

Multilayer Antenna (Dual Band type)

For 1574-1576MHz / 2400-2484MHz

ANT016008LCD1575MA1

1.6x0.8mm [EIA 0603]*

* Dimensions Code JIS[EIA]

Multilayer Antenna

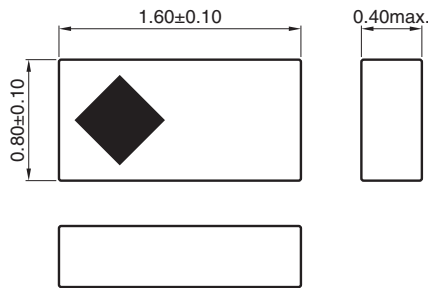
Conformity to RoHS Directive

For 1574-1576MHz / 2400-2484MHz

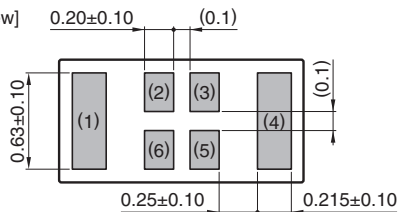
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SHAPES AND DIMENSIONS

[Top view]



[Bottom view]



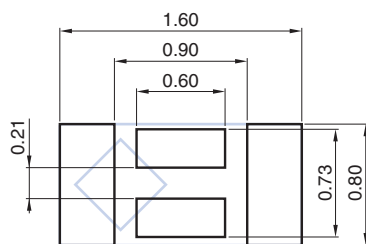
Terminal functions

1	Radiator electrode for GPS
2	Feed point
3	Feed point
4	Radiator electrode for 2.4GHz ISM
5	Feed point
6	Feed point

* Terminal 2, 3, 5 and 6: Connected in inner structure

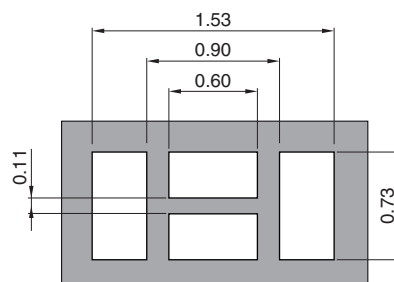
Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

SOLDER RESIST PATTERN



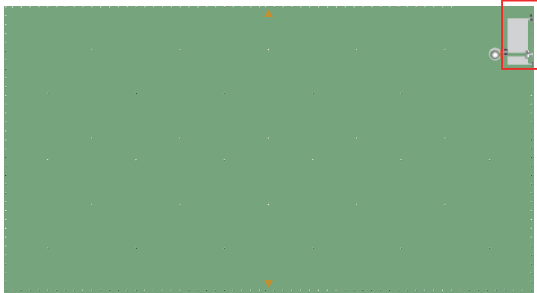
Dimensions in mm

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

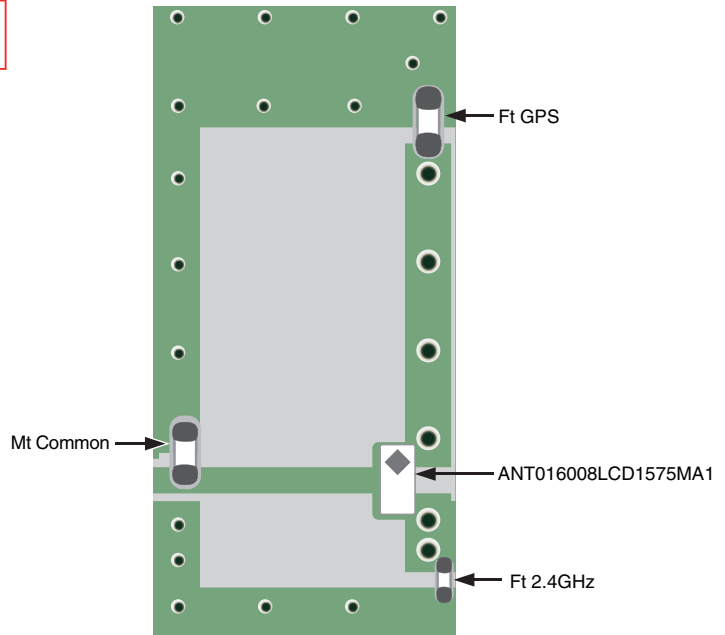
- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.

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EVALUATION BOARD

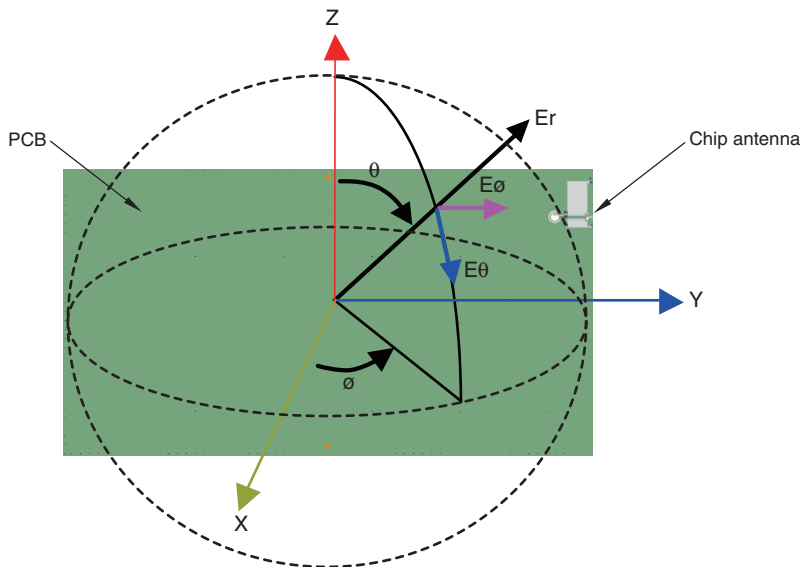


PCB size : 120mm x 65mm x 1mm
 Antenna area : 10.5 x 6 mm



	Component P/N
Ft GPS	15pF
Ft 2.4GHz	2.2pF
Mt Common	1.5nH(MHQ1005P1N5B:TDK)

Measurement condition for Radiation Pattern



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ELECTRICAL CHARACTERISTICS

Item	Frequency Range (MHz)	Min.	Typ.	Max.
VSWR	1574 to 1576	—	1.50	4.0
	2400 to 2484	—	2.50	4.0
Polarization			Linear	
PCB size (mm)			120×65×1.0	
Antenna keep-out area (mm)			10.5×6	
Characteristic Impedance (Ω)			50 (Nominal)	

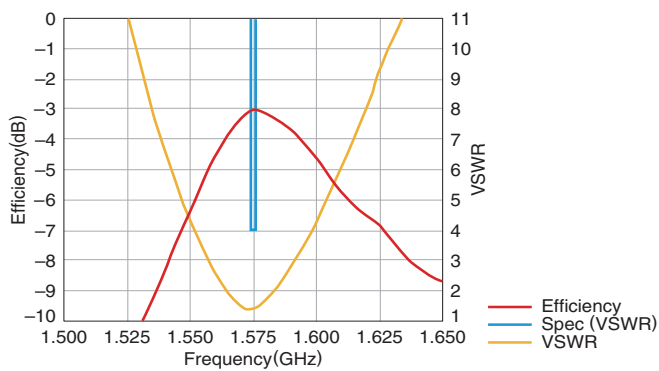
• This is typical antenna performance with the standard PCB.

TEMPERATURE RANGE

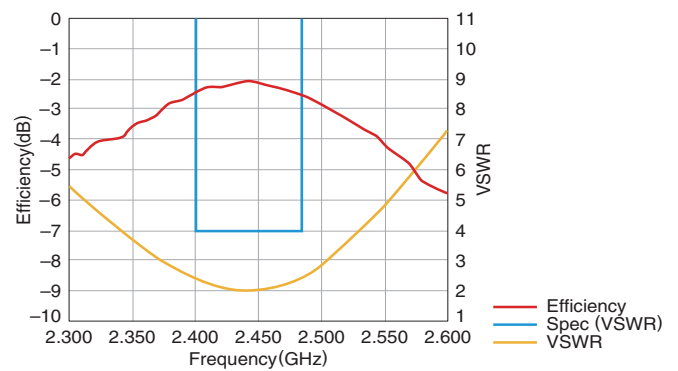
Operating temperature (°C)	Storage temperature (°C)
-40 to +85	-40 to +85

FREQUENCY CHARACTERISTICS

GPS BAND



2.4GHz ISM BAND



• Tested antenna has been soldered. Evaluation board size is 120x65x1 mm.

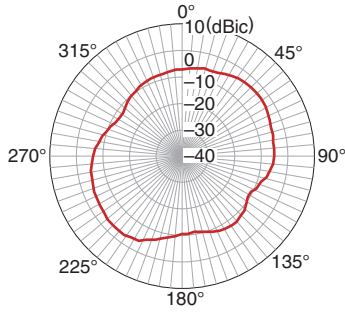
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RADIATION PATTERNS

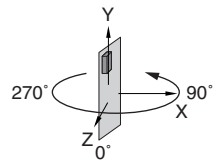
GPS BAND

RHCP

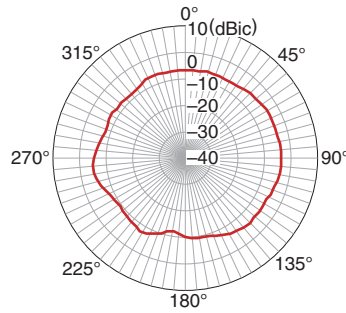
Z-X plane



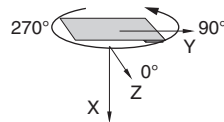
Frequency(GHz)	1.575
Average(dBic)	-6.3
Maximum(dBic)	-2.9
Minimum(dBic)	-12.2



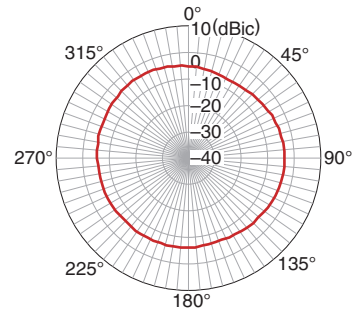
Z-Y plane



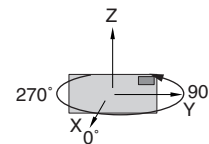
Frequency(GHz)	1.575
Average(dBic)	-6.5
Maximum(dBic)	-3.7
Minimum(dBic)	-12.1



X-Y plane



Frequency(GHz)	1.575
Average(dBic)	-5.3
Maximum(dBic)	-3.7
Minimum(dBic)	-6.7

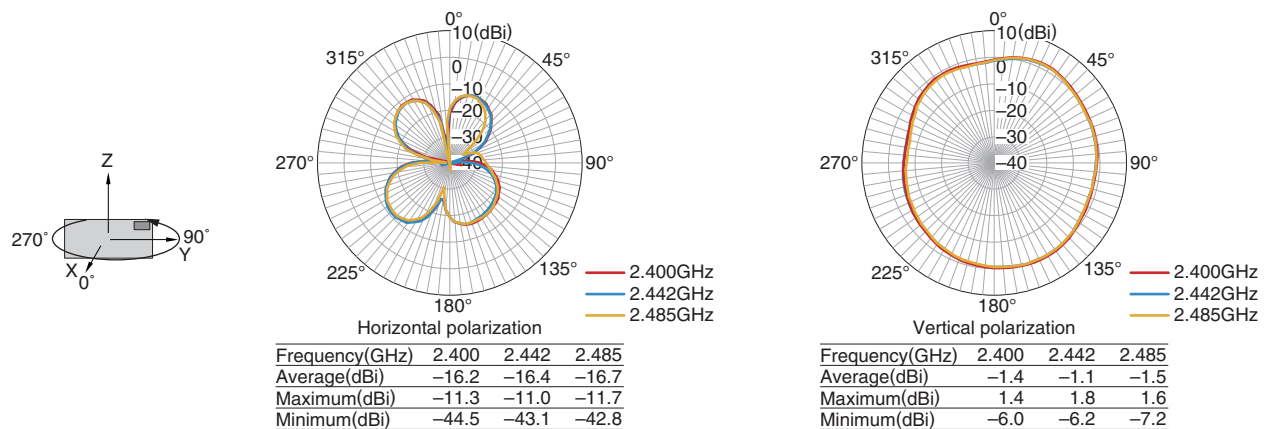
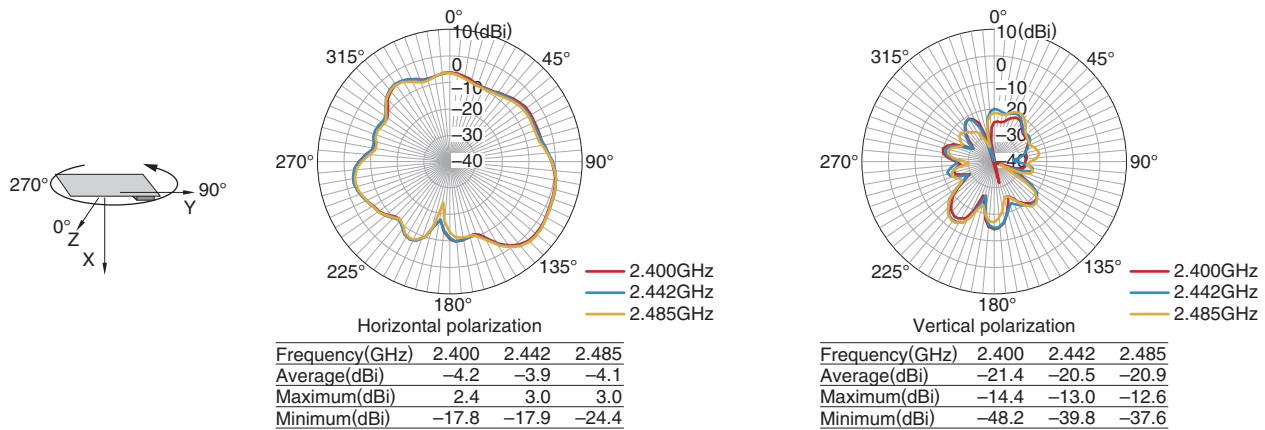
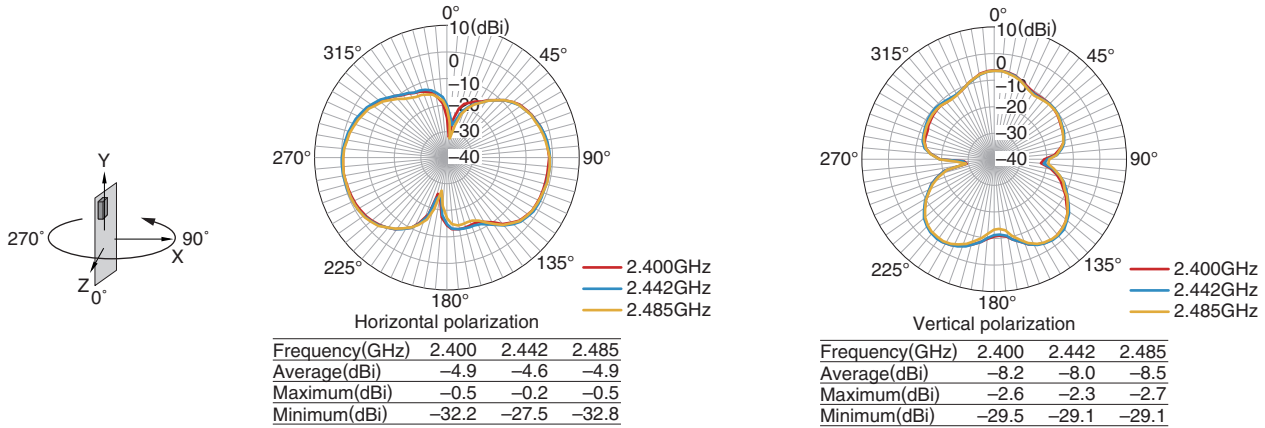


- Tested antenna has been soldered. Evaluation board size is 120x65x1 mm.

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RADIATION PATTERNS

2.4GHz BAND

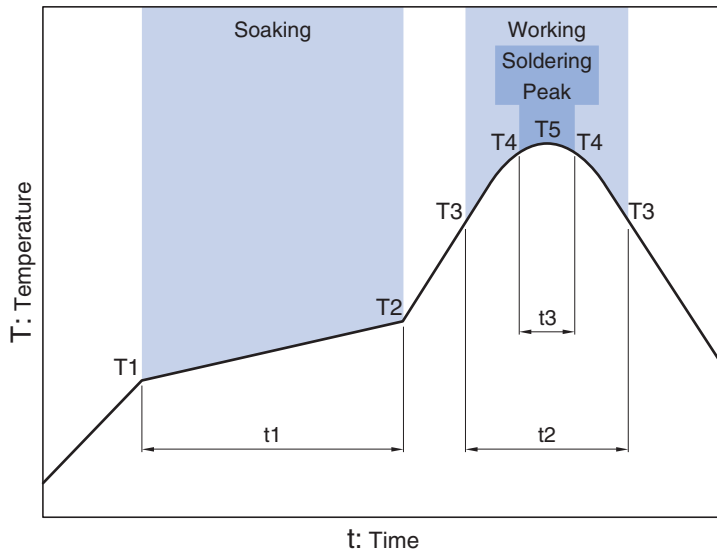


• Tested antenna has been soldered. Evaluation board size is 120x65x1 mm.

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RECOMMENDED REFLOW PROFILE



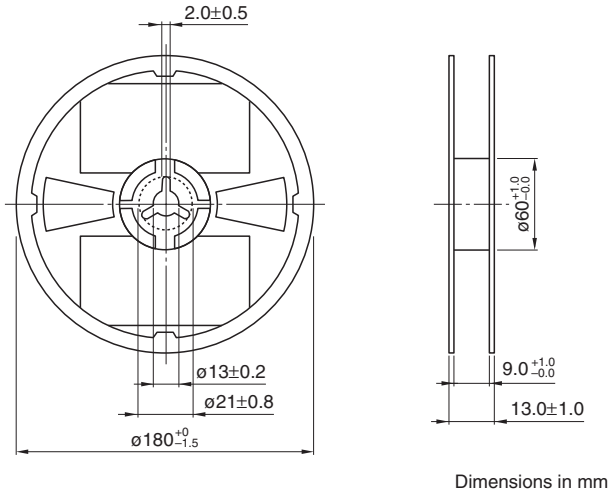
Soaking			Working		Soldering Peak		
Temp.	T2	Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120s	230°C	30 to 60s	247 to 253°C	within 10s	260°C max.

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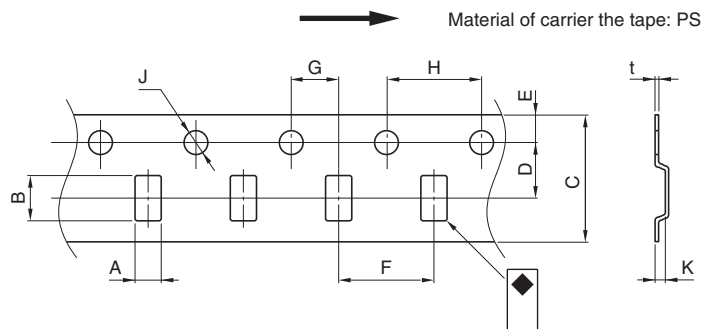
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PACKAGING STYLE

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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使用注意事项

在使用本产品前，请务必随附采购规格书。

安全注意事项

使用本产品时，请注意安全事项。

注意

本产品目录中记载的产品是指在通用标准用途意义上使用于一般电子设备（AV 设备，通信设备，家电产品，娱乐设备，计算机设备，个人设备，办公设备，计测设备，工业机器人），并且该一般电子设备要在通常的操作和使用方法下使用。

对于需要高度安全性和可靠性的，或者设备的故障，误动作，运转不良可能会给人的生命，身体及财产等造成损害，以及有可能产生莫大社会影响的以下用途（以下称‘特定用途’）中的适用性，性能发挥，品质，本公司不予保证。

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- | | |
|-------------------------|--------------------|
| (1) 航天航空设备 | (8) 公共信息处理设备 |
| (2) 交通运输设备（汽车，电动火车，船舶等） | (9) 军事设备 |
| (3) 医疗设备 | (10) 电加热设备、燃烧设备 |
| (4) 发电控制设备 | (11) 防灾 / 预防犯罪设备 |
| (5) 原子能源相关设备 | (12) 安全设备 |
| (6) 海底设备 | (13) 其他不被视为常规用途的用途 |
| (7) 交通控制设备 | |

为了能够更安全地使用产品，对使用本产品目录中所记载产品的设备进行设计时，请确保符合该设备的使用用途及状态的保护回路和装置，并设置备用回路等。