

Antenna Datasheet

TITLE : AN01DL25C00 SERIES
AN01DL25C00 シリーズ

1. 特徴 Features

- 無線 LAN 向け 2.4 – 2.5 GHz / 5.15 – 5.85 GHz アンテナ
2.4 – 2.5-GHz / 5.15 – 5.85-GHz antenna for WLAN
- 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

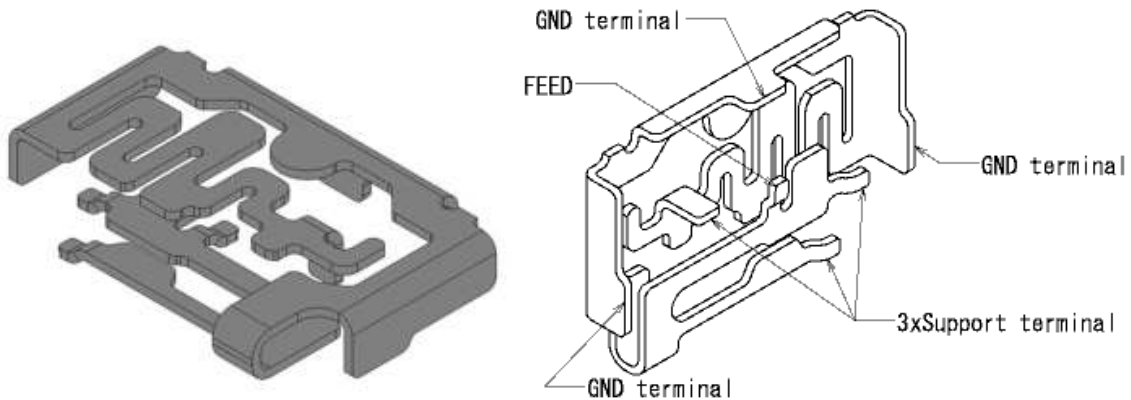
2. 品名 Product name

単品 Single unit: AN01DL25C00

3200 個パッケージ 3200-piece package: AN01DL25C00R3200

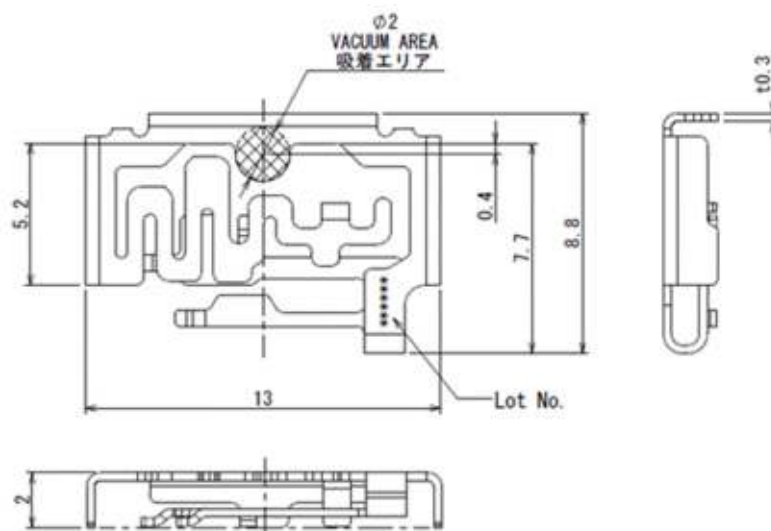
3. 形状、寸法と重量 Shape, dimensions, and weight

3.1 形状 Shape



3.2 寸法 Dimensions

13 (width) × 8.8 (depth) × 2 (height) mm



3.3 重量 Weight

0.26 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

2.4 – 2.5 GHz / 5.15 – 5.85 GHz

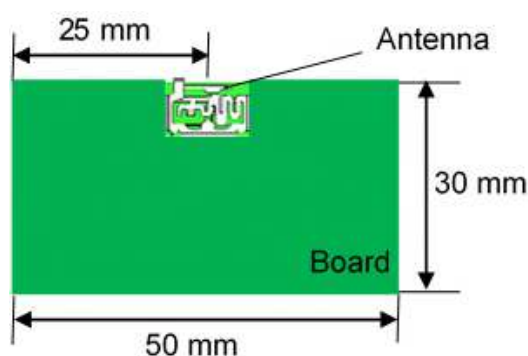
4.2 インピーダンス Impedance

50 Ω

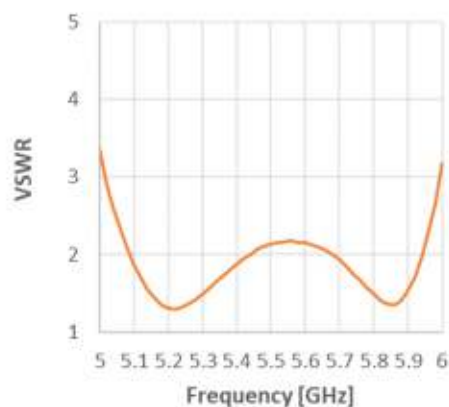
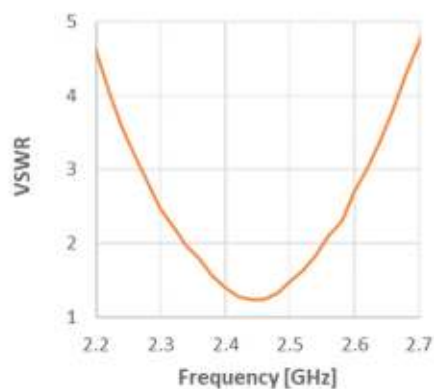
4.3 Voltage standing wave ratio (VSWR)

50 × 30 mm の標準基板実装時の VSWR 特性例

VSWR characteristics of the antenna on a 50 × 30-mm reference board



VSWR < 2.0 (frequency range: 2.4 – 2.5 GHz) or < 2.5 (frequency range: 5.15 – 5.85 GHz)

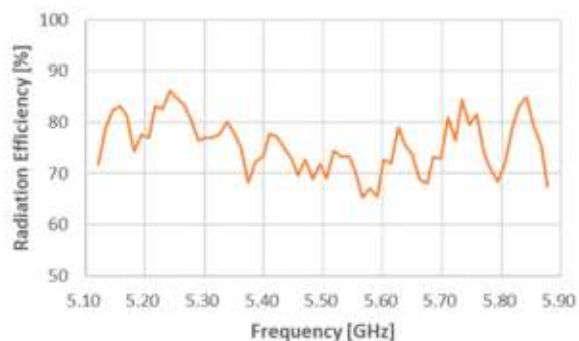
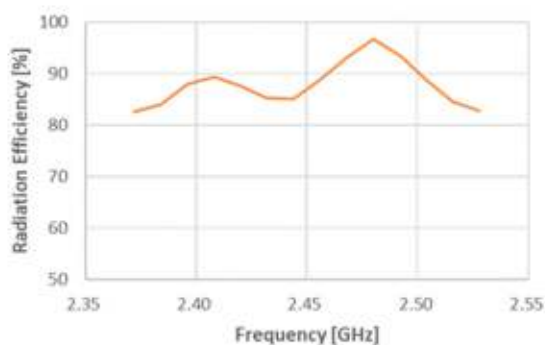


4.4 放射効率 Radiation efficiency:

50 × 30 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 50 × 30-mm reference board (excluding cable and feeder-line losses)

Radiation efficiency > 85% (frequency range: 2.4 – 2.5 GHz) or > 65% (frequency range: 5.15 – 5.85 GHz)



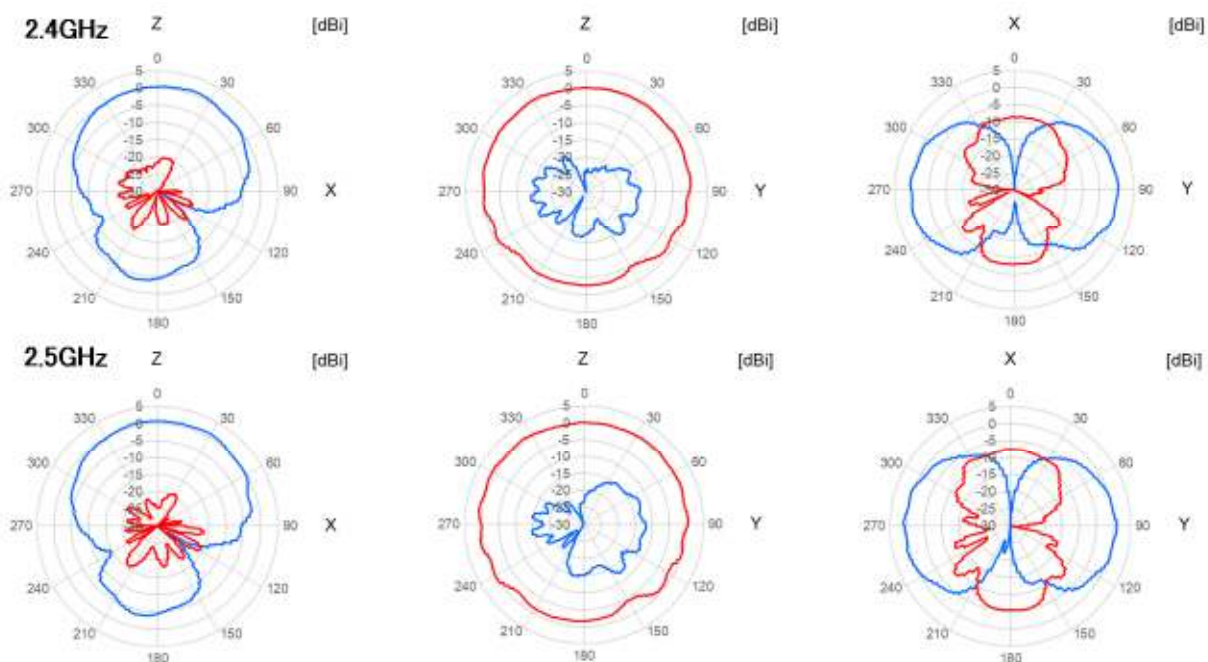
4.5 放射パターン Radiation pattern

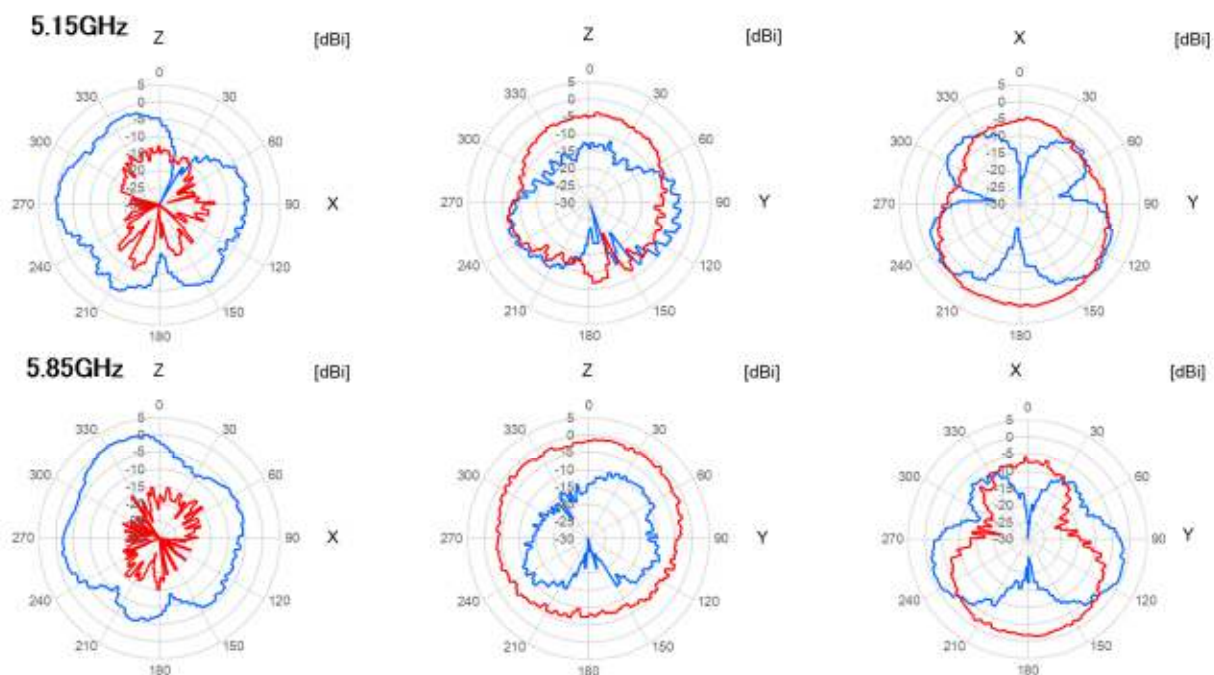
50 x 30 mm の標準基板実装時の放射パターン特性例

Radiation pattern of the antenna mounted on a 50 × 30-mm reference board



Radiation pattern





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 [GHz] | Peak gain [dBi] |
|-----------------|-----------------|
| 2.4 | 0.93 |
| 2.5 | 1.15 |
| 5.15 | 0.15 |
| 5.85 | 0.62 |

5. 環境条件 Environmental conditions

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

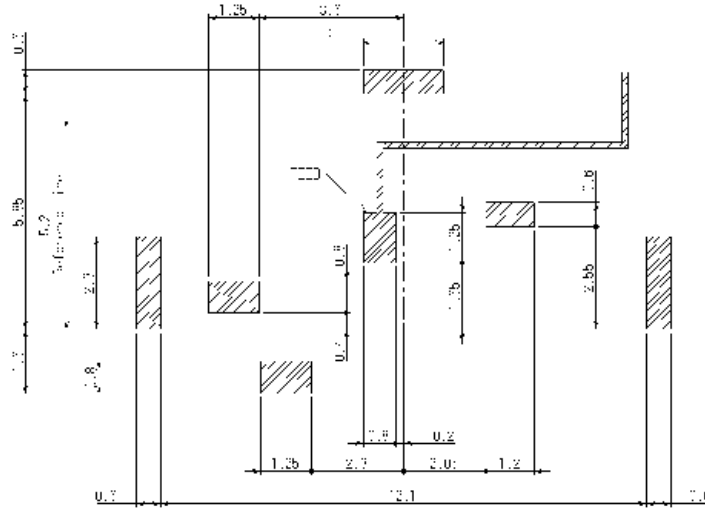
保存温度 Stock temperature range

+5°C to +40°C

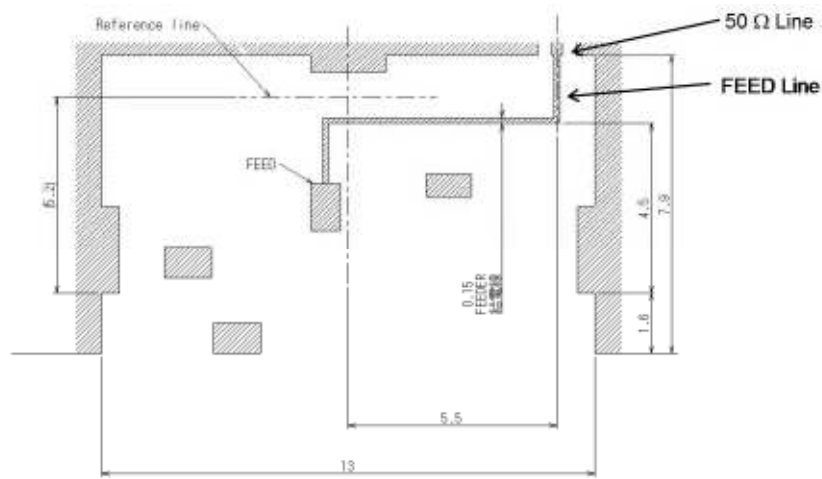
相对湿度 Relative humidity

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



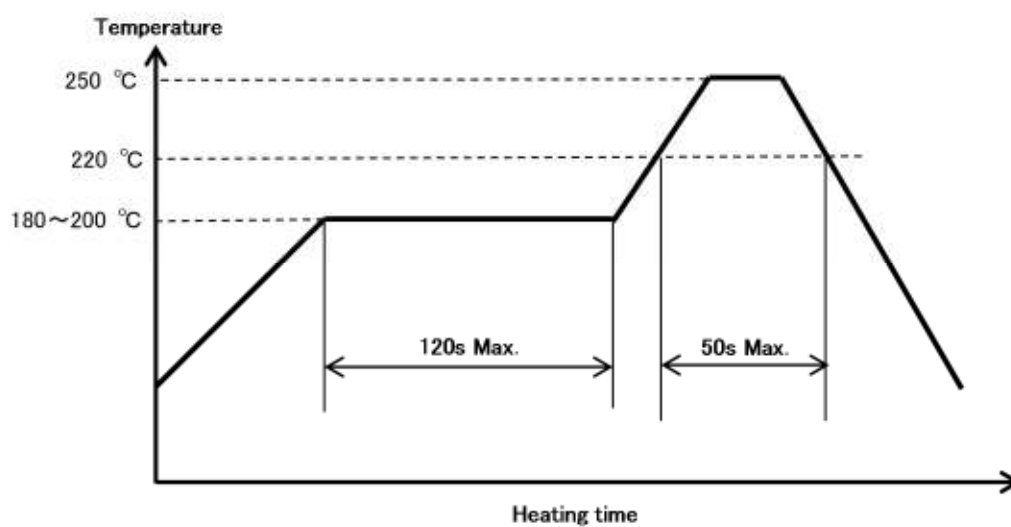
Recommended land pattern



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

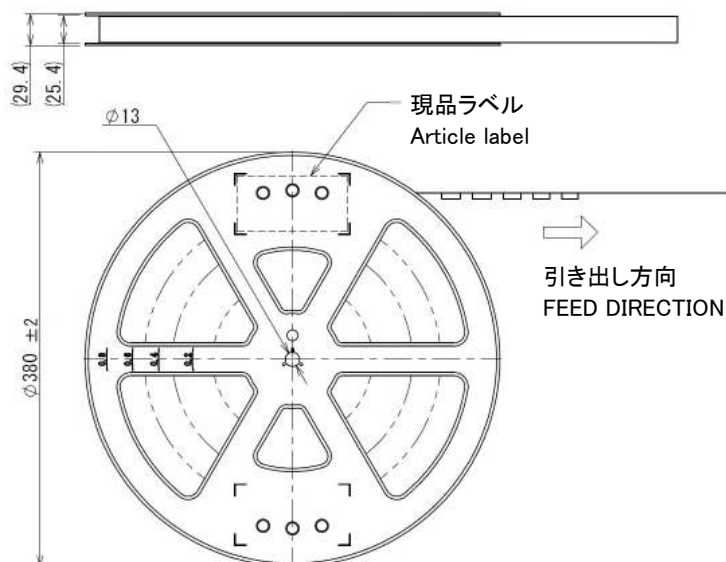
| | 温度 Temperature | 加熱時間 Heating time |
|---------------------------------|----------------|-------------------|
| 予備加熱 Preheating temperature | 180 to 200°C | 120 s (max.) |
| 本加熱 Main heating temperature | Above 220°C | 50 s (max.) |
| ピーク温度 Peak temperature | 250°C (max.) | - |



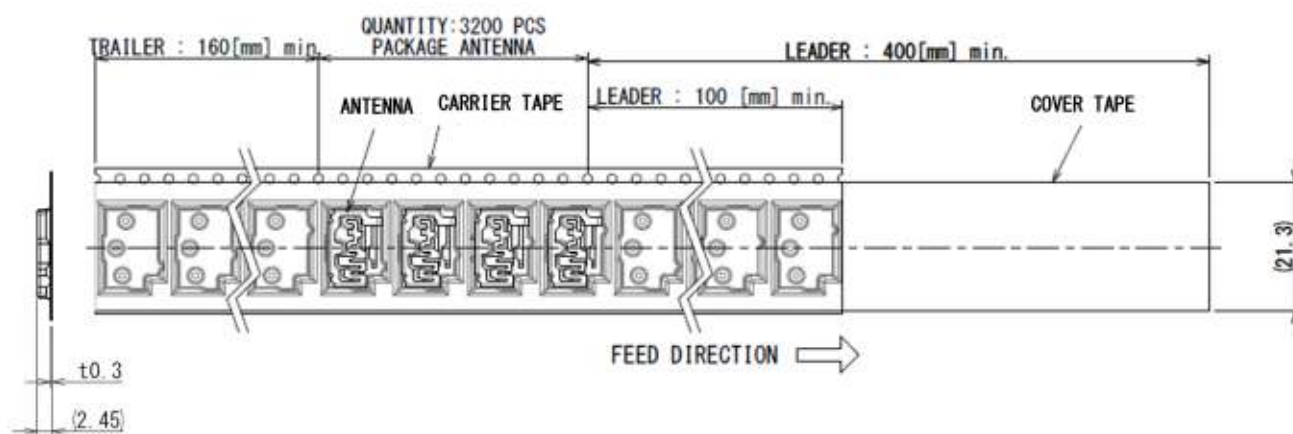
8. 梱包 Packaging

8.1 梱包数量 Package quantity: 3,200 (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 |
|----------------------|--------------|---|
| GHT20-1212 | 01 Oct. 2020 | 初版 Initial version |
| GHT20-1591 | 03 Dec. 2020 | 2 版 Revision 2 |
| GHT21-0730 | 04 Jun. 2021 | 3 版 Revision 3 <ul style="list-style-type: none"> - 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 - 表記の修正 Editorial changes |
| GHT21-0730-1 | 16 Jul. 2021 | 4 版 Revision 4 <ul style="list-style-type: none"> - 表記の修正 Editorial changes |
| GHT21-0730-2 | 08 Oct. 2021 | 5 版 Revision 5 <ul style="list-style-type: none"> - 表記の修正 Editorial changes |