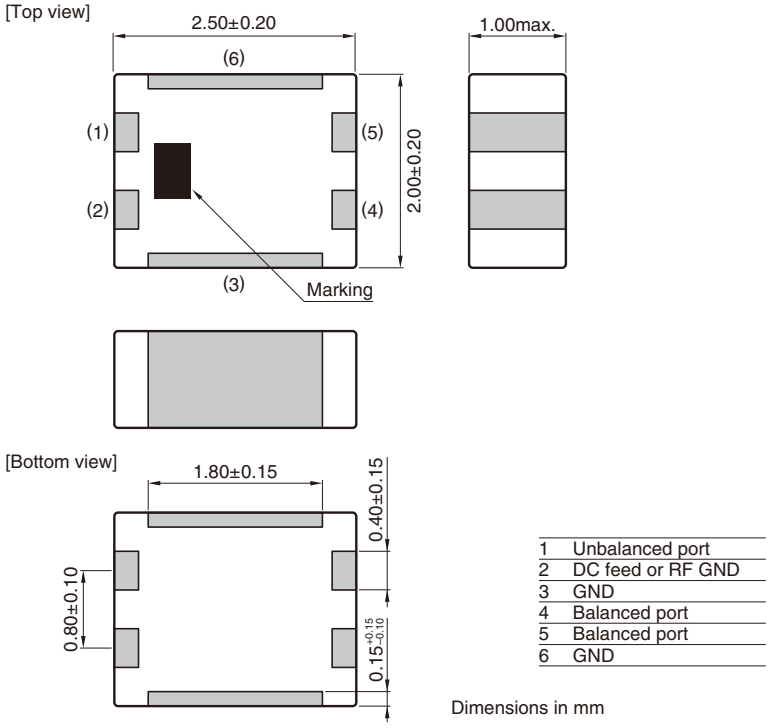
Multilayer Band Pass Filter (Balance Output Type)

Conformity to RoHS Directive

For 2400–2500MHz

DEA252450BT-7022B1

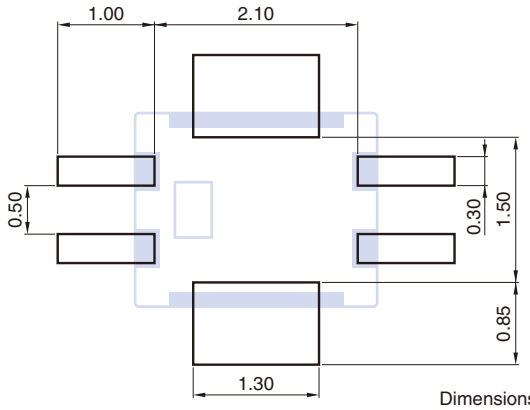
SHAPES AND DIMENSIONS



1	Unbalanced port
2	DC feed or RF GND
3	GND
4	Balanced port
5	Balanced port
6	GND

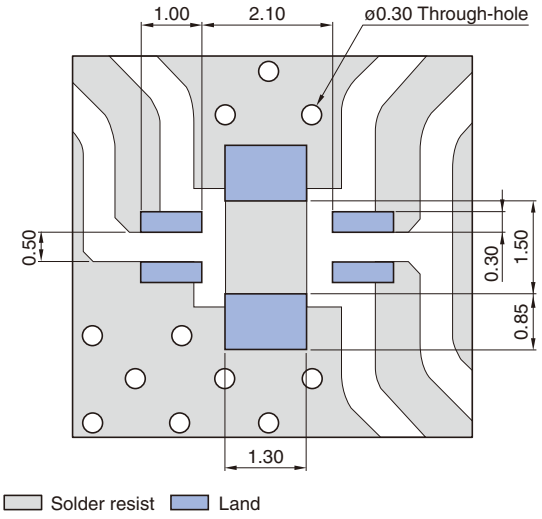
Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

EVALUATION BOARD



Coplanar waveguide(Line width and Gap of Line to GND) be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Dimensions in mm

○RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

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

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ELECTRICAL CHARACTERISTICS

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Unbalanced Port Characteristic Impedance (Ω)			50 (Nominal)	
Balanced Port Characteristic Impedance (Ω)			100 (Nominal)	
Insertion Loss (dB)	2400 to 2500	—	2.7	3.0
	2400 to 2500	—	3.0	3.3 (–40 to +85°C)
Ripple (dB)	2400 to 2500	—	0.3	1
Attenuation (dB)	880 to 960	48	52	—
	1710 to 1880	45	50	—
	1880 to 1980	40	53	—
	2110 to 2170	25	32	—
	4800 to 5000	30	39	—
	7200 to 7500	20	25	—
Return Loss at Unbalanced Port (dB)	2400 to 2500	9.5	—	—
Phase Balance (deg.)	2400 to 2500	172	184	188
	2400 to 2500	170 (–40 to +85°C)	—	190 (–40 to +85°C)
Amplitude Balance (dB)	2400 to 2500	—	–0.4	1

・Ta: +25±5°C

TEMPERATURE RANGE

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

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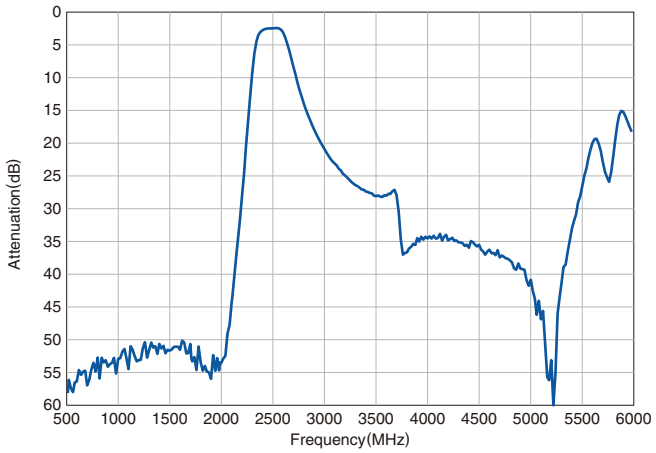
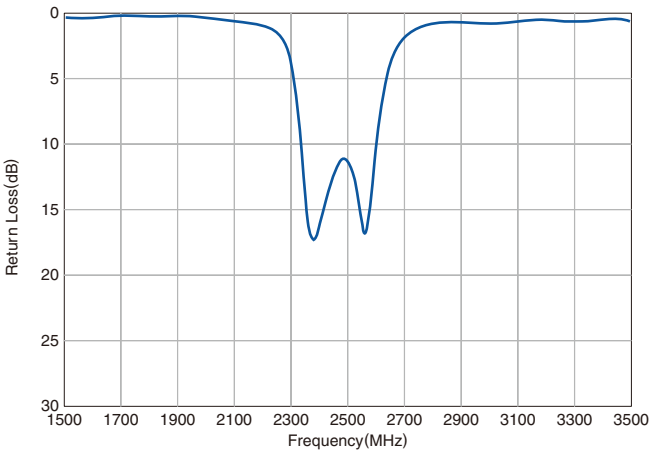
FREQUENCY CHARACTERISTICS

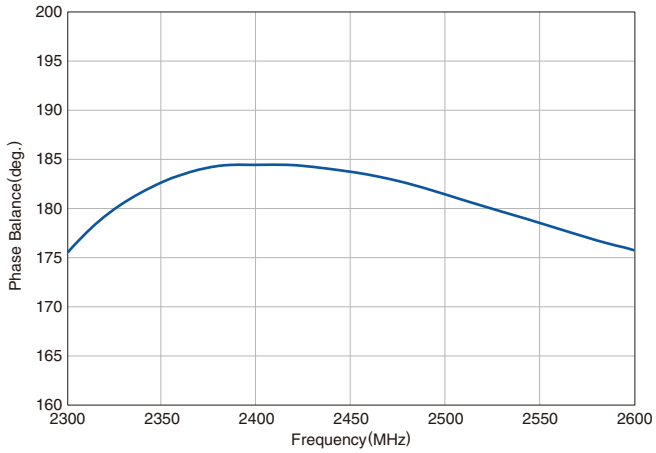
SDS21 ATTENUATION



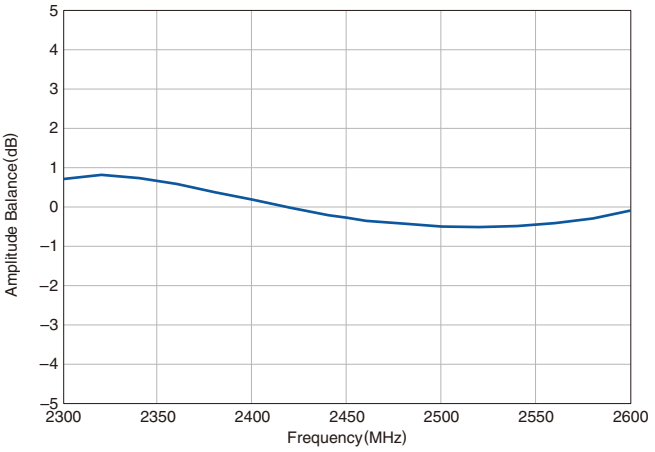
SSS11 RETURN LOSS at UNBALANCE PORT



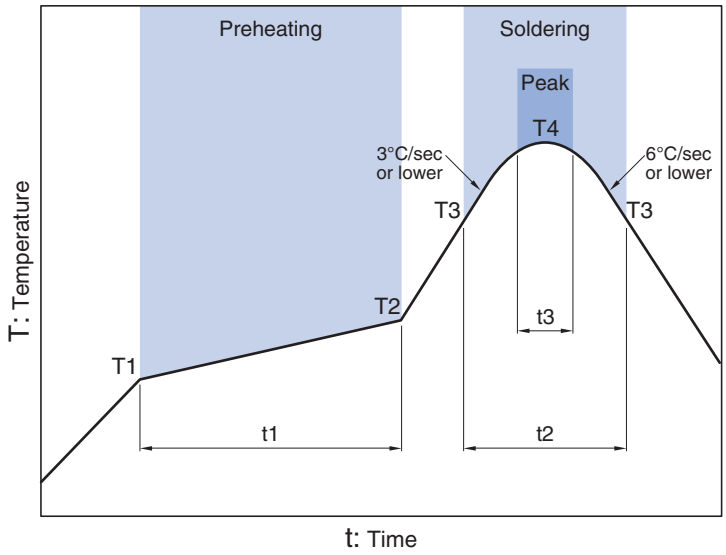
PHASE BALANCE



AMPLITUDE BALANCE



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.