Jan. 2019 Ver.2.0
TDK Corporation

Multilayer Low Pass Filter

For LTE

DEA Series 1.6x0.8mm [EIA 0603] TYPE

P/N: **DEA160960LT-5044C7**

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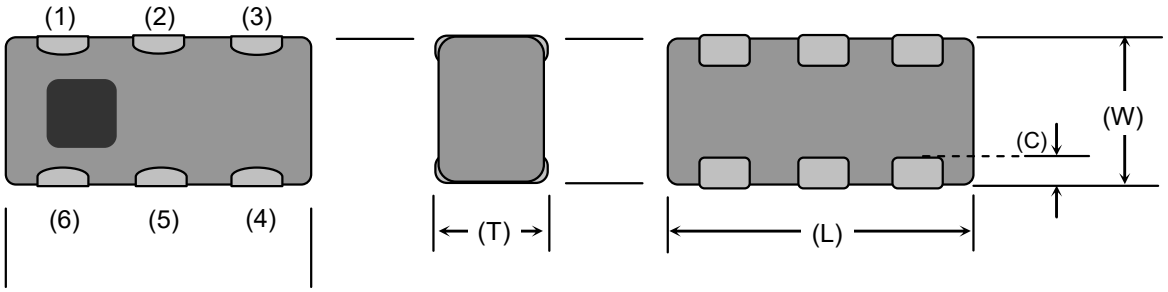
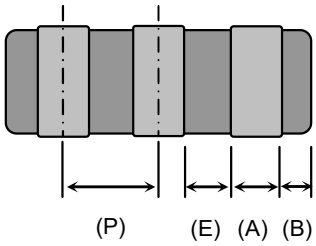
■ SHAPES AND DIMENSIONS

[Top View] [Bottom View]



[Side View]



Dimensions (mm)

L	W	T	A	B	C	E	P
1.60 +/-0.10	0.80 +/-0.10	0.60 +/-0.10	0.30 +/-0.10	0.10 +/-0.10	0.25 +/-0.10	0.25 +/-0.10	0.55 +0.05 /-0.10

Terminal functions

(1)	Input / Output Port
(2)	GND
(3)	Output / Input Port

(4)	GND
(5)	NC
(6)	GND

DC Cut
No. IN and OUT are connected, but between IN and GND, or between OUT and GND are not connected.

■ TERMINATION FINISH

Material
Sn plate

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■ ELECTRICAL CHARACTERISTICS

(Measurement)

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	617 to 699	-	0.42	0.60
	699 to 787	-	0.43	0.60
	787 to 960	-	0.57	0.70
Insertion Loss (dB) (–40 to +85 °C)	617 to 699	-	-	0.80
	699 to 787	-	-	0.80
	787 to 960	-	-	0.90
VSWR (Input / Output Port)	617 to 699	-	1.50	1.92
	699 to 787	-	1.45	1.92
	787 to 960	-	1.33	1.92
Attenuation (dB)	1427 to 1920	30	37	-
	2097 to 2880	30	35	-
Attenuation (dB) (–40 to +85 °C)	1427 to 1920	28	-	-
	2097 to 2880	28	-	-
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

■ MAXIMUM RATINGS

Parameter	TDK Spec		Conditions
	Min.	Max.	
Operating temperature (°C)	–40 to +85 °C		
Storage temperature (°C)	–40 to +85 °C		
Power Handling (W)	-	4	Duty 50% at 824~915MHz
	-	2	CW at 617~960MHz
Human Body Model : HBM @Each Port (V)	-1000	1000	100pF / 1500ohm
Machine Model : MM @Each Port (V)	-150	150	200pF / 0ohm
Charged Device Model : CDM @Each Port (V)	-500	500	Relative humidity : 60%RH max

Ambient temperature : +25+/-5°C

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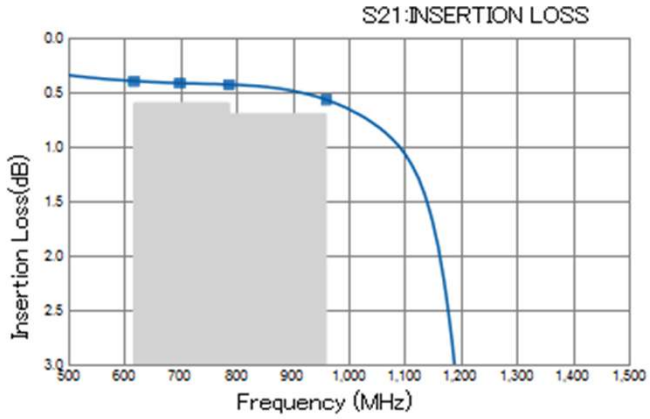
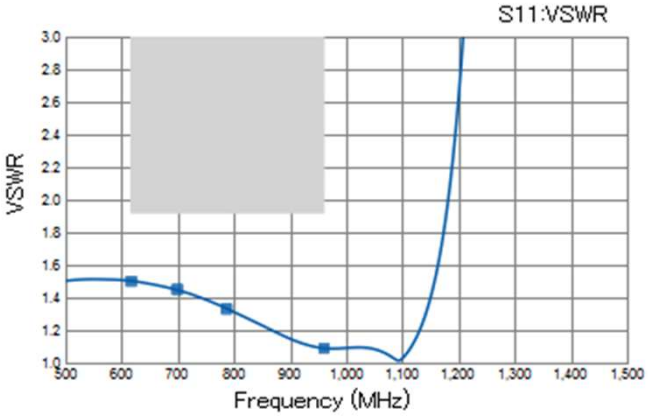
■ FREQUENCY CHARACTERISTICS

Insertion Loss



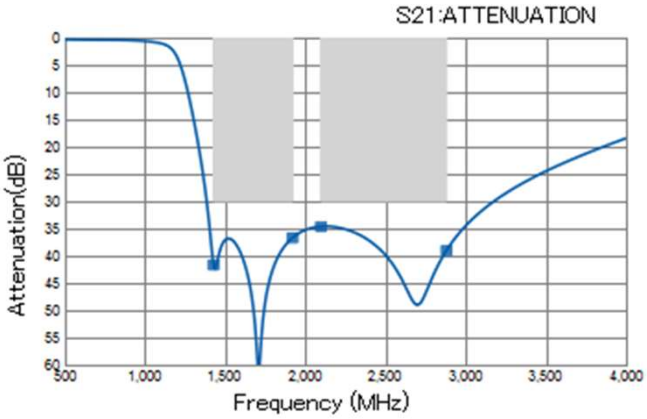
MHz	1
617	0.40
699	0.42
787	0.43
960	0.57

VSWR (Input Port)



MHz	1
617	1.50
699	1.45
787	1.33
960	1.09

Attenuation



MHz	1
1427	41.66
1920	36.70
2097	34.63
2880	39.03

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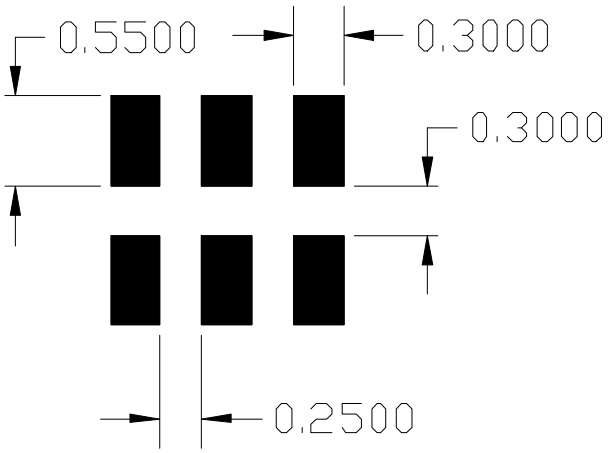
RECOMMENDED LAND PATTERN



ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

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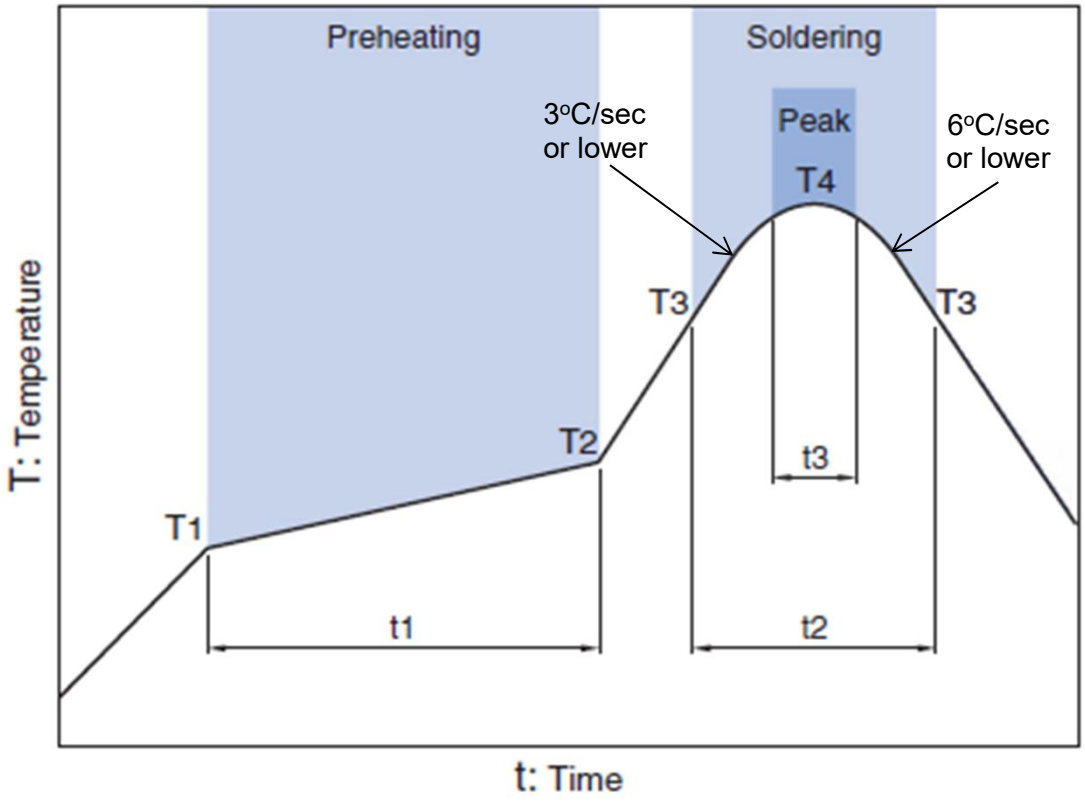
■ RECOMMENDED REFLOW PROFILE



Preheating			Soldering			
			Critical zone (T3 to T4)		Peak	
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	T3	t2	T4	t3 *
150°C	200°C	60 to 120sec	217°C	60 to 120sec	240 to 260°C	30 sec Max

* t3 : Time within 5°C of actual peak temperature

The maximum number of reflow is 3.

Note: Lead free solder is recommended.
Recommended solder is Sn-3.0Ag-0.5Cu. (M705 by Senju Metal Industry)

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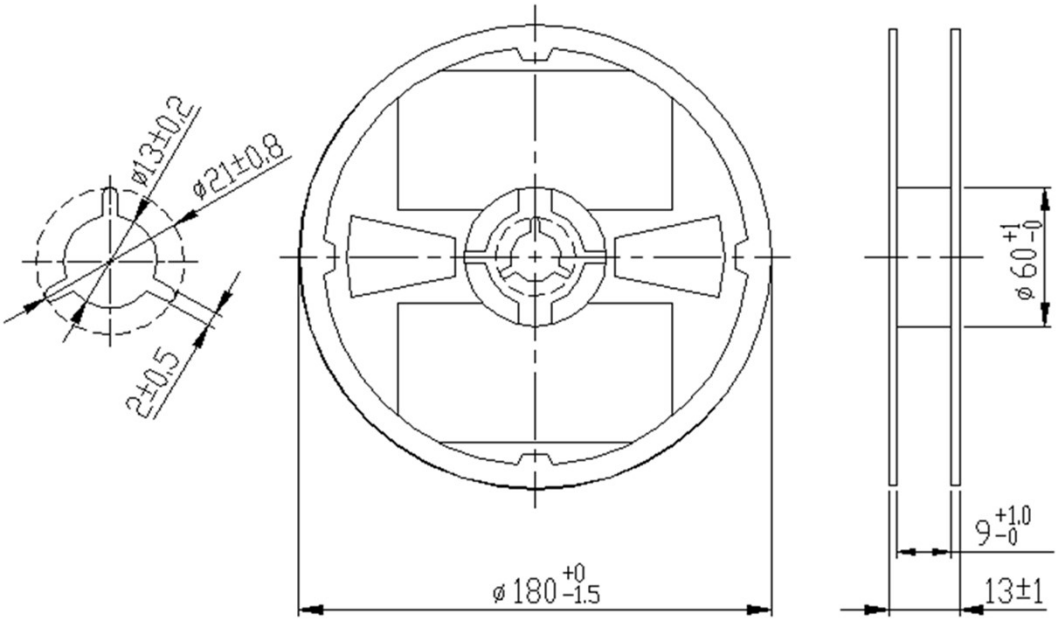
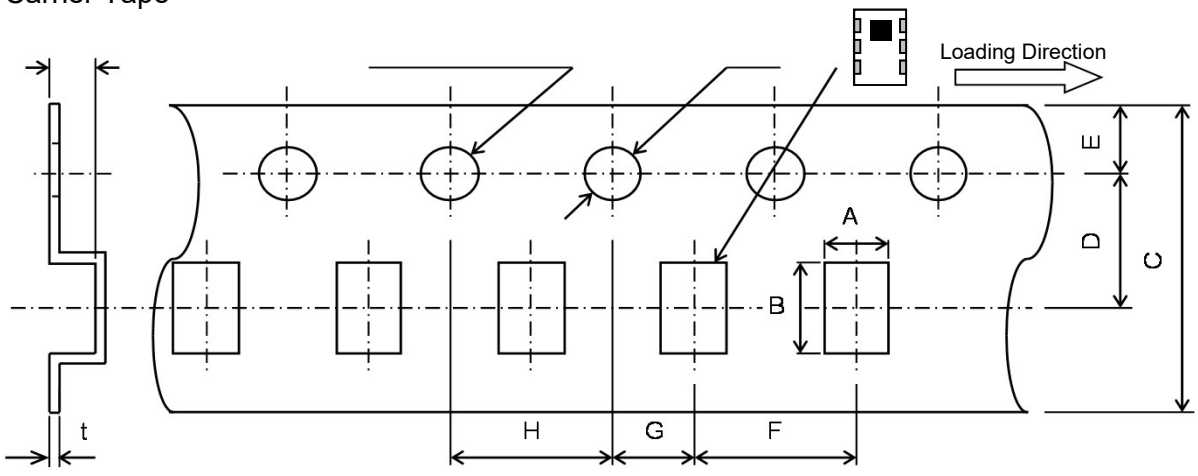
■ PACKAGING STYLE

Reel Dimensions



Dimensions in mm

Carrier Tape



Unit : mm

Dimensions (mm)

A	B	C	D	E	F	G	H	J	K	t
0.97 +/-0.05	1.8 +/-0.05	8.0 +/-0.2	3.5 +/-0.05	1.75 +/-0.1	4.0 +/-0.1	2.0 +/-0.05	4.0 +/-0.1	1.5 +0.1/-0	0.8 MAX	0.25 +/-0.05

STANDARD PACKAGE QUANTITY (pieces/reel)
4,000

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

⚠ REMINDERS

The products listed on this specification sheet are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet.

1. Aerospace/Aviation equipment
2. Transportation equipment (cars, electric trains, ships, etc.)
3. Medical equipment
4. Power-generation control equipment
5. Atomic energy-related equipment
6. Seabed equipment
7. Transportation control equipment
8. Public information-processing equipment
9. Military equipment
10. Electric heating apparatus, burning equipment
11. Disaster prevention/crime prevention equipment
12. Safety equipment
13. Other applications that are not considered general-purpose applications

When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc., to ensure higher safety.