

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

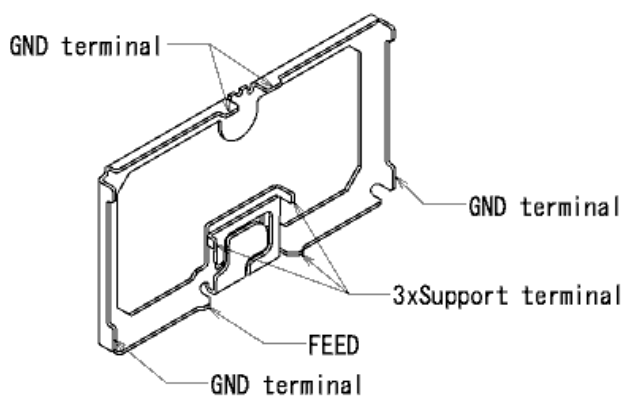
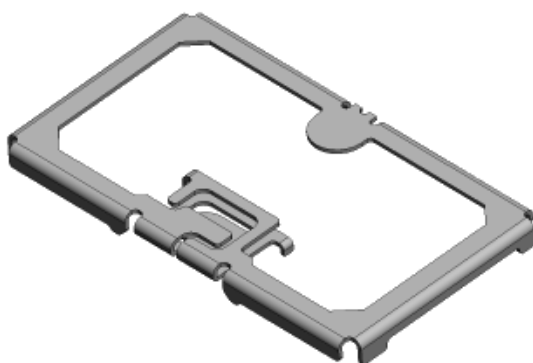
2. 品名 Product name

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

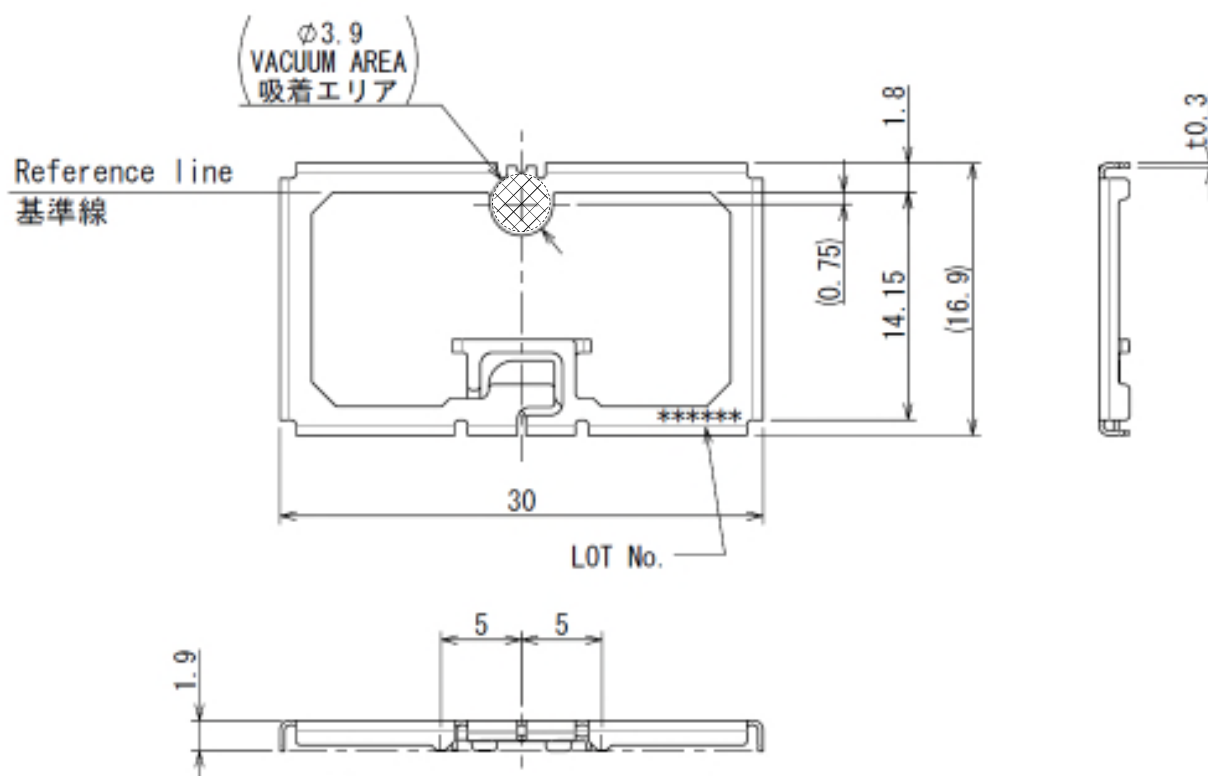
3.1. 形状 Shape





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

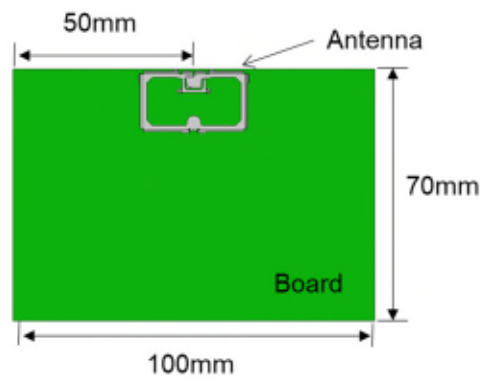
4.2. インピーダンス Impedance

50 Ω

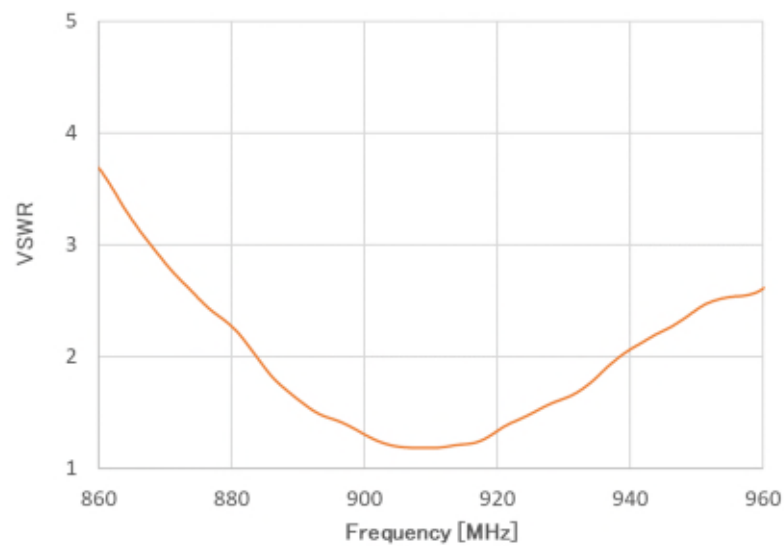
4.3. Voltage standing wave ratio (VSWR)

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)



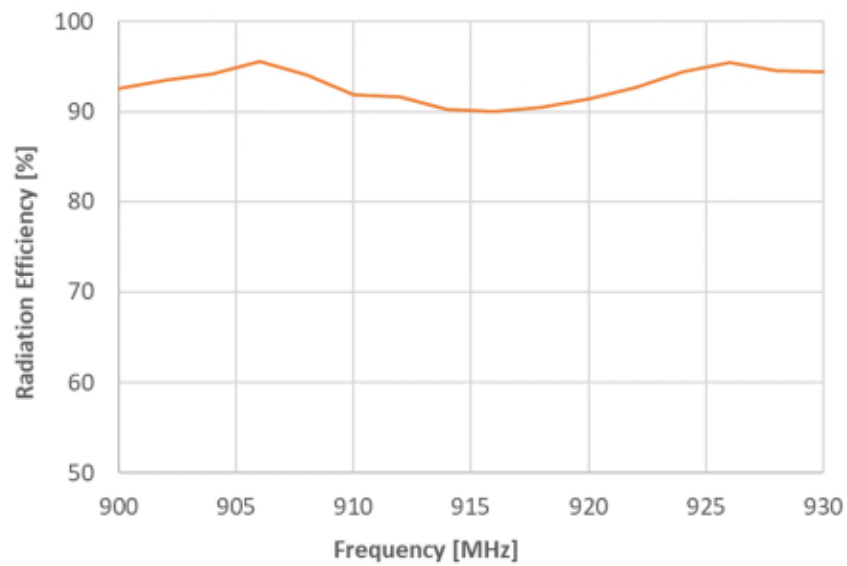


4.4 放射効率 Radiation efficiency

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)



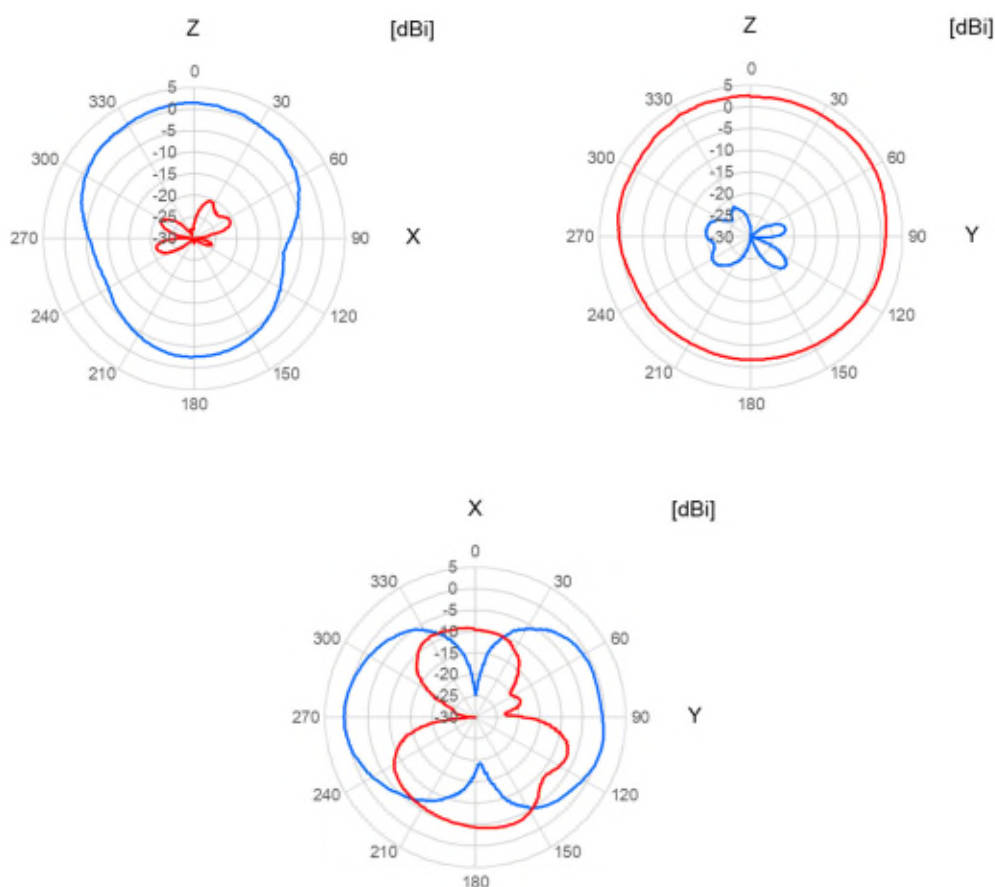
4.5 放射パターン Radiation pattern

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

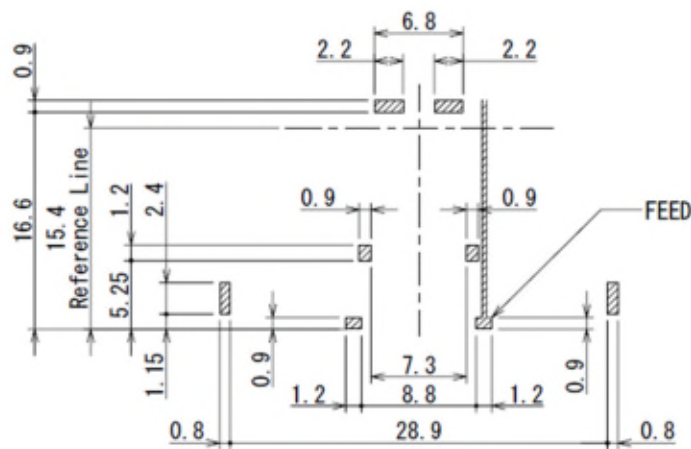
保存温度 Stock temperature range

+5 °C to +40 °C

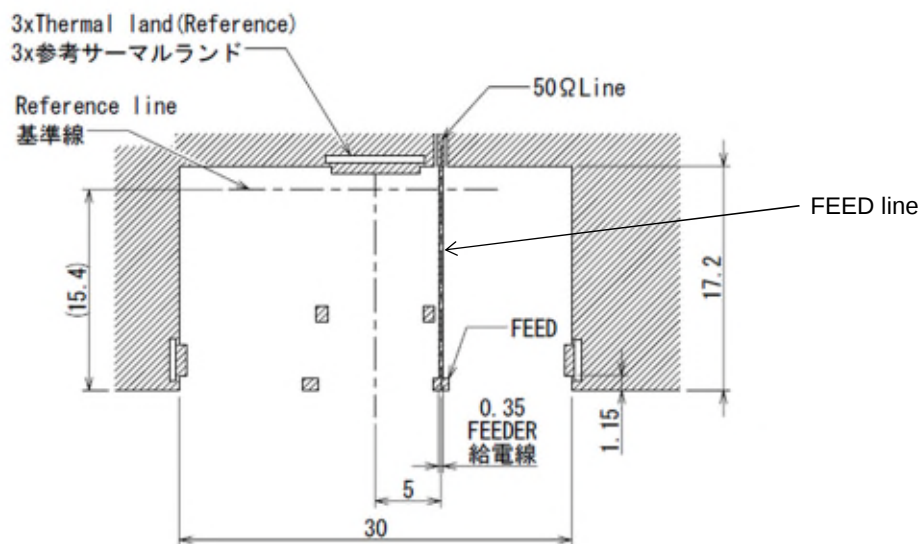
相対湿度 Relative humidity

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



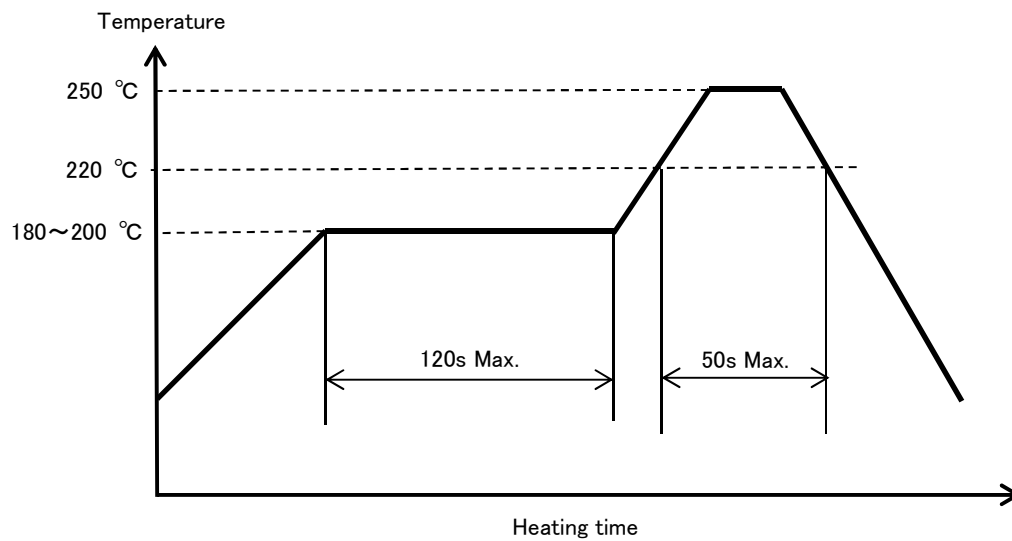
Recommended land pattern



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

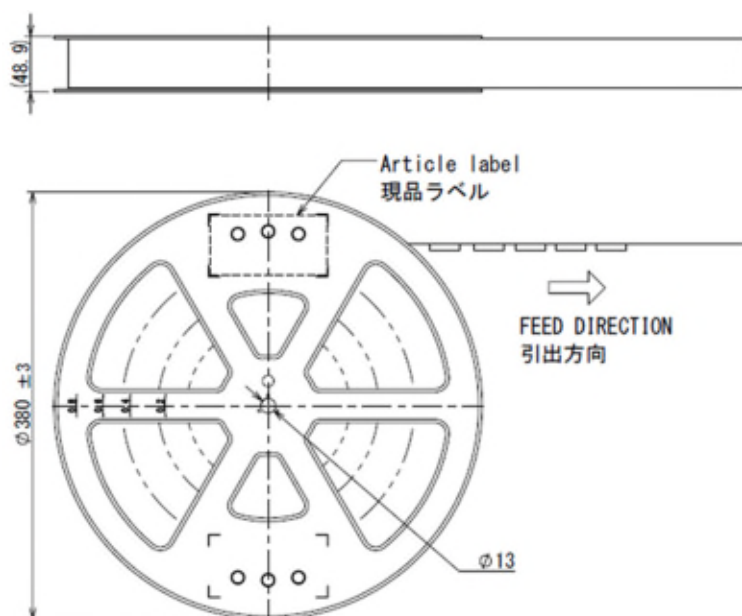
	温度 Temperature	加熱時間 Heating time
予備加熱 Preheating temperature	180 to 200 °C	120s (max.)
本加熱 Main heating temperature	Above 220 °C	50s (max.)
ピーク温度 Peak temperature	250 °C (max.)	–



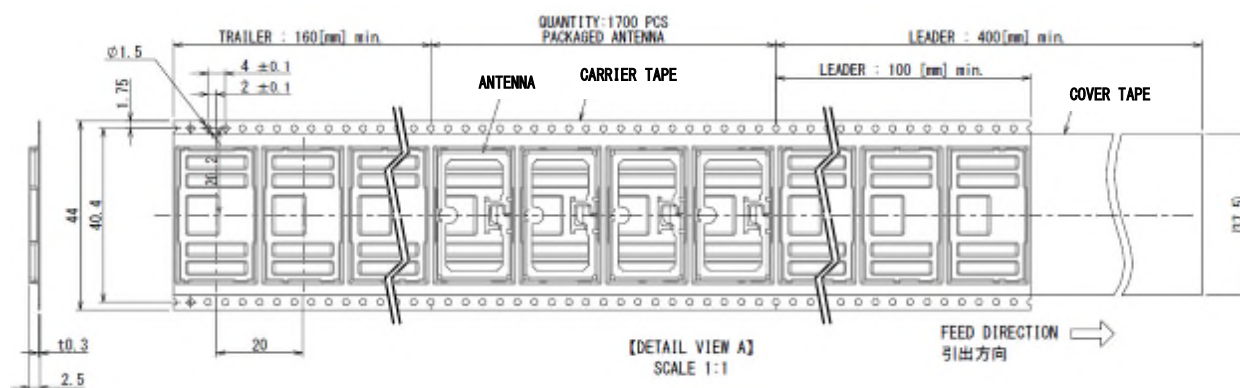
8. 梱包 Packaging

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

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