Customer : _____

RoHS

SPECIFICATION

Type : DIELECTRIC FILTER

Part no. : AMOBP 2326 P03 - A

Date : September 10, 2007.

Rev. No	Issue	Page	Rev. Date	Check
1	Change of attenuation (12.5dB → 8.0dBc)	2	11.23.2004	
2	Change of Ripple & attenuation	2	02.24.2005	
3	Add a Profile for lead free solder paste & atten. spec	2, 4	03.03.2005	
4	Change of attenuation (8.0dBc → 8.5dBc)	2	04.04.2006	
5	Addition of Weekly Marking (ex. 645)	5	12.05.2006	
6	* The device should satisfy → The device satisfies * Addition of packages part	3,6,7	8. 31. 2007	J.S. Maeng
7	* The device should satisfy → The device satisfies	4	9. 10.2007	J.S. Maeng

Customer	**Written**	**Checked**	**Approved**
Receptec			
Date	/	/	/

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Designed	**Checked**	**Approved**
/	/	/

1. Scope

This specification covers the characteristics of the dielectric band pass filter for the 2.3G Sirius Digital Radio System..

2. Model numbering

Part No. : AMOBP 2326 P03 – A

3. Composition and materials

3-1. Resonators : Dielectric Materials

3-2. Number of Poles : 3 poles

3-3. Input/Output Terminals : Ag plated pattern

4. Electrical specifications

No.	ITEM	SPECIFICATION	Typical data
4-1	Center Frequency (fo)	2326.25 MHz	2326.25 ±0.5MHz
4-2	Pass Bandwidth (BW)	fo +/- 6.25 MHz	12.5MHz ±0.5MHz
4-3	Insertion Loss (IL) at Center (fo)	4.5 dB Max	Avg 4.07 dB (fo)
4-4	Ripple in BW*	1.1 dB Max	Avg 0.93 dB
4-5	VSWR in BW	2.0 Max	Avg 1.14
4-6	**Attenuation (relative to atten. at fo)**		
	at 2175.0MHz (fo-151.25)	30.0 dBc Min	
	at 2227.0MHz (fo-99.25MHz)	15.0 dBc Min	Avg 31.2 dBc Min
	at 2336.25MHz (fo+10.0MHz)	2.5 dBc Min	Avg 2.7 dBc Min
	at 2341.25MHz (fo+15.0MHz)	8.5 dBc Min	Avg 8.9 dBc Min
	at 2400.0MHz (fo+73.75MHz)	12.0 dBc Min	
	at 2500.0MHz (fo+173.75MHz)	27.0 dBc Min	
	at 2700.0MHz (fo+373.75MHz)	40.0 dBc Min	
4-7	Input Power	1 Watt Max	1.5 Watt
4-8	Input/Output Nom. Impedance	50 ohms	
4-9	Operating Temperature Range	-40°C ~ +90°C	-40°C ~ +95°C
4-10	Test JIG	SMA JIG(7232)	

* Ripple Definition: (Peak max in BW)–(Peak min in BW)=1.0dB max

* dBc (Relative value) : (center)–(att) =8.5 dBc min

5. Reliability guarantee condition

The device satisfies the electrical characteristics specified in paragraph 4 after the following tests. And measurements should be done after putting in the typical condition (20~30 °C / 55~75 % RH) for 2 hours minimum.

5-1. Temperature Characteristics

The device satisfies the electrical characteristics specified in paragraph 4 at the temperature range of –40 °C ~ +90 °C.

5-2. Heat Proof

The device satisfies the electrical characteristics specified in paragraph 4 after exposed to the temperature 90 ± 2 °C for 96 hours.

5-3. Cold Proof

The device satisfies the electrical characteristics specified in paragraph 4 after exposed to the temperature –40 ± 2 °C for 96 hours.

5-4. Moisture Proof

The device satisfies the electrical characteristics specified in paragraph 4 after exposed to the temperature 40 ± 2 °C and the humidity 95 % RH for 96 hours.

5-5. Vibration

The device satisfies the electrical characteristics specified in paragraph 4 after applied to the vibration of 10 to 50 Hz with amplitude of 1.5 mm & sw of 1min for 2 hours each of x, y and z directions.

5-6. Drop Shock

The device satisfies the electrical characteristics specified in paragraph 4 after dropped onto the hard wooden board from the height of 50 cm for 3times toward each of x, y and z directions except the terminal direction.

5-7. Solder Heat Proof

The device satisfies the electrical characteristics specified in paragraph 4 after reflowed at 260 ± 5 °C for 10 ± 1 seconds.

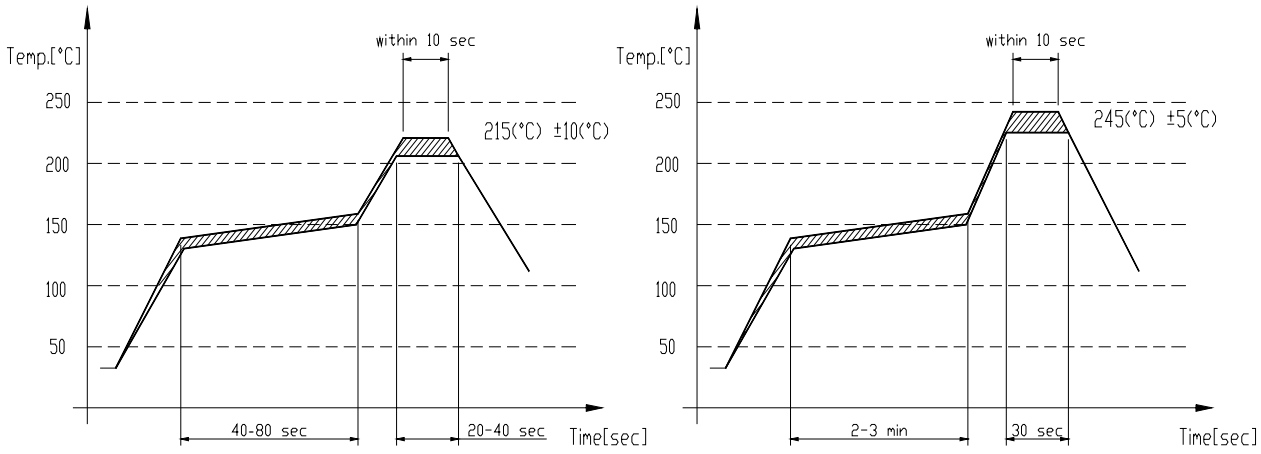
6. Soldering condition

The device satisfies the electrical characteristics specified in paragraph 4 after reflowed on the following condition.

6-1. Reflow Conditions.

	Profile for eutectic Sn/Pb solder paste	Profile for Pb-free solder paste	unit
□ Soldering type	Reflow	Reflow	
□ Maximum soldering temperature	235(max 2sec)	260(max 2sec)	□
	225(max 10sec)	250(max 10sec)	□

6-2. Recommended reflow soldering standard conditions (Example)



[Profile for SnPb] [Profile for Pb-free]

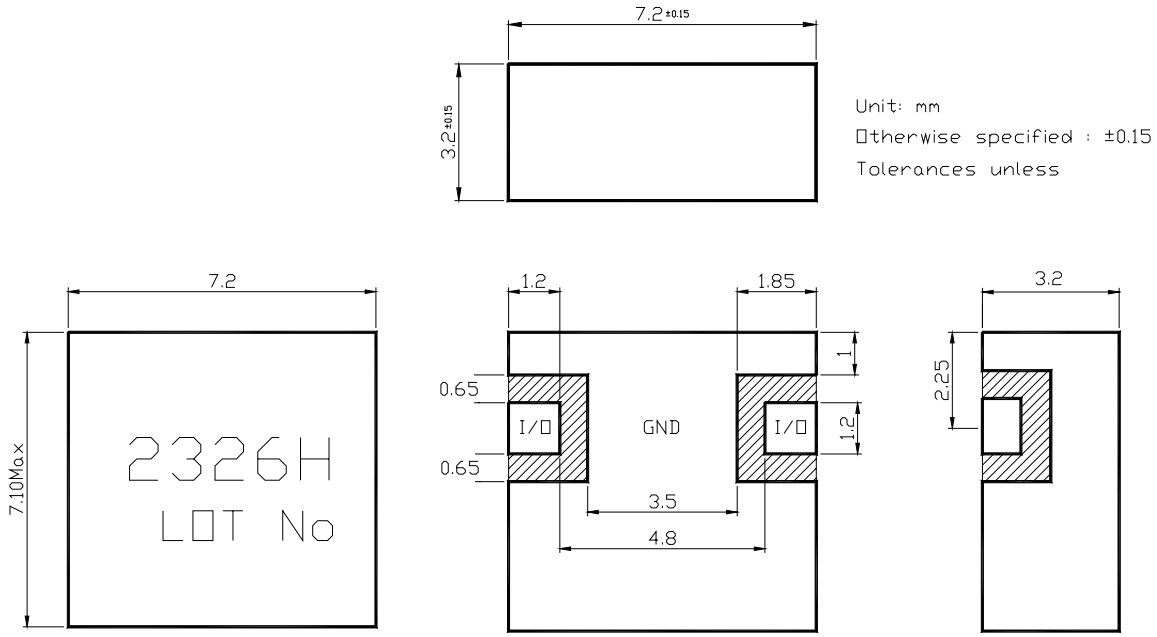
This product is designed for reflow soldering only. Do not use flow (wave) soldering.

① Use non-activated flux (Cl content 0.2% max.)

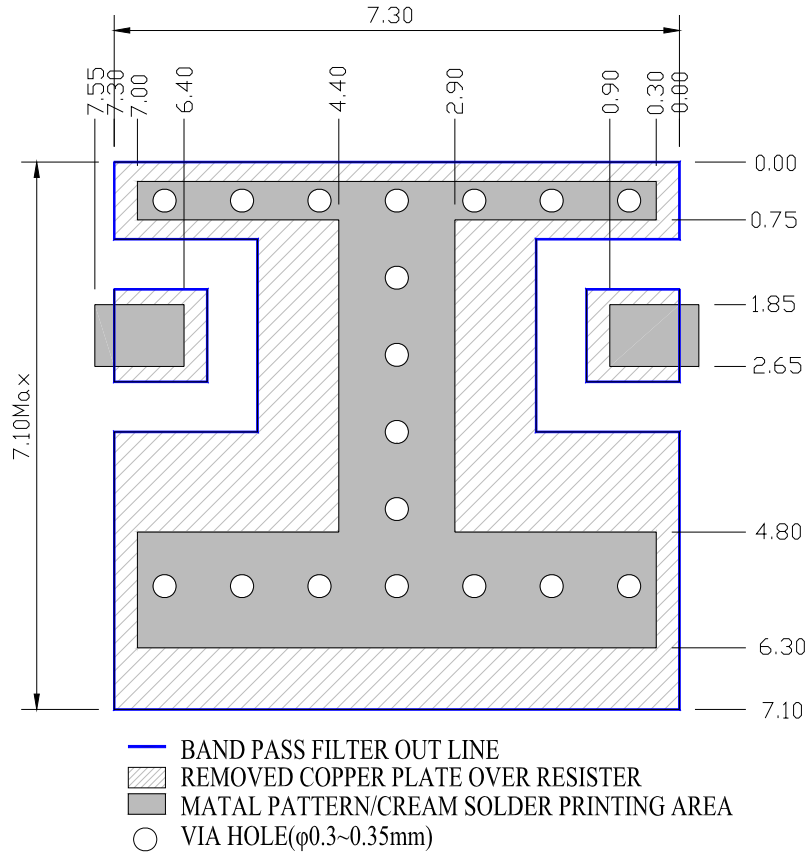
② Follow the recommended soldering conditions to avoid damage.

③ Reflow-cycle is max. 3 times.

7. Dimensions



8. Recommended PCB Footprint Layout



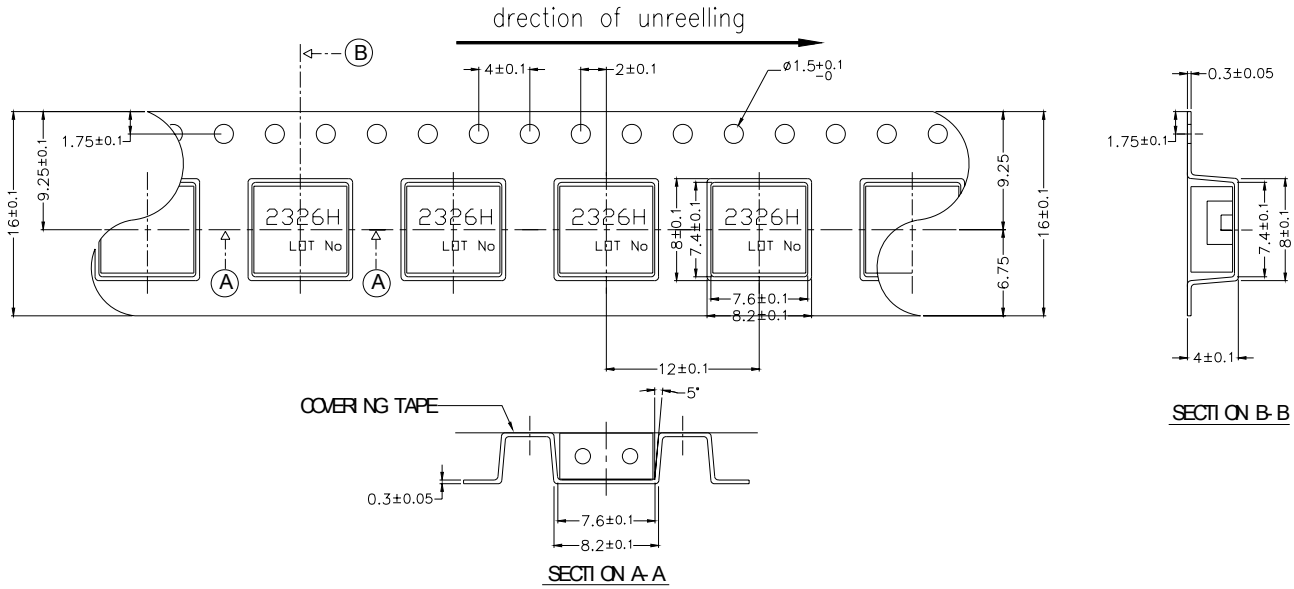
NOTICE.

- Line width should be designed to match 50ohm characteristic impedance, depending on PCB material and thickness
- Isolated distance between BPF and another RF device need to above 1.5mm(recommended distance)

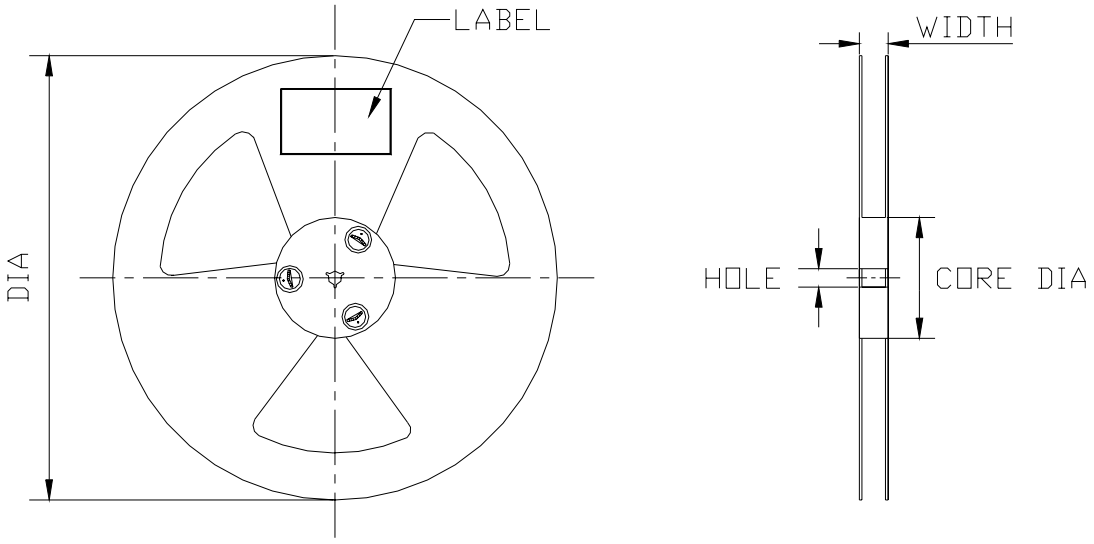
9. Packages.

9.1 Dimensions of Carrier Tape

- Taping Reel Packages Pieces / Tape : 1,500 Pcs. *** Reel**: diameter – 330mm



9.2 Dimensions of Reel

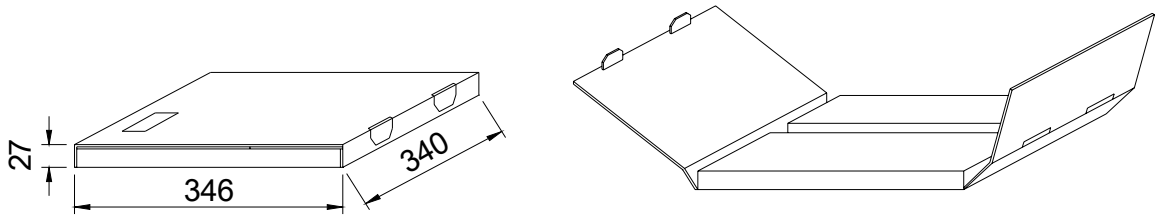


Item	DIA	WIDTH	CORE DIA	HOLE
Dimension(mm)	330 ± 0.3	21.5 ± 0.3	90.0 ± 1	13.7 ± 0.5

9.3 Packing BOX

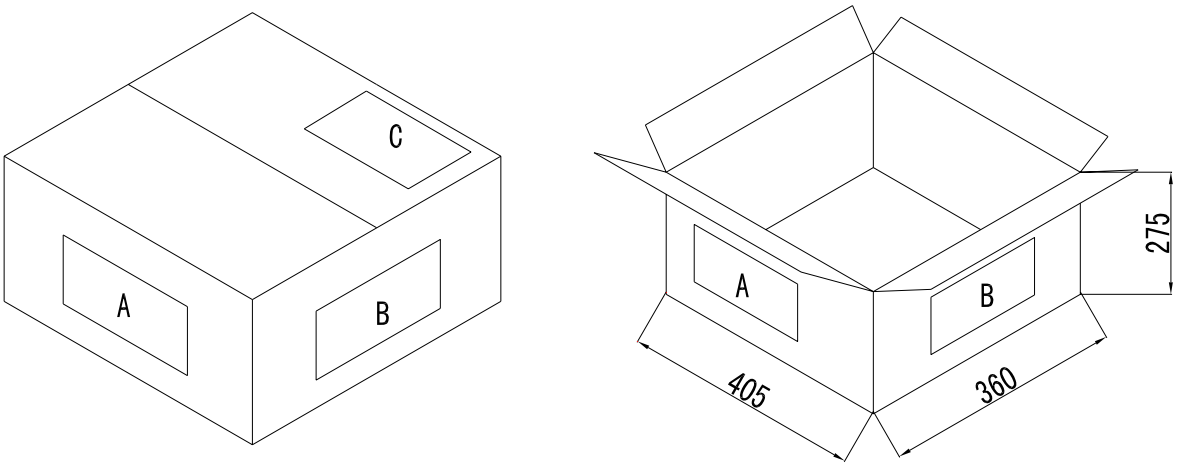
9.3.1) Inner Box

- Size : 346(w) x 340(D) x 27(H) (mm)
- Q'ty : 1 Reel (1,500ea/reel)



9.3.2) Outer Box :

- Size : 405(w) x 360(D) x 275(H) (mm)
- Q'ty : 4 Inner Box (1,500ea / Inner box x 8 Inner box = 12,000 ea)



A- MARKIMG
C- MARKIMG

B- MARKIMG
A- MARKIMG

C- MARKIMG
B- MARKIMG

Model :
Customer :
Quantity:
date:

AMOTECH
AMECS
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RoHS Compliance

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10. Caution

10-1. Storage environment must be at an ambient temperature of 0~35°C and an ambient humidity up to 60 % RH.

10-2. Avoid mechanical shock and drop to prevent cracking of the dielectric filters.

10-3. Use dielectric filters within 6 months. If over 6 months, check solderability before use.

10-4 Electrode metallization are unprotected silver and will tarnish during storage due to sulphuric compounds (namely H_2S) in the atmosphere and human skin contact also cause tarnishing. This has no effect whatsoever on the electrical performance of the filter. Because of this normal and to be expected process, AMOTECH accepts no warranty claims for tarnished products.

11. Typical performance curve

- S11 : Return Loss & S21 : Log mag