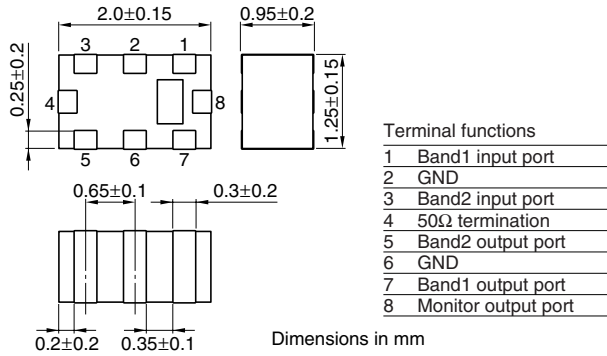


Multilayer Chip Dual-Band Directional Couplers For GSM/DCS-Tx

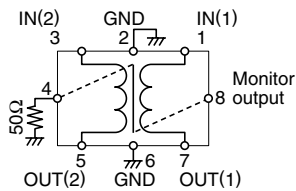
Conformity to RoHS Directive

HHM Series HHM2304C1

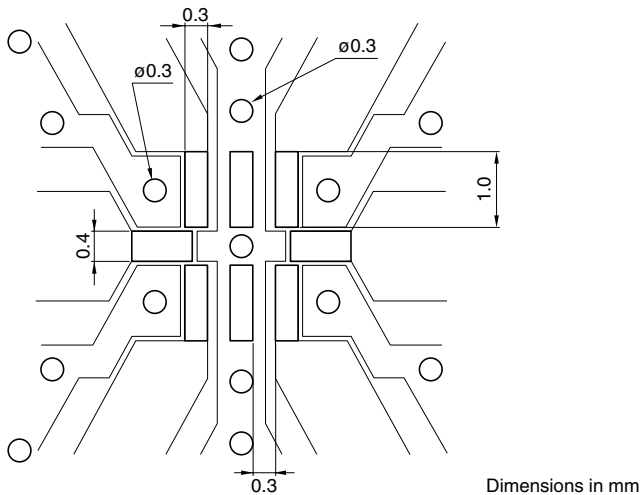
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



This width is 50Ω.
CPW for 0.6mm thick Teflon substrate.

- 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.

ELECTRICAL CHARACTERISTICS

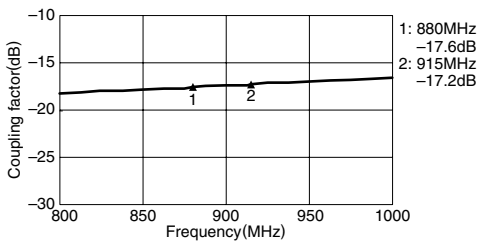
Band		1	2
System		GSM	DCS
Frequency range	(MHz)	880 to 915	1710 to 1785
Coupling factor	(dB)	17.5±1.0	15.5±1.0
Insertion loss	(dB)max.	0.30	0.45
Isolation*	IN ₁ -OUT ₂	(dB)min.	30
	IN ₂ -OUT ₁	(dB)min.	25
	IN ₁ -IN ₂	(dB)min.	25
	IN-Load	(dB)min.	23
VSWR	max.	1.3	1.3
Temperature range	Operating	(°C)	-40 to +85
	Storage	(°C)	-40 to +85

* Isolation between opposite bands is specified over the frequency ranges of both bands.
Isolation in-band is specified over the frequency of the band in frequency.

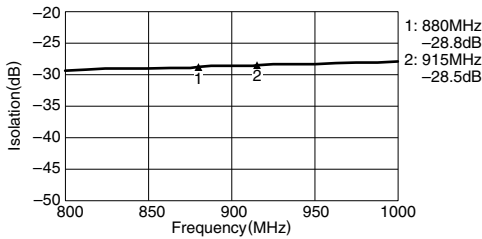
FREQUENCY CHARACTERISTICS

GSM900

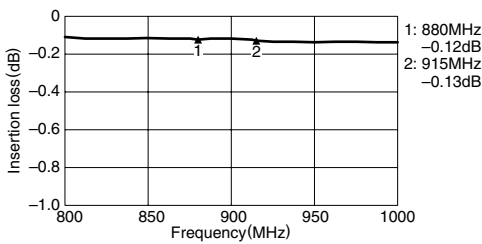
COUPLING



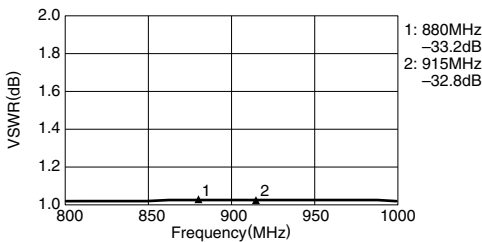
ISOLATION



INSERTION LOSS

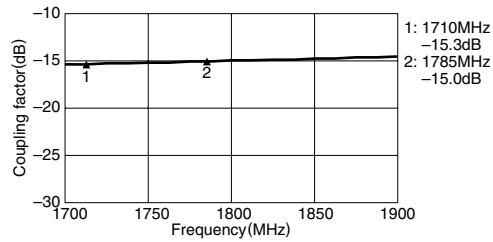


VSWR

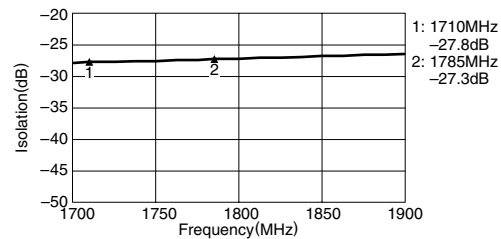


DCS1800

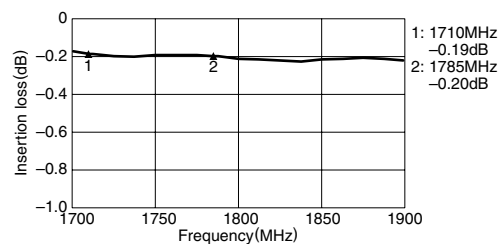
COUPLING



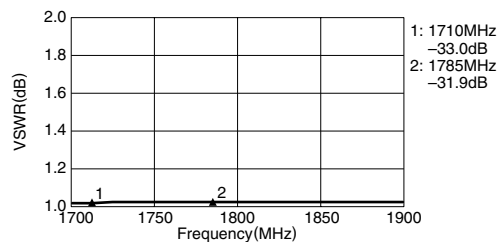
ISOLATION



INSERTION LOSS



VSWR



• All specifications are subject to change without notice.