

## Multilayer Antenna (Dual Band type)

For 2400-2484MHz / 5150-5850MHz

## ANT162442DT-2200A1

1.6x0.8mm [EIA 0603]\*

\* Dimensions Code JIS[EIA]



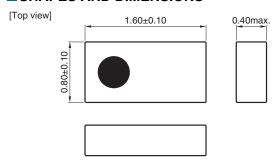
## **Multilayer Antenna**

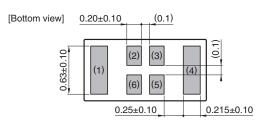
For 2400-2484MHz / 5150-5850MHz

#### Conformity to RoHS Directive

## ANT162442DT-2200A1

#### SHAPES AND DIMENSIONS



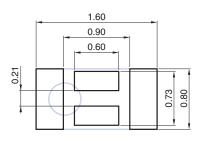


# Terminal functions 1 Radiator electrode for 2.4GHz ISM 2 Feed point 3 Feed point 4 Radiator electrode for 5.5GHz 5 Dummy pad

Dimensions in mm

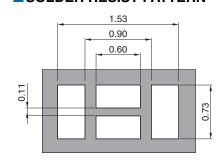
Dummy pad

#### ■ RECOMMENDED LAND PATTERN



Dimensions in mm

#### **SOLDER RESIST PATTERN**



Dimensions in mm

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

<sup>•</sup> All specifications are subject to change without notice.

<sup>•</sup> Before using these products, be sure to request the delivery specifications.

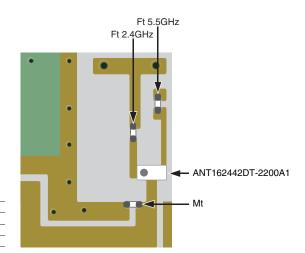


#### **EVALUATION BOARD**

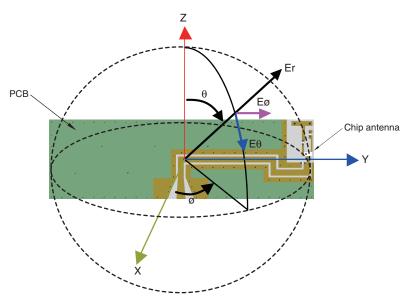


PCB size: 50mm x 15mm x 1mm Antenna area: 8 x 5 mm

	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.	Тур.	Max.	
VSWR	2400 to 2484	_	1.50	3.0	
VOVIN	5150 to 5850	_	1.90	3.0	
Polarization			Linear		
PCB size (mm)			50×15		
Antenna keep-out area (mm)			8×5		
Characteristic Impedance ( $\Omega$ ) 50 (Nominal)					

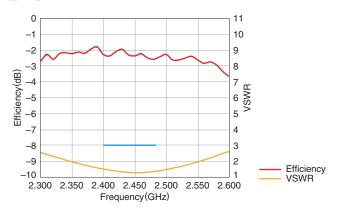
<sup>·</sup> This is typical antenna performance with the standard PCB.

#### **■TEMPERATURE RANGE**

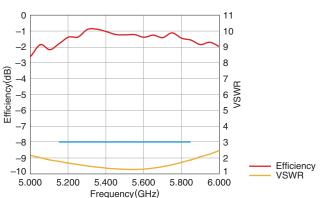
Operating temperature	Storage temperature		
(°C)	(°C)		
-40 to +85	-40 to +85		

#### **■ FREQUENCY CHARACTERISTICS**

#### **□2.4GHz WLAN BAND**



#### **□5GHz WLAN BAND**



 $\bullet$  Tested antenna has been soldered. Evaluation board size is 50x15x1 mm.

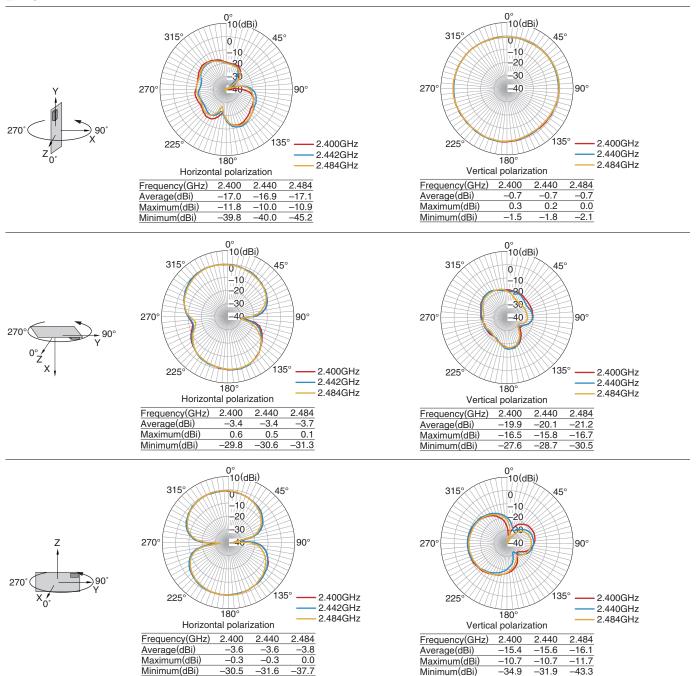
<sup>•</sup> All specifications are subject to change without notice.

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#### **RADIATION PATTERNS**

#### **□2.4GHz WLAN BAND**

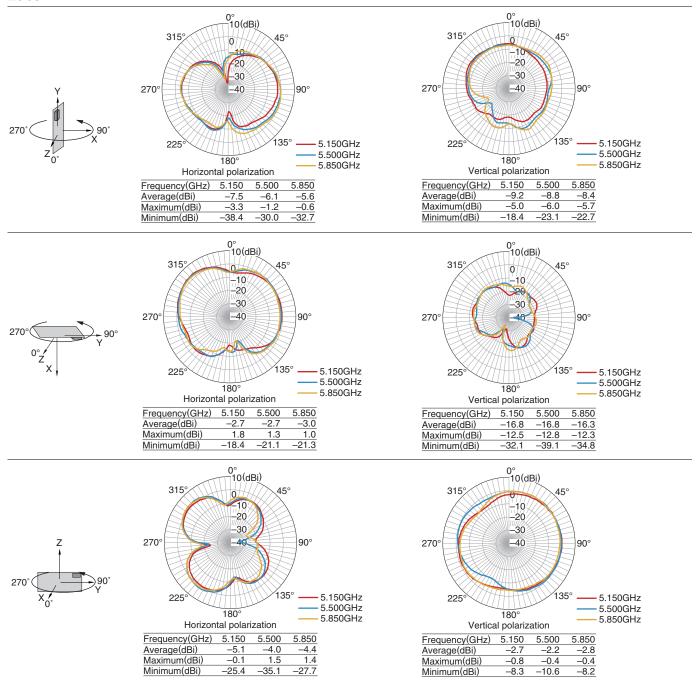


• Tested antenna has been soldered. Evaluation board size is 50x15x1 mm.

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#### **RADIATION PATTERNS**

#### **□5.5GHZ BAND**

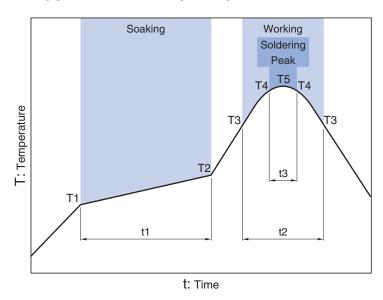


• Tested antenna has been soldered. Evaluation board size is 50x15x1 mm.

- All specifications are subject to change without notice.
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#### ■ RECOMMENDED REFLOW PROFILE

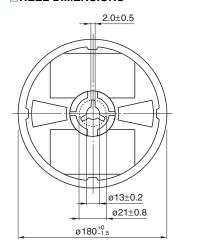


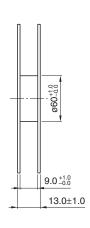
Soaking			Working		Soldering Peak	Soldering Peak			
Temp. Time		Temp.	Time Temp.		Time Temp.				
T1	T2	t1	Т3	t2	T4	t3	T5		
150°C	180°C	60 to 120s	230°C	30 to 60s	247 to 253°C	within 10s	260°C max.		

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#### ■ PACKAGING STYLE

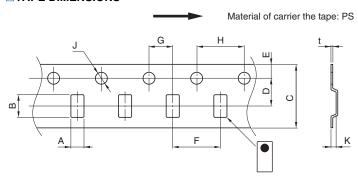
#### **□REEL DIMENSIONS**





Dimensions in mm

#### **TAPE DIMENSIONS**



								Dimen	sions in mm	
Α	В	С	D	Е	F	G	Н	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

Standardpackage quantity
(pieces/reel)
4,000

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### 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.

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- (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.

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