



#### • RF Filter Designed for Front End GPS Applications

- Low Insertion Loss
- 0.9 x 0.7 mm Surface-Mount Case
- Complies with Directive 2002/95/EC (RoHS)
- MSL Level: 3

#### Absolute Maximum Ratings

Rating	Value	Units		
Input Power Level	+15	dBm		
Maximum DC Voltage Between any Two Terminals	5	VDC		
Operating Temperature Range	-30 to +85	°C		
Storage Temperature Range	-40 to +85	°C		
Maximum Soldering Profile	265°C	265°C for 10 s		



**SF2738R** 



#### **Electrical Characteristics**

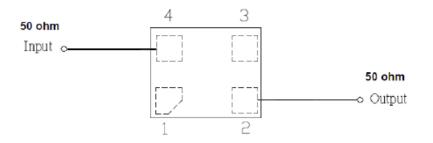
Source impedance Load impedance Z<sub>S=</sub> 50 Ω Z<sub>L=</sub> 50 Ω

Characteristic	Sym	Notes	Min	Тур	Max	Units		
Center Frequency	f <sub>C</sub>			1176.45		MHz		
Insertion Loss 1166.22 to 1186	.68 MHz IL <sub>MAX</sub>			1.8	2.5	dB		
Amplitude Ripple 1166.22 to 1186				0.6	1.4			
VSWR 1166.22 to 1186	.68 MHz			1.8	2.1			
Attenuation (Reference to 0 dB)								
638 to 698 MHz			40	56				
698 to 748 MHz			40	52				
777 to 798 MHz			40	48				
807 to 915 MHz			40	46		dB		
925 to 960 MHz			40	44				
1330 to 1427 MHz			33	38				
1427 to 1463 MHz			30	37				
1640 to 1695 MHz			30	37				
1695 to 1785 MHz			30	36				
1850 to 2025 MHz			30	34				
2300 to 2690 MHz			25	28				
3400 to 3800 MHz			20	25				
4400 to 4900 MHz			20	24				
5150 to 5925 MHz			20	24				
Temperature Coefficient of Frequency	ppm/ºC			-36				
Single-ended Input / Output Impedance Match	No mate	No matching network required for operation at 50 ohms						
Case Style	SM0907-4							
Lid Symbolization ( Y=year, W=week)	m, <u>YW</u>							

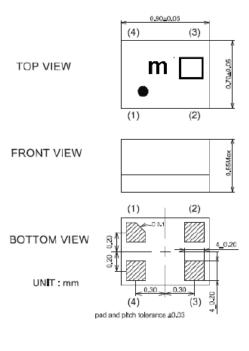
# CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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

### **Matching Circuit**



### **Outline Drawing**

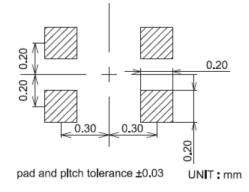


All tolerances are +/-0.05 mm unless otherwise specified Coplanarity : 0.1 mm max. 1 to 4 : Pin No. Unit : mm

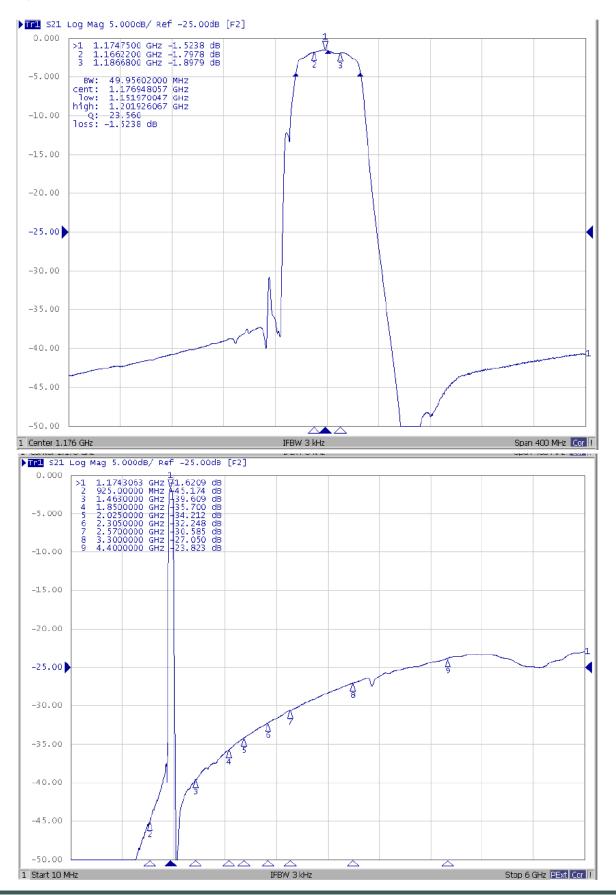
Pin No.	Symbol	Function
1	GND	Ground
2	OUT	Output
3	GND	Ground
4	IN	Input

1	2	3	4	5	6	7	8	9	10	11	12
Α	В	С	D	Е	F	G	Н	J	K	L	Μ
Ν	Р	Q	R	S	Т	U	V	W	Х	Y	Ζ
а	b	С	d	е	f	g	h	j	k		m
n	р	q	r	s	t	u	v	w	х	У	Z
A	B	<u>C</u>	D	E	E	G	H	J	K	L	M
N	P	Q	R	S	T	U	V	W	X	Y	Z
<u>a</u>	b	<u>C</u>	d	e	<u>f</u>	g	h	İ	k	Ī	m
<u>n</u>	p	đ	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	V	w	X	¥	Z
	A N a n <u>A</u> <u>N</u> <u>a</u>	A         B           N         P           a         b           n         p <u>A</u> <u>B</u> <u>N</u> <u>P</u> <u>a</u> <u>b</u>	A         B         C           N         P         Q           a         b         c           n         p         q           A         B         C           N         P         Q           A         B         C           N         P         Q <u>a</u> <u>b</u> c	A     B     C     D       N     P     Q     R       a     b     c     d       n     p     q     r       A     B     C     D       N     P     Q     R       a     b     c     d	A         B         C         D         E           N         P         Q         R         S           a         b         c         d         e           n         p         q         r         s           A         B         C         D         E           N         P         Q         R         S           A         B         C         D         E           N         P         Q         R         S           A         b         C         d         e	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	A       B       C       D       E       F       G         N       P       Q       R       S       T       U         a       b       c       d       e       f       g         n       p       q       r       s       t       u         A       B       C       D       E       F       G         N       P       Q       R       S       T       U         a       b       c       d       e       f       g	A       B       C       D       E       F       G       H         N       P       Q       R       S       T       U       V         a       b       c       d       e       f       g       h         n       p       q       r       s       t       u       v         A       B       C       D       E       E       G       H         N       P       Q       R       S       T       U       V         A       B       C       D       E       E       G       H         N       P       Q       R       S       T       U       V         a       b       c       d       e       f       g       h	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ABCDEFGHJKNPQRSTUVWXabcdefghjknpqrstuvwxABCDEFGHJKNPQRSTUVWXabcdefghik	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

### **PCB** Footprint



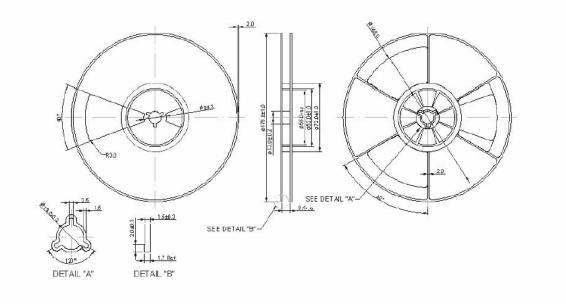
## **Frequency Characteristics**



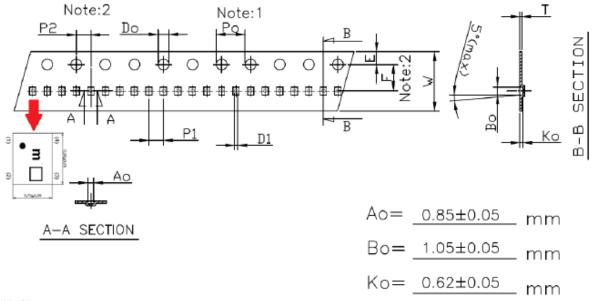
Tape and Reel Standard per ANSI/EIA-481

#### F. PACKING:

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1. REEL DIMENSION
( Reel Count : 7"=2000 typ. ; 13"=10000 typ.)
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### 2. TAPE DIMENSION



### Unit: mm

### **Recommended Reflow Profile**

- 1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
- 2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
- 3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20-40 sec).
- 4. Time: 2 times maximum.

