

# Multilayer Low Pass Filters

For WiMAX

## DEA Series

Type:            **DEA162690LT-1217A2 (1.6×0.8×0.6mm)**  
                    **DEA162700LT-5014A1 (1.6×0.8×0.6mm)**  
                    **DEA163600LT-5017A1 (1.6×0.8×0.6mm)**  
                    **DEA163800LT-5017C1 (1.6×0.8×0.6mm)**

Issue date:     December 2010

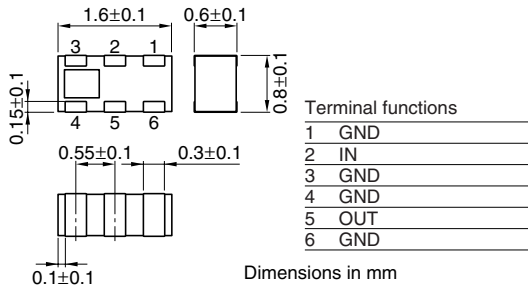
- All specifications are subject to change without notice.
  - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.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

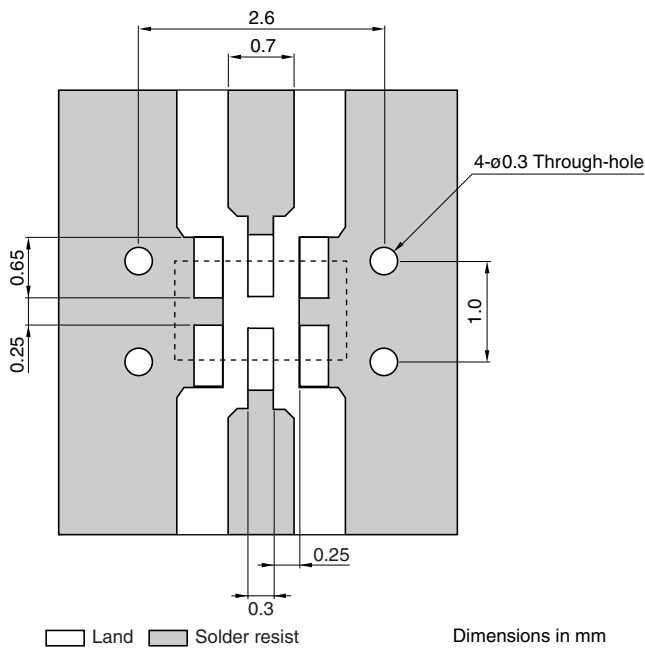
Conformity to RoHS Directive

DEA Series DEA162690LT-1217A2

## SHAPES AND DIMENSIONS



## RECOMMENDED PC BOARD PATTERNS



## ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[2300 to 2690MHz]	(dB)	—	0.32	0.8
Return loss	[2300 to 2690MHz]	(dB)	10	22	—
Attenuation	[4600 to 5400MHz]	(dB)	25	45	—
	[6900 to 8070MHz]	(dB)	25	33	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

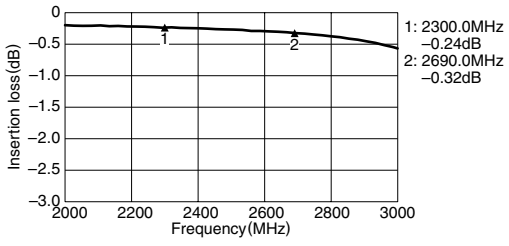
• Ta: 25±5°C

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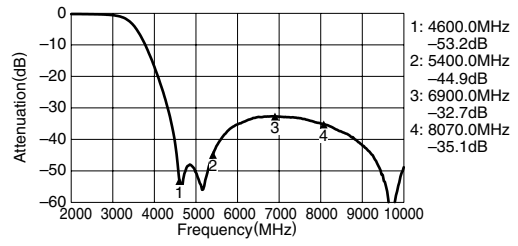
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### FREQUENCY CHARACTERISTICS

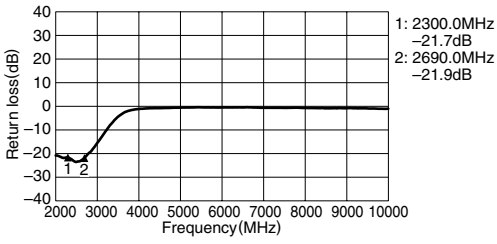
#### INSERTION LOSS



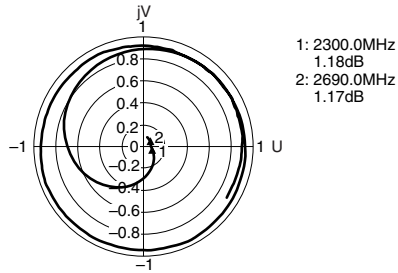
#### ATTENUATION



#### RETURN LOSS



#### VSWR

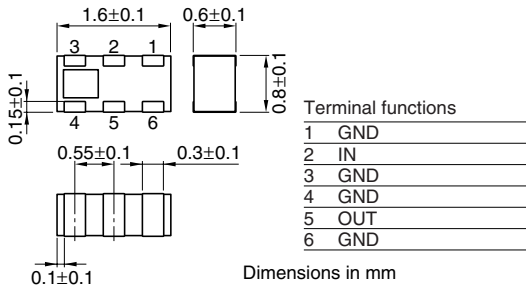


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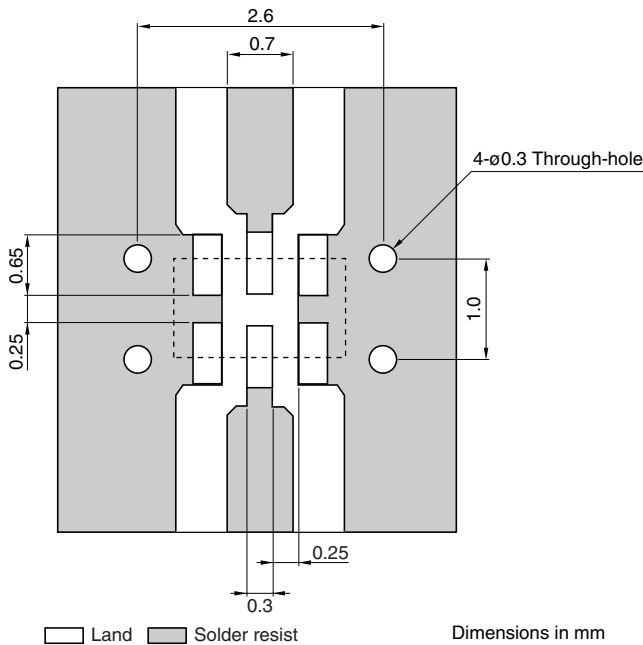
Conformity to RoHS Directive

DEA Series DEA162700LT-5014A1

## SHAPES AND DIMENSIONS



## RECOMMENDED PC BOARD PATTERNS



## ELECTRICAL CHARACTERISTICS

Item				Minimum value	Typical value	Maximum value
Insertion loss	[at +25°C]	[2400 to 2700MHz]	(dB)	—	—	0.35
	[at -40 to +85°C]	[2400 to 2700MHz]	(dB)	—	—	0.40
Attenuation		[4800 to 5390MHz]	(dB)	26	—	—
		[7200 to 8085MHz]	(dB)	23	—	—
Return loss		[2400 to 2700MHz]	(dB)	10	—	—
Temperature range		Operating	(°C)	-40	—	+85
		Storage	(°C)	-40	—	+85

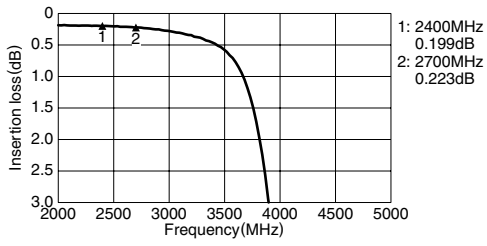
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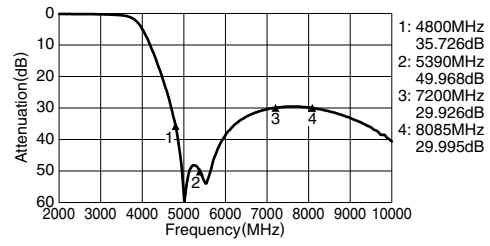
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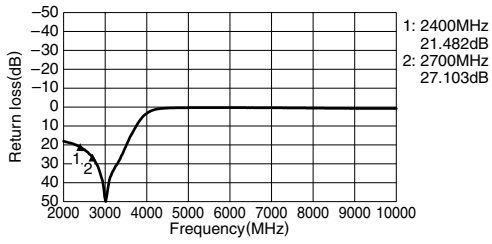
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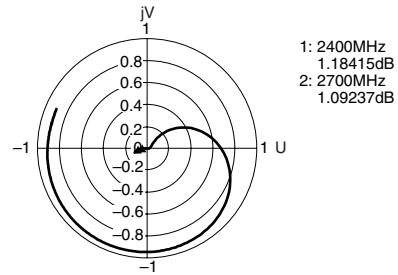
#### ATTENUATION



#### RETURN LOSS



#### VSWR



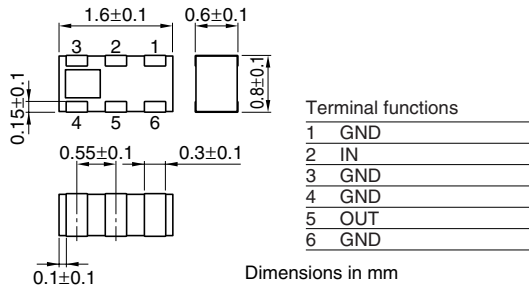
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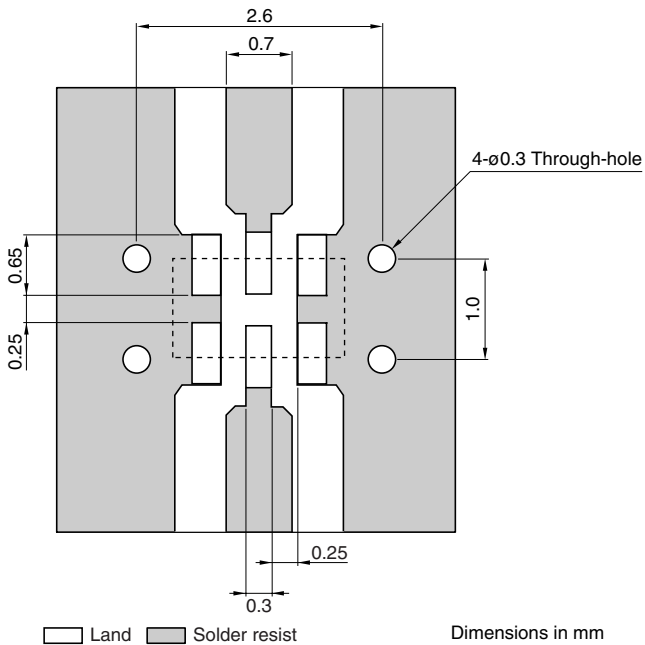
Conformity to RoHS Directive

DEA Series DEA163600LT-5017A1

## SHAPES AND DIMENSIONS



## RECOMMENDED PC BOARD PATTERNS



## ELECTRICAL CHARACTERISTICS

Item				Minimum value	Typical value	Maximum value
Insertion loss	[at +25°C]	[3400 to 3600MHz]	(dB)	—	—	0.50
	[at -40 to +85°C]	[3400 to 3600MHz]	(dB)	—	—	0.55
Attenuation		[6800 to 7200MHz]	(dB)	26	—	—
Return loss		[3400 to 3600MHz]	(dB)	10	—	—
Temperature range		Operating	(°C)	-40	—	+85
		Storage	(°C)	-40	—	+85

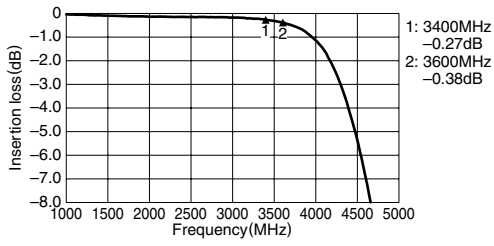
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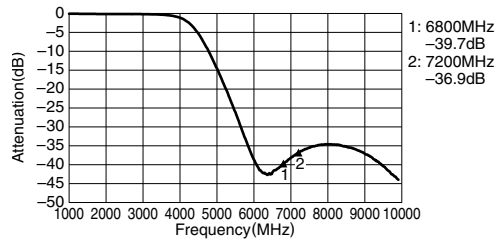
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### FREQUENCY CHARACTERISTICS

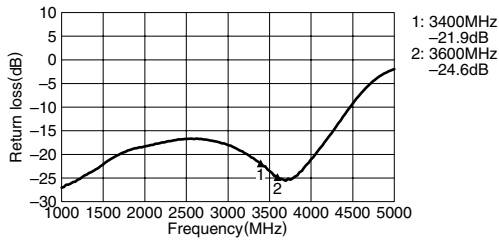
#### INSERTION LOSS



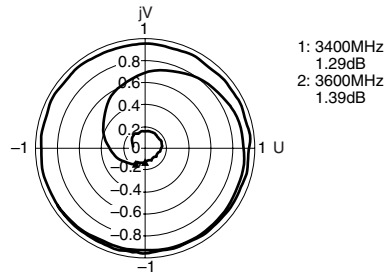
#### ATTENUATION



#### RETURN LOSS



#### VSWR



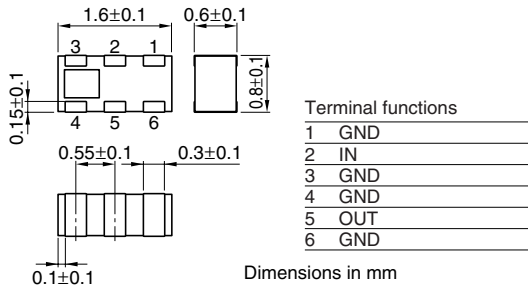
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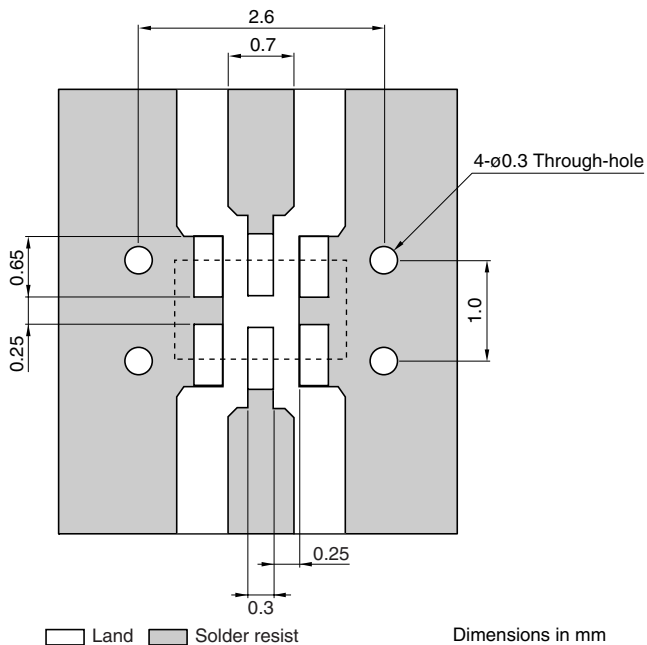
Conformity to RoHS Directive

DEA Series DEA163800LT-5017C1

## SHAPES AND DIMENSIONS



## RECOMMENDED PC BOARD PATTERNS



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

## ELECTRICAL CHARACTERISTICS

Item	Frequency range		Minimum value	Typical value	Maximum value
Insertion loss	[3300 to 3800MHz]	(dB)	—	—	0.60
Return loss	[3300 to 3800MHz]	(dB)	10.0	—	—
Attenuation	[6600 to 7600MHz]	(dB)	35.0	—	—
	[9900 to 11400MHz]	(dB)	35.0	—	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

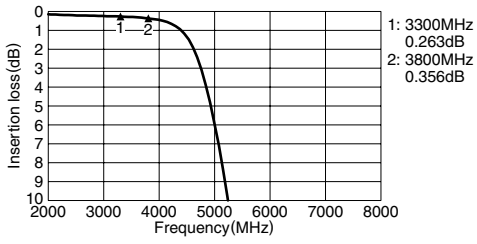
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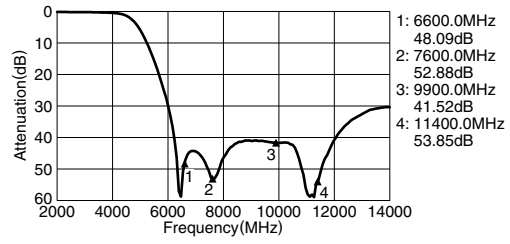


### FREQUENCY CHARACTERISTICS

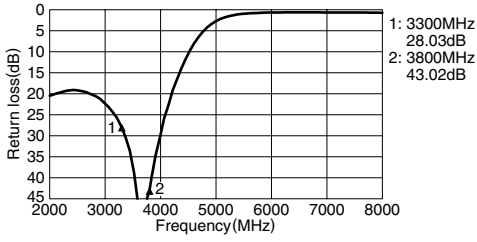
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS



#### VSWR

