

Multilayer Low Pass Filter For LTE

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



DEA162690LT-5051B1

SHAPES AND DIMENSIONS

[Top View]



[Bottom View]



Dimensions (mm)

L	W	Т	а	b	С	d	е	f
1.60	0.80	0.60	0.21	0.22	0.40	0.30	0.225	0.65
+/-0.10	+/-0.10	+/-0.10	+/-0.05	+/-0.05	+/-0.05	+/-0.05	+/-0.05	+/-0.05

Terminal functions

(1)	In/Out Port
(2)	GND
(3)	Out/In Port
(4)	GND

TEMPERATURE RANGE

Operating temperature	Storage temperature			
–40 to +85 °C	–40 to +85 °C			

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ELECTRICAL CHARACTERISTICS

(Μ	leasurement)
Υ.			/

Deremeter			TDK Spec			
Parameter	Frequency (MHz)			Min.	Тур.	Max.
Insertion Loss (dB)	673	to	2690	-	0.37	0.50
Insertion Loss (dB)	673	to	2690	-	-	0.60
(–40 to +85 °C)						
Ripple (dB)	673	to	2690	-	0.07	0.20
(Over any 200 MHz range)						
G.D.Ripple (ns)	673	to	2690	-	0.01	-
(Over any 20 MHz range)						
VSWR	673	to	2690	-	1.5	2.0
Attenuation (dB)	4950	to	6000	35	42	-
	6000	to	12750	45	49	-
Power Handling (dBm)				-	-	35
Characteristic Impedance (ohm)					50 (Nominal)	

Ta = +25+/-5°C

DEA162690LT-5051B1 **FREQUENCY CHARACTERISTICS** POLA REF 1.0 U SCALE 1.0U FS S21 Log MAG 0.0 1^{jV} Δ VSWR Δ

MARKER 2 0.6 0.160 dB 960 MHz 1.28 MARKER 3 MARKER 3 1710 MHz 0.305 dB 1.0 0.4 1710 MHz MARKER 4 2170 MHz 0.263 dB 0.2 1 46 ARKER 4 1.5 2170 MHz U 1.19 MARKER 5 2300 MHz -0.2 2.0 0.264 dB MARKER 6 2690 MHz 0.368 dB -0.4 25 -0.6 0.8 3.0 500 1000 1500 2000 2500 3000 3500 4000 S21 Log MAG REF 0.0dB SCALE 10.0dB/ S11 REF 0.0dB SCALE 5.0dB/ Log MAG 0 0 MARKER 1 673 MHz 23.1 dB MARKER 1 4950 MHz 42.3 dB RETURN LOSS ATTENUATION 5 10 MARKER 2 960 MHz MARKER 10 6000 MHz 20 49.0 dB 18.3 dB MARKER 3 8500 MHz 61.5 dB MARKER 3 1710 MHz 14.6 dB 15 30 20 MARKER 4 MARKER 4 2170 MHz 21.2 dB 12750 MH 60.0 dB 40 25 MARKER 5 30 2300 MHz 26.3 dB MARKER 6 50 35 2690 MHz 20.9 dB 60 40 70 45 50 80 500 2000 3500 5000 6500 8000 9500 11000 12500 14000 500 1000 1500 2000 2500 3000 3500 4000

0.8

S11



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RECOMMENDED LAND PATTERN



EVALUATION BOARD



Ο	Thru hole
	Resist
	Surface Pattern
	DUT (LPF)
Ma	terial, Layer

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

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RECOMMENDED REFLOW PROFILE

Pb free solder



Soaking			v	Vorking	Sold	Peak		
Temp.		Time	Temp. Time		Temp.	Time	Temp.	
T1 T2		t1	Т3	t2	T4	t3	T5	
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.	

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PACKAGING STYLE

Reel Dimensions



Dimensions in mm



All specifications are subject to change without notice. TDK Technology - Proprietary and Confidential Information of TDK Group Companies

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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.

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.