

Multilayer Diplexers

For WCDMA800/1900/2000

DPX Series

Type: **DPX202170DT-4021A1 (2.0×1.25×0.95mm)**
 DPX202170DT-4121A1 (2.0×1.25×0.95mm)

Issue date: November 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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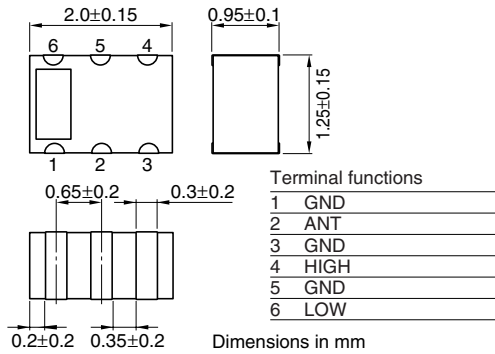
Multilayer Chip Diplexers

For WCDMA800/WCDMA2000

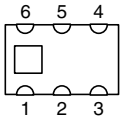
Conformity to RoHS Directive

DPX Series DPX202170DT-4021A1

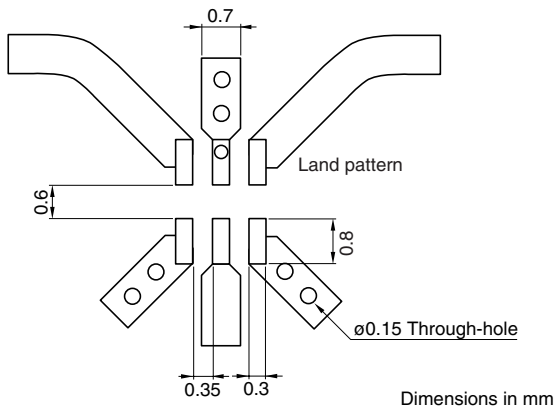
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERNS



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

ELECTRICAL CHARACTERISTICS

Item	Port	Frequency range	Minimum value	Typical value	Maximum value
Insertion loss	Lo-band	830 to 885MHz	(dB) —	—	0.5
	Hi-band	1920 to 2170MHz	(dB) —	—	0.5
Return loss	ANT	830 to 885, 1920 to 2170MHz	(dB) 10.0	—	—
Attenuation	Hi-band	830 to 885MHz	(dB) 20.0	—	—
	Lo-band	1920 to 2170MHz	(dB) 20.0	—	—
Temperature range	Operating	(°C) —40	—	—	+85
	Storage	(°C) —40	—	—	+85

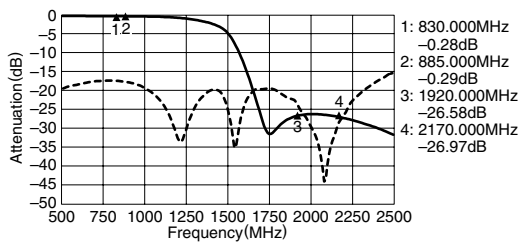
• Ta: +25°C

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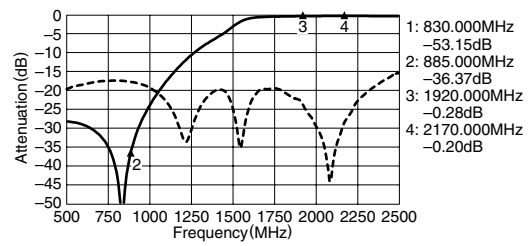
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FREQUENCY CHARACTERISTICS

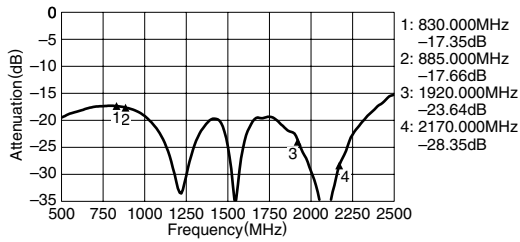
Lo-BAND PORT S21



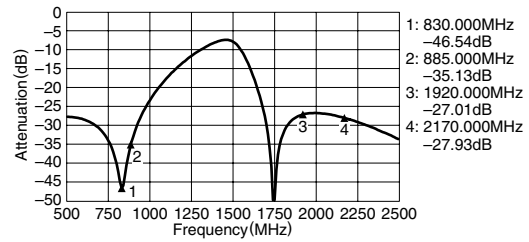
Hi-BAND PORT S31



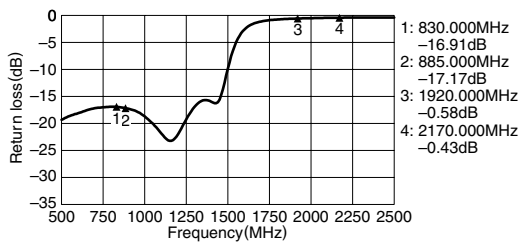
COMMON PORT RETURN LOSS S11



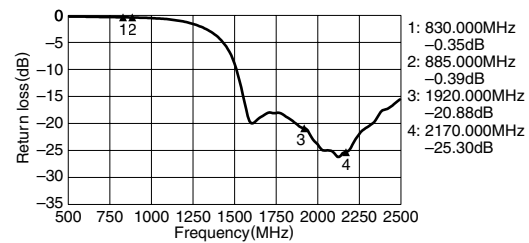
ISOLATION S23



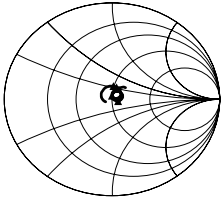
Lo-BAND PORT RETURN LOSS S22



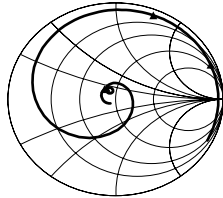
Hi-PORT RETURN LOSS S33



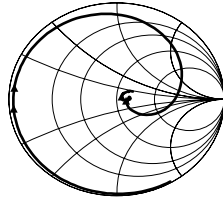
SMITH CHARTS



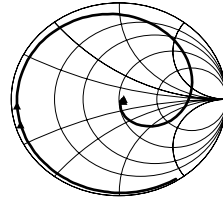
S11



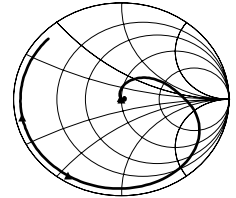
S22



S33



S21



S31

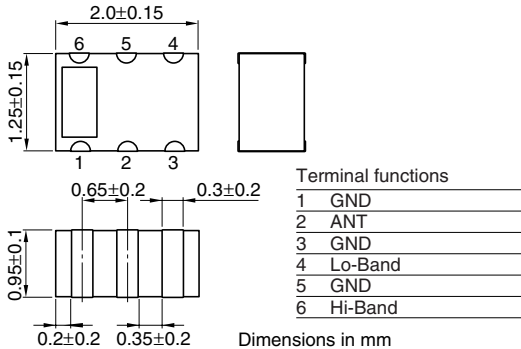
Multilayer Chip Diplexers

For WCDMA800/WCDMA1900

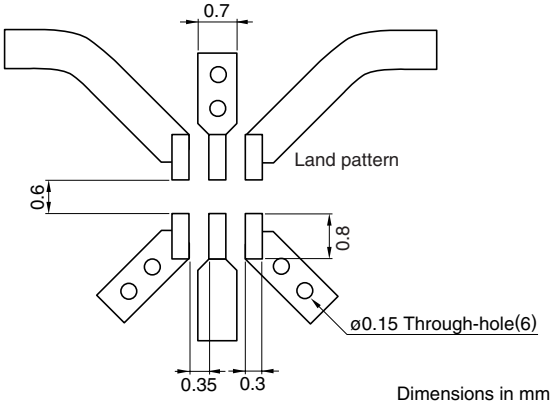
Conformity to RoHS Directive

DPX Series DPX202170DT-4121A1

SHAPES AND DIMENSIONS



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Insertion loss	Lo-band	[830 to 885MHz]	(dB)	—	0.5
	Hi-band	[1920 to 2170MHz]	(dB)	—	0.5
Return loss	ANT	[830 to 885, 1920 to 2170MHz]	(dB)	10.0	—
Attenuation	Hi-band	[830 to 885MHz]	(dB)	20.0	—
	Lo-band	[1920 to 2170MHz]	(dB)	20.0	—
Temperature range	Operating	(°C)	−40	—	+85
	Storage	(°C)	−40	—	+85

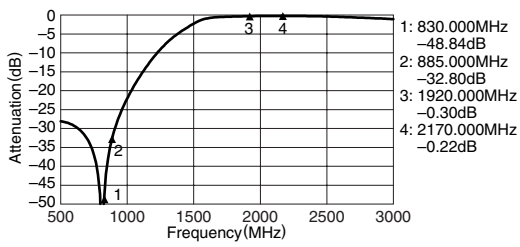
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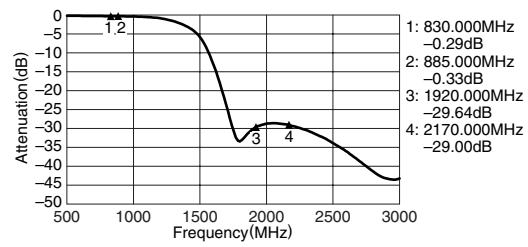
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FREQUENCY CHARACTERISTICS

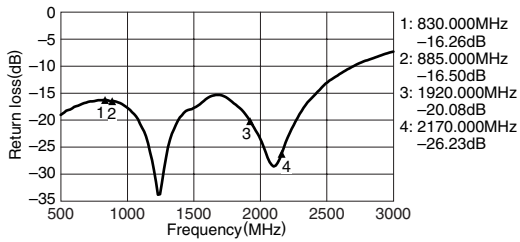
Hi-BAND PORT S21



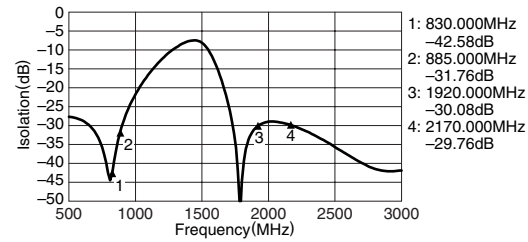
Lo-BAND PORT S31



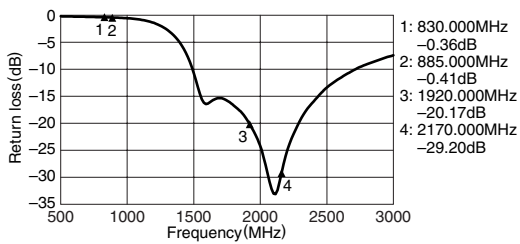
COMMON PORT RETURN LOSS S11



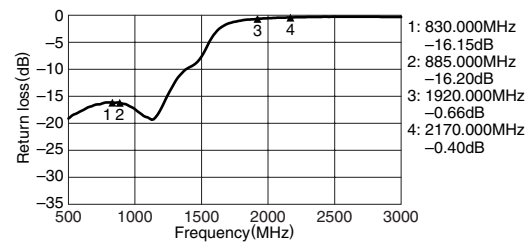
ISOLATION S23



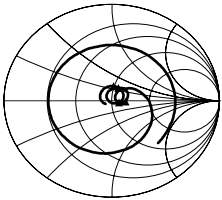
Hi-BAND PORT RETURN LOSS S22



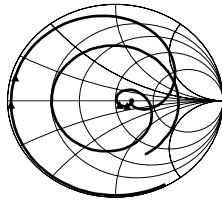
Lo-PORT RETURN LOSS S33



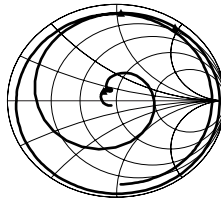
SMITH CHARTS



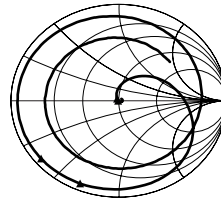
S11



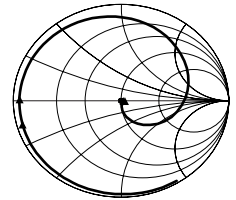
S22



S33



S21



S31