

Multilayer Antenna (Dual Band type)

For 2400-2484MHz / 5150-5850MHz

ANT162442DT-2200A1

1.6x0.8mm [EIA 0603]*

* Dimensions Code JIS[EIA]

Multilayer Antenna

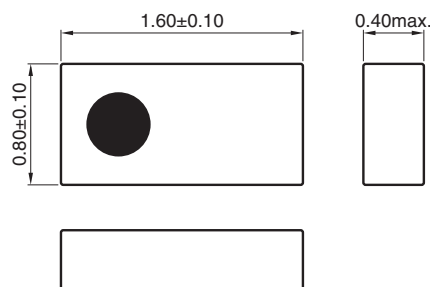
Conformity to RoHS Directive

For 2400-2484MHz / 5150-5850MHz

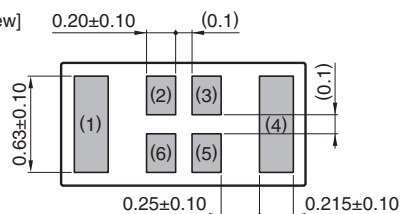
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SHAPES AND DIMENSIONS

[Top view]



[Bottom view]

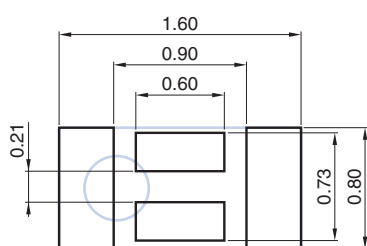


Terminal functions

1	Radiator electrode for 2.4GHz ISM
2	Feed point
3	Feed point
4	Radiator electrode for 5.5GHz
5	Dummy pad
6	Dummy pad

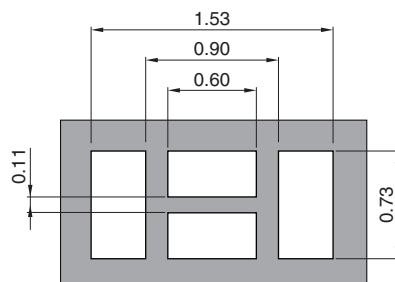
Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

SOLDER RESIST PATTERN



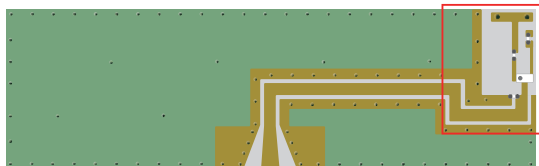
Dimensions in mm

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.

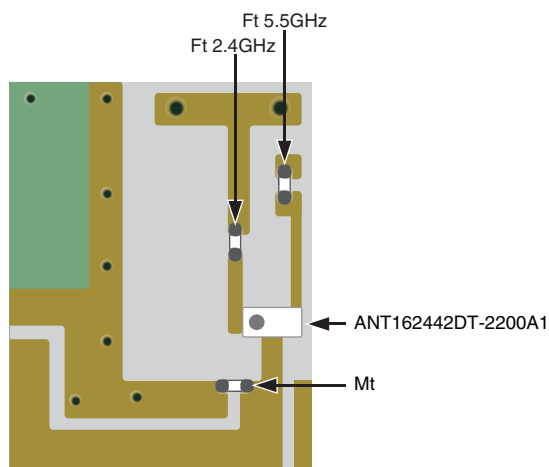
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EVALUATION BOARD

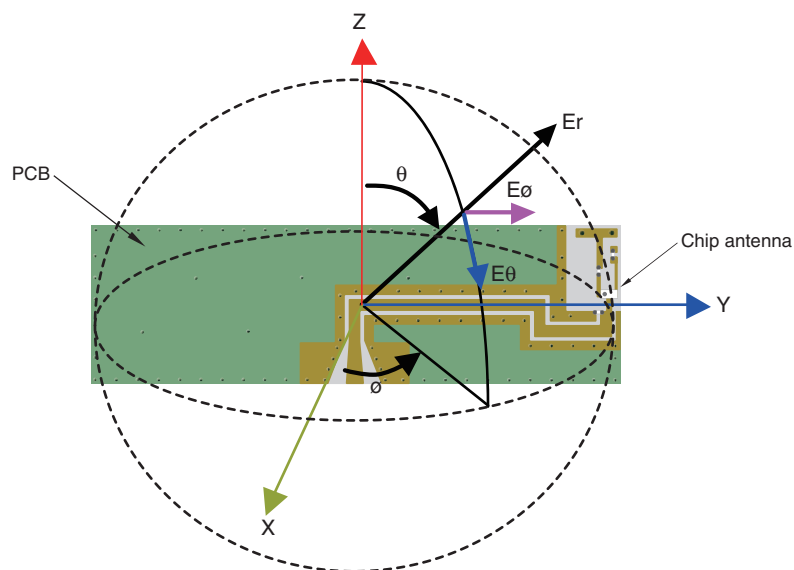


PCB size : 50mm x 15mm x 1mm
Antenna area : 8 x 5 mm

	Component P/N
Ft 2.4GHz	1.8nH(MLG0603P1N8:TDK)
Ft 5.5GHz	3.0nH(MLG0603P3N0:TDK)
Mt	3.3nH(MLG0603P3N3:TDK)



Measurement condition for Radiation Pattern



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ELECTRICAL CHARACTERISTICS

Item	Frequency Range (MHz)	Min.	Typ.	Max.
VSWR	2400 to 2484	—	1.50	3.0
	5150 to 5850	—	1.90	3.0
Polarization	Linear			
PCB size (mm)	50×15			
Antenna keep-out area (mm)	8×5			
Characteristic Impedance (Ω)	50 (Nominal)			

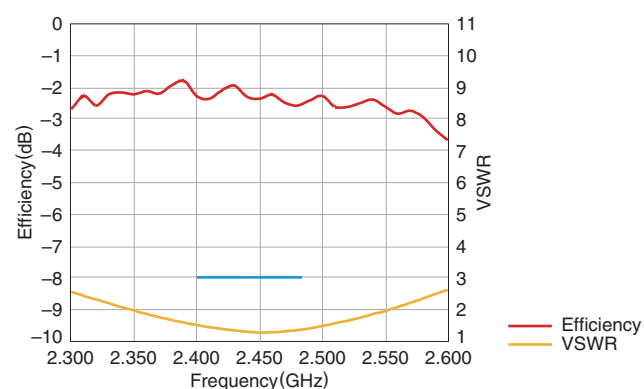
• This is typical antenna performance with the standard PCB.

TEMPERATURE RANGE

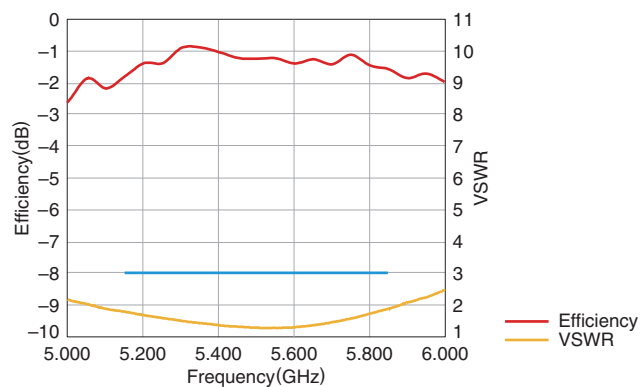
Operating temperature (°C)	Storage temperature (°C)
−40 to +85	−40 to +85

FREQUENCY CHARACTERISTICS

2.4GHz WLAN BAND



5GHz WLAN BAND

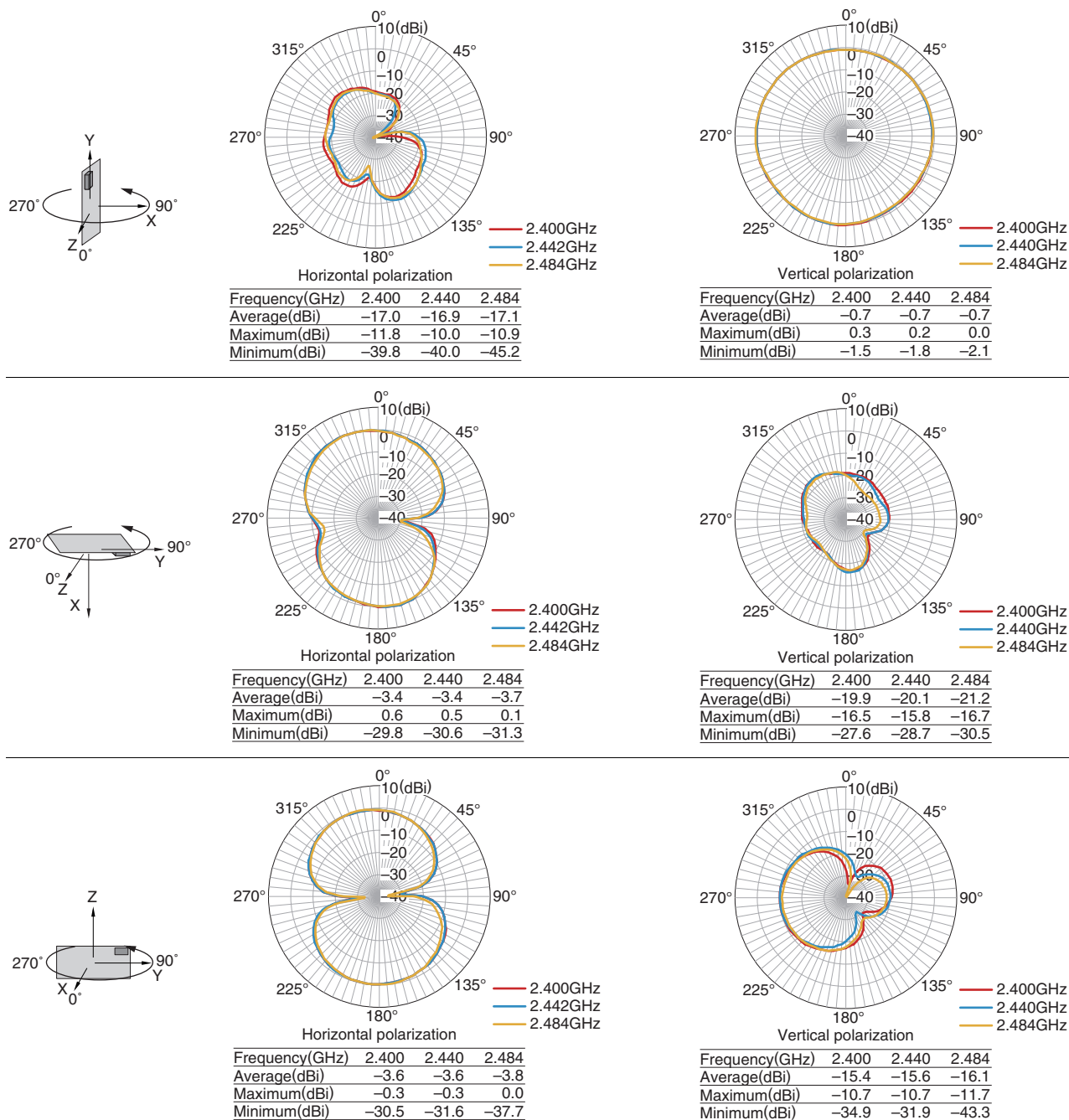


• Tested antenna has been soldered. Evaluation board size is 50x15x1 mm.

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RADIATION PATTERNS

2.4GHz WLAN BAND

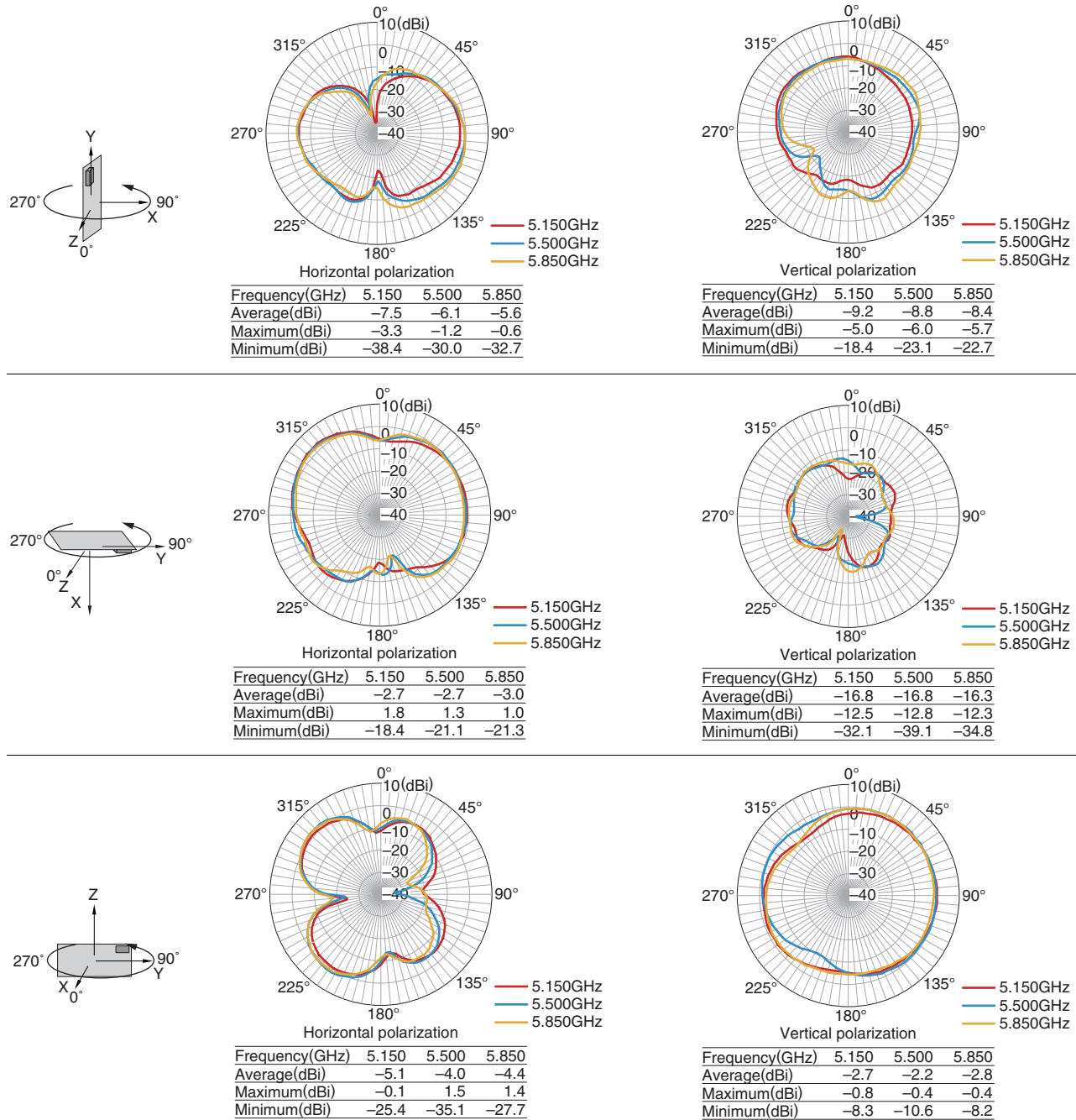


• Tested antenna has been soldered. Evaluation board size is 50x15x1 mm.

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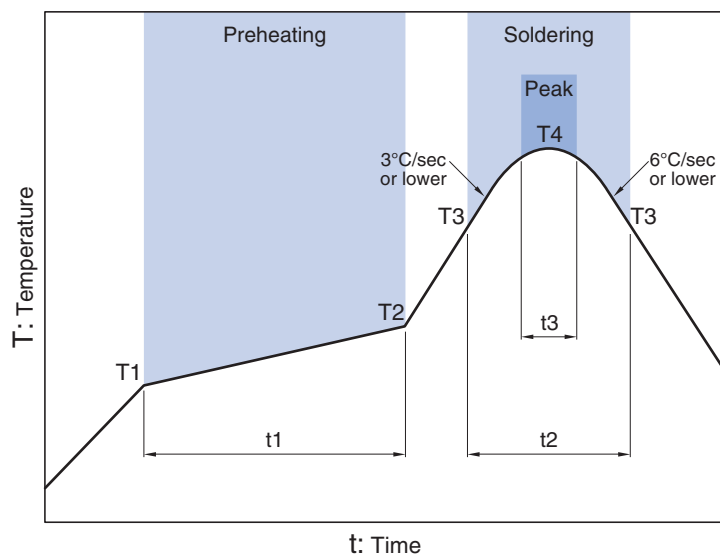
RADIATION PATTERNS

5.5GHZ BAND



• Tested antenna has been soldered. Evaluation board size is 50x15x1 mm.

RECOMMENDED REFLOW PROFILE



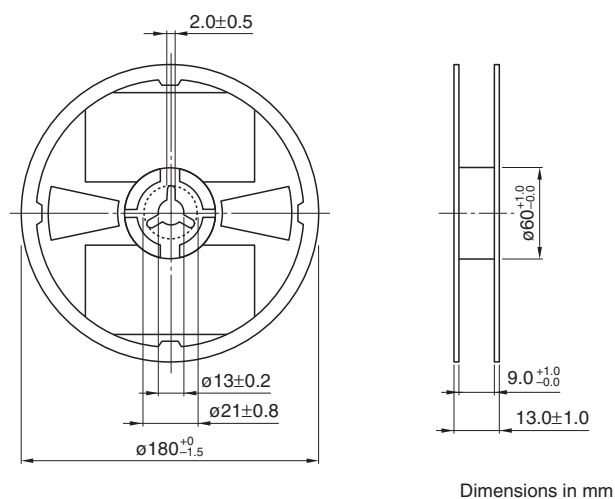
Preheating			Soldering			
			Critical zone (T3 to T4)		Peak	
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	T3	t2	T4	t3*
150°C	200°C	60 to 120sec	217°C	60 to 120sec	240 to 260°C	30sec max.

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

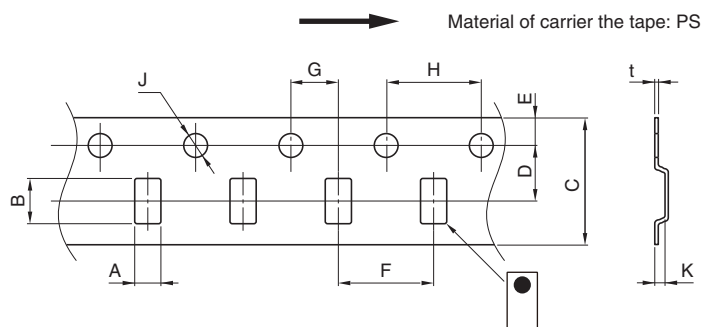
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■ PACKAGING STYLE

□ REEL DIMENSIONS



□ TAPE DIMENSIONS



Dimensions in mm

A	B	C	D	E	F	G	H	J	K	t
0.97±0.05	1.8±0.05	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1	1.5+0.1/-0	0.55max.	0.25±0.05

■ PACKAGE QUANTITY

Standard package quantity
(pieces/reel)

4,000

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About TDK

TDK at a Glance

(FY March 2023)

Corporate Name	TDK Corporation
Corporate Headquarters	2-5-1 Nihonbashi, Chuo-ku, Tokyo, 103-6128, Japan Map (PDF:454KB) >
Date of Establishment	December 7, 1935
Authorized Number of Shares	1,440,000,000 shares
Number of Shares Issued	388,771,977 shares
Number of Shareholders	33,282
Common Stock	32,641,976,312 yen
Securities Traded	Tokyo Stock Exchange
Consolidated Net Sales	2,180.8 billion yen
Consolidated Net Income	114.2 billion yen [IFRS]
Number of Employees	102,908
Ratings	Corporate ratings (As of February 2021) : Baa1 (Moody's) , A- (Standard & Poor's) , A+ (R & I) Short-term bond (As of February 2021) : A-2 (Standard & Poor's)
Global Network	More than 250 factories, R & D, and sales offices in more than 30 countries
Main Businesses	• Passive components • Sensor application products • Magnetic application products • Energy application products • Others