



## GHT21-0734-2

# Antenna Datasheet

TITLE : AN010920C00 SERIES  
AN010920C00 シリーズ

### 1. 特徴 Features

- スマートメータ LPWA 等向け 920 MHz アンテナ  
920 MHz antenna for smart meter, LPWA, etc.
- 小型 Compact size
- 高効率 High efficiency
- 表面実装部品 Surface mount device
- エンボスリール梱包 Embossed reel package

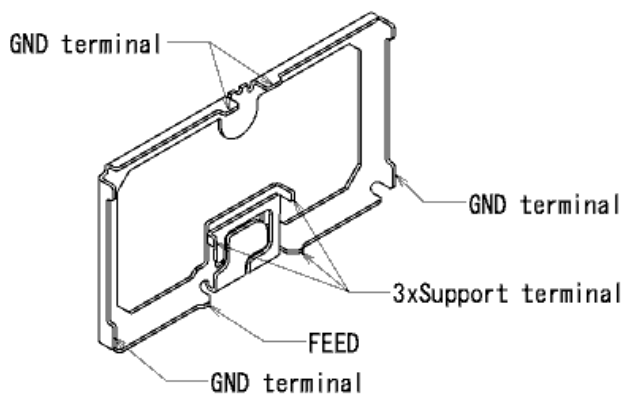
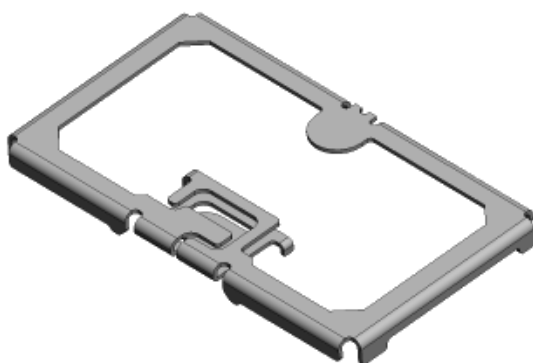
### 2. 品名 Product name

単品 Single unit: AN010920C00

1700 個パッケージ 1700-piece package: AN010920C00R1700

### 3. 形状、寸法と重量 Shape, dimensions and weight

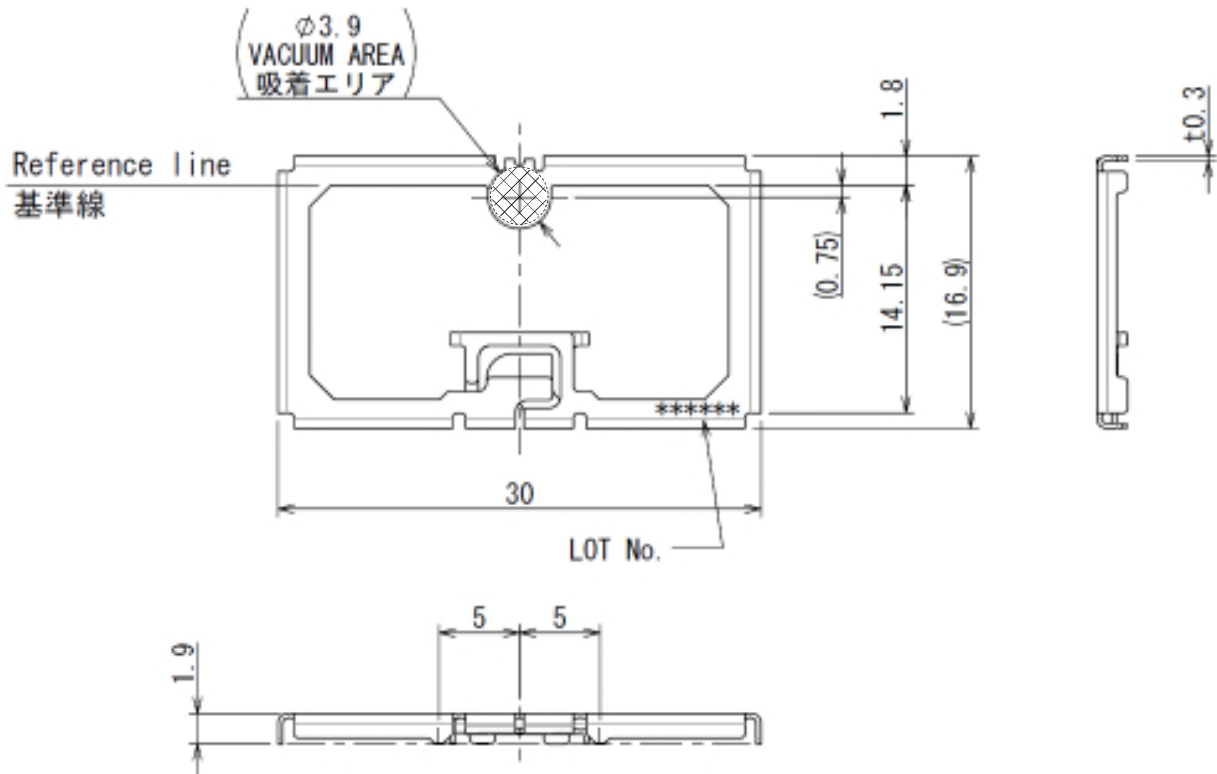
#### 3.1. 形状 Shape





### 3.2. 寸法 Dimensions

30 (width) × 16.9 (depth) × 1.9 (height) mm



### 3.3. 重量 Weight

0.73 g (typical)

### 3.4. めっき Plating

なし None

### 3.5. 方式 Type

スプリットリング Split ring

### 3.6. 材料 Material

銅合金 Copper alloy

4. 高周波特性 RF characteristics

4.1. 周波数帯域 Frequency range

902- 928 MHz

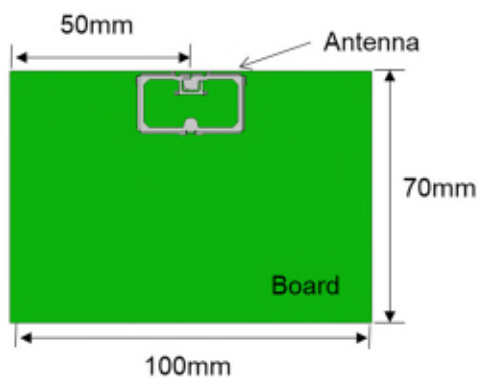
4.2. インピーダンス Impedance

50 Ω

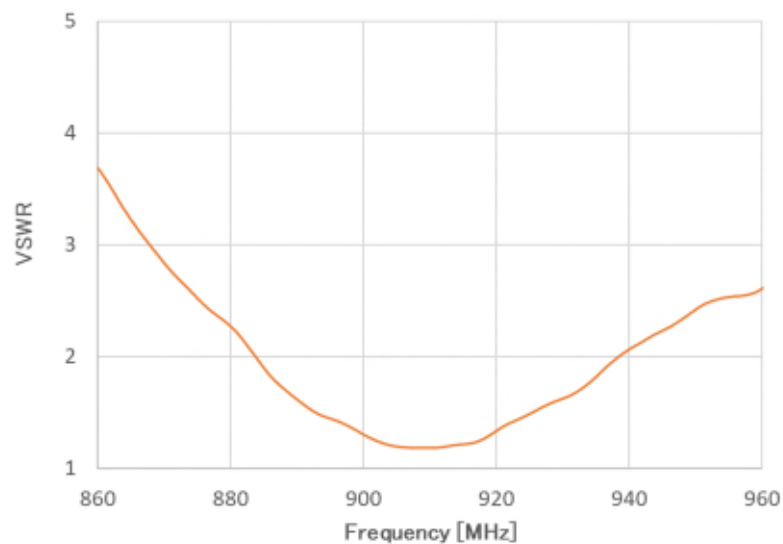
4.3. Voltage standing wave ratio (VSWR)

100 x 70 mm の標準基板実装時の VSWR 特性例

VSWR characteristics of the antenna on a 100 x 70-mm reference board



VSWR < 2.5 (frequency range: 902 - 928 MHz)



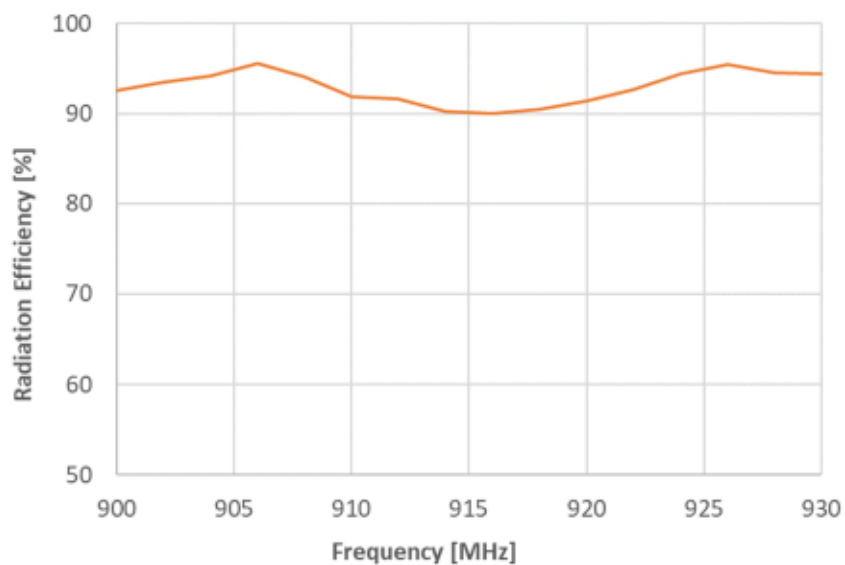


#### 4.4 放射効率 Radiation efficiency

100 x 70 mm の標準基板実装時の放射効率特性例、ケーブル・配線損を除く

Radiation efficiency of the antenna mounted on a 100 × 70-mm reference board (excluding cable and feeder-line losses)

Radiation Efficiency > 90 % (frequency range: 902 – 928 GHz)



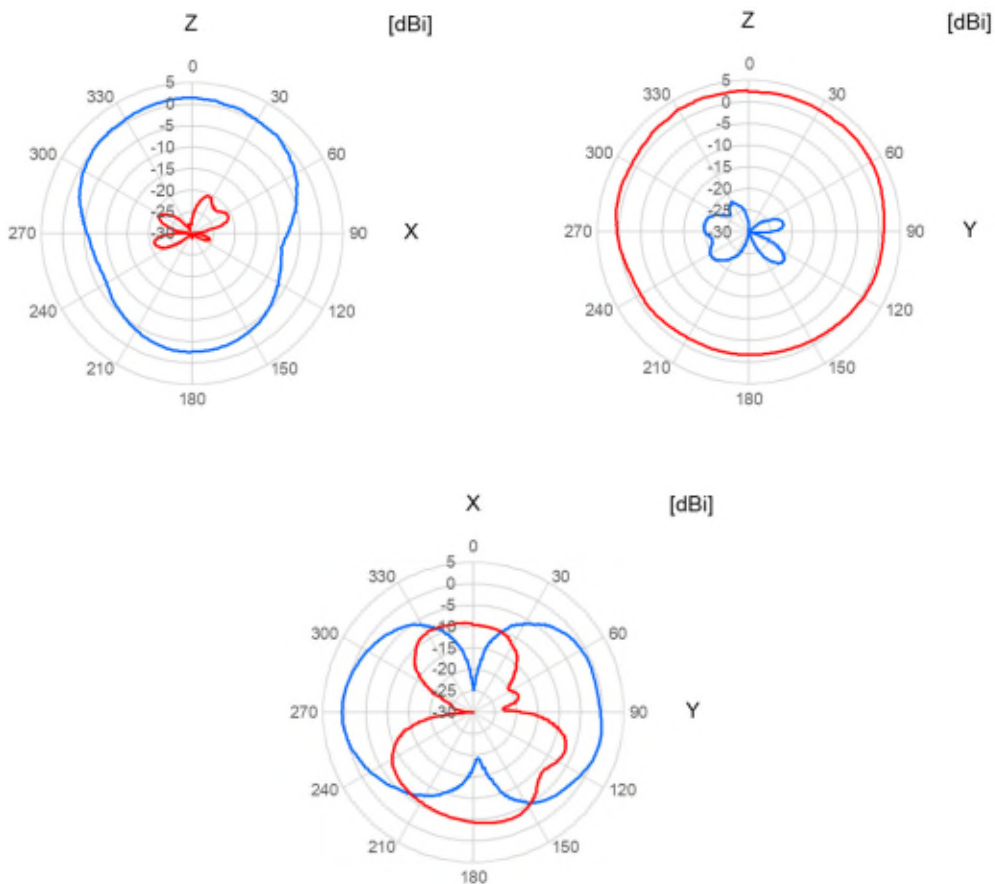
#### 4.5 放射パターン Radiation pattern

100 x 70 mm の標準基板実装時の放射パターン特性例

Radiation pattern of the antenna mounted on a 100 × 70-mm reference board



#### Radiation pattern @920 MHz



青線 Blue line: 水平偏波 Horizontal polarization

赤線 Red line: 垂直偏波 Vertical polarization

Peak gain of the main polarization component in the ZX, ZY and XY planes

Frequency [MHz]	Peak gain [dBi]
920	2.77

5. 環境条件 Environmental conditions and reliability

5.1. 使用温度範囲 Operating temperature range

-40 °C to +125 °C

5.2. 保存条件 Storage conditions

IEC 61760-2

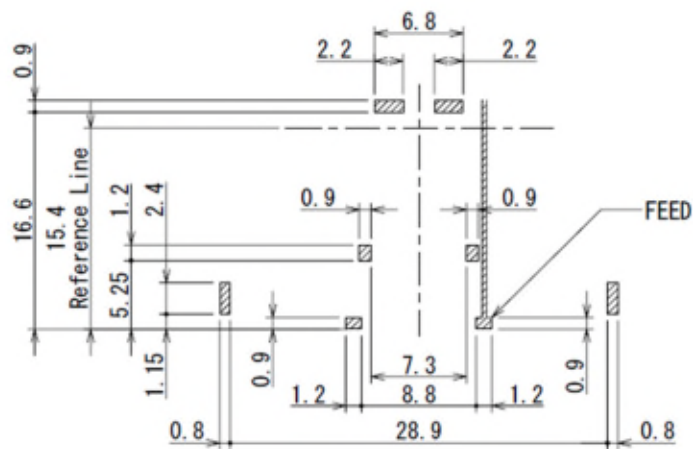
保存温度 Stock temperature range

+5 °C to +40 °C

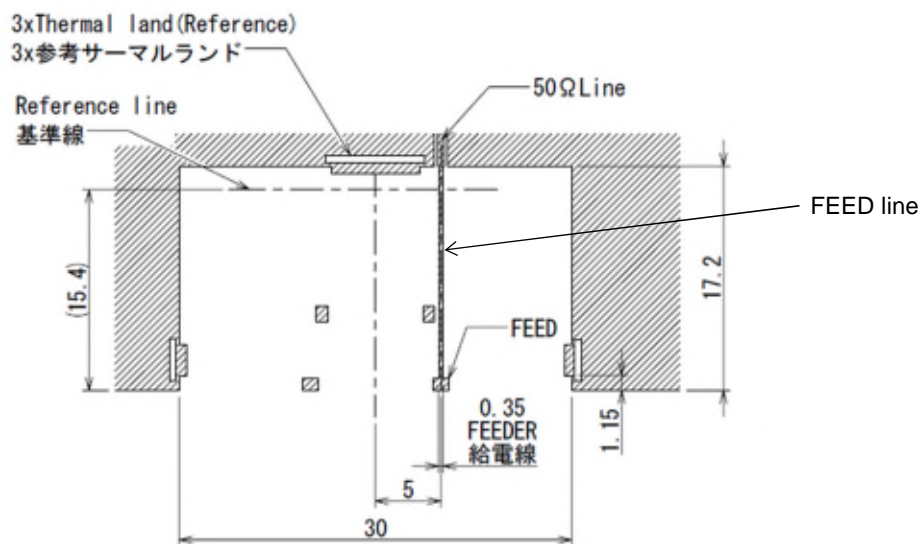
相対湿度 Relative humidity

10 % to 75 %

6. 推奨ランドパターンおよび推奨基板 Recommended land pattern and reference board



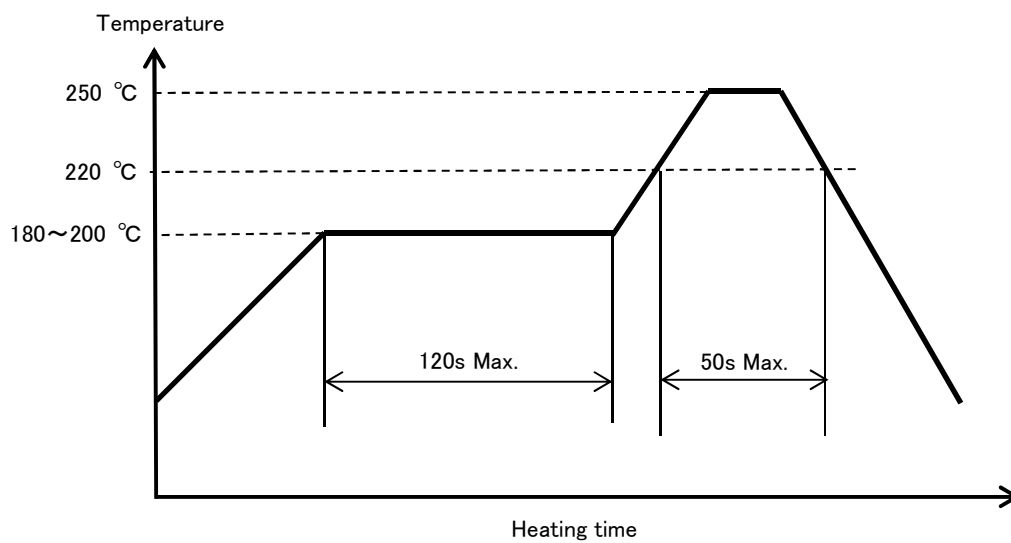
Recommended land pattern



Reference board pattern (board thickness: 1.6 mm)

## 7. 推奨リフロー温度プロファイル Recommended reflow temperature profile

	温度 Temperature	加熱時間 Heating time
予備加熱 Preheating temperature	180 to 200 °C	120s (max.)
本加熱 Main heating temperature	Above 220 °C	50s (max.)
ピーク温度 Peak temperature	250 °C (max.)	-





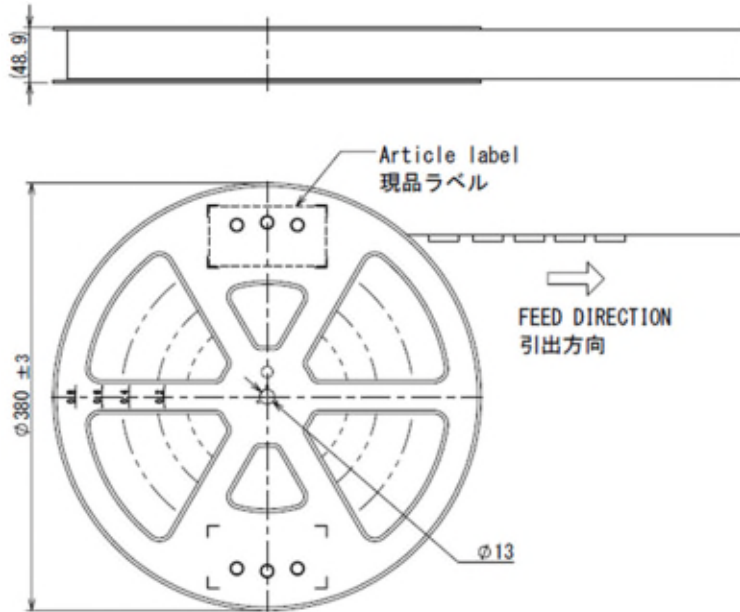
WaveConnect



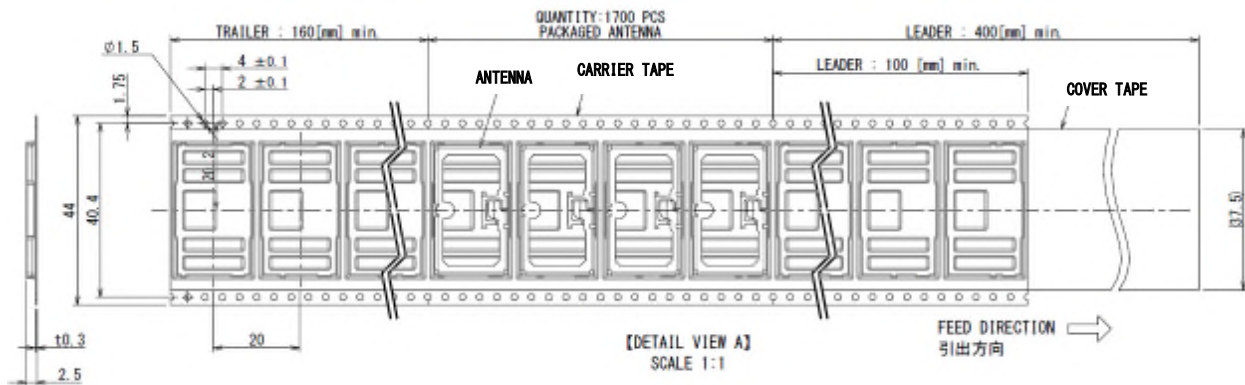
## 8. 梱包 Packaging

8.1. 梱包数量 Package quantity: 1,700 (pieces / reel)

8.2. エンボスリール寸法 Embossed reel dimensions



## 8.3. テープ寸法 Tape dimensions







改版履歴 Revision history

文書番号 Document number	日付 Date	改版 Revision
GHT20-1214	01 Oct. 2020	初版 Initial version
GHT20-1593	03 Dec. 2020	2 版 Revision 2
GHT21-0592	12 May. 2021	3 版 Revision 3 リール巻き数変更に伴う製品名修正
GHT21-0734	04 Jun. 2021	4 版 Revision 4 -Sec. 3.6 材料を追加 Sec. 3.6: Added material -Sec. 4.5 ピークゲインの値を追加 Sec. 4.5: Added value of peak gain
GHT21-0734-1	16 Jul. 2021	5 版 Revision 5 -表記の修正 Editorial changes
GHT21-0734-2	08 Oct. 2021	6 版 Revision 6 -表記の修正 Editorial changes