

Multilayer Triplexer

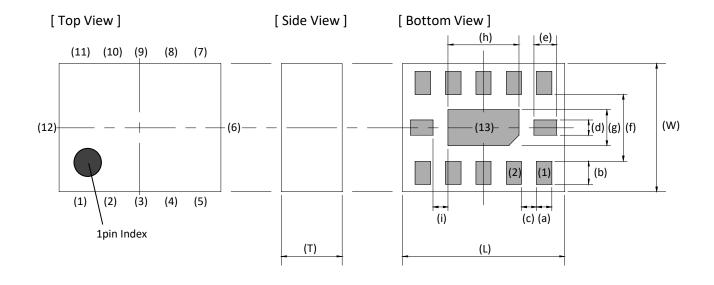
For 698-960MHz / 1710-2170MHz / 2300-2690MHz

DPX Series 3.2x2.5mm [EIA 1210] TYPE

P/N: TPX322690MT-7017C1

TPX322690MT-7017C1

SHAPES AND DIMENSIONS



Dimensions (mm)

	L	W	T	а	b	С	d	е	f	g	h	i
	3.20	2.50	1.00	0.30	0.45	0.30	0.30	0.45	1.30	0.70	1.40	0.30
H	⊦ /-0.10	+/-0.10	Max	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.15	+/-0.10

Terminal functions

(1)	Common Port	(6)	GND	(11)	Low-Band Port
(2)	GND	(7)	Mid-Band Port	(12)	GND
(3)	GND	(8)	GND	(13)	GND
(4)	GND	(9)	GND		
(5)	High-Band Port	(10)	GND		

■ TEMPERATURE RANGE



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

Material
Au plate

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ELECTRICAL CHARACTERISTICS

(Measurement)

Low-Band

Parameter	Freque	nev	/MU-/	TDK Spec			
Faranietei	reque	псу	(1411 12)	Min.	Тур.	Max.	
Insertion Loss (dB)		698	to	960	-	0.30	0.70
Insertion Loss (dB)	698	to	960	-	-	0.80	
(-40 to +85 °C)							
Isolation (dB)	-Mid	1710	to	2170	25	34	-
	-High	2300	to	2690	25	31	
Return Loss (dB)		698	to	960	18	25	-
Power Capacity(W)		698	to	960	-	-	3

Ta = +25+/-5°C

Mid-Band

Parameter	Freque	nev	/MU-/	TDK Spec			
Faranietei		Freque	псу	(1411-12)	Min.	Тур.	Max.
Insertion Loss (dB)		1710	to	2170	•	1.90	2.40
Insertion Loss (dB)		1710	to	2170	•	-	2.70
(-40 to +85 °C)					-	-	-
Isolation (dB)	-Low	698	to	960	25	27	-
	-High	2300	to	2690	8	14	-
Return Loss (dB)		1710	to	2170	10	15	-
Power Capacity(W)		1710	to	1910	-	-	3
		1910	to	2170	-	-	1

 $Ta = +25 + /-5 ^{\circ}C$

High-Band

Parameter	Freque	nev	/MU-/	TI	OK Sp	ес	
Parameter	rreque	псу	(IVITIZ)	Min.	Тур.	Max.	
Insertion Loss (dB)		2300	to	2690	ı	2.15	2.80
Insertion Loss (dB)		2300	to	2690	•	-	3.00
(–40 to +85 °C)					•	-	-
Isolation (dB)	-Low	698	to	960	25	46	-
	-Mid	1710	to	2170	13	16	-
Return Loss (dB)		2300	to	2690	8	13	-
Power Capacity(W)		2300	to	2690	-	-	1

 $Ta = +25 + /-5 ^{\circ}C$

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FREQUENCY CHARACTERISTICS (Measurement) Low - Band Attenuation Insertion Loss 698 MHz 0.2 dB 698 MHz 0.20 dB 0.0 0.30 dB 960 MHz 0.3 dB 960 MHz 29.7 dB 1710 MHz 10 2170 MHz 35.7 dB 2.0 15 2300 MHz 43.1 dB 2690 MHz 29.0 dB 3.0 1100 1500 1300 25 Return Loss 30 1300 1500 698 MHz 26.80 0.0 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 35 960 MHz 24.64 40 1500 3000 Mid - Band Insertion Loss Attenuation 698 MHz 27.0 dB _{0.0} 1710 MHz 0.66 dB 960 MHz 31.0 dB 1940 MHz 0.72 dB 0.7 dB 1.90 dB 1710 MHz 2170 MHz 1.9 dB 2.0 2300 MHz 10.7 dB 3.0 -2690 MHz 14.8 dB Return Loss 1600 1800 2000 2200 2400 1000 1200 1400 1710 MHz 19.29 0.0 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 1940 MHz 21.84 2170 MHz 16.64 40 High - Band Attenuation Insertion Loss 2300 MHz 2.15 dB 698 MHz 51.9 dB 0.5 2495 MHz 1.14 dB 960 MHz 57.9 dB 2690 MHz 1.08 dB 1710 MHz 27.7 dB 2170 MHz 12.5 dB 2.5 2300 MHz 2.2 dB 2200 2400 2600 3200 2690 MHz 1.1 dB 2000 0.0 = 5.0 2200 2400 2600 2800 3000 3200 20.53 2495 MHz 13.55 2690 MHz 13.90 4000 Isolation Low - Middle Isolation 0 Low - High 698 MHz 27.2 dB 698 MHz 45.8 dB 960 MHz 33.5 dB 960 MHz 48.1 dB 5 1710 MHz 33.9 dB 1710 MHz 56.6 dB 2170 MHz 10 38.8 dB 2170 MHz 2300 MHz 2300 MHz 45.4 dB 41.5 dB 15 2690 MHz 45.2 dB 2690 MHz 31.5 dB 20 Middle - High 25 698 MHz 18.4 dB 960 MHz 19.3 dB 30 1700 MHz 28.4 dB 1710 MHz 27.9 dB 1900 MHz 22.5 dB 2025 MHz 26.0 dB 2170 MHz 16.3 dB

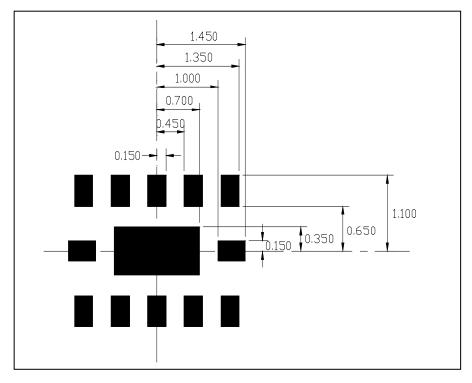
13.6 dB

2300 MHz

2690 MHz

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RECOMMENDED LAND PATTERN

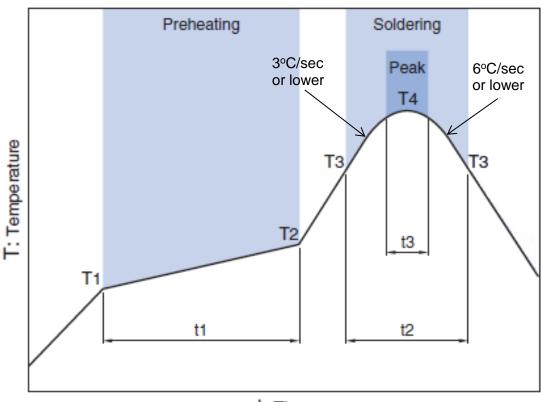


ENVIRONMENT INFORMATION

RoHS Statement RoHS Compliance

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RECOMMENDED REFLOW PROFILE



t: Time

	Drobe	eating	Soldering						
	FIEII	aurig	Critical zon	e (T3 to T4)	Peak				
Ter	mp.	Time	Temp. Time		Temp.	Time			
T1	T2	t1	Т3	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.

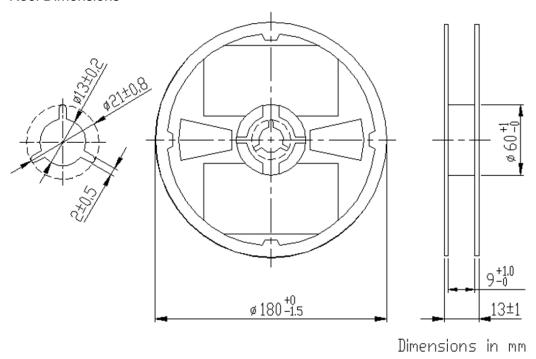
Note: Lead free solder is recommended.

Recommended solder is Sn-3.0Ag-0.5Cu. (M705 by Senju Metal Industry)

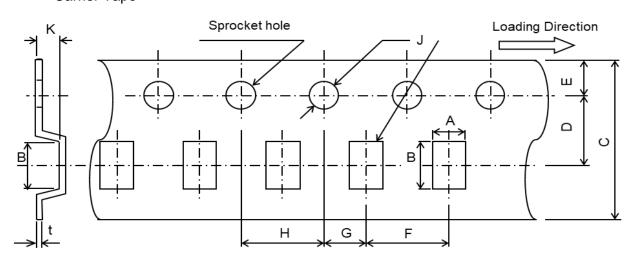
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PACKAGING STYLE

Reel Dimensions



Carrier Tape



Dimensions (mm)

	Α	В	С	D	Е	F	G	Н	J	K	t
Γ	2.7	3.45	8.0	3.5	1.75	4.0	2.0	4.0	1.5	1.45	0.25
	+/-0.05	+/-0.05	+0.3/-0.1	+/-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
- (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.

[•] All specifications are subject to change without notice.

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