Multilayer Directional Couplers

For DCS Tx

HHM Series

Type: **HHM2204SA1 (1.6×0.8×0.6mm)**
HHM2209SA1 (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.

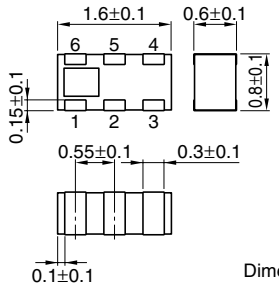
TDK

Multilayer Chip Directional Couplers For DCS/Tx

Conformity to RoHS Directive

HHM Series HHM2204SA1

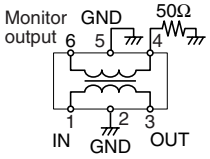
SHAPES AND DIMENSIONS



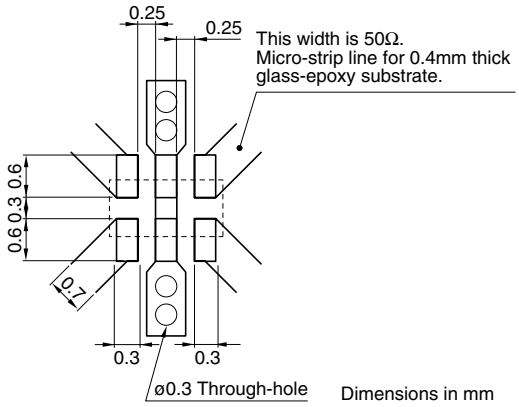
Terminal functions	
1	Input
2	GND
3	Output
4	50Ω load
5	GND
6	Monitor output

Dimensions in mm

CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



Dimensions in mm

ELECTRICAL CHARACTERISTICS

Frequency range		1710 to 1785MHz
Coupling factor		15.0±1.0dB
Insertion loss		0.30dB max.*1
		0.35dB max.*2
Isolation		25dB min.
VSWR		1.3 max.
Temperature range	Operating	–40 to +85°C
	Storage	–40 to +85°C

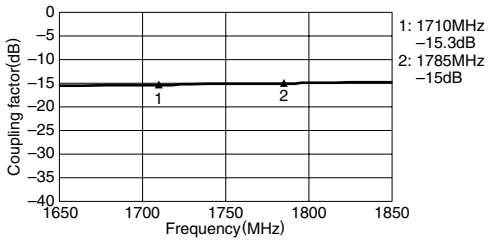
*1 25°C

*2 Operating temperature

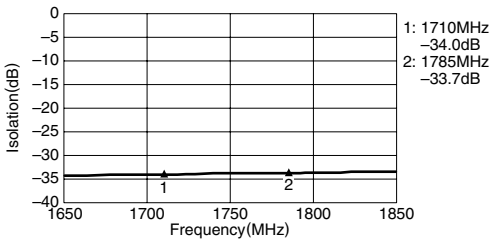
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

FREQUENCY CHARACTERISTICS

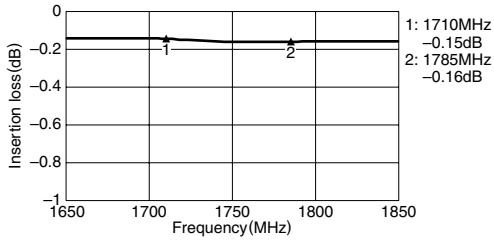
COUPLING



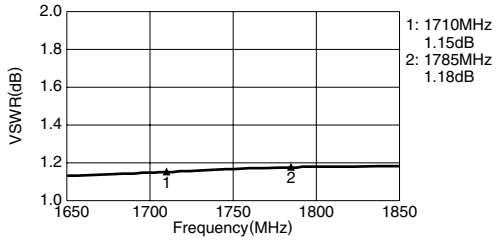
ISOLATION



INSERTION LOSS



VSWR

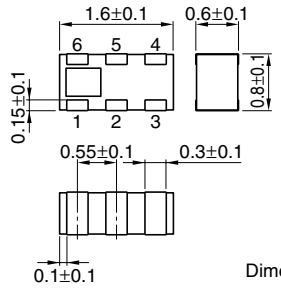


Multilayer Chip Directional Couplers For DCS/Tx

Conformity to RoHS Directive

HHM Series HHM2209SA1

SHAPES AND DIMENSIONS



Terminal functions	
1	Input
2	GND
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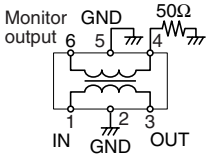
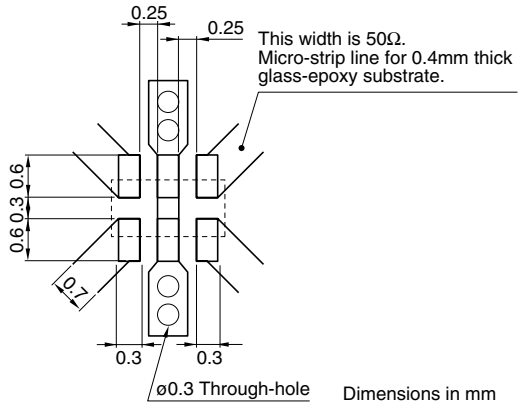
Dimensions in mm

CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



Dimensions in mm

ELECTRICAL CHARACTERISTICS

Frequency range		1710 to 1785MHz
Coupling factor		12.0±1.0dB
Insertion loss		0.55dB max.*1
		0.60dB max.*2
Isolation		20dB min.
VSWR		1.3 max.
Temperature range	Operating	–40 to +85°C
	Storage	–40 to +85°C

*1 25°C
*2 Operating temperature

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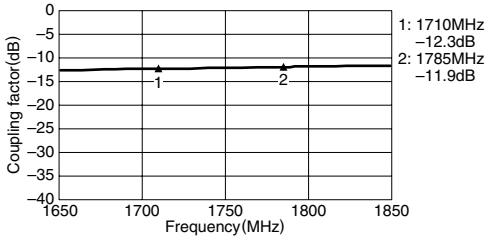
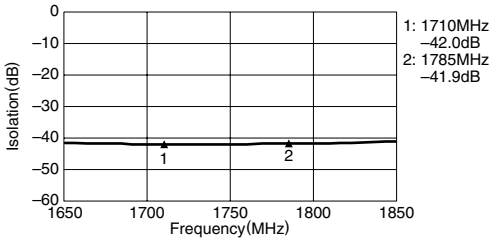
FREQUENCY CHARACTERISTICS

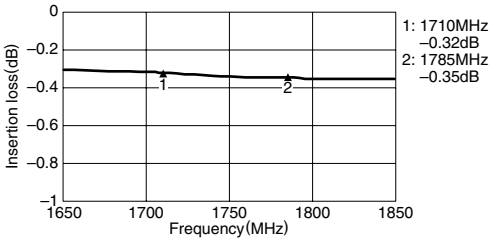
COUPLING



ISOLATION



INSERTION LOSS



VSWR