

Multilayer LPF+Balun For Bluetooth Low Energy

HHM Series 1.0x0.5mm [EIA 0402] TYPE



DEA102500LT-9052A1

SHAPES AND DIMENSIONS







[Bottom View]



Dimensions (mm)

	1010110	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
L	W	Т	а	b	С	d
1.00	0.50	0.40	0.10	0.30	0.20	0.12
+/-0.05	+/-0.05	Max	+/-0.10	+/-0.10	+/-0.10	+/-0.10

Terminal functions

(1)	GND		
(2)	Unbalanced Port		
(3)	Balanced Port		
(4)	Balanced Port		

TEMPERATURE RANGE

TERMINATION FINISH

Operating temperatureStorage temperature-40 to +85 °C-40 to +85 °C

Material Sn plate

ØTDK

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ELECTRICAL CHARACTERISTICS

(Measurement)

50

15.1

178.0

0.57

0.62

2500

2500

2500

170

-1.5

-

_

-

190

1.5

0.90

80.0

In-band specifications **TDK Spec Parameter** Frequency (MHz) Min. Typ. Max. Unbalanced Port 2360 to 2500 Characteristic Impedance Balanced Port Match to NXP 2360 to 2500 Characteristic Impedance NxH2003 10 Return Loss (dB) 2360 to 2500

Insertion Loss (dB) Power Handling (W)

Phase Balance (deg.)

Amplitude Balance (dB)

Ta = +25+/-5°C

Out of band specifications

Parameter	Frequency (MHz)		TDK Spec			
Farameter				Min.	Тур.	Max.
Differential mlde impedance (ohm)					100	
Common mode impedance (ohm)					25	
Differential mode attenuation (dB)	4800	to	5000	5	8.4	-
Common mode attenuation (dB)	4800	to	5000	20	24.7	-
Differential mode attenuation (dB)	7200	to	7500	15	25.9	-
Common mode attenuation (dB)	7200	to	7500	5	14.7	-
Differential mode attenuation (dB)	9600	to	10000	5	26.7	-
Common mode attenuation (dB)	9600	to	10000	10	18.0	-

2360

2360

2360

to

to

to

FREQUENCY CHARACTERISTICS

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Return Loss



RF Components



Insertion Loss







Differential Mode



Common Mode



Aug. 2016 Ver.1.1 **TDK Corporation**

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RECOMMENDED LAND PATTERN



EVALUATLENT CIRCUIT



ENVIRONMENT INFORMATION

RoHS Statement RoHS Compliance

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RECOMMENDED REFLOW PROFILE

Pb free solder



	Soaking		Working		Soldering		Peak
Tei	mp.	Time	Temp.	Time	Temp. Time		Temp.
T1	T2	t1	Т3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.

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PACKAGING ■-1. Carrier Tape Sprocket hole J Κ ← E А Ω C t Η G F Unit:mm В F κ С D Е G Н J t А 0.62 1.12 8.0 3.5 1.75 2.0 2.0 4.0 1.5 0.48 0.25 +/-0.1 +/-0.05 +/-0.05 +/-0.2 +/-0.05 +/-0.05 +/-0.05 +/-0.05 +0.1/-0 MAX +/-0.05 ■-2. Reel Dimensions 13.0+/-1.0 Label 2.0 + - 0.560+1.0/-0 Label 21+/-0.8 180 +0/-1.5 Unit : mm 9.0 +1.0/-0

-3. Standard Reel Packaging quantities

STANDARD PACKAGE QUANTITY
(pieces/reel)
10,000

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

The products listed on this specification sheet are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet.

- 1. Aerospace/Aviation equipment
- 2. Transportation equipment (cars, electric trains, ships, etc.)
- 3. Medical equipment
- 4. Power-generation control equipment
- 5. Atomic energy-related equipment
- 6. Seabed equipment
- 7. Transportation control equipment
- 8. Public information-processing equipment
- 9. Military equipment
- 10. Electric heating apparatus, burning equipment
- 11. Disaster prevention/crime prevention equipment
- 12. Safety equipment
- 13. Other applications that are not considered general-purpose applications

When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc., to ensure higher safety.