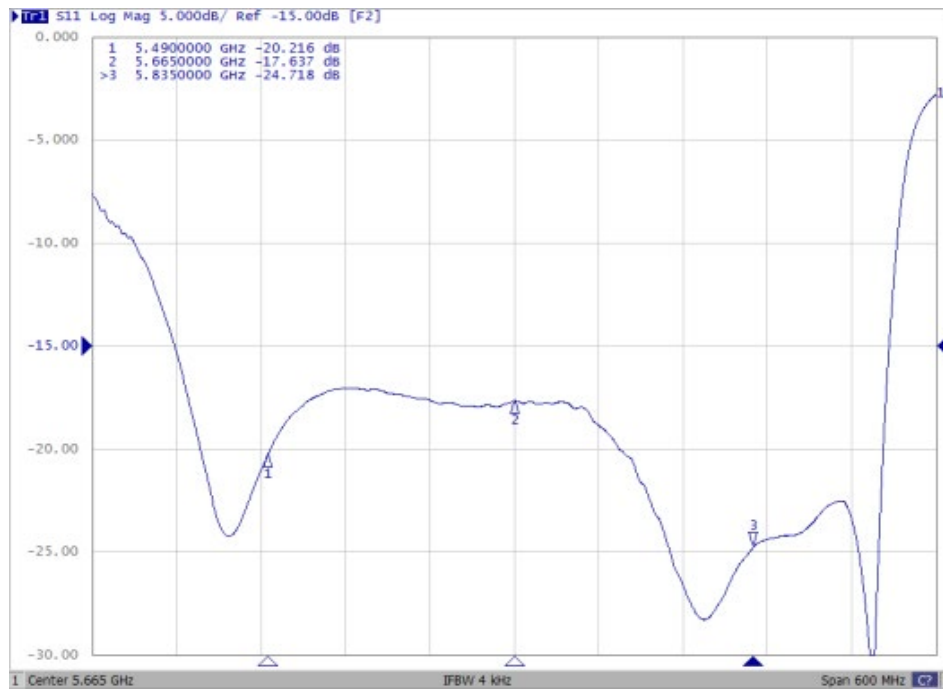


# Frequency Characteristics





# Reflection Functions

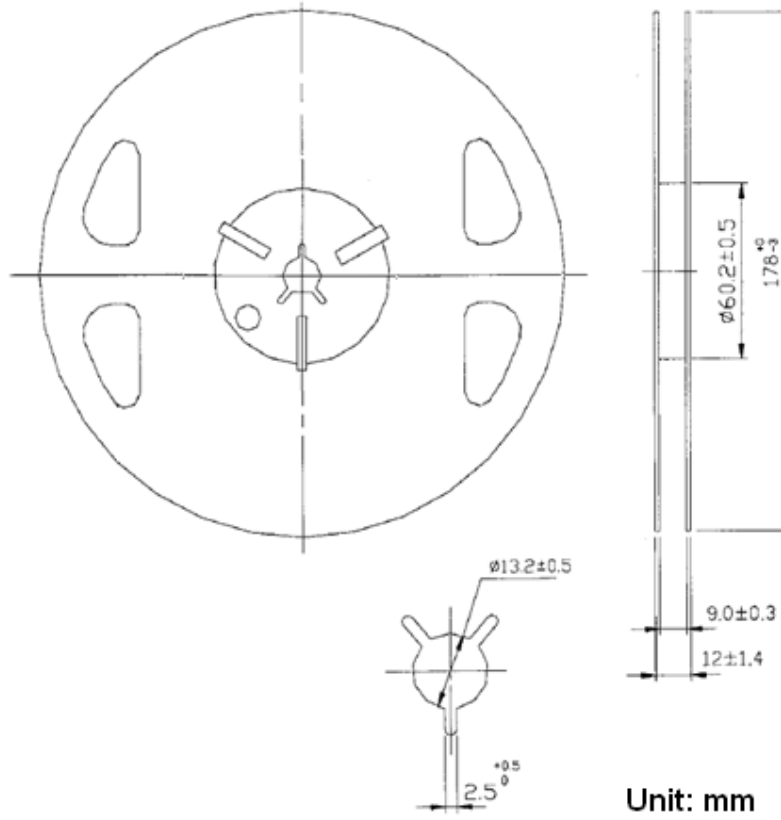


**Packing:**

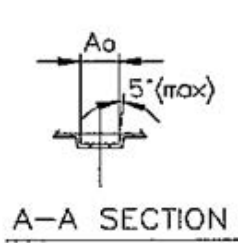
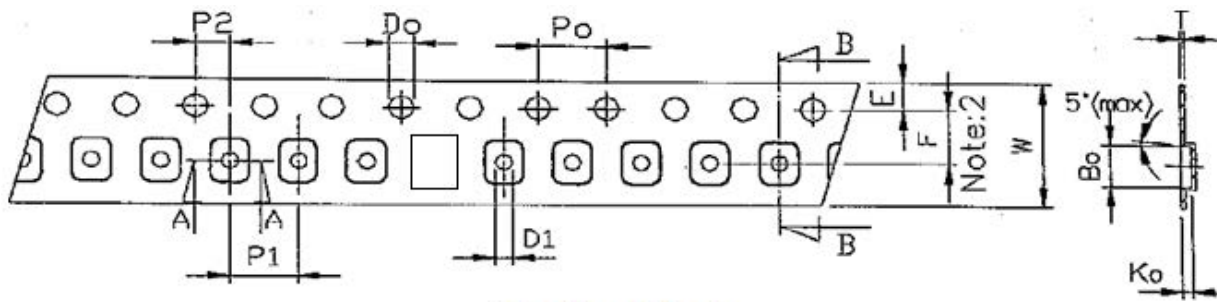
**Reel Dimension**

Reel Count:  
7" = 2000  
13" = 10,000

Tape and Reel Standard per ANSI/EIA-481



# Tape Dimension



Direction of Feed →

$$A_o = \frac{2.25 \pm 0.10}{\text{mm}}$$

$$B_o = \frac{2.75 \pm 0.10}{\text{mm}}$$

$$K_o = \frac{1.15 \pm 0.10}{\text{mm}}$$

Unit: mm

Symbol	Spec.
Po	4.0 ± 0.10
P1	4.0 ± 0.10
P2	2.0 ± 0.05
Do	1.50 $\begin{smallmatrix} +0.1 \\ -0 \end{smallmatrix}$
D1	1.10 ± 0.10
E	1.75 ± 0.10
F	3.50 ± 0.05
10Po	40.0 ± 0.20
W	8.0 ± 0.20
T	0.25 ± 0.05



## Recommended Reflow Profile

Parameter	Eutectic Sn/Pb	Pb Free
Max Ramp Up Rate	6 Deg C/Second	6 Deg C/Second
Soak Temp Time $T_S(\text{min}) - T_S(\text{max})$	135 - 155 Deg C	150-200 Deg C
Max Soak Time $T_S$	2 minutes	3 minutes
Liquidous Temp $T_L$	183 Deg C	220 Deg C
Max Time Above $T_L$	150 Seconds	150 Seconds
Max Peak Temperature $T_P$	225 Deg C	260 Deg C
Max Time at Peak $T_P$	30 Seconds	30 Seconds
Max Ramp Down Rate	10 Deg C/Second	10 Deg C/Second

