⚠The products in this catalog are not recommended for new design

RF Components

March 2019

Multilayer Triplexer

For 698-960MHz / 1427-2170MHz / 2500-3600MHz

TPX253600MT-7019B2

2.5x2.0mm [EIA 1008]*

*** Dimensions Code JIS[EIA]**

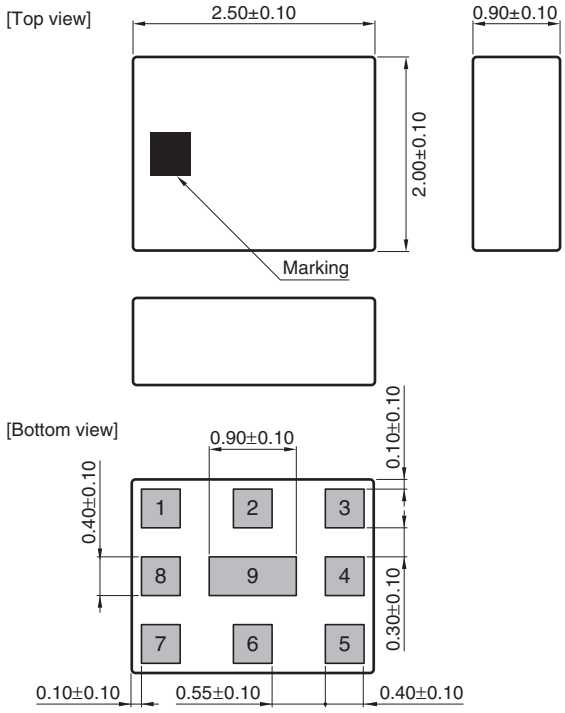
Multilayer Triplexer

Conformity to RoHS Directive

For 698-960MHz / 1427-2170MHz / 2500-3600MHz

TPX253600MT-7019B2

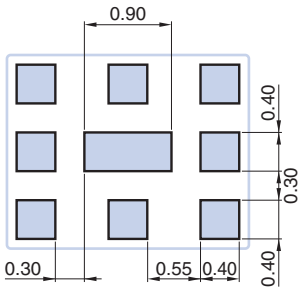
SHAPES AND DIMENSIONS



Dimensions in mm

Terminal functions	
1	High-Band Port
2	GND
3	Middle-Band Port
4	GND
5	Low-Band Port
6	GND
7	Common Port
8	GND
9	GND

RECOMMENDED LAND PATTERN



Dimensions in mm

○RoHS Directive Compliant Product: See the following for more details.https://product.tdk.com/info/en/environment/rohs/index.html

• All specifications are subject to change without notice.
• Before using these products, be sure to request the delivery specifications.

TPX253600MT-7019B2

■ELECTRICAL CHARACTERISTICS

□LOW-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	698 to 960	—	0.50	0.70
Return Loss (dB)	698 to 803	14	17.0	—
	803 to 960	14	20.7	—
Attenuation (dB)	1427 to 1511	7	10.7	—
	1710 to 2170	12	15.3	—
	2500 to 2690	27	32.2	—
	3400 to 3600	35	51.3	—
Characteristic Impedance (Ω)			50 (Nominal)	

・Ta: +25±5°C

□MIDDLE-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	1427 to 1511	—	0.98	1.20
	1710 to 2170	—	0.83	1.20
Return Loss (dB)	1427 to 1511	14	20.5	—
	1710 to 2170	14	16.4	—
Attenuation (dB)	698 to 960	14	18.2	—
	2500 to 2690	10	15.4	—
	3400 to 3600	15	19.2	—
Characteristic Impedance (Ω)			50 (Nominal)	

・Ta: +25±5°C

□HIGH-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	2500 to 2690	—	1.22	1.50
	3400 to 3600	—	0.29	0.60
Return Loss (dB)	2500 to 2690	14	17.7	—
	3400 to 3600	14	18.3	—
Attenuation (dB)	698 to 960	18	20.3	—
	1427 to 1511	16	18.9	—
	1710 to 2170	15	21.7	—
Characteristic Impedance (Ω)			50 (Nominal)	

・Ta: +25±5°C

TPX253600MT-7019B2

■ELECTRICAL CHARACTERISTICS

□COMMON

Item		Frequency Range (MHz)	Min.	Typ.	Max.
Isolation (dB)	Low to Middle	698 to 960	14	17.4	—
		1427 to 1511	7	10.4	—
		1710 to 2170	13	16.5	—
	Low to High	698 to 960	15	19.6	—
		2500 to 2690	30	37.6	—
		3400 to 3600	30	38.7	—
	Middle to High	1427 to 1511	15	19.4	—
		1710 to 2170	15	20.0	—
		2500 to 2690	13	16.7	—
		3400 to 3600	15	19.5	—
Characteristic Impedance (Ω)				50 (Nominal)	

・Ta: +25±5°C

■TEMPERATURE RANGE

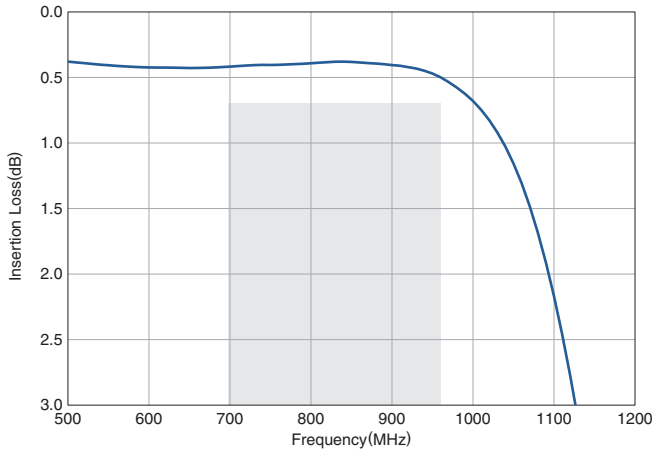
Operating temperature (°C)	Storage temperature (°C)
–40 to +85	–40 to +85

TPX253600MT-7019B2

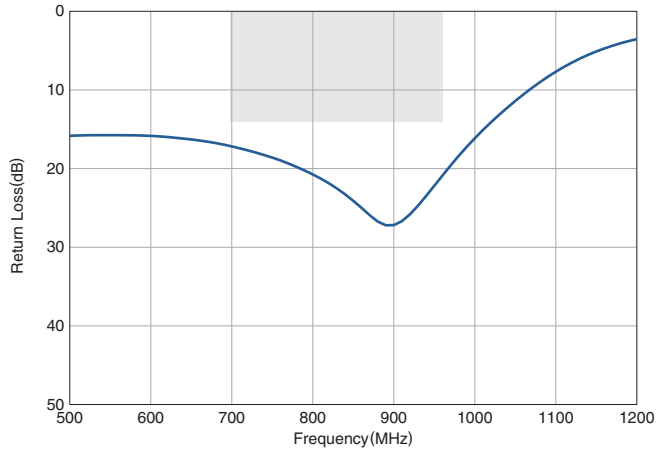
FREQUENCY CHARACTERISTICS

□LOW-BAND

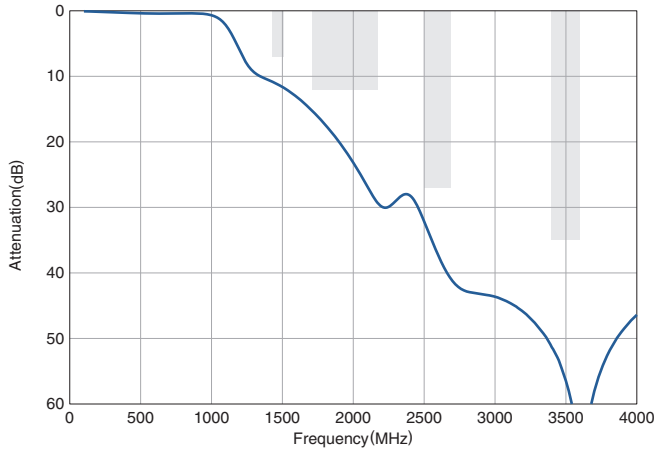
Insertion Loss



Return Loss

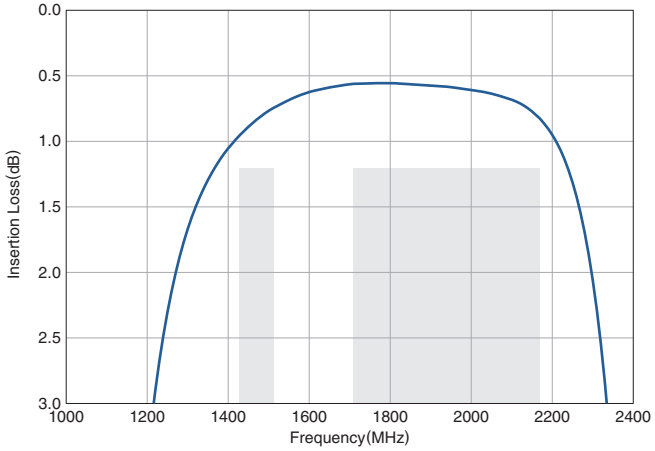


Attenuation

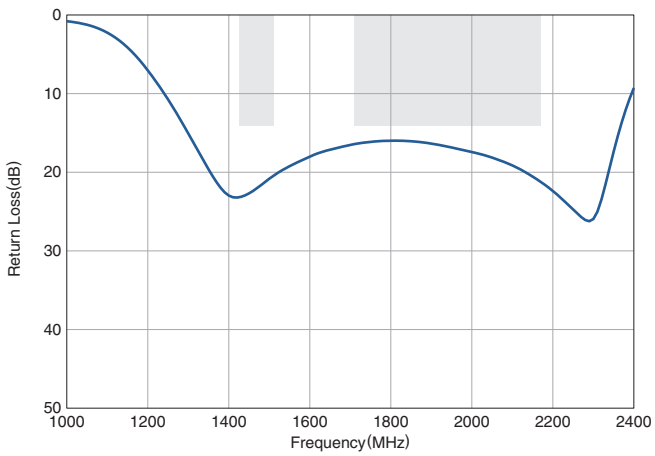


□MIDDLE-BAND

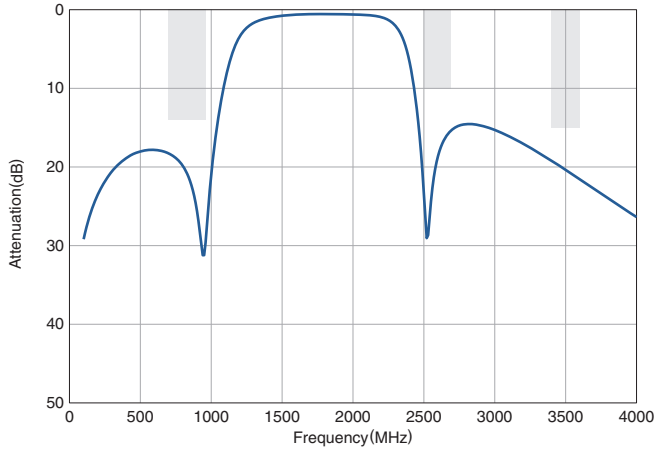
Insertion Loss



Return Loss



Attenuation

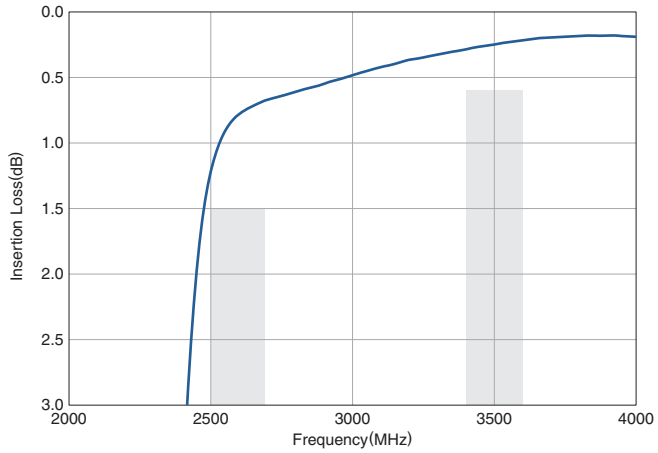


TPX253600MT-7019B2

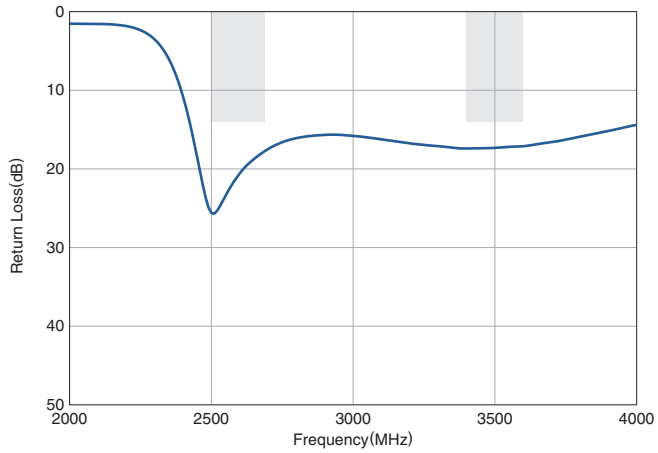
■FREQUENCY CHARACTERISTICS

□HIGH-BAND

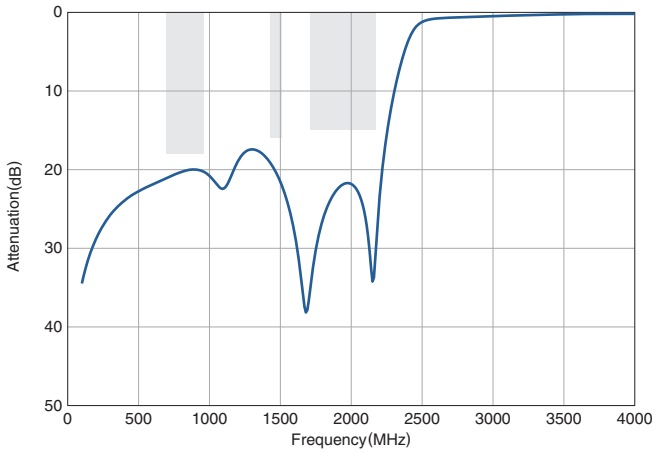
Insertion Loss



Return Loss



Attenuation

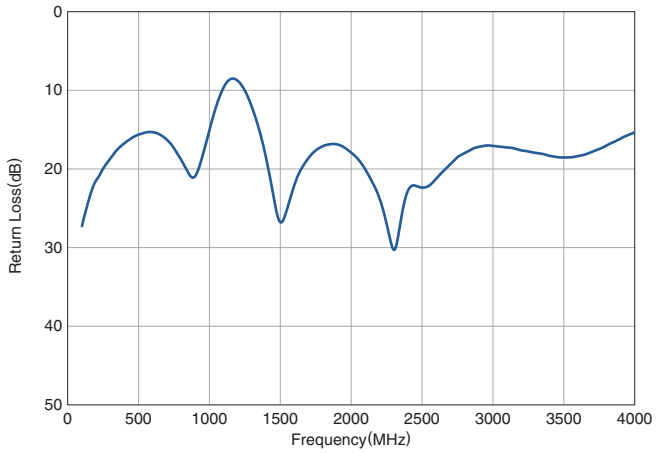


TPX253600MT-7019B2

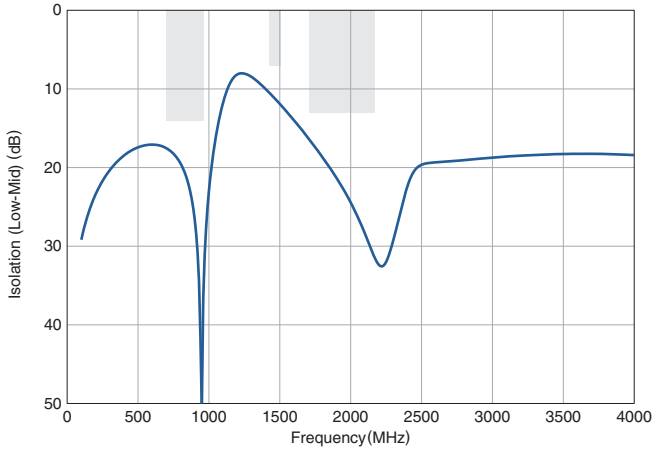
FREQUENCY CHARACTERISTICS

COMMON

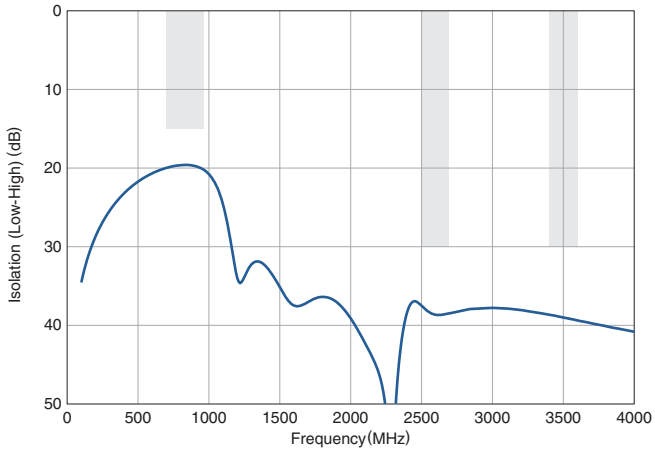
Return Loss



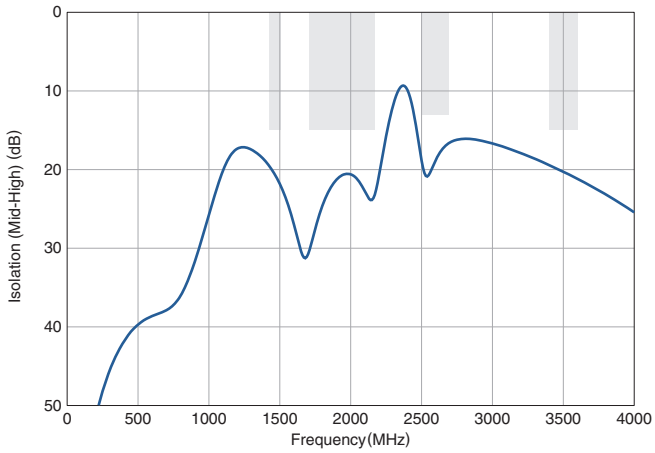
Isolation (Low-Mid)



Isolation (Low-High)

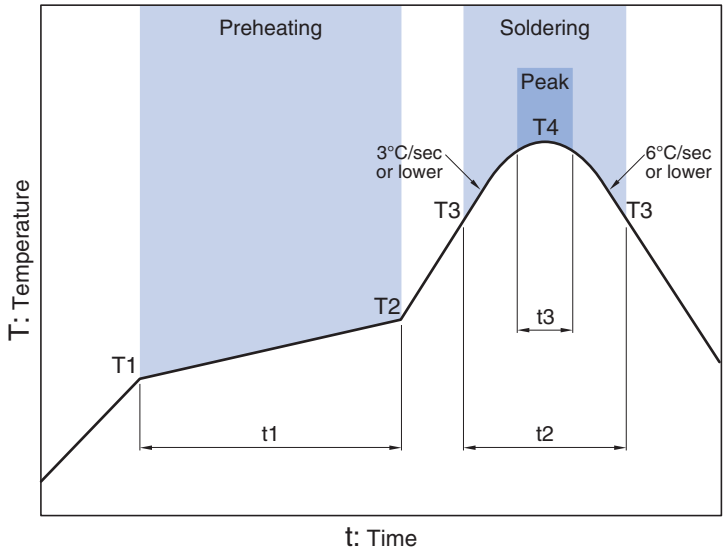


Isolation (Mid-High)



TPX253600MT-7019B2

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	30sec max.

* t3 : Time within 5°C of actual peak temperature
The maximum number of reflow is 3.

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.