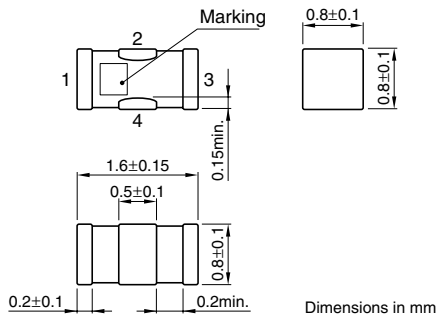


# Multilayer Low Pass Filters, DEA Series

## DEA160100LT-1221B1 FOR NOISE FILTERING

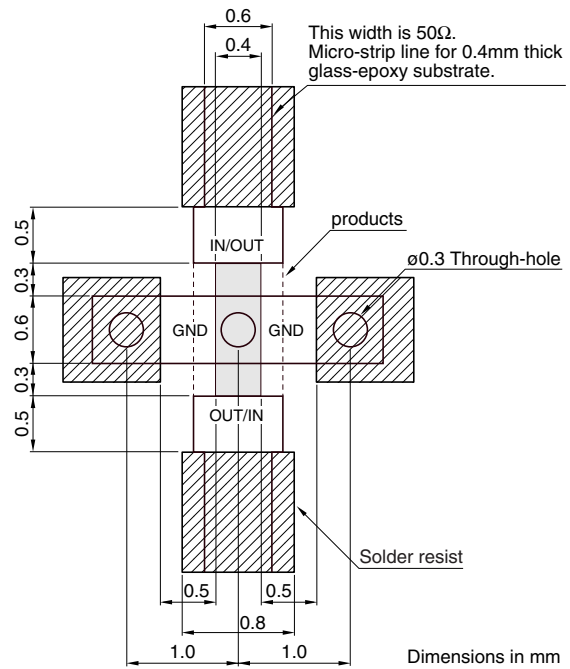
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN
2	GND
3	OUT
4	GND

### RECOMMENDED PCB PATTERN



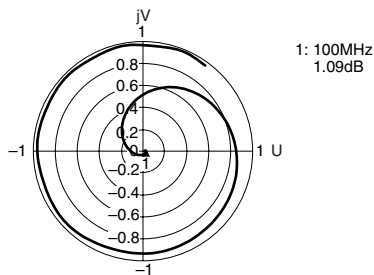
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[100MHz]	(dB)	—	0.2	0.5
Attenuation	[810 to 956MHz]	(dB)	30	40	—
	[1429 to 1501MHz]	(dB)	35	42	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

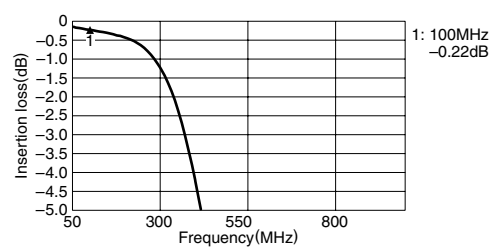
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

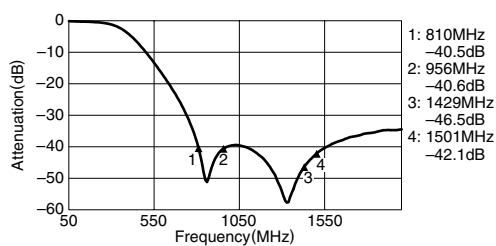
#### VSWR



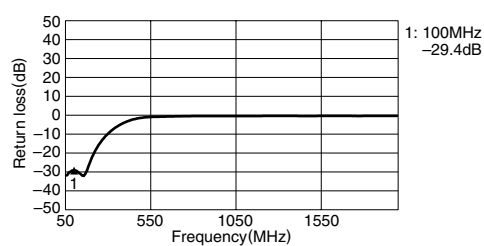
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

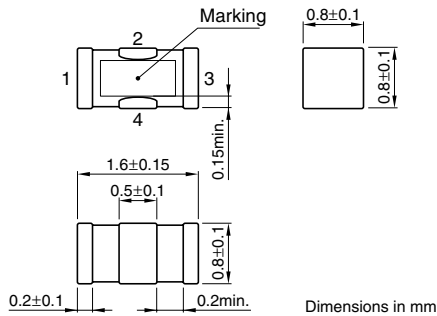


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA160915LT-1156 FOR GSM900

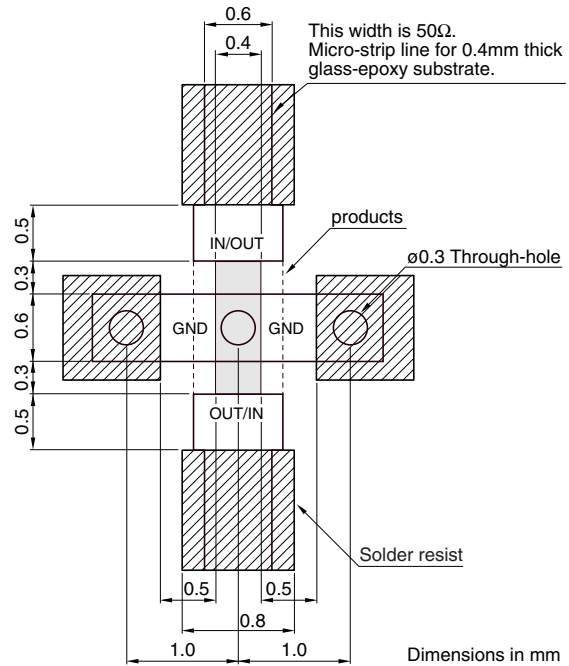
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



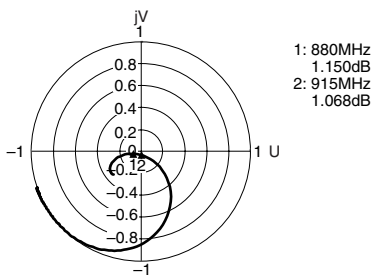
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[880 to 915MHz]	(dB)	—	—	0.6
	[1760 to 1830MHz]	(dB)	27	—	—
Attenuation	[2640 to 2745MHz]	(dB)	23	—	—
	Operating	(°C)	-40	—	+85
Temperature range	Storage	(°C)	-40	—	+85

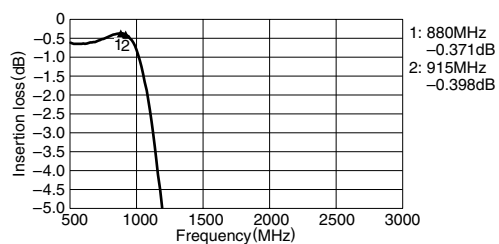
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

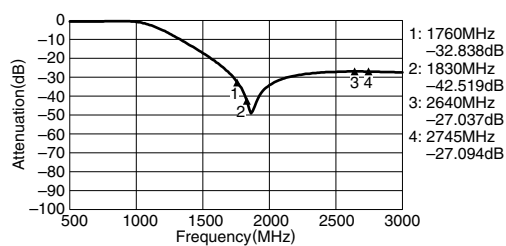
#### VSWR



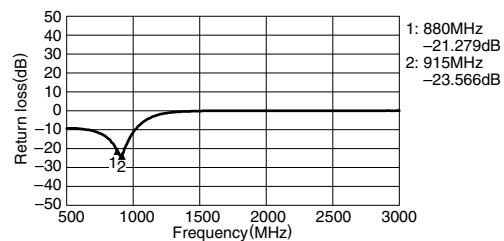
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

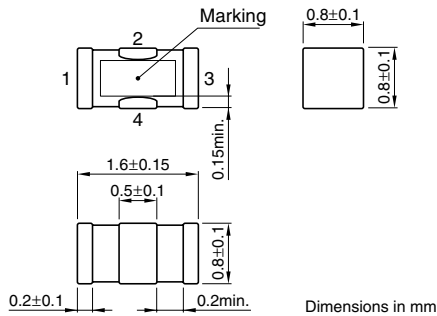


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA160915LT-1160 FOR GSM900

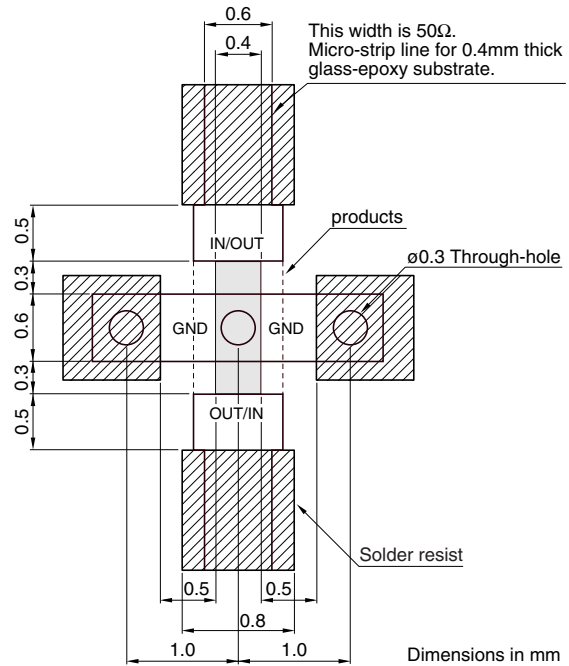
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



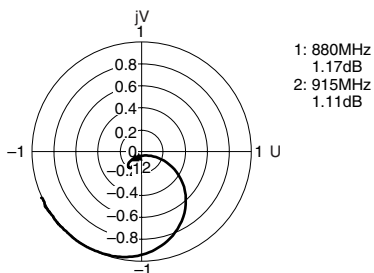
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[880 to 915MHz]	(dB)	—	0.20	0.50
Attenuation	[1760 to 1830MHz]	(dB)	17.0	20	—
	[2640 to 2745MHz]	(dB)	17.0	21	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

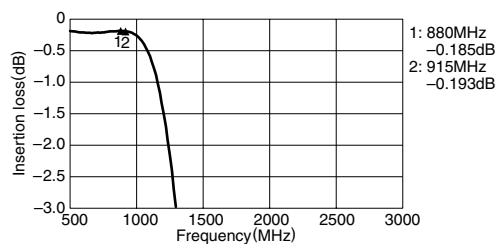
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

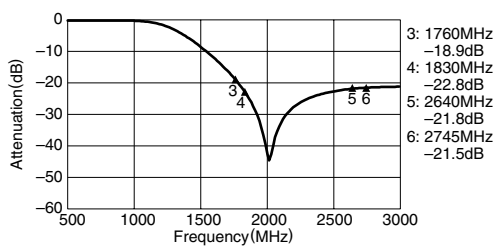
#### VSWR



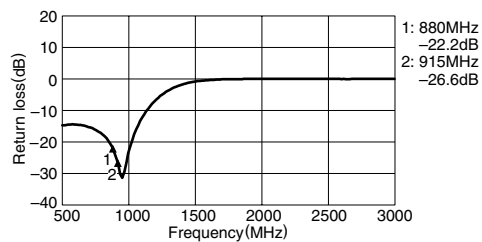
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

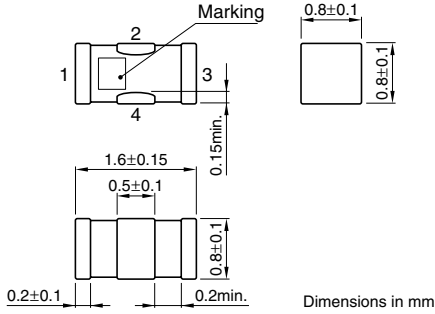


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA160915LT-1169A4 FOR GSM850, GSM900

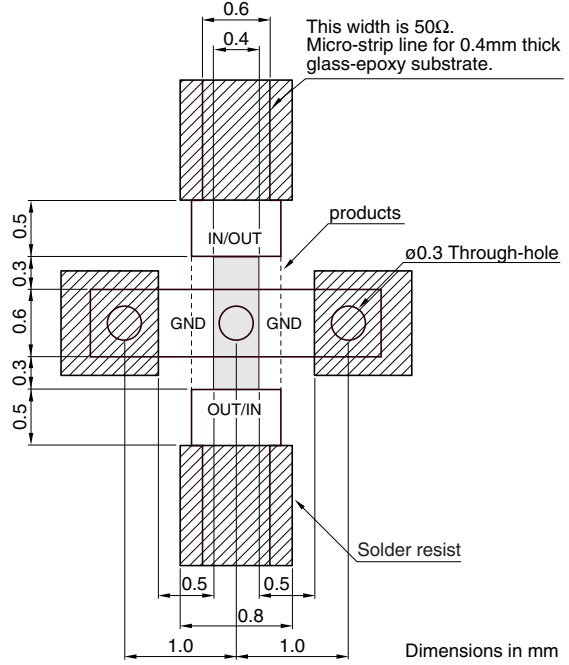
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



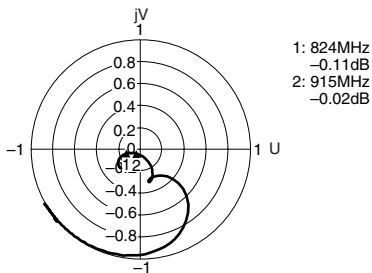
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[at +25°C]	[824 to 915MHz]	(dB)	—	0.3
	[at -40 to +85°C]	[824 to 915MHz]	(dB)	—	0.57
Attenuation		[1648 to 1830MHz]	(dB)	30	35
		[2472 to 2745MHz]	(dB)	25	33
VSWR		[824 to 915MHz]	(dB)	—	1.5
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

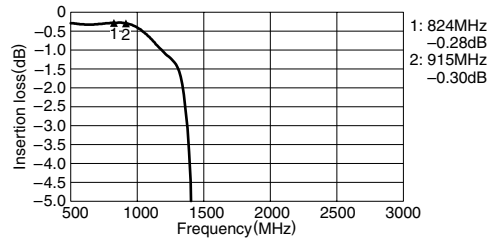
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

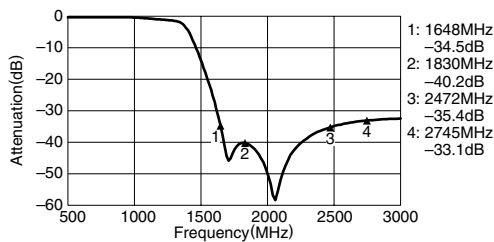
#### VSWR



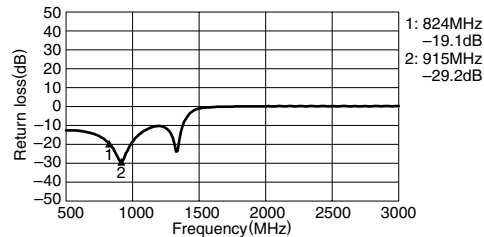
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

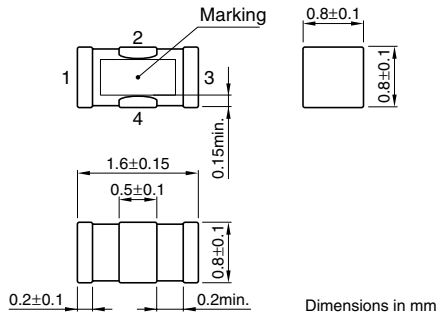


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

DEA160960LT-1167 FOR PDC800

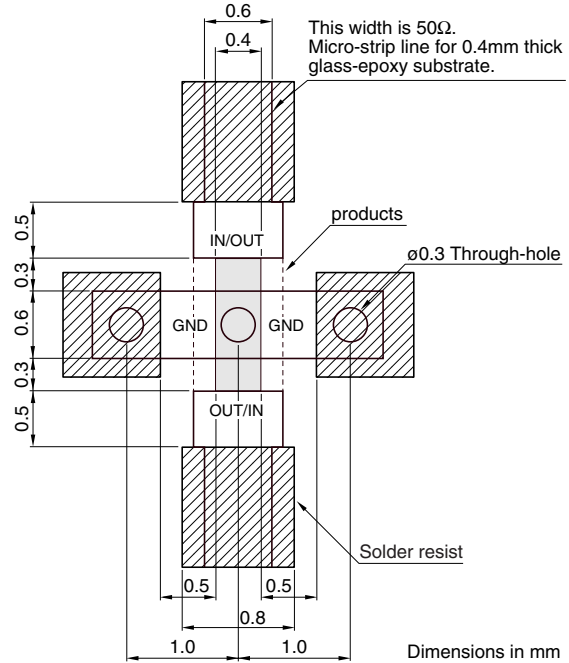
## SHAPES AND DIMENSIONS



## TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

## RECOMMENDED PCB PATTERN



## ELECTRICAL CHARACTERISTICS

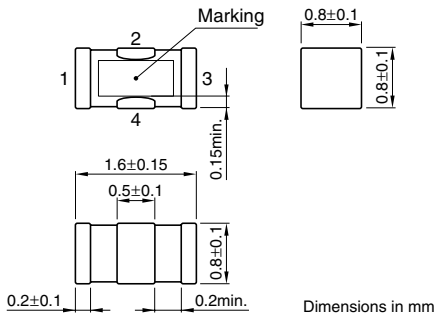
Item			Minimum value	Typical value	Maximum value
Insertion loss	[893 to 960MHz]	(dB)	—	0.20	0.35
	[1853MHz]	(dB)	20	25	—
Attenuation	[2780MHz]	(dB)	15	21	—
	Operating	(°C)	-40	—	+85
Temperature range	Storage	(°C)	-40	—	+85

• Ta: +25±5°C

# Multilayer Low Pass Filters, DEA Series

## DEA161453LT-1152 FOR PDC1500

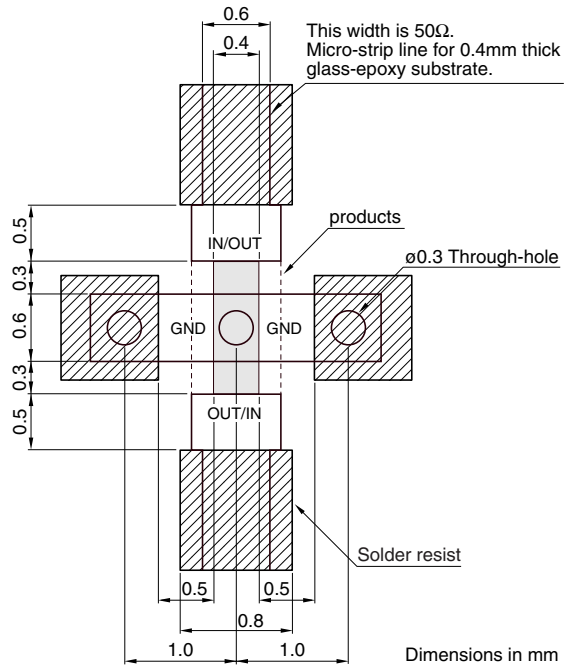
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



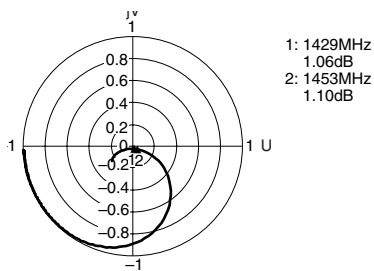
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[1429 to 1453MHz]	(dB)	—	0.25	0.35
Attenuation	[2858MHz]	(dB)	20	26	—
	[4287MHz]	(dB)	20	25	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

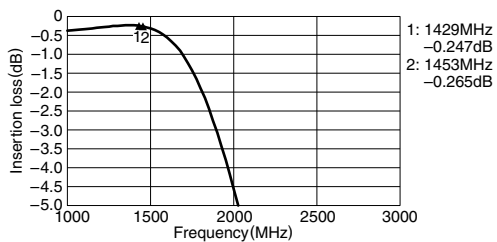
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

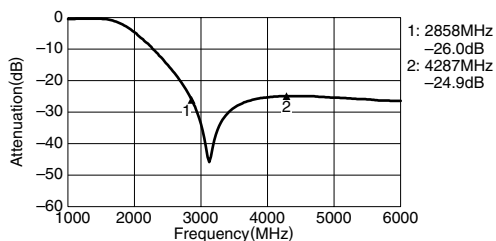
#### VSWR



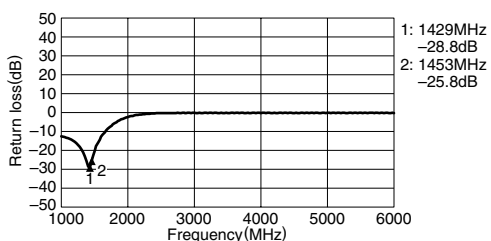
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

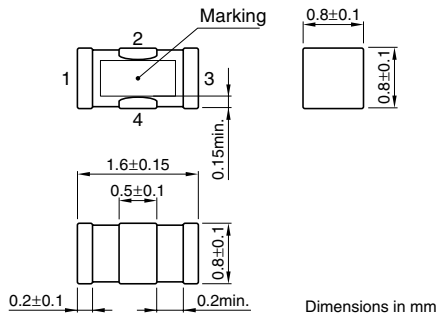


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA161785LT-1158 FOR DCS

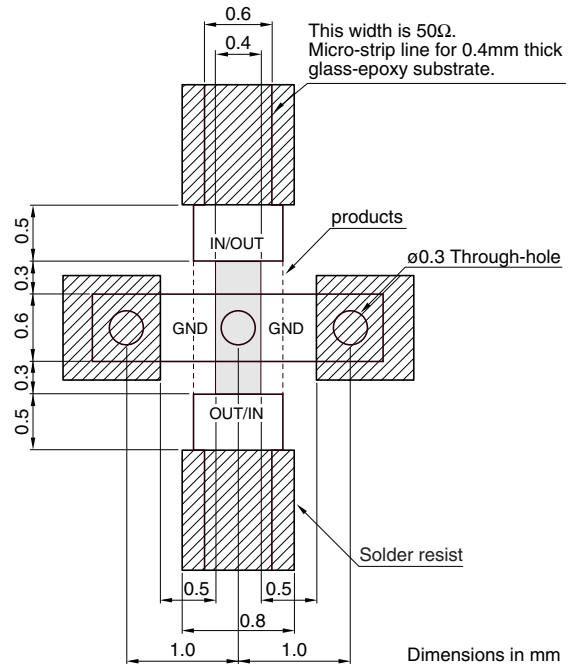
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



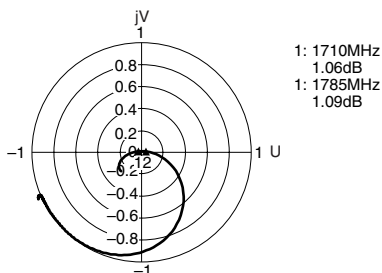
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[1710 to 1785MHz]	(dB)	—	—	0.5
Attenuation	[3420MHz]	(dB)	27	—	—
	[5130MHz]	(dB)	23	—	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

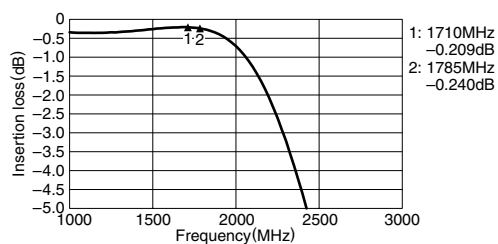
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

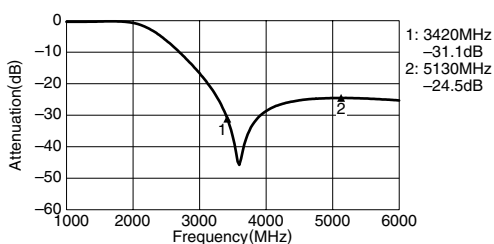
#### VSWR



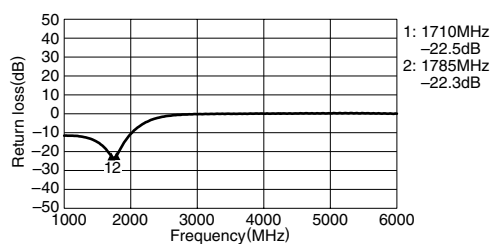
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

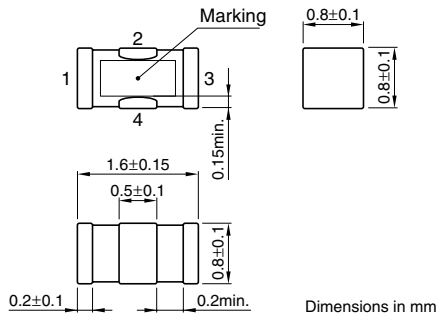


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA161900LT-1215A1 FOR DECT

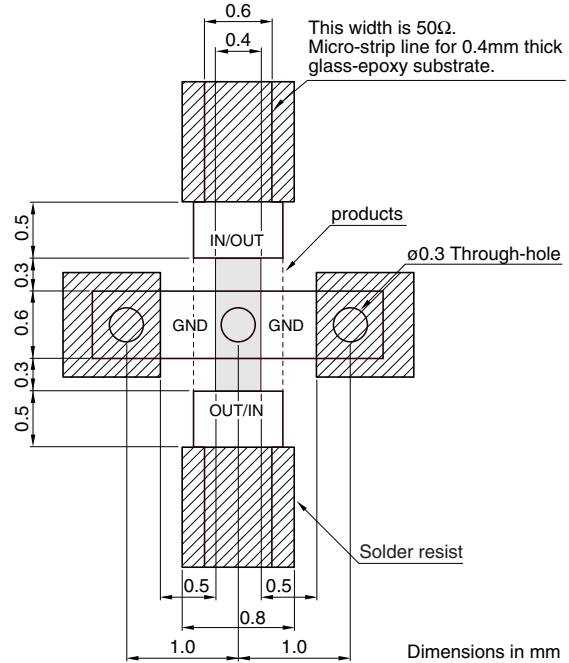
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



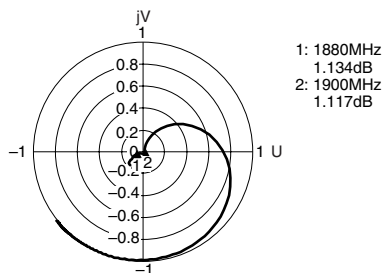
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss[at +25°C]	[1880 to 1900MHz]	(dB)	—	0.26	0.45
Attenuation	[3760 to 3800MHz]	(dB)	30	40	—
	[5640 to 5700MHz]	(dB)	26	33	—
VSWR	[1880 to 1900MHz]	(dB)	—	1.3	1.7
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

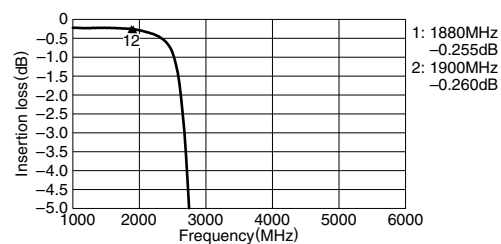
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

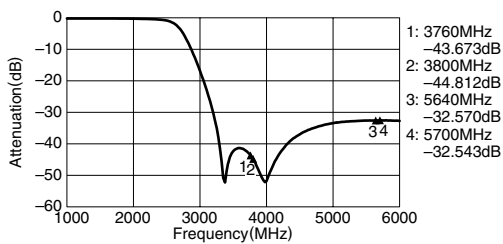
#### VSWR



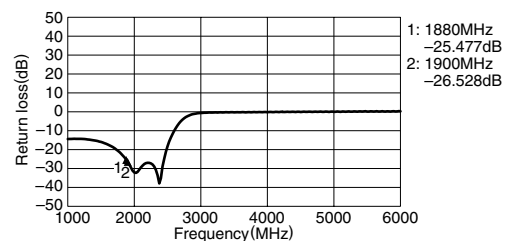
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS



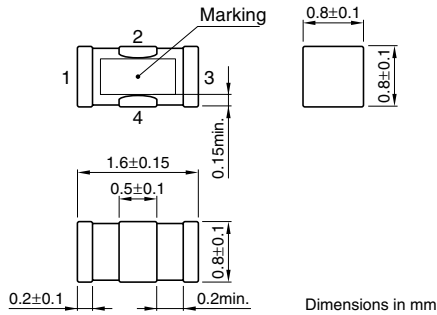
• All specifications are subject to change without notice.



# Multilayer Low Pass Filters, DEA Series

## DEA161910LT-1170 FOR DCS/PCS

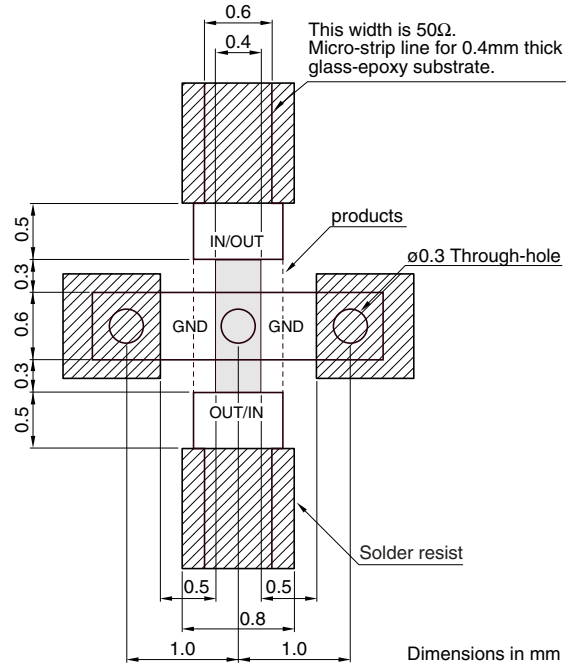
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



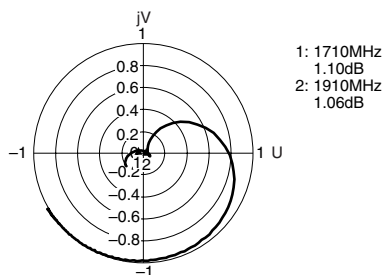
### ELECTRICAL CHARACTERISTICS

Item		Minimum value	Typical value	Maximum value
Insertion loss	[1710 to 1910MHz]	(dB)	—	0.70
Return loss	[1710 to 1910MHz]	(dB)	10	—
Attenuation	[3420 to 3820MHz]	(dB)	30	—
	[5130 to 5730MHz]	(dB)	25	—
Temperature range	Operating	(°C)	-40	+85
	Storage	(°C)	-40	+85

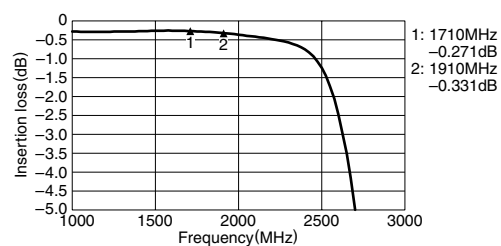
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

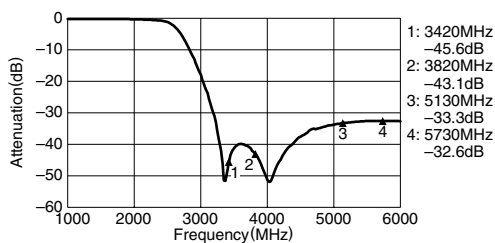
#### VSWR



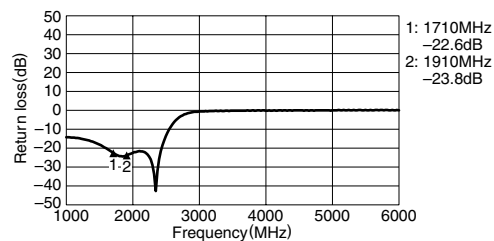
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

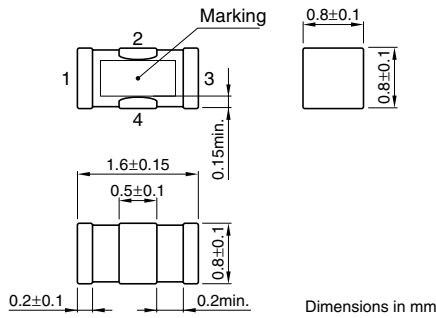


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

DEA161920LT-1157 FOR PHS

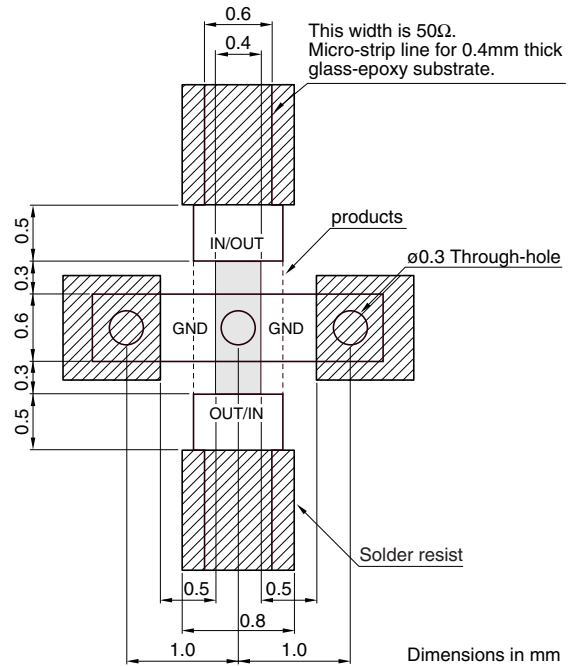
## SHAPES AND DIMENSIONS



## TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

## RECOMMENDED PCB PATTERN



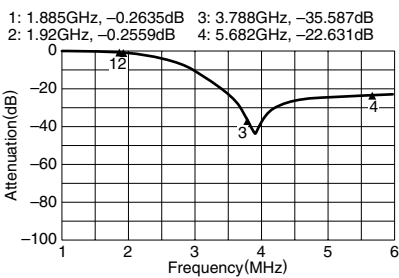
## ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[1885 to 1920MHz]	(dB)	—	0.25	0.35
Attenuation	[2fo]	[3805MHz]	25	35	—
	[3fo]	[5708MHz]	15	20	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

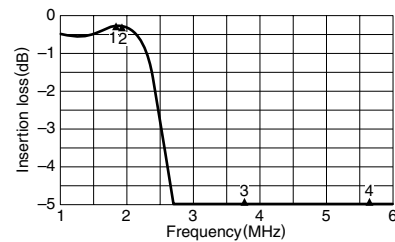
• Ta: +25±5°C

## FREQUENCY CHARACTERISTICS

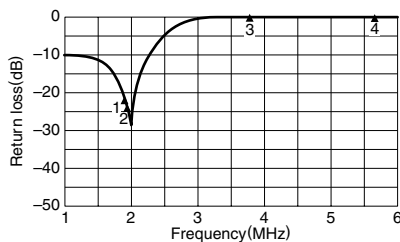
### INSERTION LOSS



### ATTENUATION



### RETURN LOSS

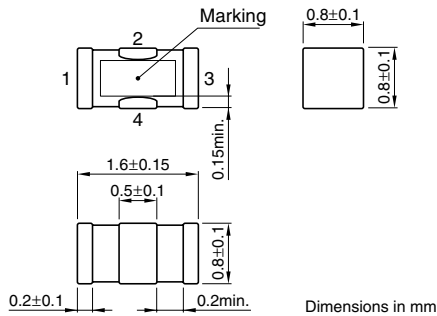


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA161920LT-1190A1 FOR PHS

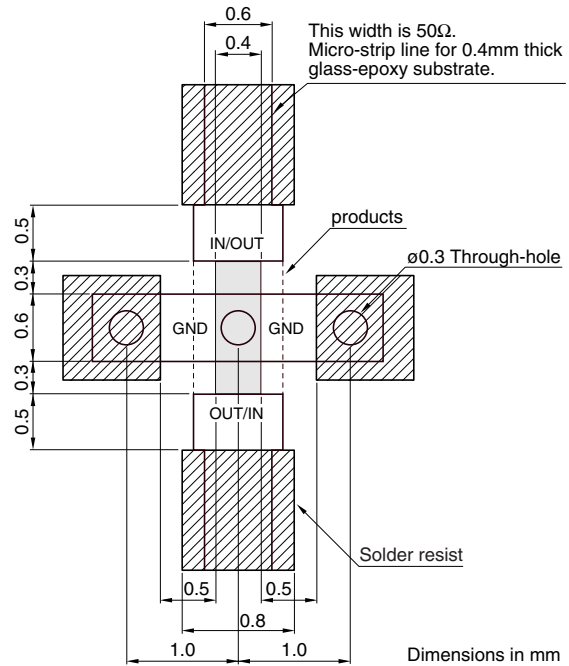
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



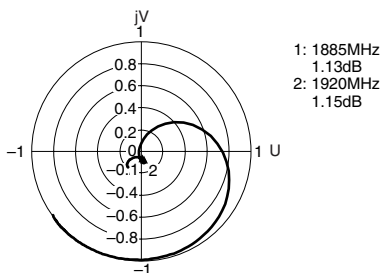
### ELECTRICAL CHARACTERISTICS

Item		Minimum value	Typical value	Maximum value
Insertion loss	[1885 to 1920MHz]	—	0.30	0.60
Attenuation	[2fo]	30	45	—
	[3fo]	25	34	—
Temperature range	Operating	-40	—	+85
	Storage	-40	—	+85

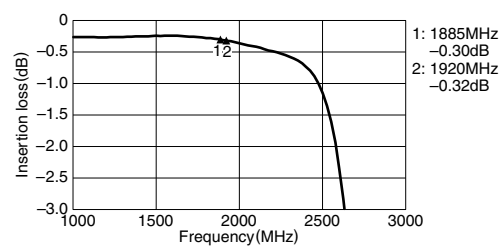
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

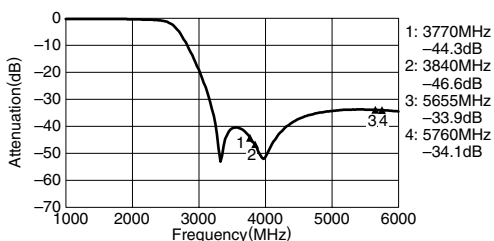
#### VSWR



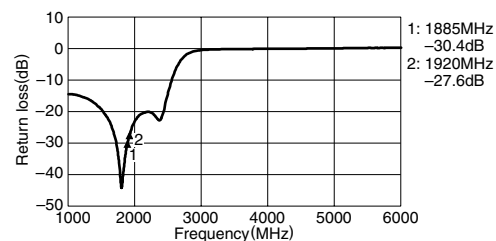
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

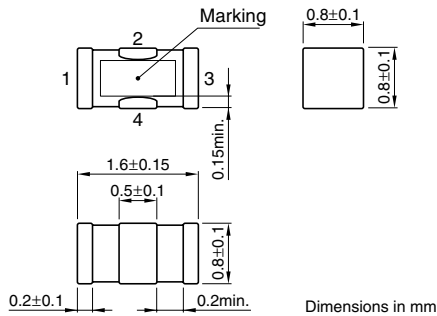


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA161980LT-1164 FOR W-CDMA

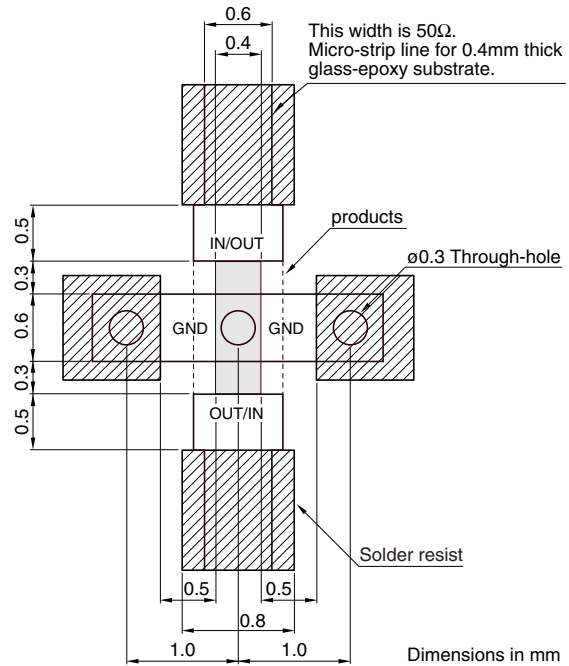
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



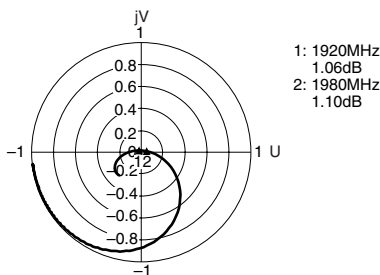
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[1920 to 1980MHz]	(dB)	—	0.28	0.70
Attenuation	[2fo]	[3840 to 3960MHz]	(dB)	30	—
	[3fo]	[5760 to 5940MHz]	(dB)	18	22
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

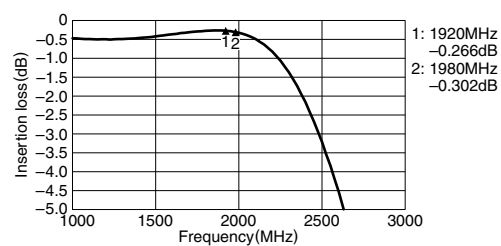
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

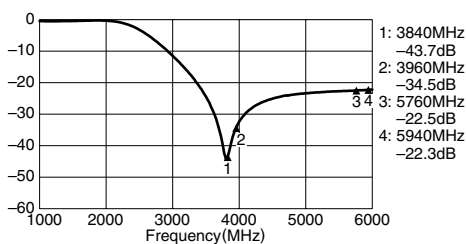
#### VSWR



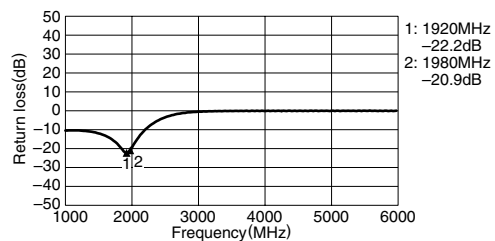
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

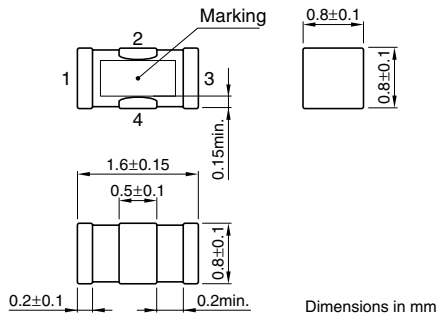


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

DEA161990LT-1180A1 FOR EGSM, DCS, PCS /Tx&Rx

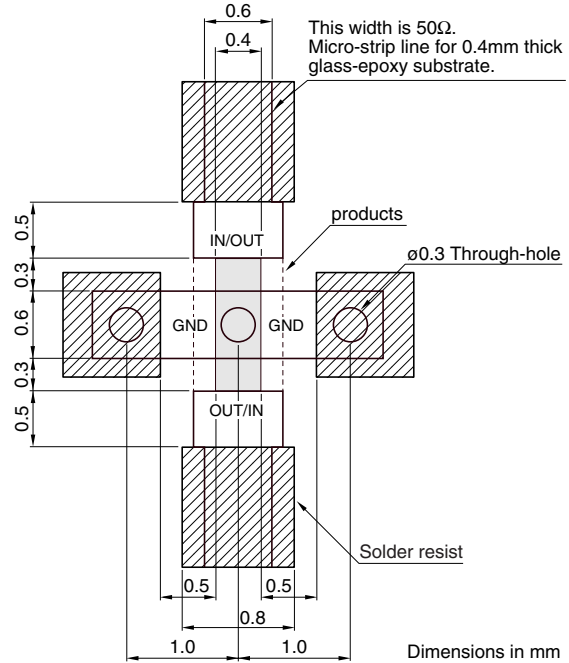
## SHAPES AND DIMENSIONS



## TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

## RECOMMENDED PCB PATTERN



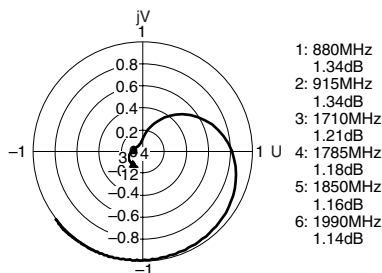
## ELECTRICAL CHARACTERISTICS

Item	Frequency Range	Unit	Minimum value	Typical value	Maximum value
Insertion loss	[880 to 915MHz]	(dB)	—	0.25	0.60
	[925 to 960MHz]	(dB)	—	0.25	0.60
	[1710 to 1785MHz]	(dB)	—	0.30	0.60
	[1850 to 1910MHz]	(dB)	—	0.30	0.60
	[1930 to 1990MHz]	(dB)	—	0.35	0.60
Attenuation	[3700 to 3980MHz]	(dB)	30	42	—
	[5550 to 5970MHz]	(dB)	25	40	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

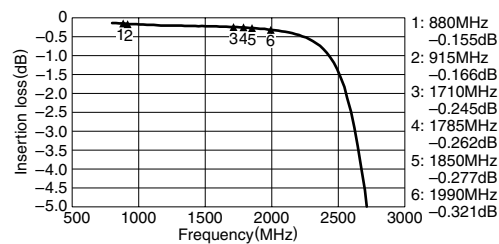
• Ta: +25±5°C

## FREQUENCY CHARACTERISTICS

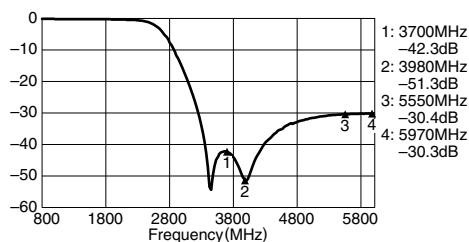
### VSWR



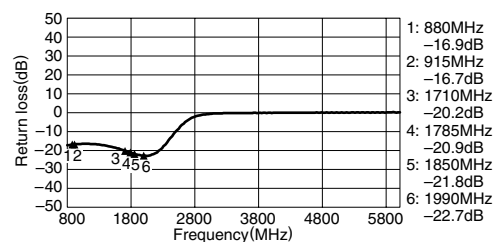
### INSERTION LOSS



### ATTENUATION



### RETURN LOSS

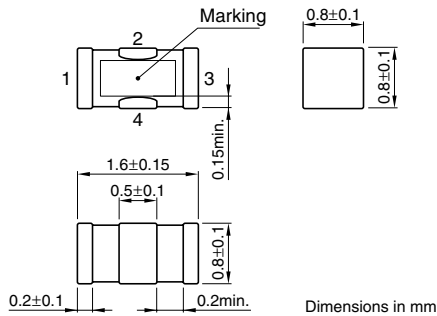


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

DEA161990LT-1182 FOR DCS, PCS /Tx&Rx

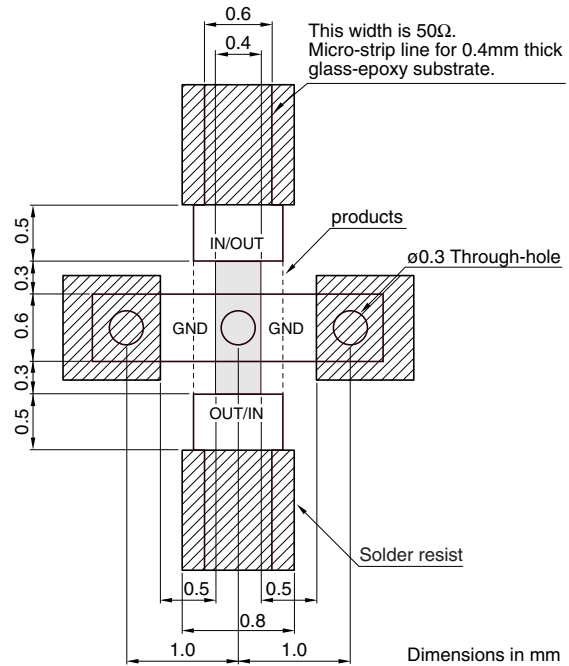
## SHAPES AND DIMENSIONS



## TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

## RECOMMENDED PCB PATTERN



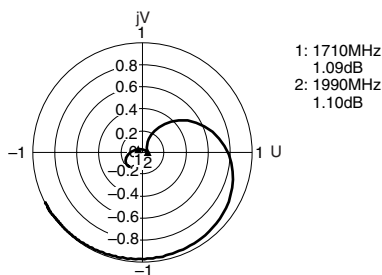
## ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[1710 to 1990MHz]	(dB)	—	—	0.7
Attenuation	[3700MHz]	(dB)	30	—	—
	[5550MHz]	(dB)	25	—	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

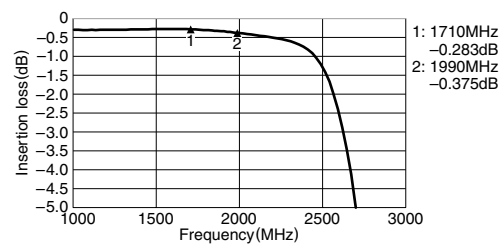
• Ta: +25±5°C

## FREQUENCY CHARACTERISTICS

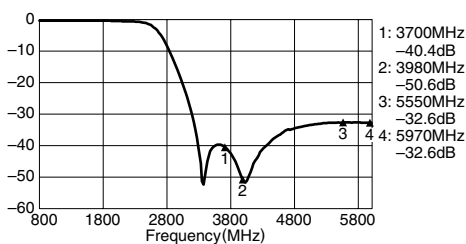
### VSWR



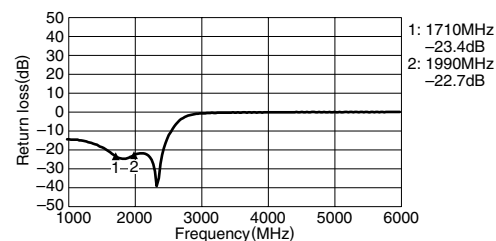
### INSERTION LOSS



### ATTENUATION



### RETURN LOSS

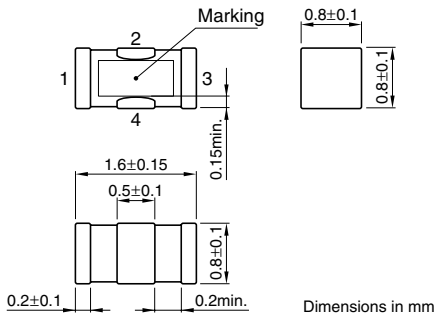


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA162025LT-1191A1 FOR TS-CDMA

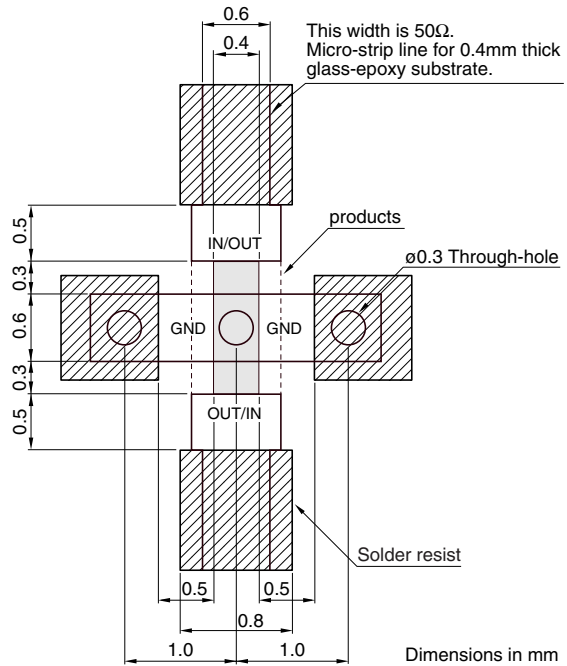
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



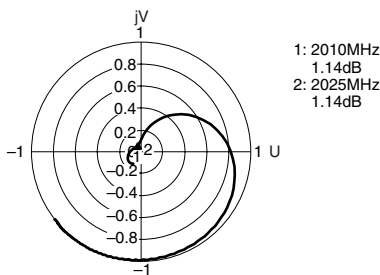
### ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[2010 to 2025MHz]	(dB)	—	0.35	0.60
	[4020 to 4050MHz]	(dB)	31	45	—
Attenuation	[6030 to 6075MHz]	(dB)	24	30	—
	Operating	(°C)	-40	—	+85
Temperature range	Storage	(°C)	-40	—	+85

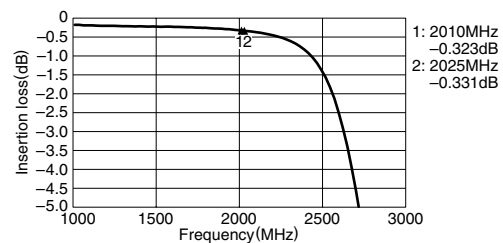
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

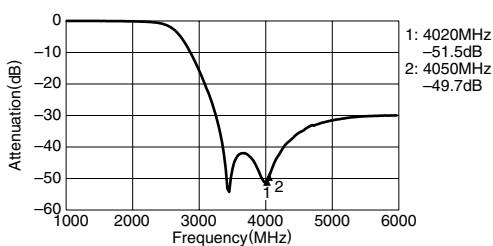
#### VSWR



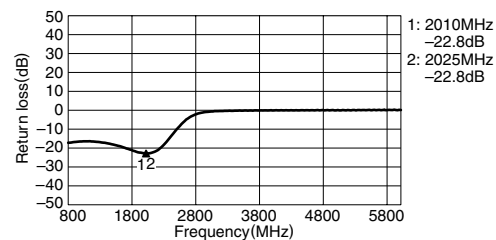
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

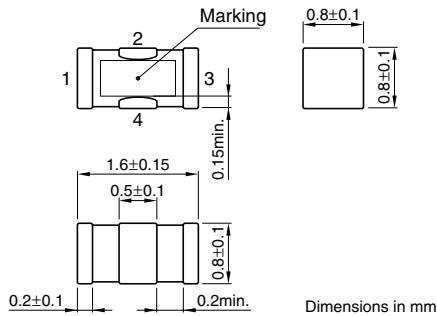


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

DEA162220LT-1192A1 FOR TS-CDMA

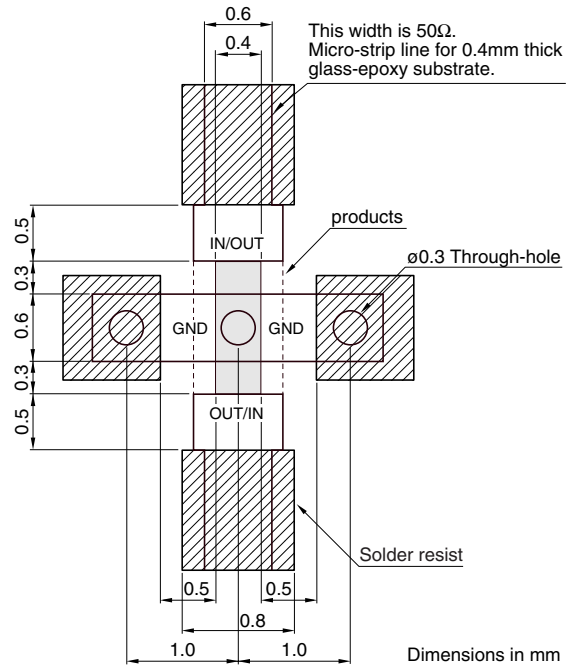
## SHAPES AND DIMENSIONS



## TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

## RECOMMENDED PCB PATTERN



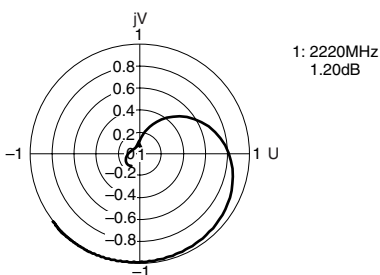
## ELECTRICAL CHARACTERISTICS

Item			Minimum value	Typical value	Maximum value
Insertion loss	[2220MHz]	(dB)	—	0.50	1.0
Attenuation	[4440MHz]	(dB)	25	35	—
Temperature range	Operating	(°C)	-40	—	+85
	Storage	(°C)	-40	—	+85

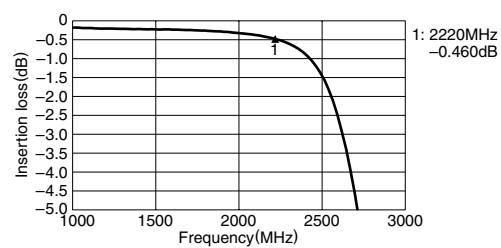
• Ta: +25±5°C

## FREQUENCY CHARACTERISTICS

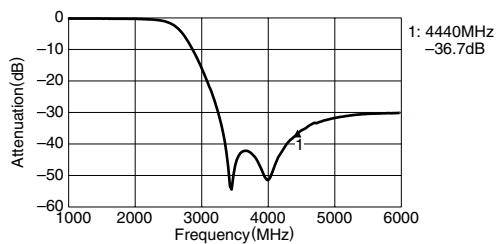
### VSWR



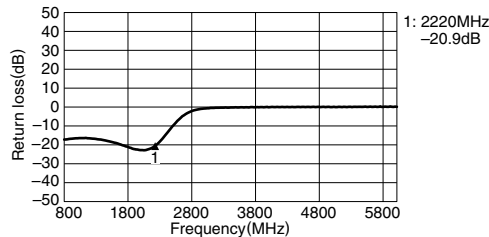
### INSERTION LOSS



### ATTENUATION



### RETURN LOSS



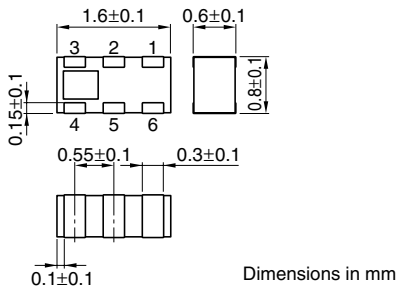
• All specifications are subject to change without notice.



# Multilayer Low Pass Filters, DEA Series

## DEA162500LT-1212A1 FOR 2.4GHz W-LAN

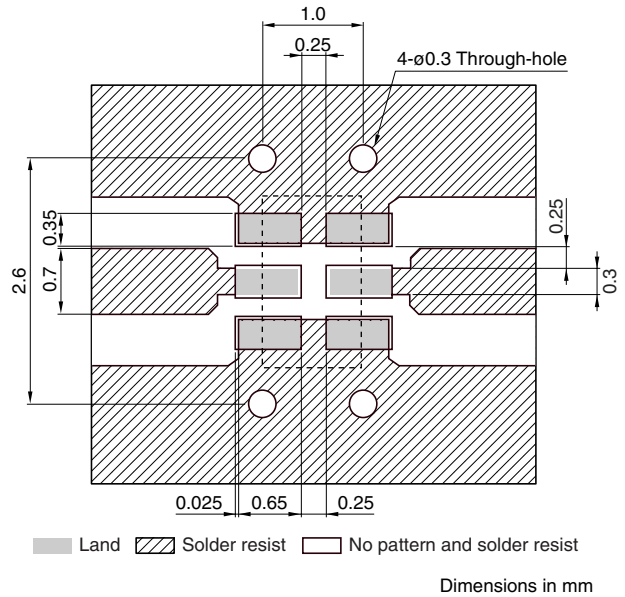
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	GND
2	IN
3	GND
4	GND
5	OUT
6	GND

### RECOMMENDED PCB PATTERN



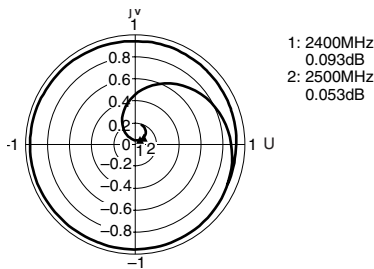
### ELECTRICAL CHARACTERISTICS

Item		Minimum value	Typical value	Maximum value
Insertion loss	[2400 to 2500MHz] (dB)	—	—	0.42
Return loss	[2400 to 2500MHz] (dB)	14	—	—
Attenuation	[4800 to 5000MHz] (dB)	25	—	—
	[7200 to 7500MHz] (dB)	18	—	—
Temperature range	Operating (°C)	-40	—	+85
	Storage (°C)	-40	—	+85

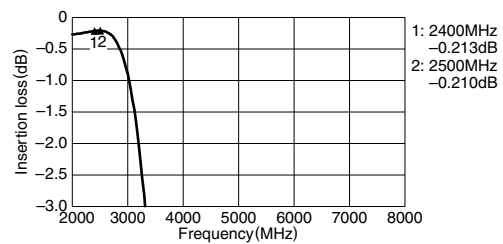
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

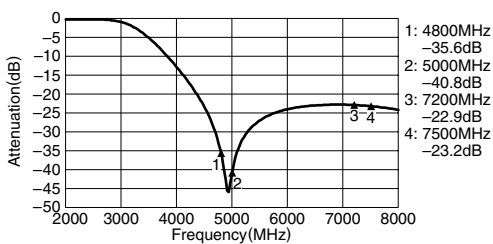
#### VSWR



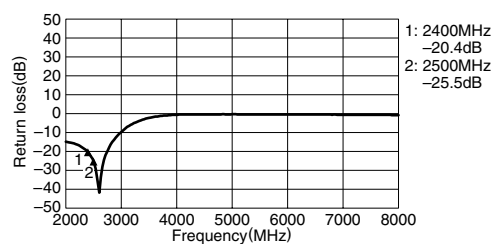
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

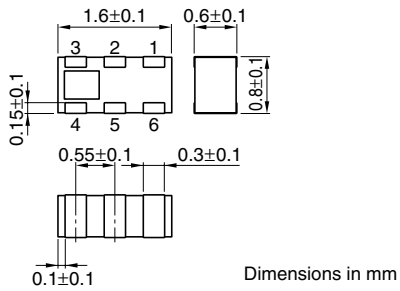


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA162500LT-1217A1 FOR 2.4GHz W-LAN

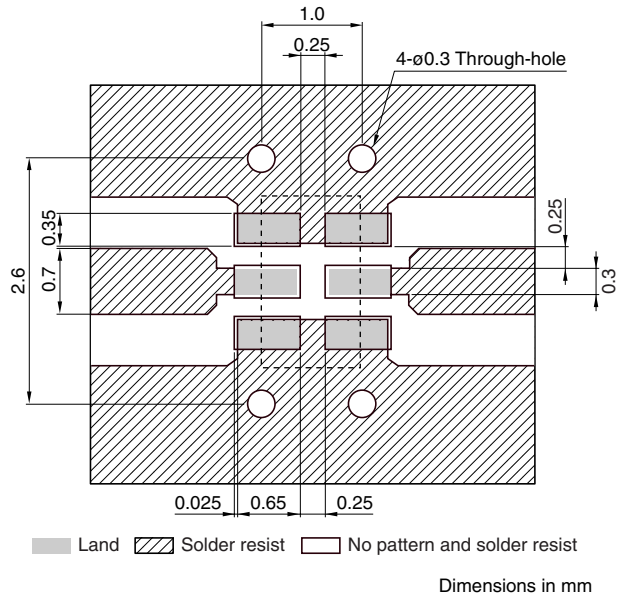
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	GND
2	IN
3	GND
4	GND
5	OUT
6	GND

### RECOMMENDED PCB PATTERN



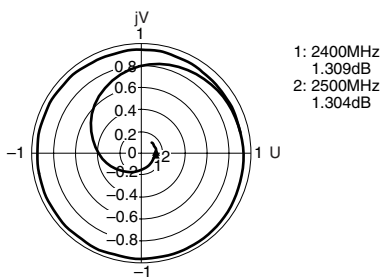
### ELECTRICAL CHARACTERISTICS

Item	Minimum value	Typical value	Maximum value
Insertion loss	[2400 to 2500MHz] (dB)	—	0.48
Return loss	[2400 to 2500MHz] (dB)	14	—
Attenuation	[4800 to 5000MHz] (dB)	35	—
	[7200 to 7500MHz] (dB)	27	—
Temperature range	Operating (°C)	—	+85
	Storage (°C)	—	+85

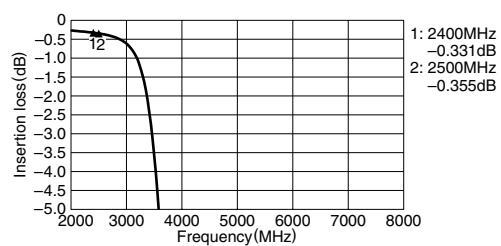
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

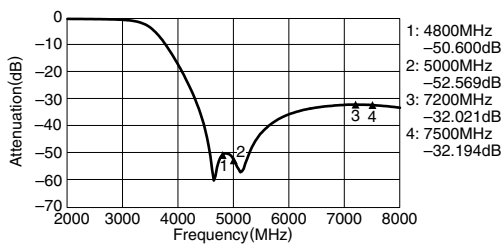
#### VSWR



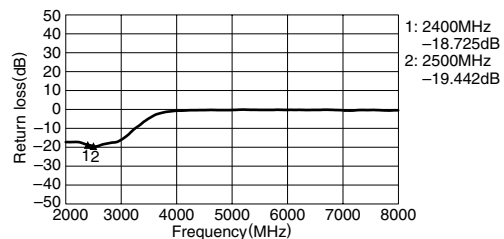
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

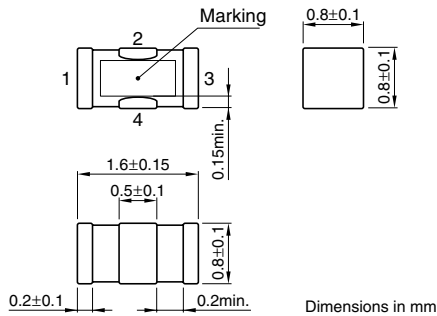


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA165725LT-1196A2 FOR 5GHz W-LAN

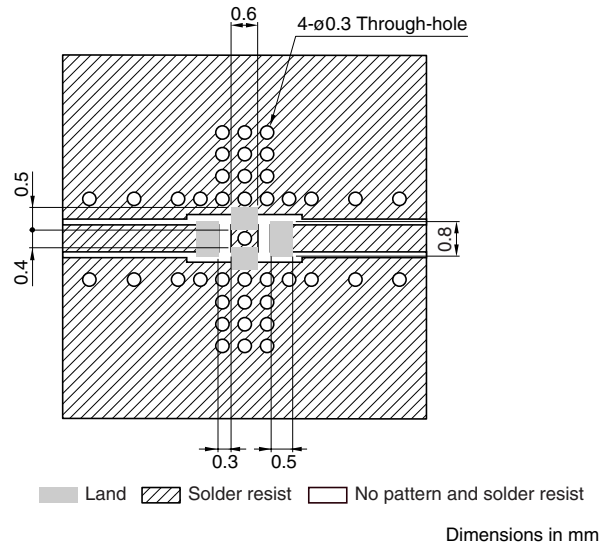
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN(OUT)
2	GND
3	OUT(IN)
4	GND

### RECOMMENDED PCB PATTERN



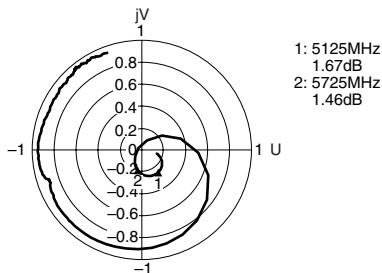
### ELECTRICAL CHARACTERISTICS

Item		Minimum value	Typical value	Maximum value
Insertion loss	[5125 to 5725MHz] (dB)	—	—	1.5
Attenuation	[6800 to 7634MHz] (dB)	12	—	—
	[10250 to 11450MHz] (dB)	25	—	—
Temperature range	Operating (°C)	-40	—	+85
	Storage (°C)	-40	—	+85

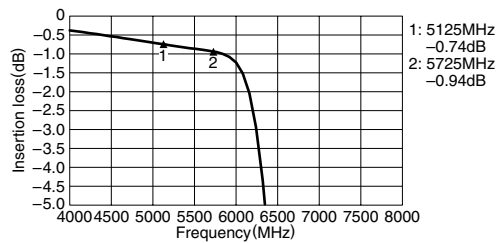
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

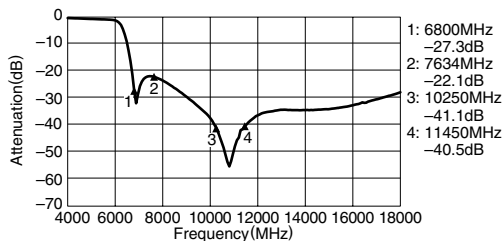
#### VSWR



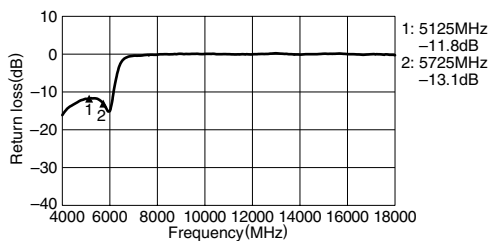
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

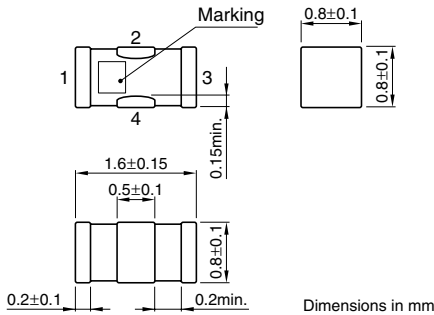


• All specifications are subject to change without notice.

# Multilayer Low Pass Filters, DEA Series

## DEA165850LT-1197B2 FOR 5GHz W-LAN

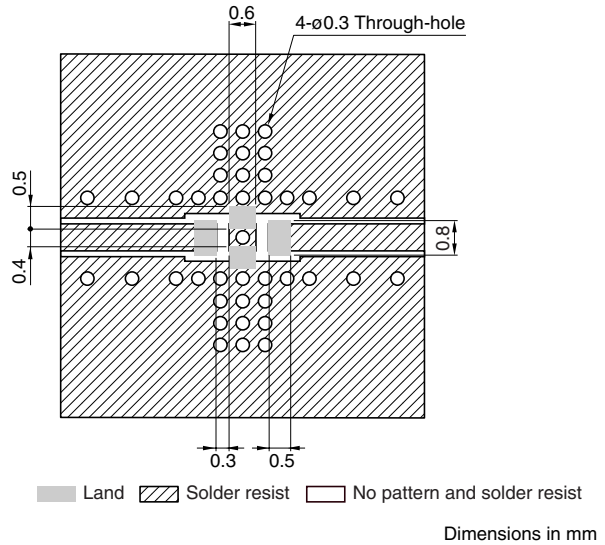
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	IN
2	GND
3	OUT
4	GND

### RECOMMENDED PCB PATTERN



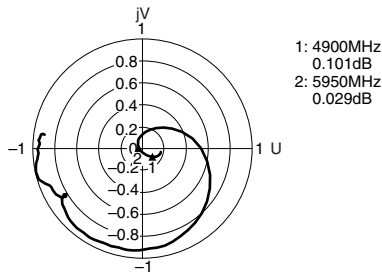
### ELECTRICAL CHARACTERISTICS

Item		Minimum value	Typical value	Maximum value
Insertion loss	[4900 to 5950MHz]	(dB)	—	0.7
Return loss	[4900 to 5950MHz]	(dB)	12	—
Attenuation	[9800MHz]	(dB)	20	—
	[11900MHz]	(dB)	30	—
Temperature range	Operating	(°C)	-40	+85
	Storage	(°C)	-40	+85

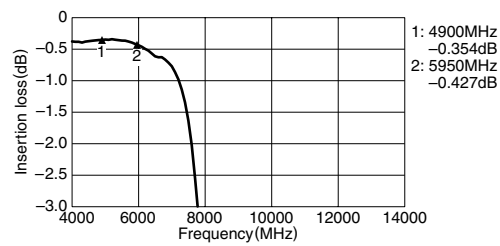
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

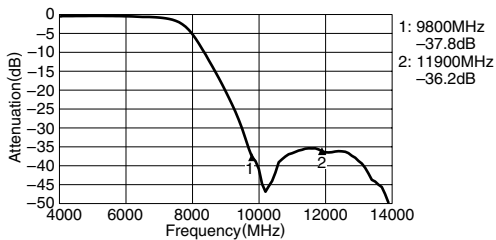
#### VSWR



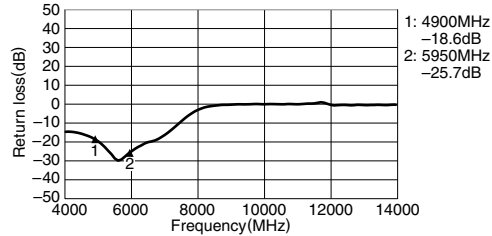
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS

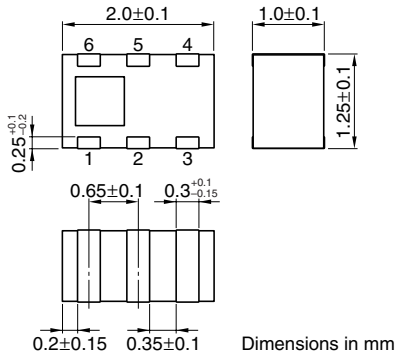


• All specifications are subject to change without notice.

# Multilayer High Pass Filters, DEA Series

## DEA202484HT-8002A1

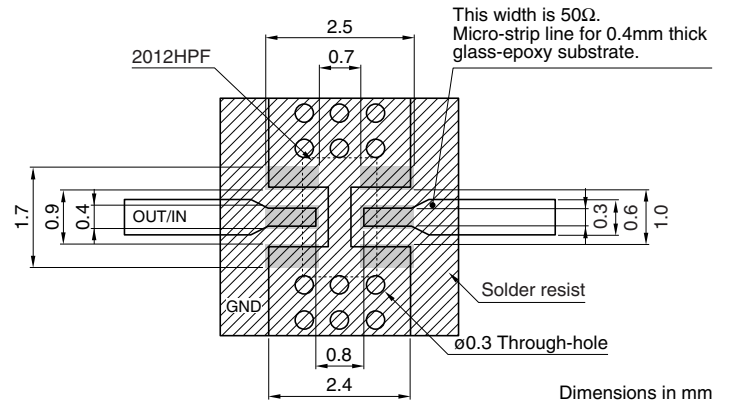
### SHAPES AND DIMENSIONS



### TERMINAL FUNCTIONS

1	GND
2	IN
3	GND
4	GND
5	OUT
6	GND

### RECOMMENDED PCB PATTERN



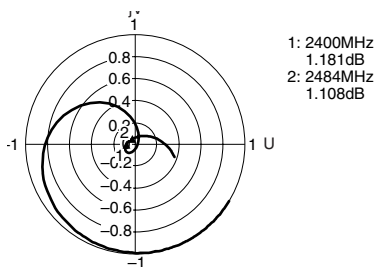
### ELECTRICAL CHARACTERISTICS

Item		Minimum value	Typical value	Maximum value	
Insertion loss	[2400 to 2484MHz]	—	0.65	0.8	
	[1845 to 1915MHz]	20	28	—	
Attenuation	[1705 to 1790MHz]	17	22	—	
	[875 to 920MHz]	25	29	—	
	Operating	(°C)	-40	—	+85
Temperature range	Storage	(°C)	-40	—	+85

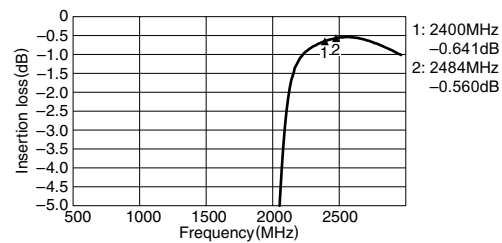
• Ta: +25±5°C

### FREQUENCY CHARACTERISTICS

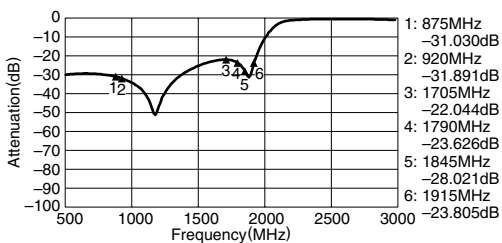
#### VSWR



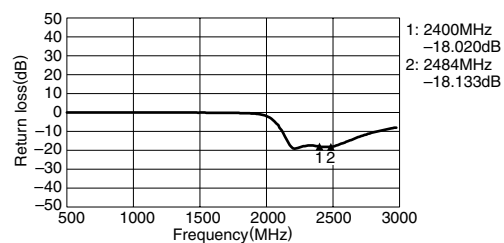
#### INSERTION LOSS



#### ATTENUATION



#### RETURN LOSS



• All specifications are subject to change without notice.