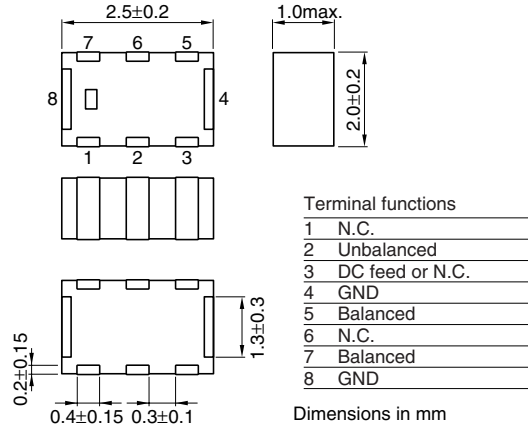


Multilayer Chip Band Pass Filters(Balance Output Type) Conformity to RoHS Directive

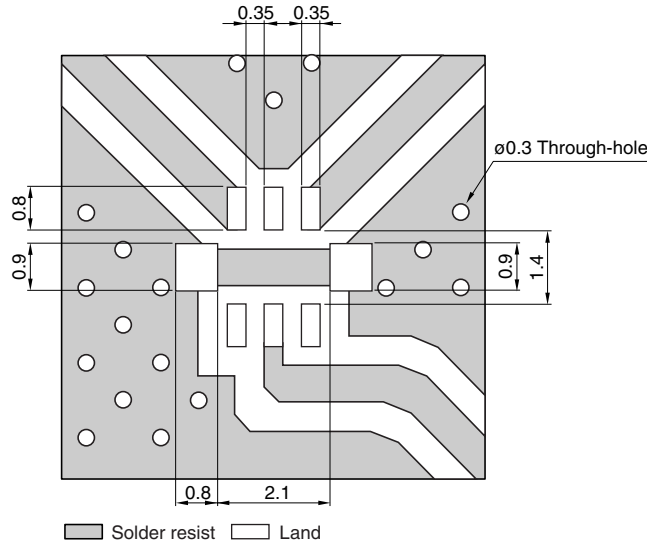
For Bluetooth & 2.4GHz W-LAN

DEA Series DEA252450BT-7012D1

SHAPES AND DIMENSIONS



RECOMMENDED PC BOARD PATTERNS



Line width be designed to mach 50Ω characteristic impedance depending on PCB material and thickness

Dimensions in mm

ELECTRICAL CHARACTERISTICS

Item		Typical value	
Frequency range (Pass band)		2400 to 2500MHz	—
Unbalanced impedance		50Ω (Nominal)	—
Balanced impedance		100Ω (Nominal)	—
Insertion loss	[+25°C]	1.9dB max.	1.5dB
	[−40 to +85°C]	2.2dB max.	—
Attenuation	[880 to 960MHz]	40dB min.	50dB
	[1710 to 1910MHz]	32dB min.	42dB
	[4800 to 5000MHz]	30dB min.	40dB
Unbalanced port return loss		10dB min.	14dB
Phase difference at balanced port		180±12deg	188deg
Amplitude imbalance at balanced port		0±1.0dB	0dB
Temperature range	Operating	−40 to +85°C	
	Storage	−40 to +85°C	

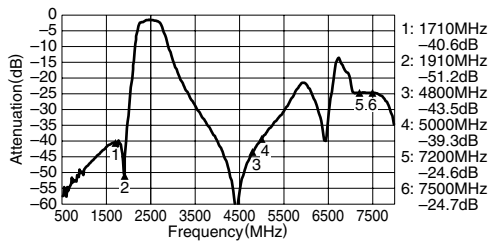
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

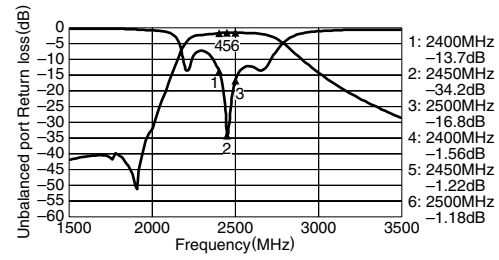
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 100Ω

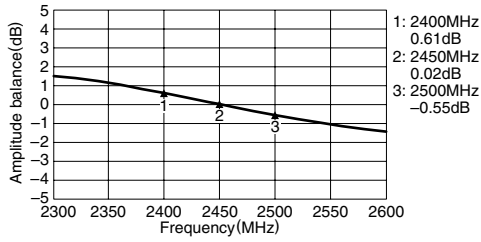
ATTENUATION



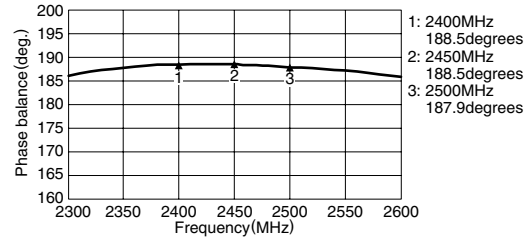
UNBALANCED PORT RETURN LOSS



AMPLITUDE BALANCE



PHASE BALANCE

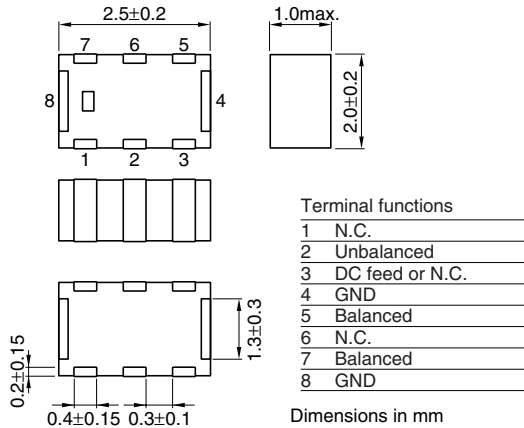


Multilayer Chip Band Pass Filters(Balance Output Type) Conformity to RoHS Directive

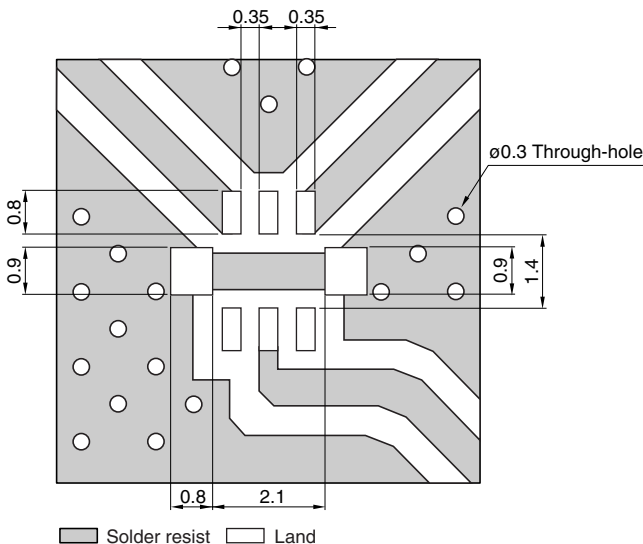
For Bluetooth & 2.4GHz W-LAN

DEA Series DEA252450BT-7014D1

SHAPES AND DIMENSIONS



RECOMMENDED PC BOARD PATTERNS



Line width be designed to mach 50Ω characteristic impedance depending on PCB material and thickness

Dimensions in mm

ELECTRICAL CHARACTERISTICS

Item	Typical value	
Frequency range (Pass band)	2400 to 2500MHz	—
Unbalanced impedance	50Ω (Nominal)	—
Balanced impedance	50Ω (Nominal)	—
Insertion loss	[+25°C]	1.7dB max.
	[−40 to +85°C]	2.0dB max.
Attenuation	[880 to 960MHz]	40dB min.
	[1710 to 1910MHz]	32dB min.
	[4800 to 5000MHz]	30dB min.
Unbalanced port return loss	10dB min.	17dB
Phase difference at balanced port	180±15deg	190deg
Amplitude imbalance at balanced port	0±1.0dB	0.2dB
Temperature range	Operating	−40 to +85°C
	Storage	−40 to +85°C

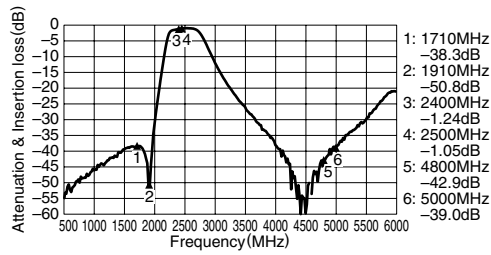
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

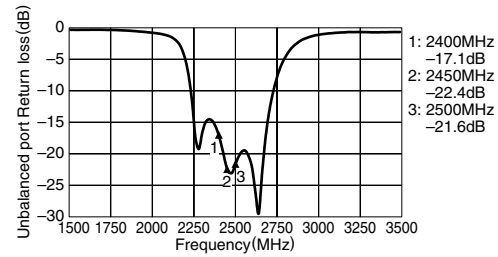
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 50Ω

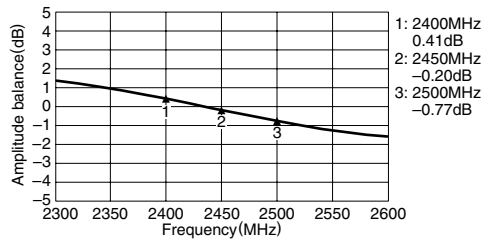
ATTENUATION vs. INSERTION LOSS



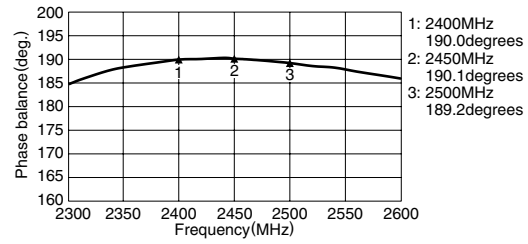
UNBALANCED PORT RETURN LOSS



AMPLITUDE BALANCE



PHASE BALANCE

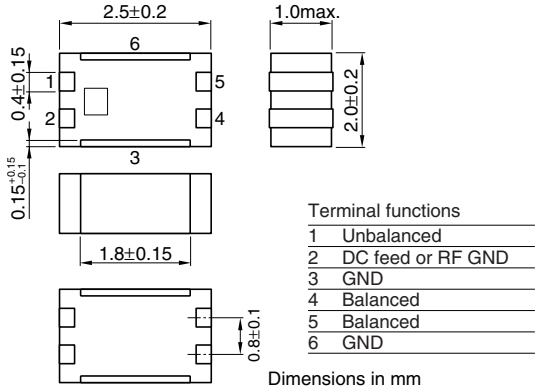


Multilayer Chip Band Pass Filters(Balance Output Type) Conformity to RoHS Directive

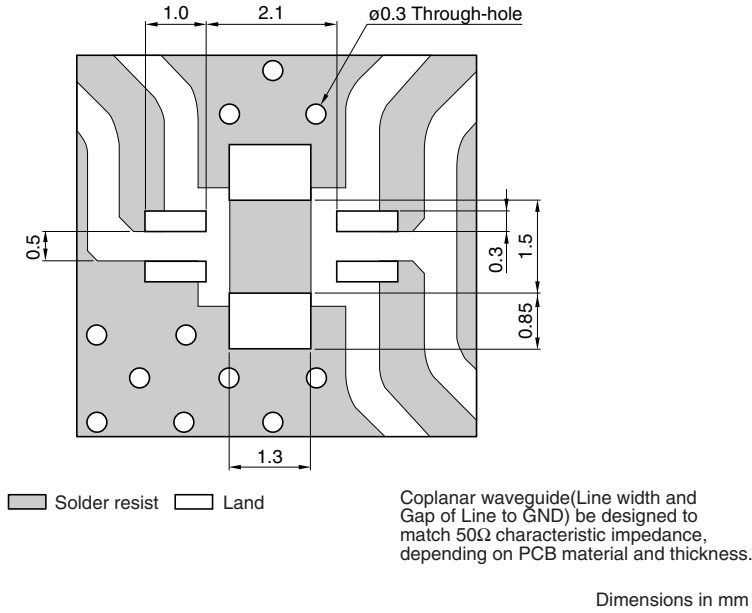
For Bluetooth & 2.4GHz W-LAN

DEA Series DEA252450BT-7022B1

SHAPES AND DIMENSIONS



RECOMMENDED PC BOARD PATTERNS



- **Conformity to RoHS Directive:** This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- All specifications are subject to change without notice.

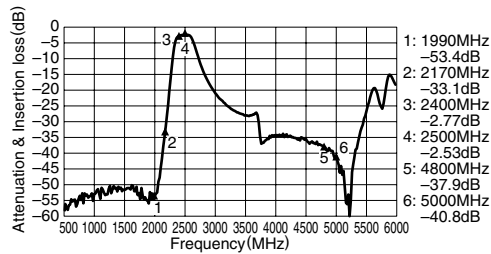
ELECTRICAL CHARACTERISTICS

Item	Typical value	
Frequency range (Pass band)	2400 to 2500MHz	—
Unbalanced impedance	50Ω (Nominal)	—
Balanced impedance	100Ω (Nominal)	—
Unbalanced port return loss	9.5dB min.	—
Insertion loss (Pass band)	[+25°C]	3.0dB max.
	[−40 to +85°C]	3.3dB max.
Ripple (Pass band)		1.0dB max.
		0.2dB
Attenuation	[880 to 960MHz]	48dB min.
	[1710 to 1880MHz]	45dB min.
	[1880 to 1980MHz]	40dB min.
	[2110 to 2170MHz]	25dB min.
	[4800 to 5000MHz]	30dB min.
Amplitude imbalance at balanced port	1.0dB max.	−0.2dB
Phase difference at balanced port	[25°C]	180±8deg
	[−40 to +85°C]	180±10deg
Temperature range	Operating	−40 to +85°C
	Storage	−40 to +85°C

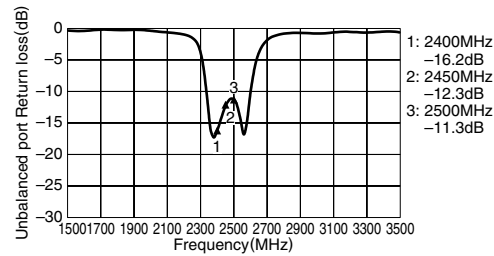
FREQUENCY CHARACTERISTICS

Unbalance 50Ω/Balance 100Ω

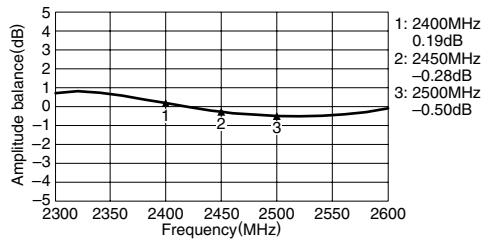
ATTENUATION & INSERTION LOSS



UNBALANCED PORT RETURN LOSS



AMPLITUDE BALANCE



PHASE BALANCE

