Control No.: ARP-4910300-G 1

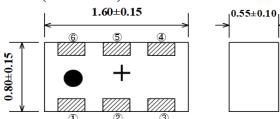
Issued on April 13, 2020

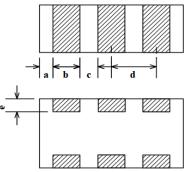
Application: 2.0GHz LPF

1. Type No.

HMD9103D-T

2. Dimension (Unit: mm)





RoHS Compliant Part

Terminal				
1)	GND			
2	Input			
3	GND			
4	GND			
(5)	Output			
6	GND			

Terminal Dimensions				
a	0.15 +/- 0.15			
b	0.30 +/- 0.10			
С	0.20 +/- 0.10			
d	0.50 +/- 0.10			
e	0.15 +/- 0.10			

3. Electrical characteristics

Pass band	Specification	Typical	Unit
fc (Center frequency)	1726.45	=	MHz
Pass band frequency	1427.9-2025	=	MHz
Nominal impedance	50	=	ohm
Insertion Loss in 1427.9~2025MHz at 25degC.	0.5 Max.	0.30	dB
Insertion Loss in 1427.9~2025MHz at -40 to +105degC.	0.7 Max.	0.50	dB
Return Loss in 1427.9~2025	16.0 Min.	18.6	dB
Ripple	0.40 Max.	0.12	dB

Attenuation				Specification	Typical	Unit	
4428.12	MHz	-	4450	MHz	20 Min.	48.38	dB
4450	MHz	-	4900	MHz	35 Min.	49.40	dB
4900	MHz	-	5925	MHz	40 Min.	49.10	dB
5925	MHz	-	12750	MHz	25 Min.	27.54	dB

	IP3			Specification	Typical	Unit
1427.9 MHz	-	2025	MHz	45 Min.	49.61	dBm

4. Note

4.1 Operating Temperature Range

4.2 Storage Temperature Range

4.3 Standard Reel Quantity

: -40 to +105 deg C.

: -40 to +85 deg C. (goods alone)

: -20 to +35 deg C. (In a Taping Package)

: 3,000 pcs (per reel, per bag)

Approved by	Confirmed by	Raised by
Y.Mizutani	Y.Imai	G.Nishio

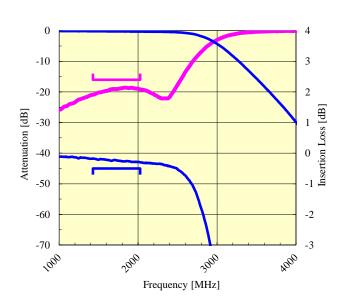
Control No.: ARP-4910300-G 2

Issued on April 13, 2020

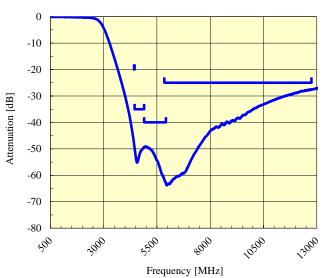
5.Representative characterirsics

Measured

Pass Band Frequency Response



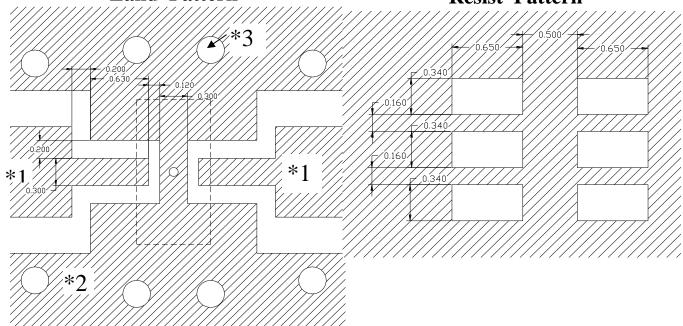
Broad Band Frequency Response



6.Recommended land pattern (Unit:mm)



*Resist Pattern



- *1 50 ohm Impedance Line
- *2 Ground Plane
- *3 Thorough Hole

Control No.: ARP-4910300-G 3

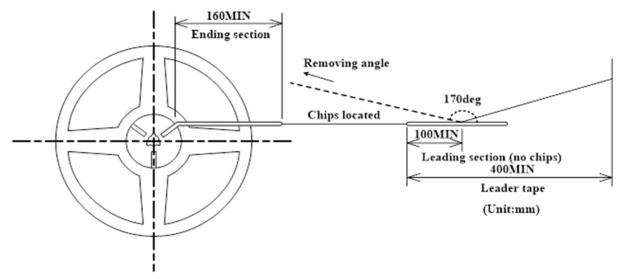
Issued on April 13, 2020

7. Packing method

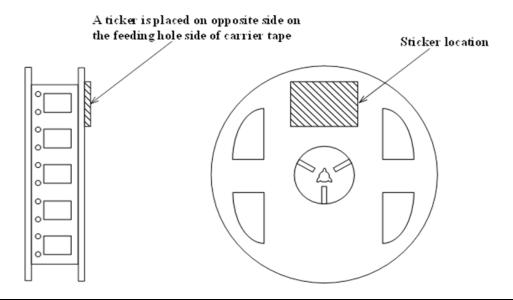
7.1 Taping conditions

Taping conditions are shown below. Refer to IEC60286-3

- (1) Tape must be wound clockwise with the feeding hole coming to the right hand side.
- (2)Top cover tape must not cover feeding holes of carrier tape and/or show out of carrier tape.
- (3) A blank section carrying no chips of a length of 160mm min. on ending section and 100mm min. on leading section must be provided.
- (4) A leading section of 400mm min. must be provided on top cover tape.



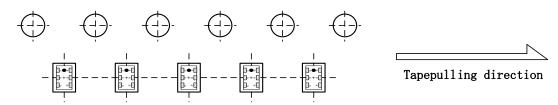
- (5) To end tape winding, the leading section of top cover tape must be stuck on a side of a reel with adhesive tape.
- (6) Removing force of top cover tape in the unwinding with an angle of 170 degrees between the removed side of a reel and carrier tape must be 0.1 to 1.0N.
- (7) When the embossed tape is turned upside down with the sealing tape peeled off, the filter body inside of the tape must fall off and the mounter must not cause a take-up mistake.
- (8) A sticker carrying Soshin product №, quantity, lot №, inspection date is to be placed on the specified side of reels. And Lot No. means our production control number. The shipment records are available if requested.



Control No.: ARP-4910300-G 4

Issued on April 13, 2020

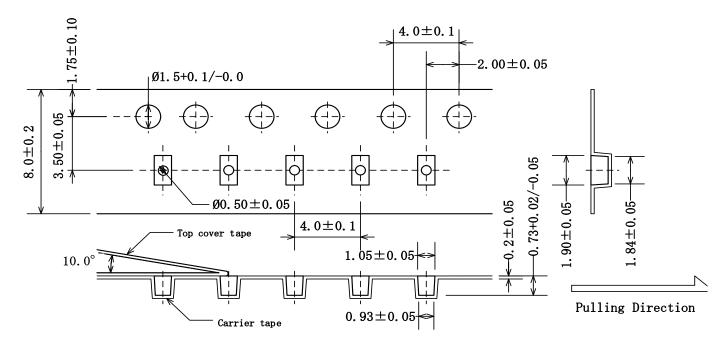
(9) Product orientation must be consistent. Products must not be positioned out of the mounting location.



- (10) A taping reel must be sealed in a plastic bag, individually.
- (11) Tape-packaged quantity

The quantity is 3,000 pcs per single tape-package as a rule.

7.2 Dimensions of the carrier tape (Unit: mm)



7.3 Carrier tape reel dimensions (Unit: mm)

