

Multilayer Balun Transformers

For WiMAX

HHM Series

Type: **HHM1710J1 (1.6×0.8×0.6mm)**
 HHM1711E1 (1.6×0.8×0.6mm)
 HHM1727D1 (1.6×0.8×0.6mm)
 HHM1715E1 (1.6×0.8×0.6mm)

Issue date: December 2010

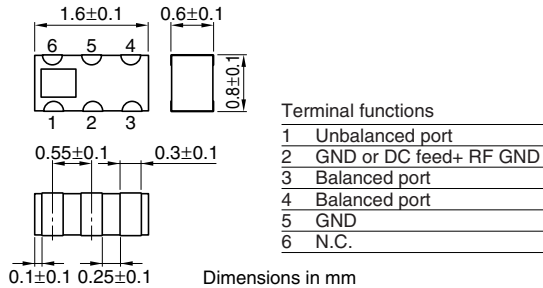
- All specifications are subject to change without notice.
 - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.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

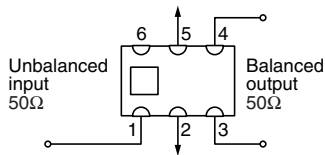
Conformity to RoHS Directive

HHM Series HHM1710J1

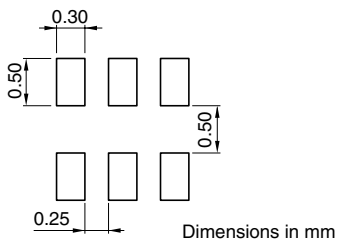
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



ELECTRICAL CHARACTERISTICS

Unbalanced impedance		50Ω
Balanced impedance		50Ω
Frequency range		2300 to 2700MHz
Unbalanced port return loss		10dB min.
Phase imbalance at balanced port		180±10deg.
Amplitude imbalance at balanced port		0±1.5dB
Insertion loss		1.2dB max.
Attenuation	[800 to 960MHz]	6dB min.
	[1700 to 1900MHz]	1dB min.
	[1900 to 1980MHz]	1dB min.
Power capacity		0.5W max.
Temperature range	Operating	−40 to +85°C
	Storage	−40 to +85°C
Packaging style and quantities		4000pieces/reel

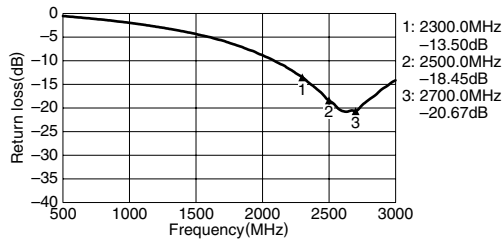
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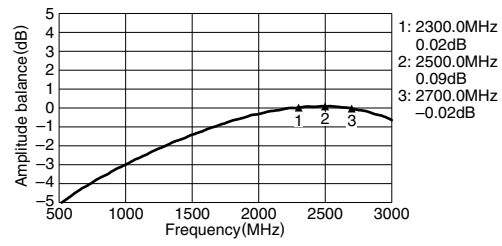
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/ Balance 50Ω

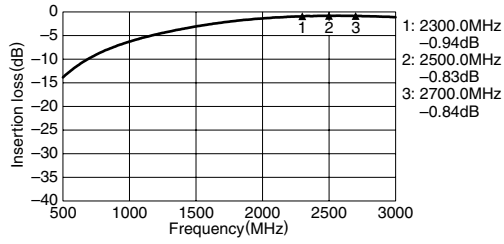
RETURN LOSS



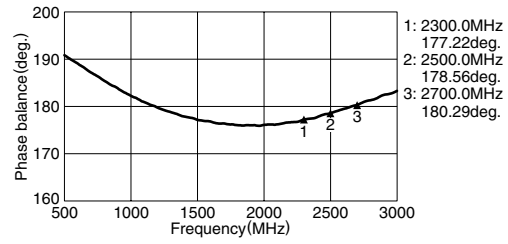
AMPLITUDE BALANCE



INSERTION LOSS



PHASE BALANCE

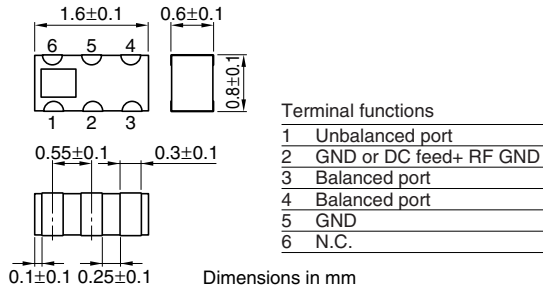


Multilayer Chip Baluns For WiMAX

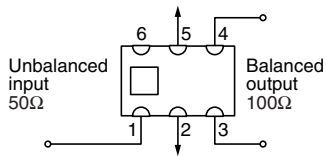
Conformity to RoHS Directive

HHM Series HHM1711E1

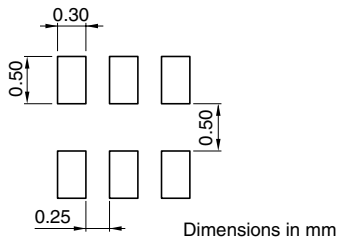
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



ELECTRICAL CHARACTERISTICS

Unbalanced impedance	50Ω
Balanced impedance	100Ω
Frequency range	2300 to 2700MHz
Unbalanced port return loss	10dB min.
Phase imbalance at balanced port	180±12deg.
Amplitude imbalance at balanced port	0±1.5dB
Insertion loss	1.2dB max.
Power capacity	0.5W max.
Temperature range	Operating: -40 to +85°C
	Storage: -40 to +85°C
Packaging style and quantities	4000pieces/reel

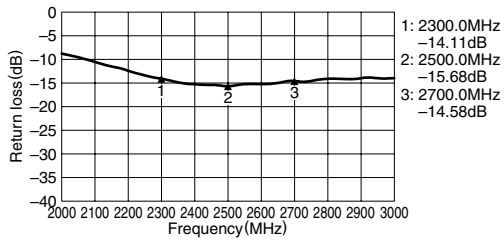
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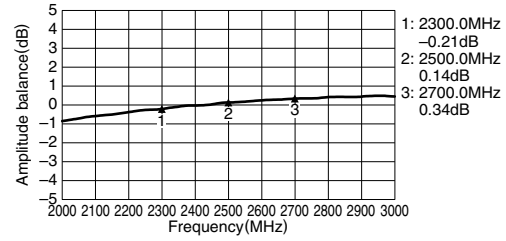
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 100Ω

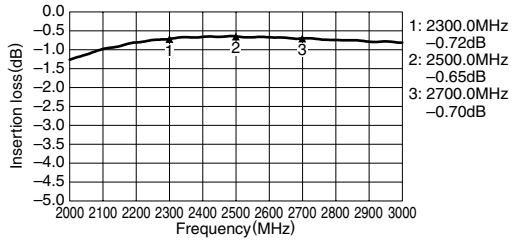
RETURN LOSS



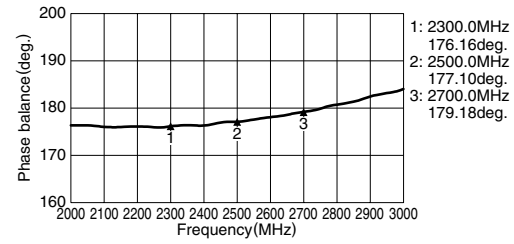
AMPLITUDE BALANCE



INSERTION LOSS



PHASE BALANCE

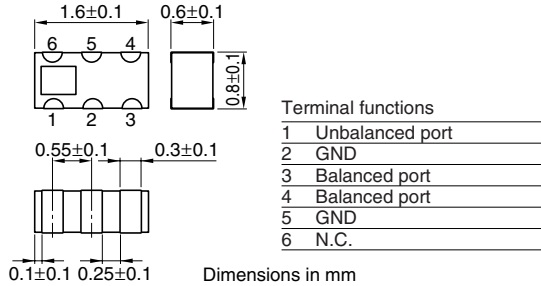


Multilayer Chip Baluns For WiMAX

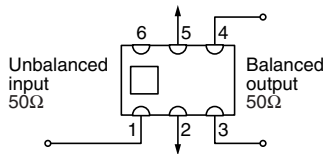
Conformity to RoHS Directive

HHM Series HHM1727D1

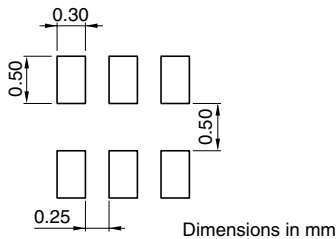
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



ELECTRICAL CHARACTERISTICS

Unbalanced impedance		50Ω
Balanced impedance		50Ω
Frequency range		3300 to 3900MHz
Unbalanced port return loss		10dB min.
Phase imbalance at balanced port		180±15deg.
Amplitude imbalance at balanced port		0±1.5dB
Insertion loss		1.2dB
Attenuation	[800 to 960MHz]	11dB min.
	[1700 to 1900MHz]	4dB min.
	[1900 to 1980MHz]	3.5dB min.(4dB typ.)
Power capacity		0.5W max.
Temperature range	Operating	-40 to +85°C
	Storage	-40 to +85°C
Packaging style and quantities		4000pieces/reel

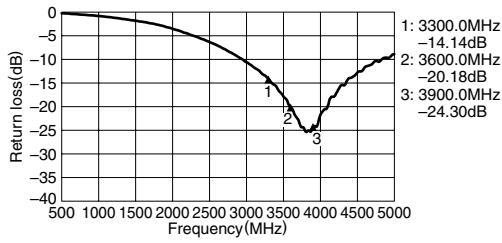
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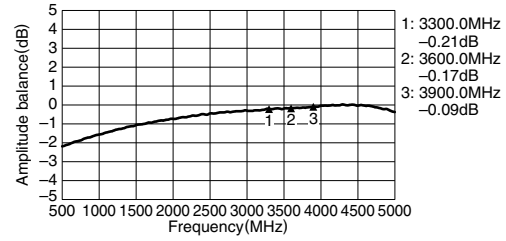
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 50Ω

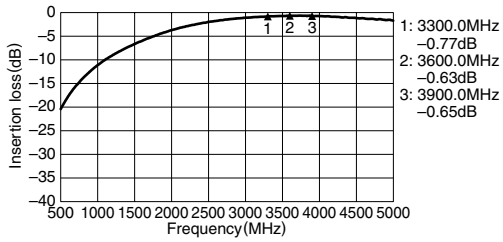
RETURN LOSS



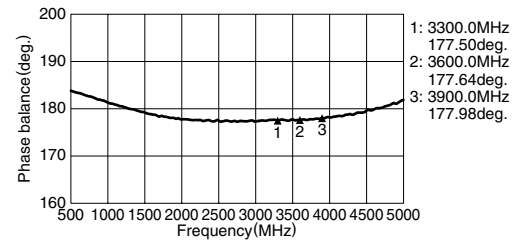
AMPLITUDE BALANCE



INSERTION LOSS



PHASE BALANCE

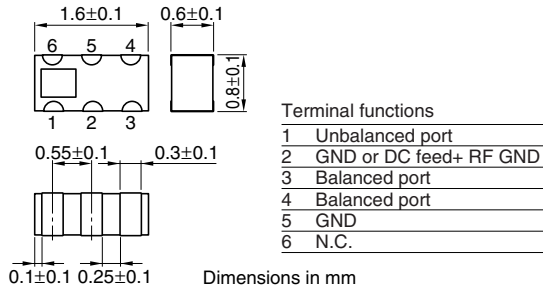


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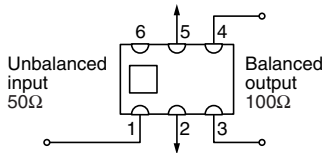
Conformity to RoHS Directive

HHM Series HHM1715E1

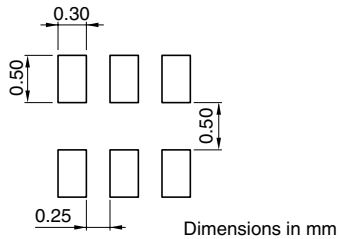
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



ELECTRICAL CHARACTERISTICS

Unbalanced impedance	50Ω
Balanced impedance	100Ω
Frequency range	3300 to 3900MHz
Unbalanced port return loss	10dB min.
Phase imbalance at balanced port	180±15deg.
Amplitude imbalance at balanced port	0±1.2dB
Insertion loss	1.0dB max.
Power capacity	0.5W max.
Temperature range	Operating -40 to +85°C
	Storage -40 to +85°C
Packaging style and quantities	4000pieces/reel

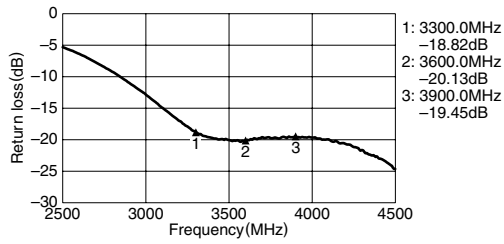
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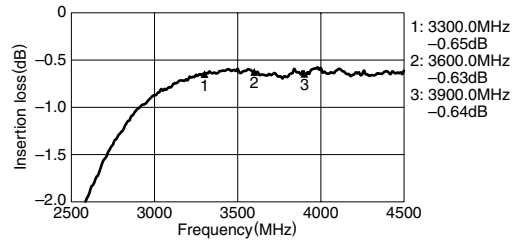
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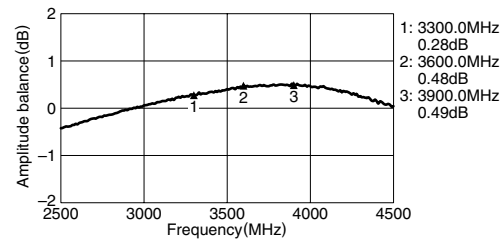
RETURN LOSS



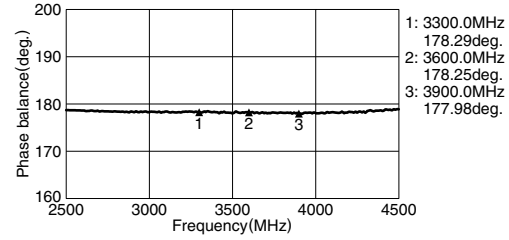
INSERTION LOSS



AMPLITUDE BALANCE



PHASE BALANCE



AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

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