



Nov. 2023 Ver.3.1a
TDK Corporation

Multilayer Low Pass Filter

For Wi-Fi 6E

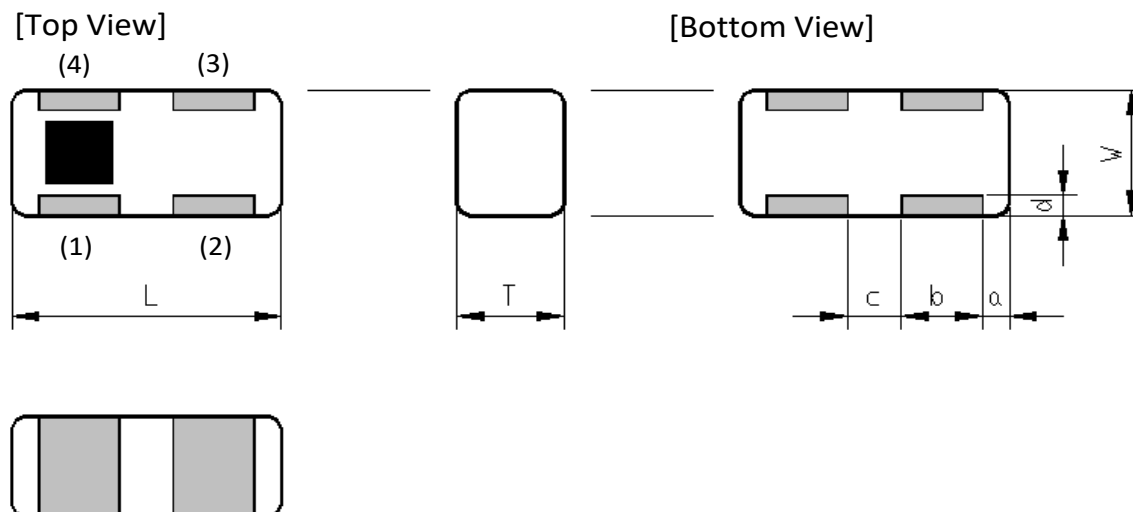
DEA Series 1.0x0.5mm [EIA 0402] TYPE

P/N: **DEA107125LT-6348A1**

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■ SHAPES AND DIMENSIONS



Dimensions (mm)

L	W	T	a	b	c	d
1.00	0.50	0.38	0.10	0.30	0.20	0.12
+/-0.05	+/-0.05	+/-0.04	+/-0.10	+/-0.10	+/-0.10	+/-0.07

Terminal functions

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

■ TERMINATION FINISH

Material
Sn plate

All specifications are subject to change without notice.

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■ ELECTRICAL CHARACTERISTICS

(Measurement)

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	5170 to 7125	-	0.34	0.55
Insertion Loss (dB) (-40 to +85 °C)	5170 to 7125	-	-	0.70
VSWR (Input Port)	5170 to 7125	-	1.24	1.67
VSWR (Output Port)	5170 to 7125	-	1.24	1.67
Attenuation (dB)	10340 to 14250	18	30.4	-
	15510 to 21375	18	30.1	-
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

■ MAXIMUM RATINGS

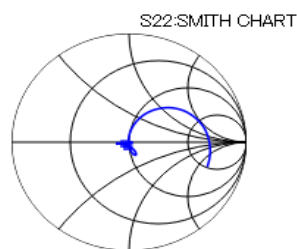
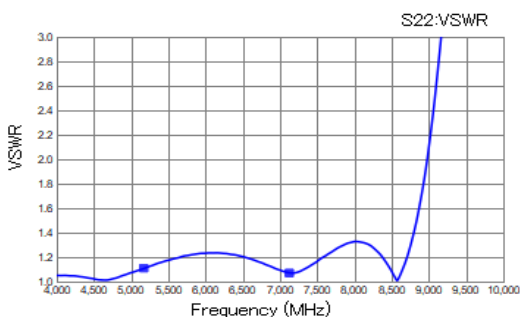
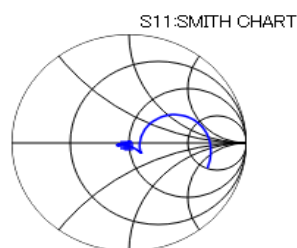
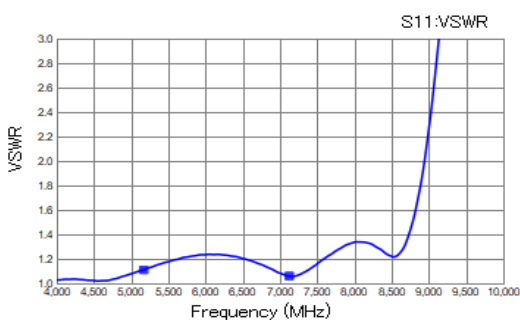
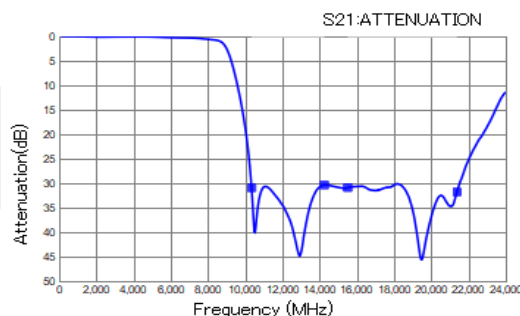
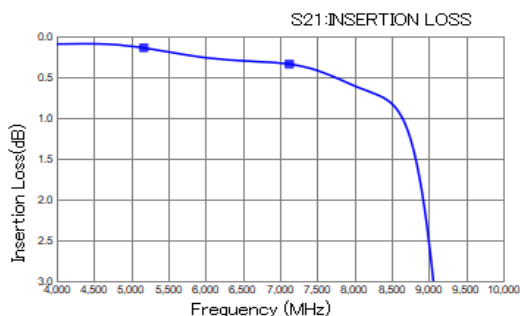
Parameter		TDK Spec	Conditions
Operating temperature (°C)		-40 to +85 °C	
Storage temperature (°C)		-40 to +85 °C	
Power Handling (W) *1	Frequency (MHz)		
	5170 to 7125	1	CW Duty 100%
Human Body Model : HBM	@Each Port (V)	+/-1000	100pF / 1500ohm
Machine Model : MM	@Each Port (V)	+/-150	200pF / 0ohm
Charged Device Model : CDM	@Each Port (V)	+/-500	Humidity : 60%RH max

*1 : Refer to 3GPP TS 38.101-1 V15.2.0

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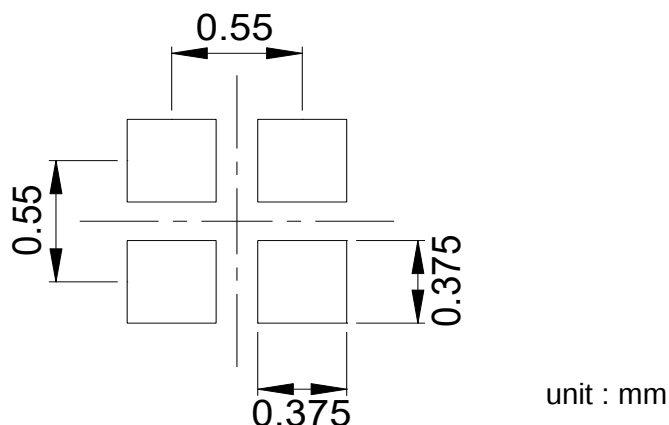
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FREQUENCY CHARACTERISTICS

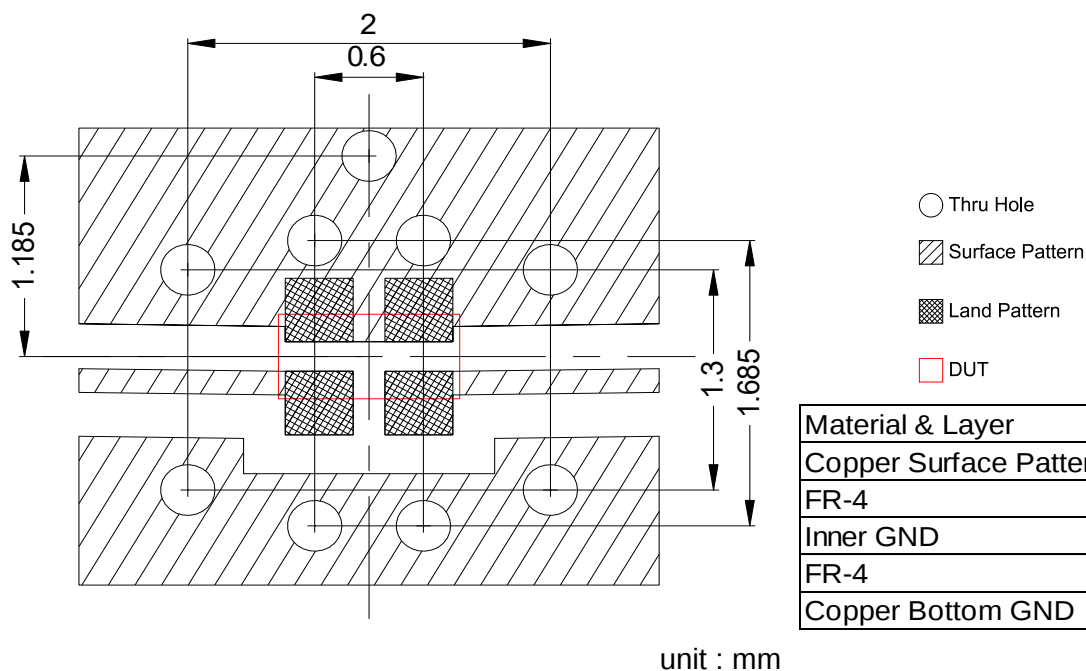


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RECOMMENDED LAND PATTERN



EVALUATION BOARD



- Thru Hole
- ▨ Surface Pattern
- ▤ Land Pattern
- DUT

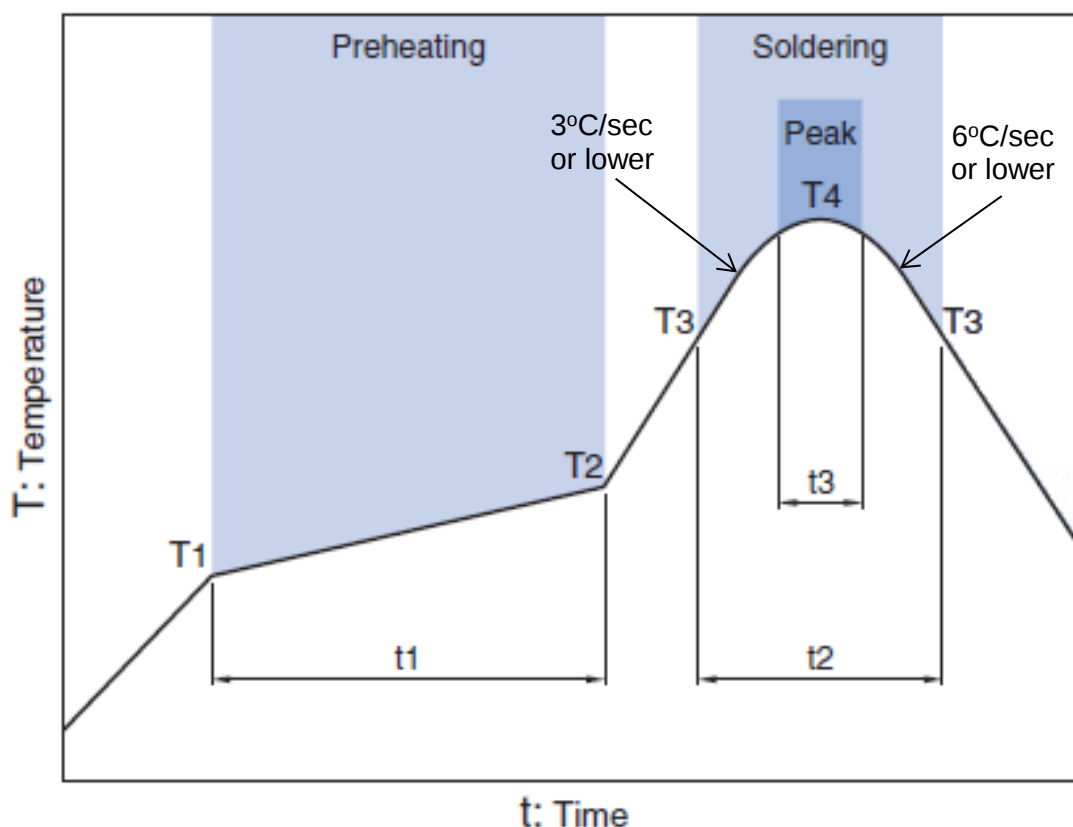
Material & Layer	Thickness
Copper Surface Pattern	0.035 mm
FR-4	0.10 mm
Inner GND	0.018 mm
FR-4	0.30 mm
Copper Bottom GND	0.035 mm

ENVIRONMENT INFORMATION

RoHS Statement
 RoHS Compliance

TDK Corporation

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)

GENERAL TECHNICAL INFORMATION

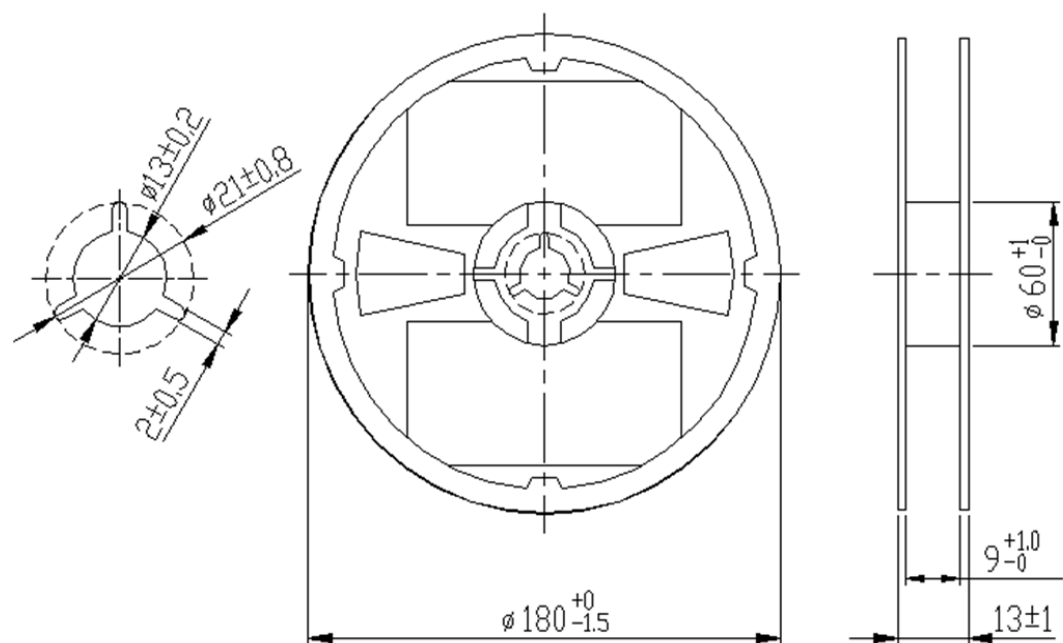
https://product.tdk.com/en/system/files?file=dam/doc/product/rf/rf/coupler/general_tech_info/rf_general-technical-info_02_en.pdf

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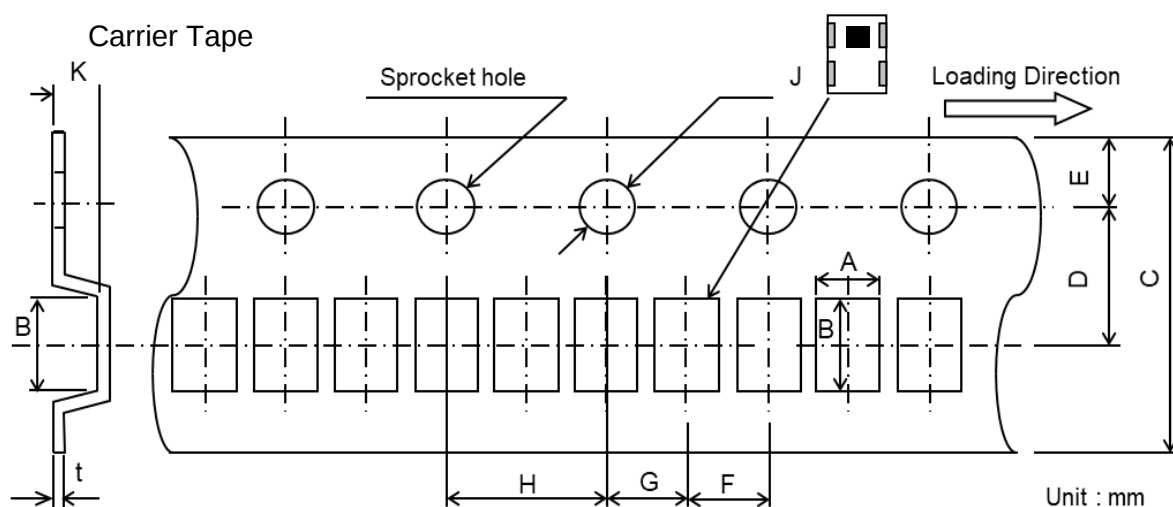
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PACKAGING STYLE

Reel Dimensions



Dimensions in mm



Unit : mm

Dimensions (mm)

A	B	C	D	E	F	G	H	J	K	t
0.62	1.12	8.0	3.5	1.75	2.0	2.0	4.0	1.5	0.45	0.2
± 0.05	± 0.05	± 0.3	± 0.05	± 0.1	± 0.05	± 0.05	± 0.05	$\pm 0.1/-0$	± 0.03	± 0.05

STANDARD PACKAGE QUANTITY

(pieces/reel)

10,000

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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.

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