

September 2016

## Multilayer Antenna

For 1557-1605MHz

# ANT161575ST-1202A1

#### 1.6x0.8mm [EIA 0603]\*

\* Dimensions Code JIS[EIA]

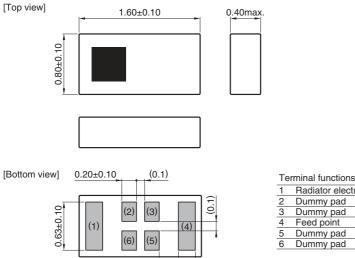
**Conformity to RoHS Directive** 

## Multilayer Antenna

#### For 1557-1605MHz

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#### SHAPES AND DIMENSIONS



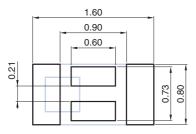
rei	Terminal functions					
1	Radiator electrode					
2	Dummy pad					
3	Dummy pad					
4	Feed point					
5	Dummy pad					
6	Dummy pad					

Dimensions in mm

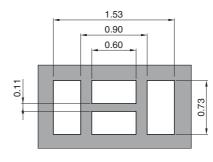
0.215±0.10

#### RECOMMENDED LAND PATTERN

0.25±0.10



#### SOLDER RESIST PATTERN



Dimensions in mm

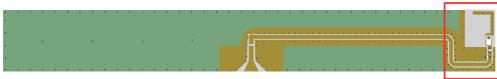
O RoHS Directive Compliant Product: See the following for more details.https://product.tdk.com/info/en/environment/rohs/index.html

Dimensions in mm

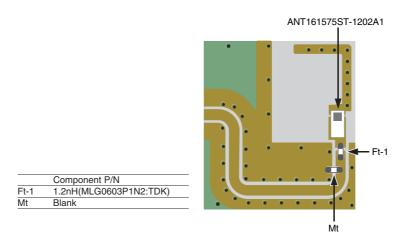
• All specifications are subject to change without notice.

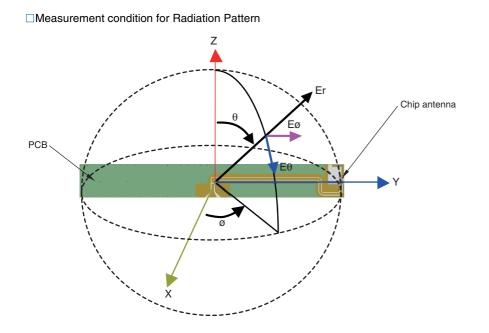
• Before using these products, be sure to request the delivery specifications.

#### EVALUATION BOARD



PCB size : 80mm x 10mm x 1mm Antenna area : 6 x 5 mm





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#### ELECTRICAL CHARACTERISTICS

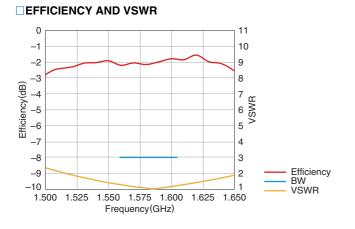
Item	Frequency Range (MHz)	Min.	Тур.	Max.
VSWR	1557 to 1605	—	1.30	3.0
Polarization			Linear	
PCB size (mm)			80×10	
Antenna keep-out area (mm) 6×5				
Characteristic Impedance ( $\Omega$ ) 50 (Nominal)				

 $\cdot$  This is typical antenna performance with the standard PCB.

#### **TEMPERATURE RANGE**

Operating temperature	Storage temperature			
(°C)	(° <b>C</b> )			
-40 to +85	-40 to +85			

#### FREQUENCY CHARACTERISTICS



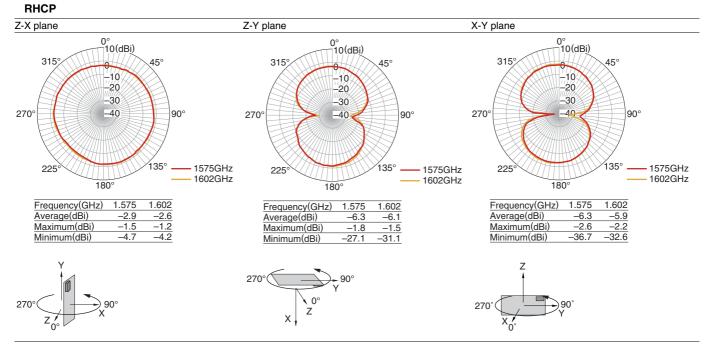
• Tested antenna has been soldered. Evaluation board size is 80x10x1 mm.

• All specifications are subject to change without notice.

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

#### **RADIATION PATTERNS**

#### GNSS BAND

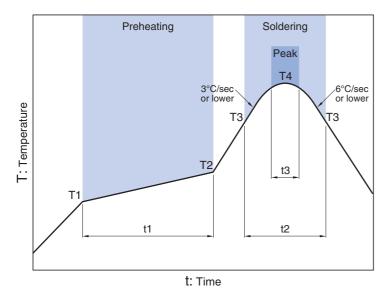


Tested antenna has been soldered. Evaluation board size is 80x10x1 mm.

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#### RECOMMENDED REFLOW PROFILE



Soldering Preheating Critical zone (T3 to T4) Peak Temp. Time Temp. Time Temp. Time T1 T2 **T**4 t1 ТЗ t2 t3\* 150°C 200°C 60 to 120sec 217°C 60 to 120sec 240 to 260°C 30sec max.

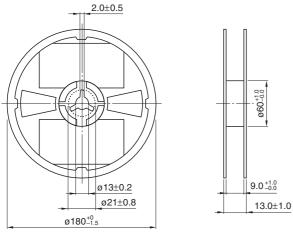
\*t3 : Time within 5°C of actual peak temperature

The maximum number of reflow is 3.

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#### PACKAGING STYLE

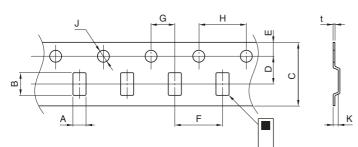
#### **REEL DIMENSIONS**



Dimensions in mm

#### **TAPE DIMENSIONS**

Material of carrier the tape: PS



Dimensions in mr								sions in mm		
Α	В	С	D	E	F	G	Н	J	K	t
0.97±0.05	5 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.

- (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.

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