



Jan. 2022 Ver.3.3
TDK Corporation

Multilayer Low Pass Filter

For 698-960MHz

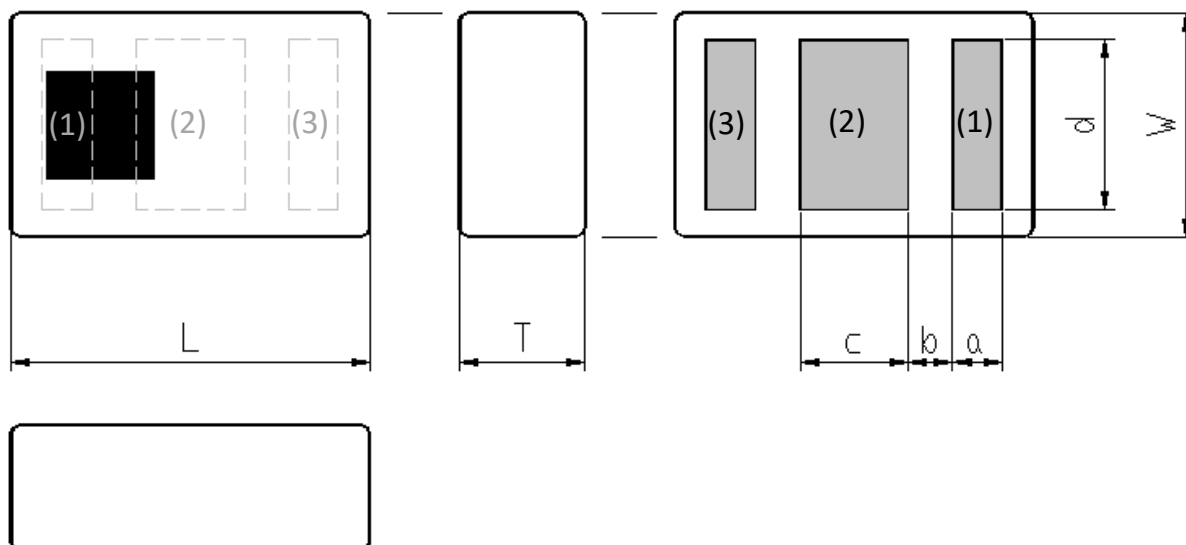
DEA Series 2.0x1.25mm [EIA 0805] TYPE

P/N: **DEA200960LT-5055B1**

DEA200960LT-5055B1**■ SHAPES AND DIMENSIONS**

[Top View]

[Bottom View]



Dimensions (mm)

L	W	T	a	b	c	d
2.00	1.25	0.70	0.275	0.25	0.60	0.95
+/-0.15	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10

Terminal functions

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

■ TERMINATION FINISH

Material
Au plate

DEA200960LT-5055B1

■ ELECTRICAL CHARACTERISTICS

(Measurement)

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	698 to 960	-	0.22	0.30
Insertion Loss (dB) (-40 to +90 °C)	698 to 960	-	-	0.35
VSWR	698 to 960	-	1.11	1.50
Attenuation (dB)	1560 to 1610	15	20	-
	1648 to 9600	25	28	-
	9600 to 12700	12	20	-
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

■ MAXIMUM RATINGS

Parameter	TDK Spec		Conditions
	Min.	Max.	
Operating temperature (°C)	-40 to +90 °C		
Storage temperature (°C)	-40 to +90 °C		
Power Handling (W) ^{*1}	-	4	Duty 50%
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

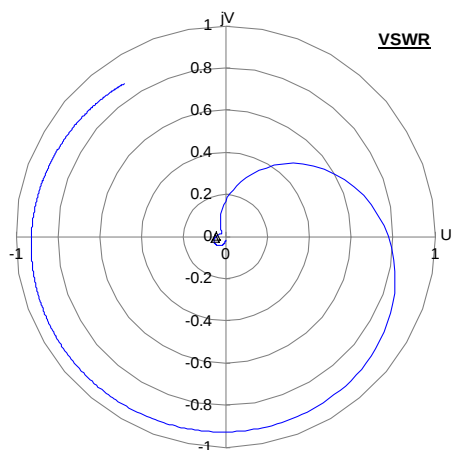
^{*1} : Refer to 3GPP TS 38.101-1 V15.2.0

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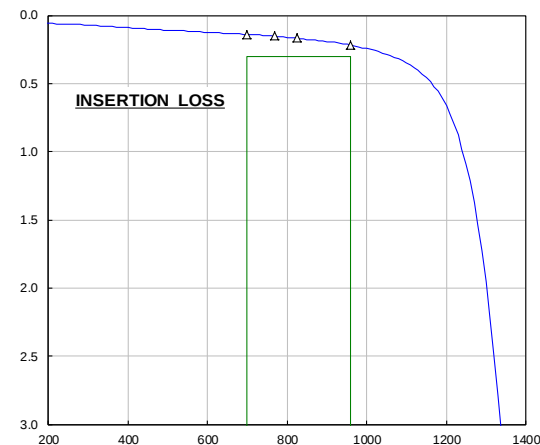
FREQUENCY CHARACTERISTICS

S11 POLA REF 1.0 U SCALE 1.0U FS



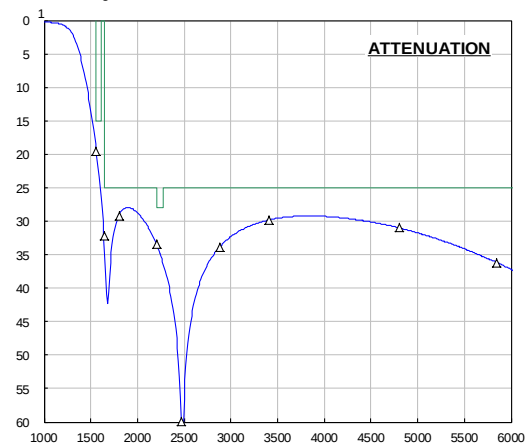
MARKER 1
698 MHz
1.11
MARKER 2
768 MHz
1.09
MARKER 3
824 MHz
1.07
MARKER 4
960 MHz
1.05

S21 Log MAG REF 0.0dB SCALE 0.5dB/



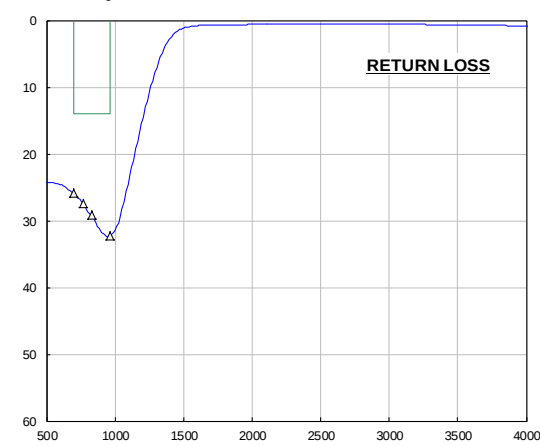
MARKER 1
698 MHz
0.14 dB
MARKER 2
768 MHz
0.15 dB
MARKER 3
824 MHz
0.17 dB
MARKER 4
960 MHz
0.22 dB

S21 Log MAG REF 0.0dB SCALE 5.0dB/



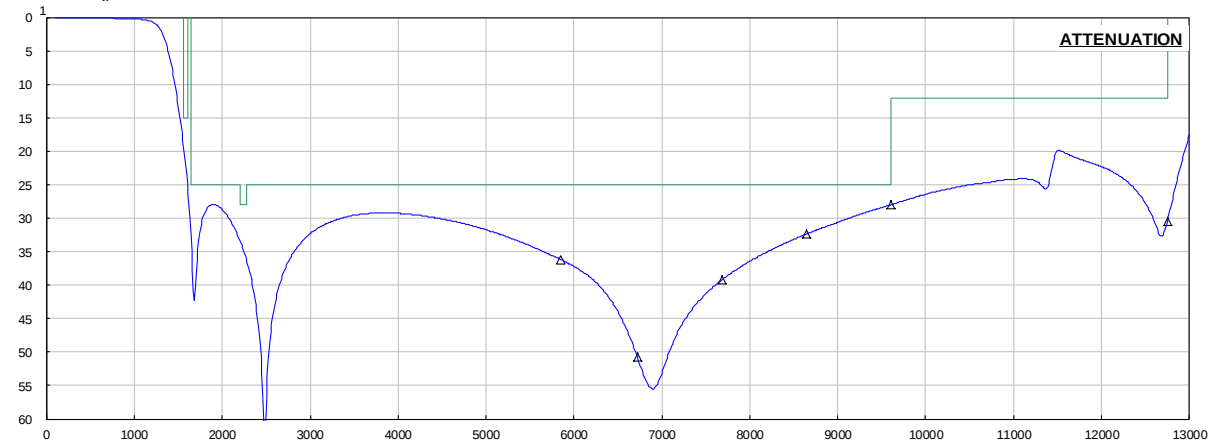
MARKER 1
1560 MHz
19.6 dB
MARKER 2
1648 MHz
32.2 dB
MARKER 3
1805 MHz
29.1 dB
MARKER 4
2202 MHz
33.4 dB
MARKER 5
2880 MHz
33.8 dB
MARKER 6
3411 MHz
29.8 dB
MARKER 7
4800 MHz
31.0 dB
MARKER 8
5850 MHz
36.2 dB

S11 Log MAG REF 0.0dB SCALE 5.0dB/



MARKER 1
698 MHz
25.9 dB
MARKER 2
768 MHz
27.4 dB
MARKER 3
824 MHz
29.2 dB
MARKER 4
960 MHz
32.3 dB

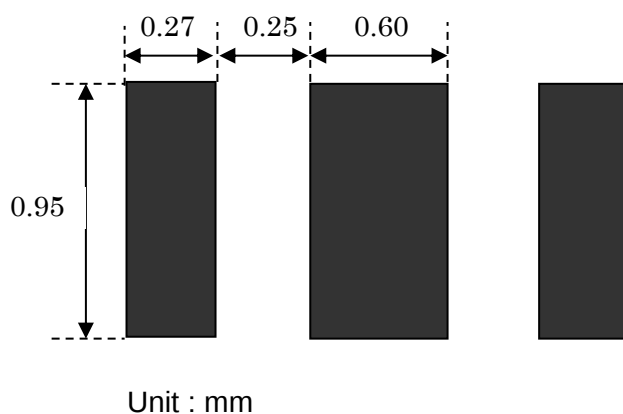
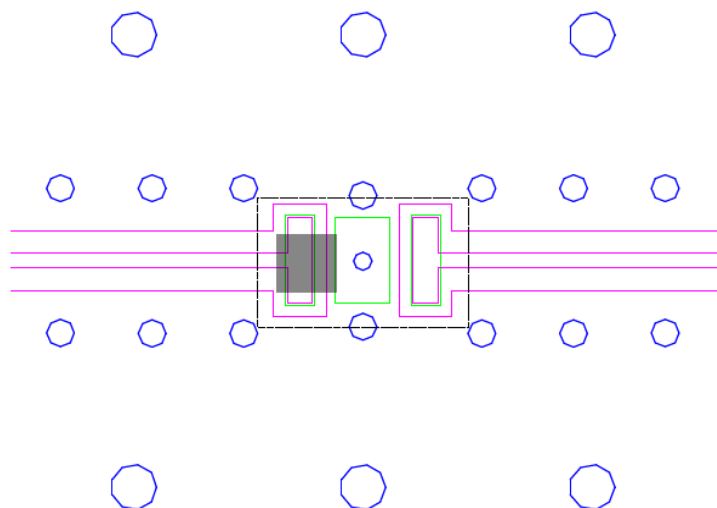
S21 Log MAG REF 0.0dB SCALE 5.0dB/



★
MARKER 1
5850 MHz
36.2 dB
MARKER 2
6720 MHz
50.7 dB
MARKER 3
7680 MHz
39.2 dB
MARKER 4
8640 MHz
32.4 dB
MARKER 5
9600 MHz
28.0 dB
MARKER 6
12750 MHz
30.5 dB

All specifications are subject to change without notice.

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DEA200960LT-5055B1**RECOMMENDED LAND PATTERN****EVALUATION BOARD**

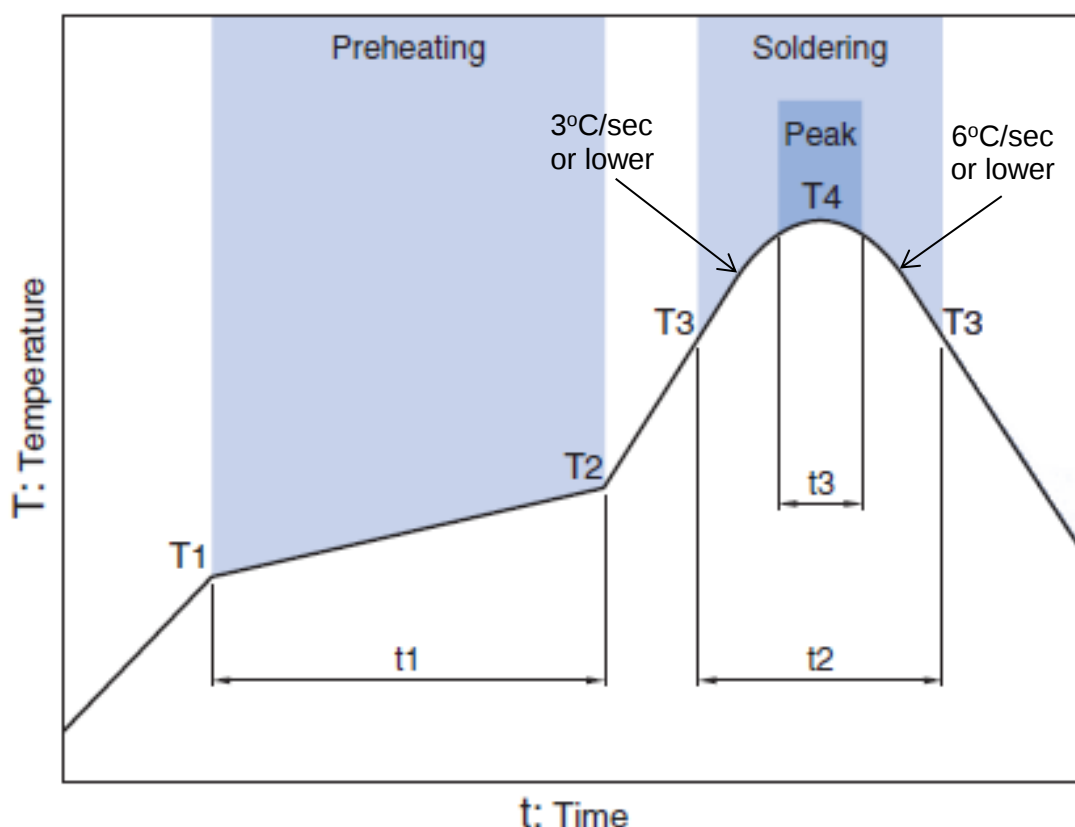
-  Thru Hole
-  Resist
-  Surface Pattern

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

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

ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

DEA200960LT-5055B1**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

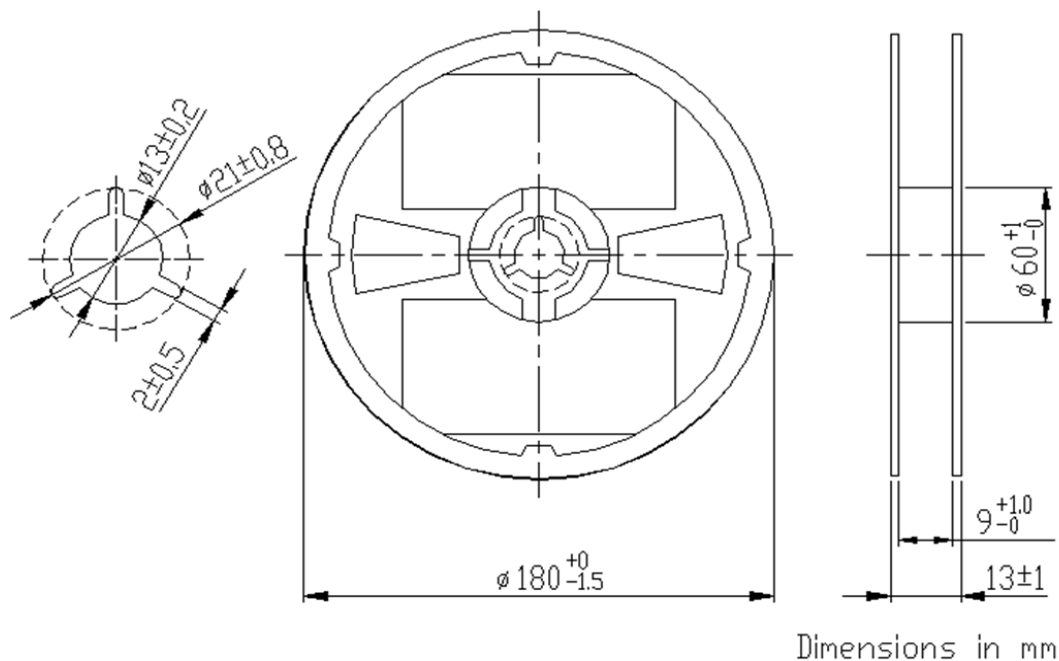
https://product.tdk.com/en/system/files?file=dam/doc/product/rf/rf/diplexer/general_tech_info/rf_general-technical-info_02_en.pdf

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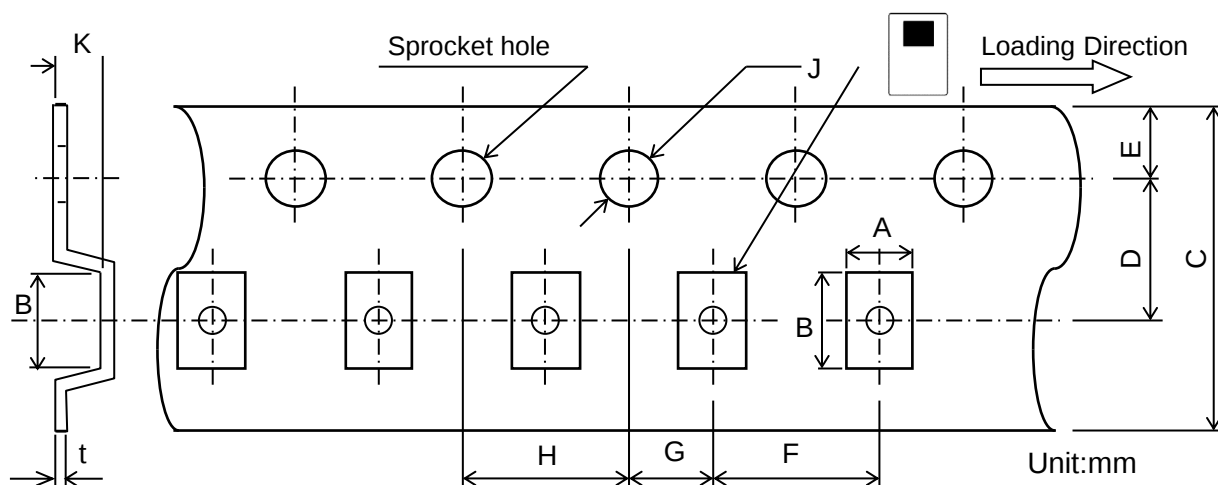
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PACKAGING STYLE

Reel Dimensions



Carrier Tape



Dimensions (mm)

A	B	C	D	E	F	G	H	J	K	t
1.45	2.25	8.0	3.5	1.75	4.0	2.0	4.0	1.5	1.05	0.25
+/-0.1	+/-0.1	+/-0.2	+/-0.05	+/-0.1	+/-0.1	+/-0.05	+/-0.1	+0.1/-0	MAX	+/-0.05

STANDARD PACKAGE QUANTITY (pieces/reel)
2,000

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 catalog 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 catalog.

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

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.