# SPECIFICATION FOR APPROVAL

CUSTOMER NAME:

PRODUCT NAME: 2.4G PCB Ceramic antenna (21B00174A)

CUSTOMER P/N:

YR P/N: 21B00174A REV: A

| | MANUFACTURER SIGNATURE | CUSTOMER SIGNATURE |
|---|---|---|
| CHECKED BY: | LIU | |
| APPROVED BY: | EVINE | |
| DATE: | 2023/10/23 | |

Factory address ;

No. 13 Fengda Road, Fengda Industrial Park, Tianxin Community, Tangxia Town, Dongguan City

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***ltem*** ***Description***

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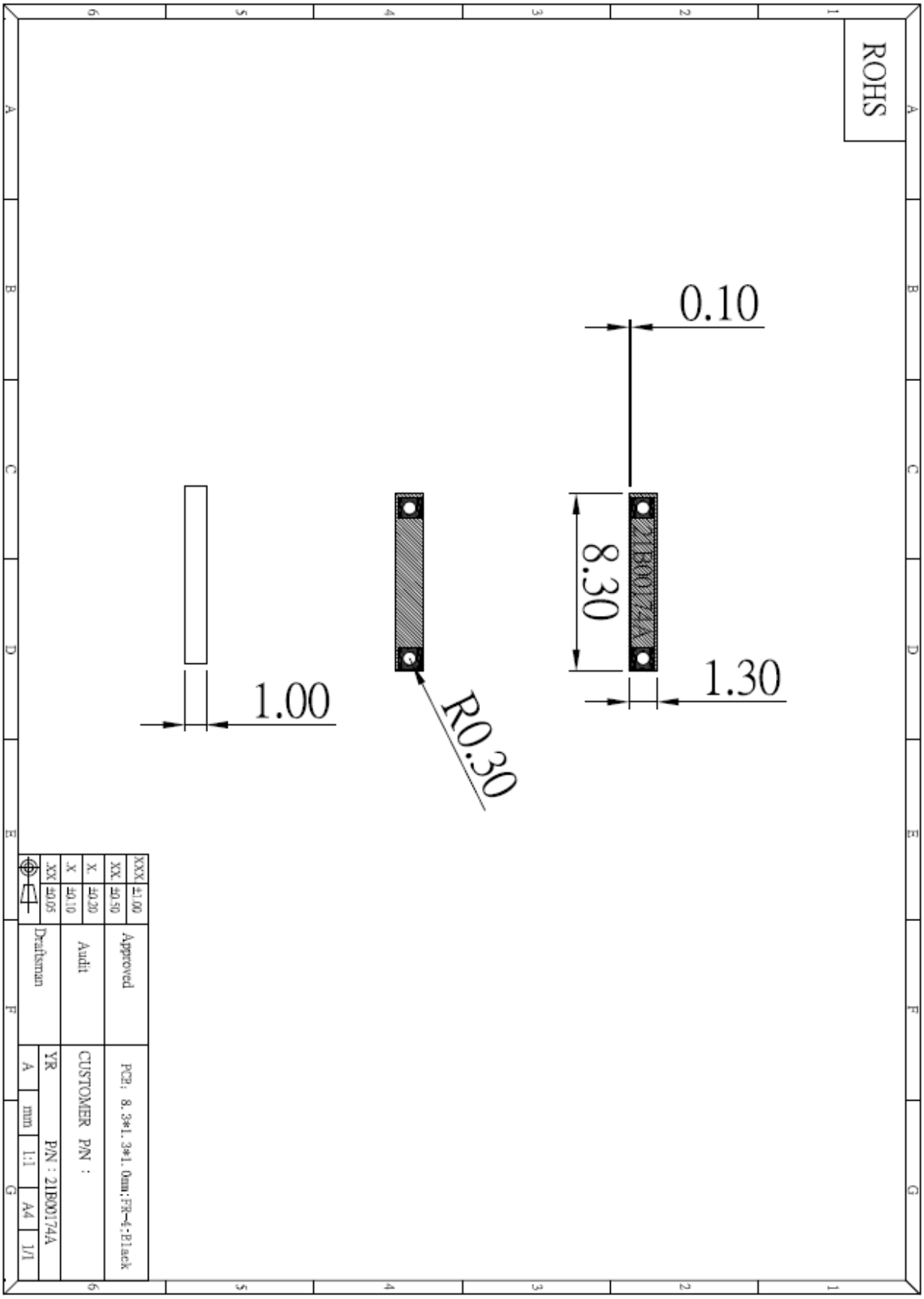
**1**. Main technical parameters of products

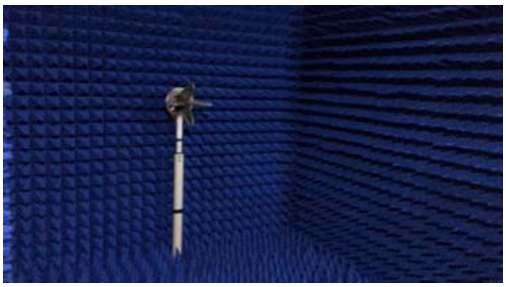
| Main technical specifications | |
|---|---|
| Frequency Range (MHZ) | 2400~2500 |
| Impedance(Ω) | 50±10 |
| Peak Gain(dBi) | 3.8 |
| VSWR | ≤1. 92 |
| Admitted Power | 1W |
| Polarization | Line,Vertical |
| Connector Type | SMT |
| Physical Properties | |
| Antenna Base | PCB+ Ceramics |
| Operating Temp | -20℃~+70℃ |
| Storage Temp | -20℃~+70℃ |

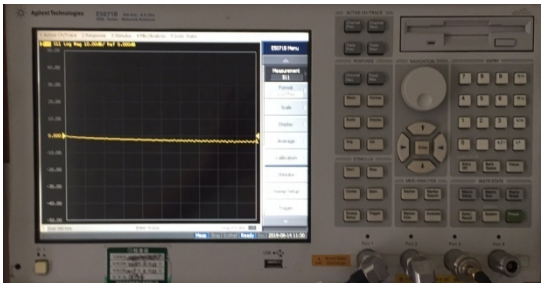
2. Structure diagram:



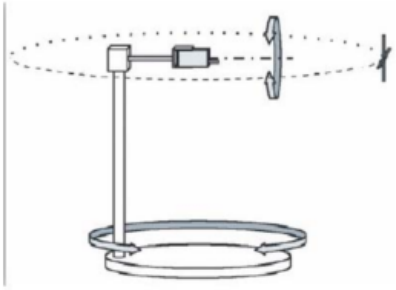
## 3. Test environment

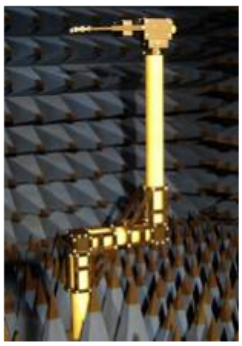
| / | Test items | Equipment | | |
|---|---|---|---|---|
| S11 | 1. Return loss<br>2.VSWR | Equipment | Model No | Manufacturers |
| | | Analyzers | E5071B | Agilent |
| | | Coaxial Cabie | RG316 | YiRui |
| Testing | 1. 2D、3DRaditation Pattern<br>2. Antenna gain<br>3. Antenna efficiency | OTA | ETS 5*3*3(3D) | Guang Ping |
| | | Analyzers | E5071B | Agilent |
| | | PC Console | Win 7 | ASUS |
| | | OTA | ETS;Far Field probe | Guang Ping |
| | | 3D turntable | ϕ1*1*1.5(3D) | Guang Ping |



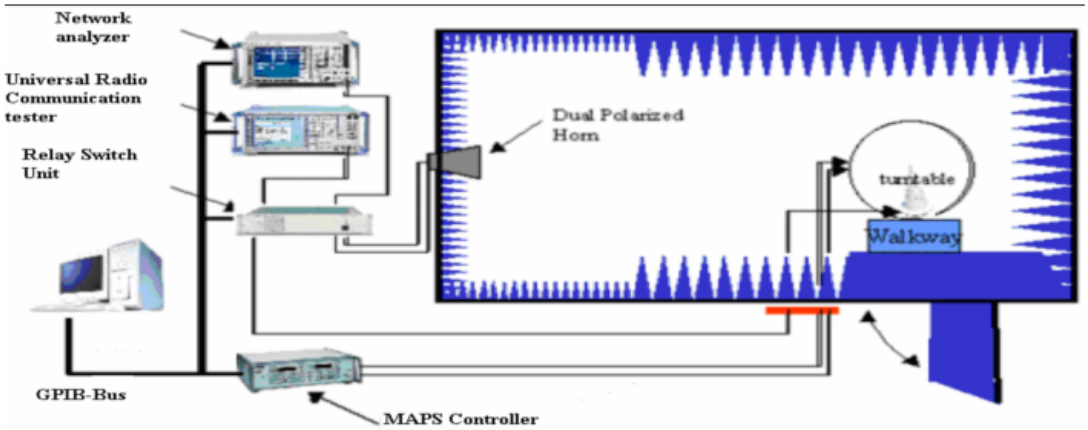


ETS OTA Test principle



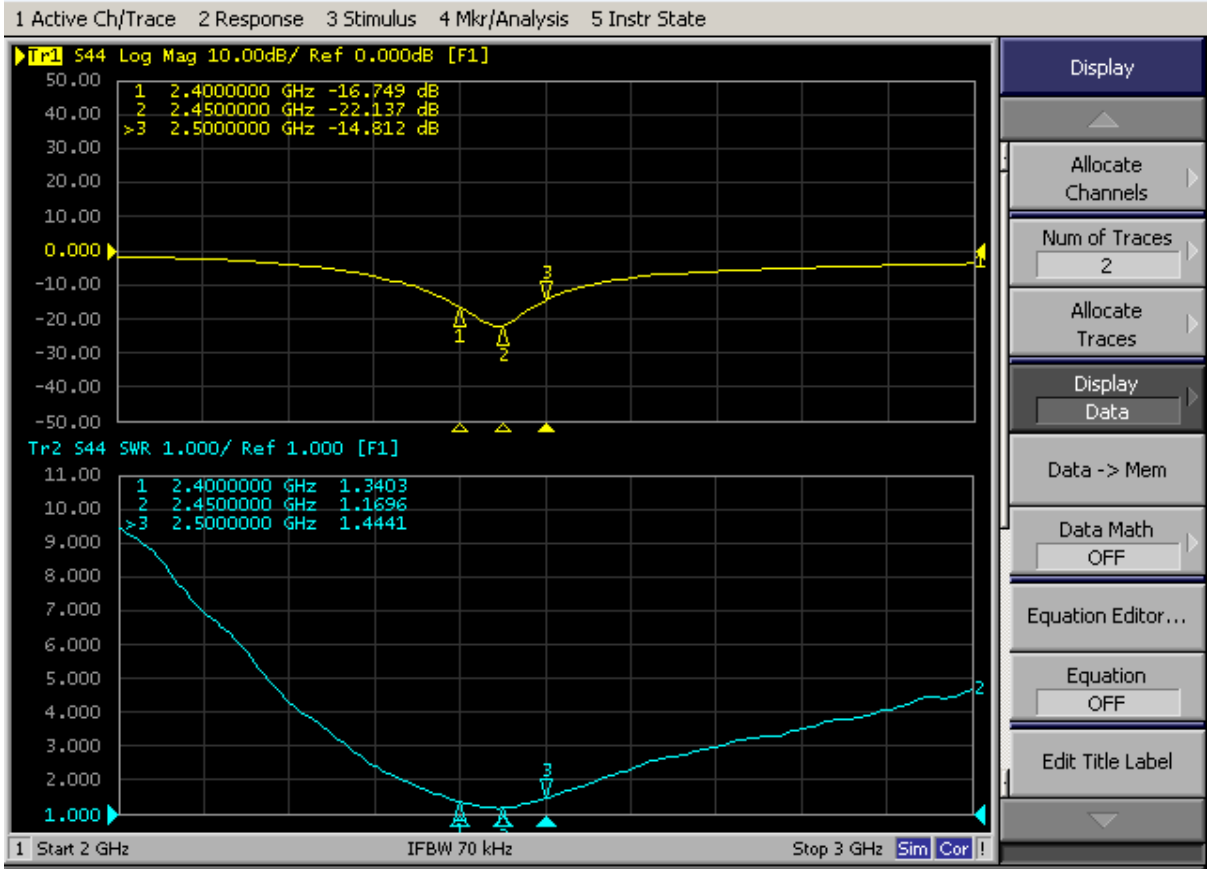


3D turntable



# 4. Test report

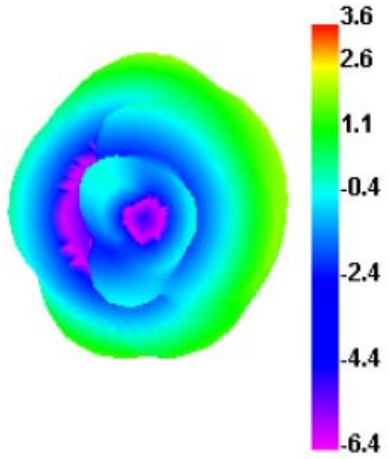
## 3. 1. Return loss/VSWR



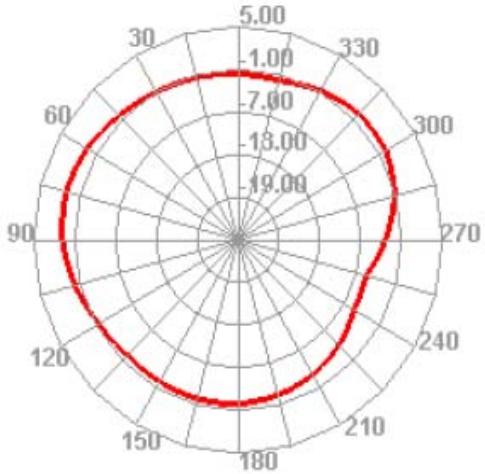

## 3. 2. Gain. Efficiency. 2D、3DRaditation Pattern

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|---|---|---|---|
| 2400 | 63. 9 | -1. 95 | 3. 62 |
| 2410 | 59. 35 | -2. 27 | 3. 37 |
| 2420 | 59. 22 | -2. 28 | 3. 5 |
| 2430 | 55. 96 | -2. 52 | 3. 27 |
| 2440 | 60. 05 | -2. 21 | 3. 5 |
| 2450 | 63. 4 | -1. 98 | 3. 65 |
| 2460 | 65. 44 | -1. 84 | 3. 7 |
| 2470 | 67. 18 | -1. 73 | 3. 73 |
| 2480 | 70. 11 | -1. 54 | 3. 8 |
| 2490 | 67. 68 | -1. 7 | 3. 56 |
| 2500 | 59. 99 | -2. 22 | 2. 94 |

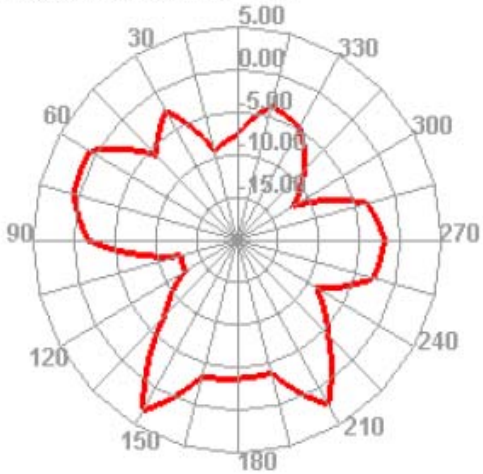
2400.000MHz



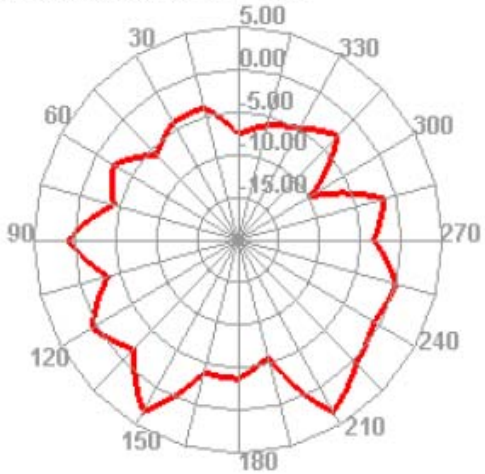

2400.000MHz H



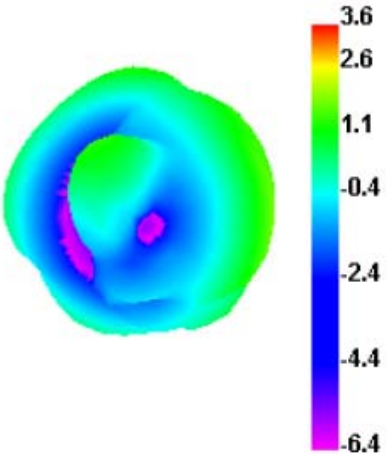

2400.000MHz E1



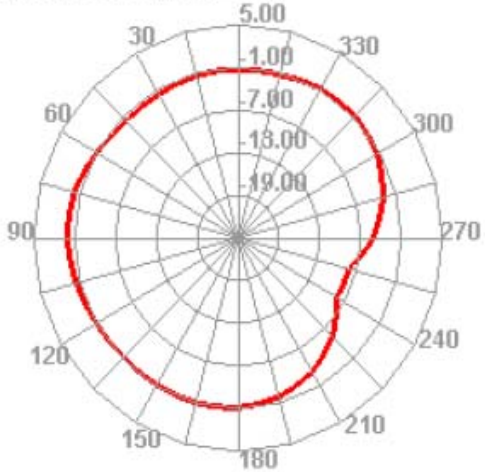

2400.000MHz E2



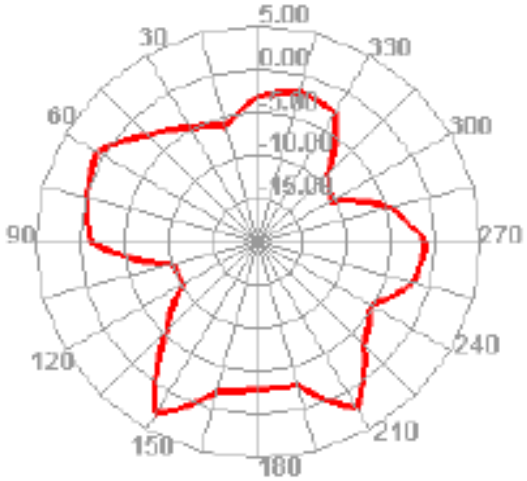

2450.000MHz



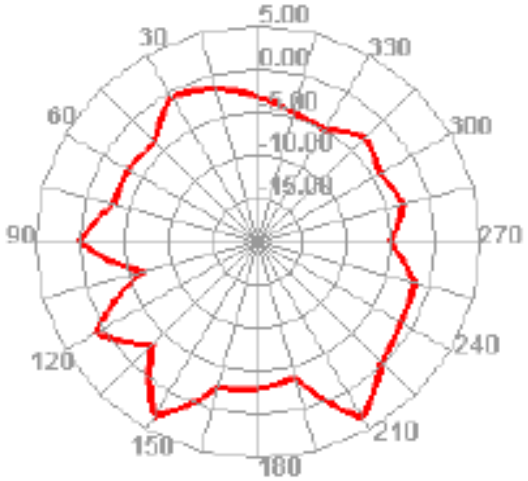

2450.000MHz H



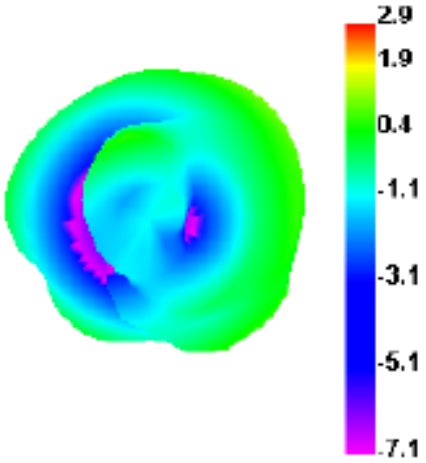
2450.000MHz E1



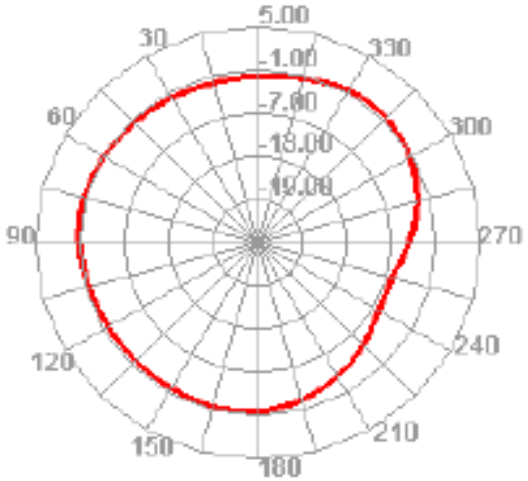

2450.000MHz E2



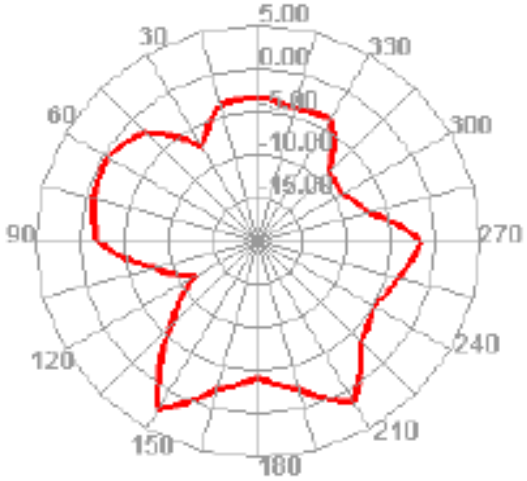

2500.000MHz



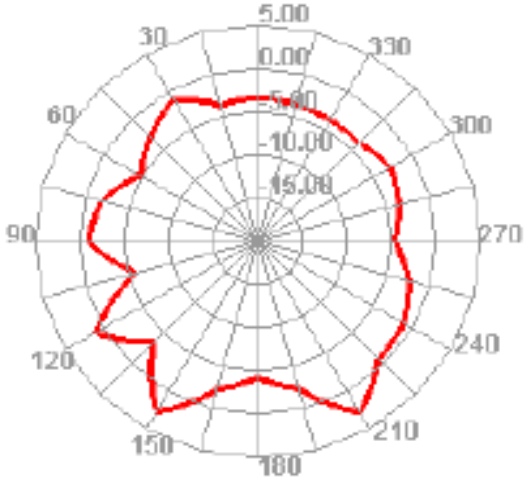
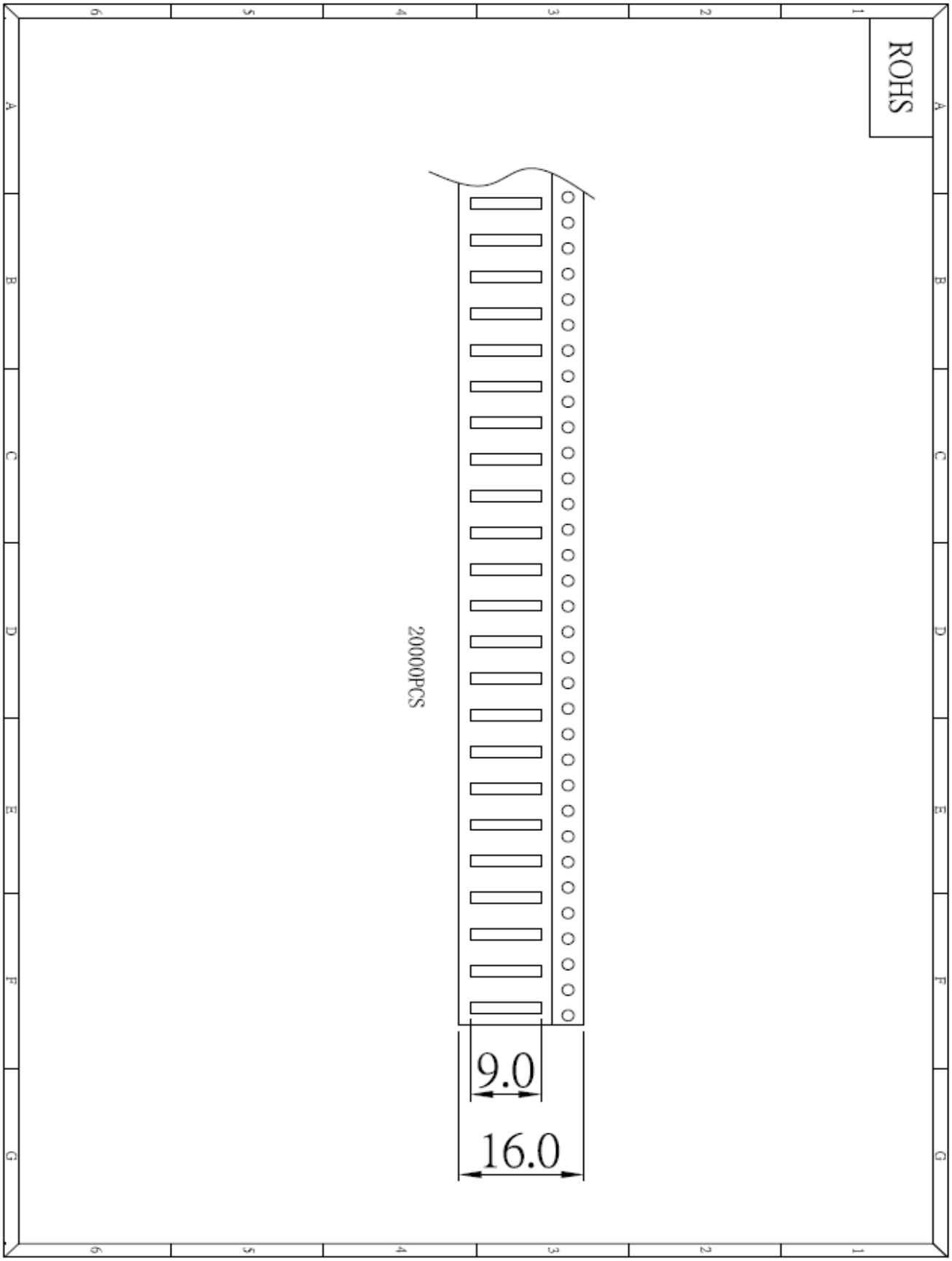

2500.000MHz H




2500.000MHz E1




2500.000MHz E2



5. Packaging