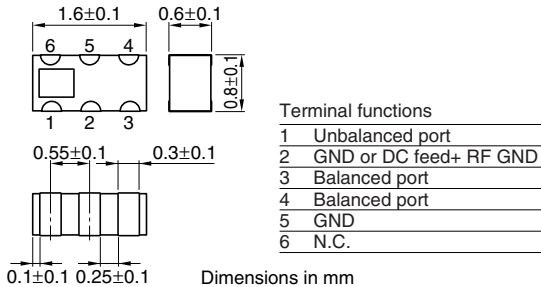


Multilayer Chip Baluns For Bluetooth & 2.4GHz W-LAN

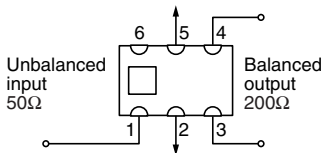
Conformity to RoHS Directive

HHM Series HHM1713E2

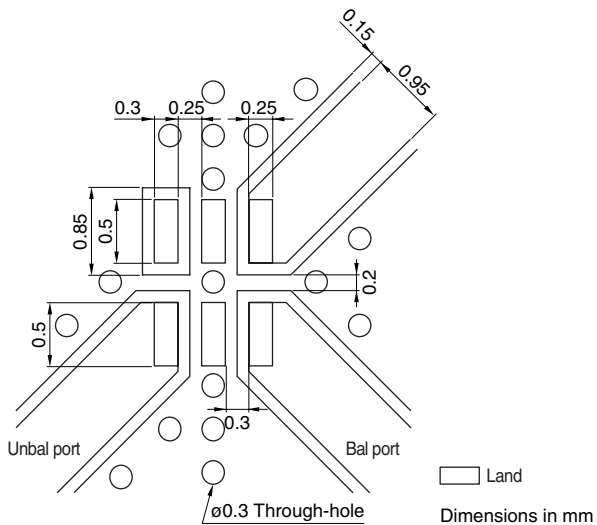
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



Line width be designed to match 50Ω characteristic impedance depending on PCB material and thickness.

ELECTRICAL CHARACTERISTICS

Unbalanced impedance	50Ω	
Balanced impedance	200Ω	
Frequency range	2400 to 2500MHz	
Unbalanced port return loss	10dB min.	
Phase imbalance at balanced port	180±10deg.	
Amplitude imbalance at balanced port	0±1.7dB	
Insertion loss	1.2dB max.	
Temperature range	Operating	-40 to +85°C
	Storage	-40 to +85°C
Packaging style and quantities	4000pieces/reel	

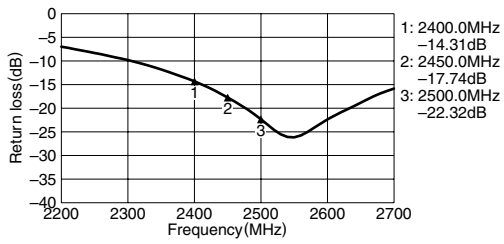
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

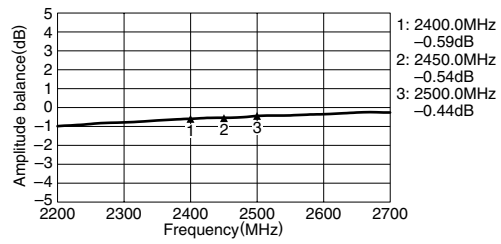
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 200Ω

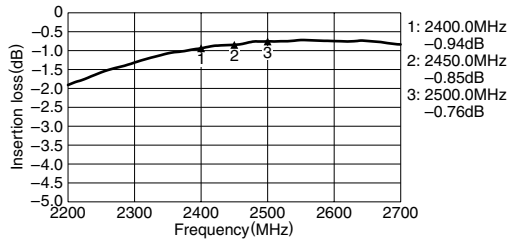
RETURN LOSS



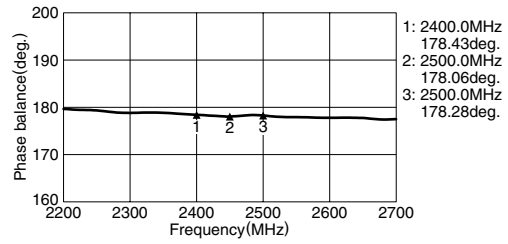
AMPLITUDE BALANCE



INSERTION LOSS



PHASE BALANCE



• All specifications are subject to change without notice.