Multilayer Balun Transformers

For UWB

HHM Series

Type: **HHM1583B1 (2.0×1.25×0.95mm)**
HHM1595A1 (2.0×1.25×0.95mm)
HHM1596A1 (2.0×1.25×0.95mm)

Issue date: December 2010

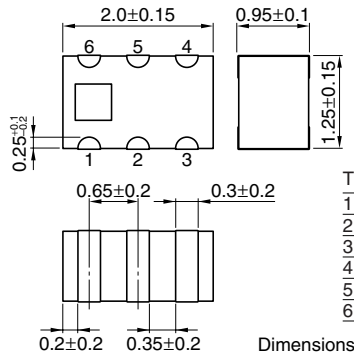
- All specifications are subject to change without notice.
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

Multilayer Chip Baluns For UWB

Conformity to RoHS Directive

HHM Series HHM1583B1

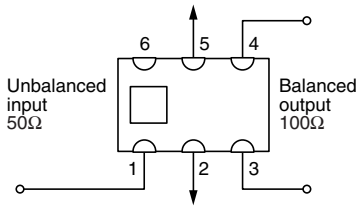
SHAPES AND DIMENSIONS



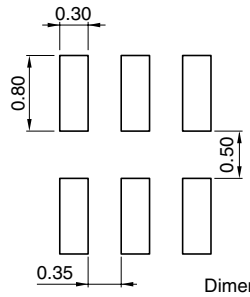
Terminal functions	
1	Unbalanced port
2	GND or DC feed+ RF GND
3	Balanced port
4	Balanced port
5	GND
6	N.C.

Dimensions in mm

CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



Dimensions in mm

ELECTRICAL CHARACTERISTICS

Unbalanced impedance		50Ω
Balanced impedance		100Ω
Frequency range		3100 to 4900MHz
Unbalanced port return loss		10.0dB min.
Phase imbalance at balanced port		180±10deg.
Amplitude imbalance at balanced port		0±1.5dB
Insertion loss		1.0dB max.
Temperature range	Operating	–40 to +85°C
	Storage	–40 to +85°C
Packaging style and quantities		2000pieces/reel

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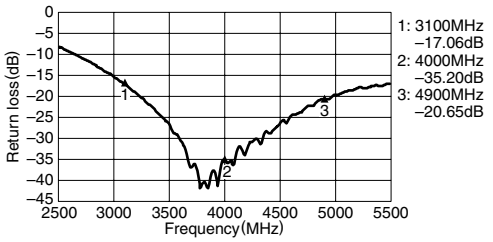
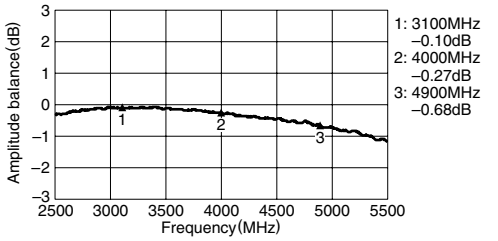
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 100Ω

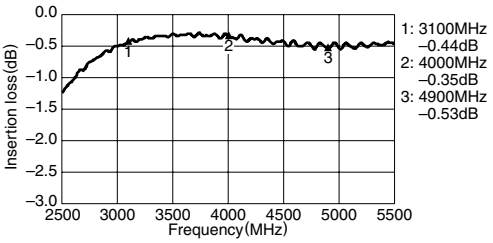
RETURN LOSS



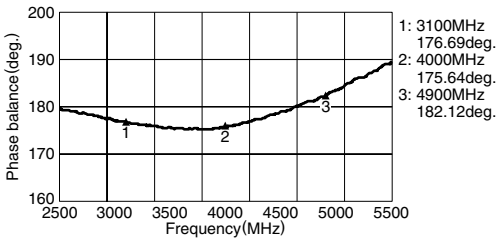
AMPLITUDE BALANCE



INSERTION LOSS



PHASE BALANCE

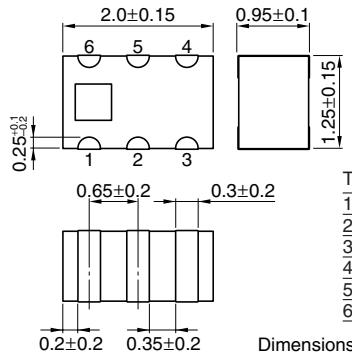


Multilayer Chip Baluns For UWB

Conformity to RoHS Directive

HHM Series HHM1595A1

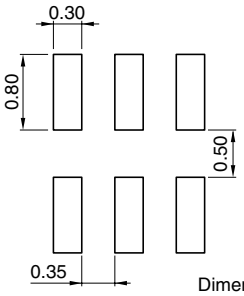
SHAPES AND DIMENSIONS



Terminal functions	
1	Unbalanced port
2	GND
3	Balanced port
4	Balanced port
5	GND
6	N.C.

Dimensions in mm

RECOMMENDED PC BOARD PATTERNS



Dimensions in mm

ELECTRICAL CHARACTERISTICS

Unbalanced impedance		50Ω
Balanced impedance		100Ω
Frequency range		3000 to 8000MHz
Unbalanced port return loss		8.0dB min.
Phase imbalance at balanced port		180±20deg.
Amplitude imbalance at balanced port		0±2.5dB
Insertion loss		1.5dB max.
Temperature range	Operating	–40 to +85°C
	Storage	–40 to +85°C
Packaging style and quantities		2000pieces/reel

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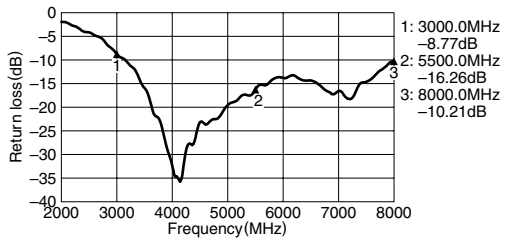
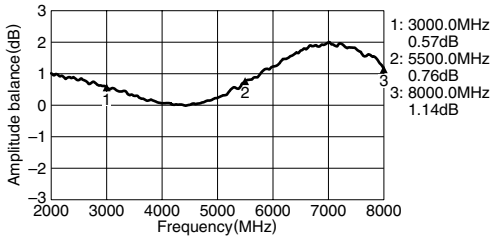
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 100Ω

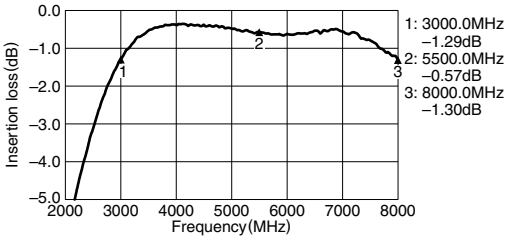
RETURN LOSS



AMPLITUDE BALANCE



INSERTION LOSS



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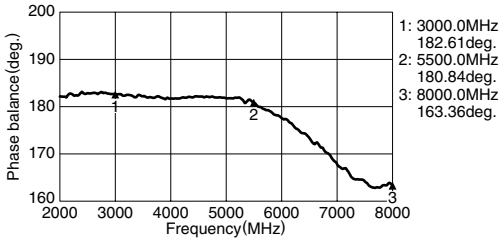
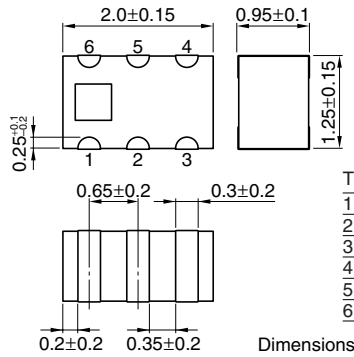


Multilayer Chip Baluns For UWB

Conformity to RoHS Directive

HHM Series HHM1596A1

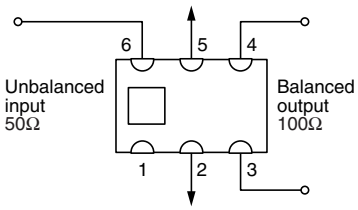
SHAPES AND DIMENSIONS



Terminal functions	
1	N.C.
2	GND
3	Balanced port
4	Balanced port
5	GND or DC feed+ RF GND
6	Unbalanced port

Dimensions in mm

CIRCUIT DIAGRAM



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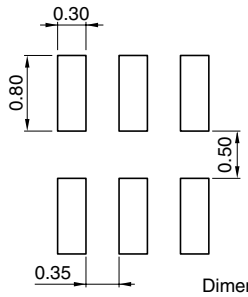

Dimensions in mm

ELECTRICAL CHARACTERISTICS

Unbalanced impedance		50Ω
Balanced impedance		100Ω
Frequency range		3100 to 4900MHz
Unbalanced port return loss		10dB min.
Phase imbalance at balanced port		180±15deg.
Amplitude imbalance at balanced port		0±2.0dB
Insertion loss		1.0dB max.
Temperature range	Operating	–40 to +85°C
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Packaging style and quantities		2000pieces/reel

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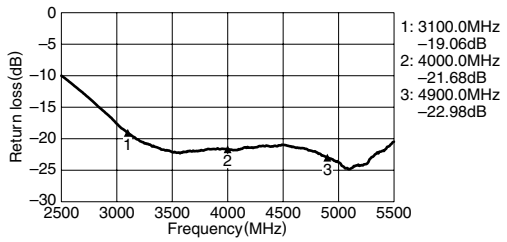
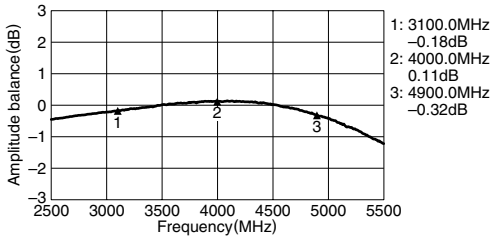
Unbalance 50Ω/Balance 100Ω

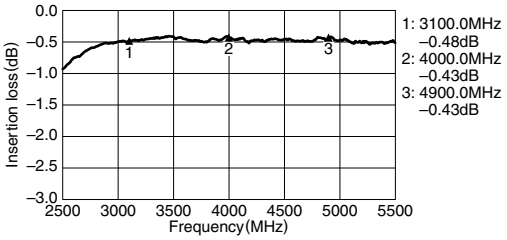
RETURN LOSS



AMPLITUDE BALANCE



INSERTION LOSS



PHASE BALANCE