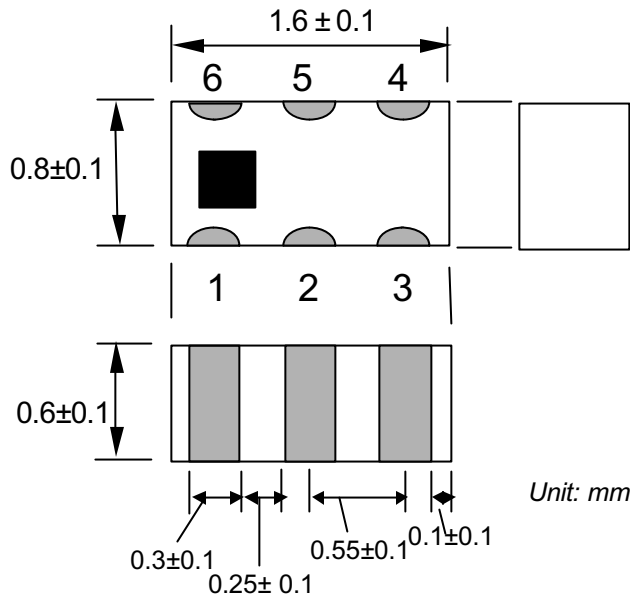


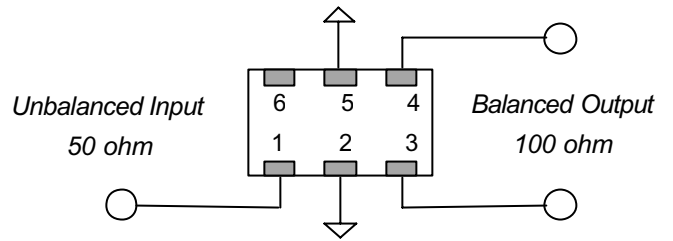
**MULTILAYER BALUN SPECIFICATION**  
 PIN: **HHM1711D1** For Bluetooth & IEEE802.11b/g

**[MECHANICAL DIMENSIONS]**



**Pin configuration**

- 1. Unbalanced Port
- 2. GND or DC feed+ RF GND
- 3. Balanced Port
- 4. Balanced Port
- 5. GND
- 6. N.C.



**[ELECTRICAL CHARACTERISTICS]**

Unbalanced Impedance	50 ohm
Balanced Impedance	100 ohm
Frequency Range	2400 – 2500 MHz
Unbalanced Port Return Loss	10dB min.
Phase Imbalance at Balanced Port	180 ± 10 deg
Amplitude Imbalance at Balanced Port	0 ± 2.0 dB
Insertion Loss	1.2 dB Max.

**[TEMPERATURE RANGE]**

Storage Temperature	-40°C ~ +85°C
Operating Temperature	-40°C ~ +85°C

**[STANDARD PACKAGING QUANTITIES]**

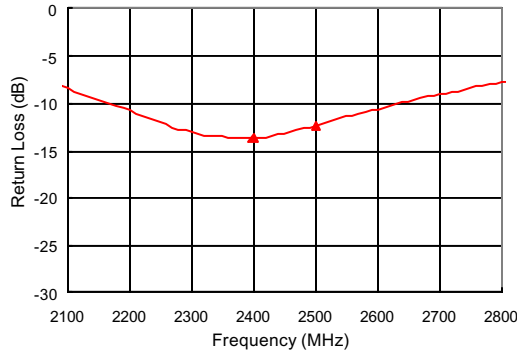
4000pcs. /reel

# PRELIMINARY

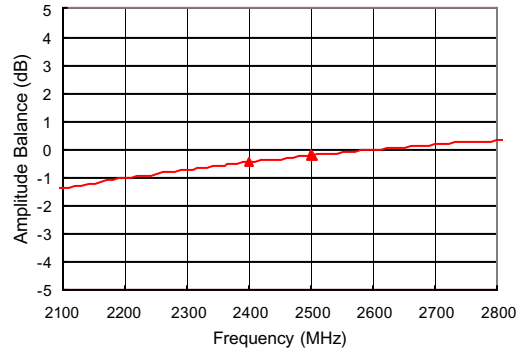
## [ Frequency response ]

HHM1711D1(UNBALANCE 50ohm/BALANCE 100ohm)  
Return Loss

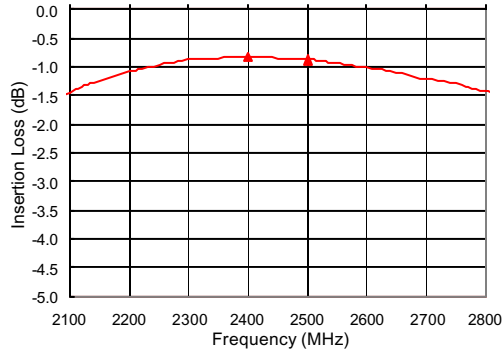
TDK Corporation



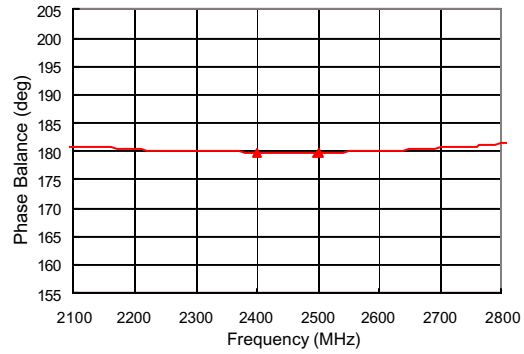
Amplitude Balance



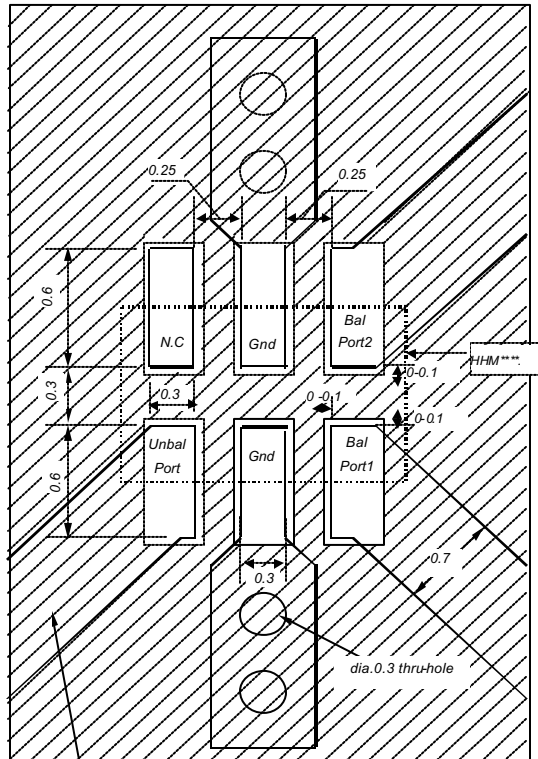
Insertion Loss



Phase Balance



## [ Recommended PCB Pattern ]



This width is 50ohm.  
Micro-strin line for 0.4mm thick glass-epoxy substrate

Note: The above PRELIMINARY data are not guaranteed, and are subject to change without notice.