产品规格承认书

SPECIFICATIONS

| 客户: | | | | | | | | |
|--------------------------------|--------------------|-----------|------------|--------------|-----------|---|----------|-----------------|
| CUSTOMER: _ | | | | | | | | |
| 产品名称: | | | | | | | | |
| DESCRIPTION | <u> </u> | Bij | polar an | ten | na | | | |
| 客户型号: | | | | | | | | |
| CUSTOMER PA | RT No: | | | | | | | |
| 产品型号: | | | | | | | | |
| OUR MODEL N | . | Ę | PRY3216M | ۸ 0 1 | | | | |
| 日期: | · | 1 | DA5210M | 101 | | | | |
| 5.4.55 | | | | | | | | |
| DATE: | | | | | | | | |
| | | | | | | | | |
| 确认签字,盖章 | | | | | | | | |
| PLEASE RETU | RN TO US | S ONE COL | PY OF "S | SPEC | IFICA | TION FOR APP | ROVAI | . <i>99</i> |
| WITH YOUR A | DDBUALD | STONATII | OEC . | | | | | |
| WIIII TOOK A | IIKOVED | SIGNATOR | ALO | | | | | |
| | | | | | | | 7 | |
| Approved | LiuFei | Audit | LiuFei | Mak | ing | LiuXiaoMei | | |
| | | | | | | | J | |
| | | | | | | | | |
| | | | | | | | | _ |
| Customer A | cknowle | adoes Si | onature | | | | | |
| Oub tomer 1 | | Jagob Di | 5114 041 0 | | | | | |
| | Dat | e | | | | | | |
| | | | | | | | | |
| UNLESS OTHER SPECIFI | IED TOLER | ANCES ON | | | | | | |
| $X=\pm$ $X.X=\pm$ | X.XX = | | PENGBANXIN | 。Р | engBan | XingYe ShenZhen Teo | chnology | y Co. , Ltd |
| $A N G L E S = \pm$ SCALE: N/A | HOLEDI UNIT: mm | | THESENR | AWING 9 | S AND SE | ECIFICATIONS ARE THE | PROPER | TV OF PRYV |
| DRAWN BY : Sera | CHECKED | | TECHNOL | OGY Li | mited ANI | D SHALL NOT BE REPRO NUFACTURE OR SALE | DUCED (| OR USED AS |
| DESIGNED BY: Sera | APPROVED | BY: XD | DEVICES | | | | JI AIF | MATOU ON |
| TITLE: CHIP2450-3216 Sp | pecification | | DOCUM | | | 3216 | | SPEC REV. |
| • | | | I NO | | | | | D1 |

PBX3216MA01 Specification

Operating Temp. : -40 ℃~+85 ℃

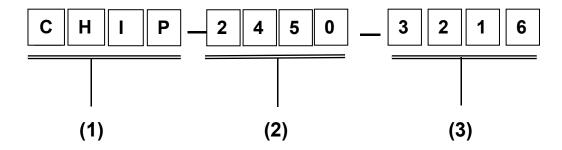
1. FEATURES:

- Light weight, compact
- Wide bandwidth, low cost
- Built-in antenna with high gain

2. APPLICATIONS:

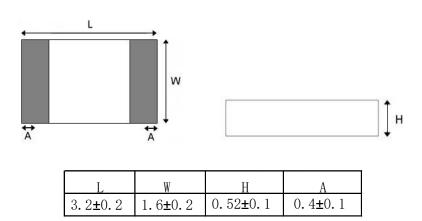
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

3. PRODUCT IDENTIFICATION



- (1) Product type: Multilayer chip Antenna
- (2) Center Frequency: 2450MHz
- (3) External Dimensions (L×W) (mm): 3.2*1.6

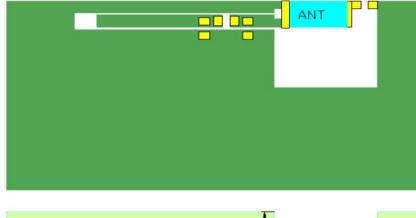
4. SHAPE AND DIMENSIONS:

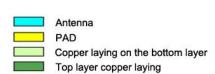


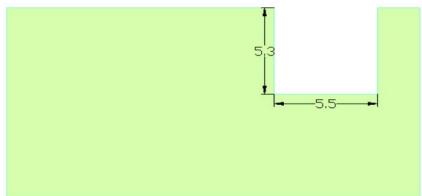
| UNLESS OTHER SPEC X=± X.X=± ANGLES = ± | IFIED TOLERANCES ON: X.XX= HOLEDIA = ± | PENGBANXING F | engBanXingYe ShenZhen Technolog | y Co. , Ltd |
|--|--|---|---------------------------------|-------------|
| SCALE: N/A | UNIT: mm | THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PETECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS DEVICES WITHOUT PERMISSION | | |
| DRAWN BY : Sera | CHECKED BY: XD | | | |
| DESIGNED BY: Sera | APPROVED BY: XD | | | |
| TITLE: CHIP2450-3216 Specification | | DOCUMENT | 3216 | SPEC REV. |
| 111LL: CITIF 2430-3210 | Specification | NO. | 3210 | D4 |

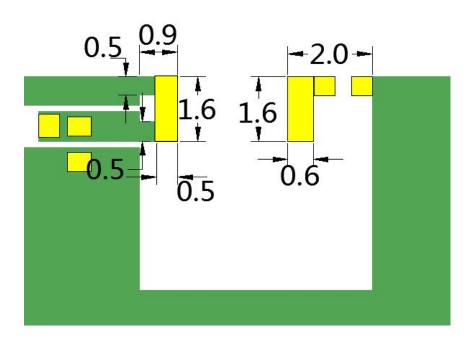
Test plate reference size:

Company: mm



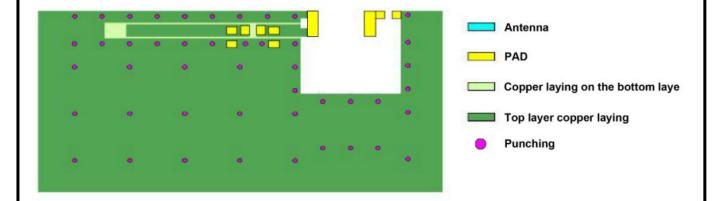




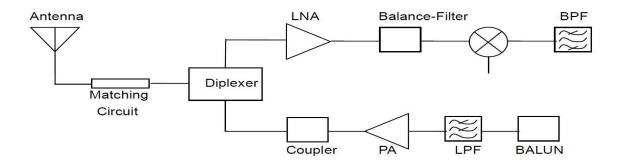


| UNLESS OTHER SPECIFIED TOLERANCES ON: $X=\pm$ $X.XX=\pm$ $X.XX=$ ANGLES $=\pm$ HOLEDIA $=\pm$ | | PENGBANXING F | PengBanXingYe ShenZhen Technolog | y Co. , Ltd |
|---|-----------------|--|----------------------------------|-------------|
| SCALE: N/A | UNIT: mm | THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF P TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USEI THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS | | |
| DRAWN BY : Sera | CHECKED BY: XD | | | |
| DESIGNED BY: Sera | APPROVED BY: XD | DEVICES WITHOUT PERMISSION | | |
| TITLE: CHIP2450-3216 Specification | | DOCUMENT | 3216 | SPEC REV. |
| | | NO. |] 3210 | P1 |

Hole punching reference diagram



APPLICATION GUIDE



5. SPECIFICATIONS:

| Test Item | Specifications | |
|-------------------|---------------------|--|
| Bandwidth | 2400-2483MHz | |
| Polarization mode | Linear polarization | |
| * Maximum gain | 2.67dBi | |
| * Efficiency | 72.3% | |
| Input Impedance | 50Ω | |

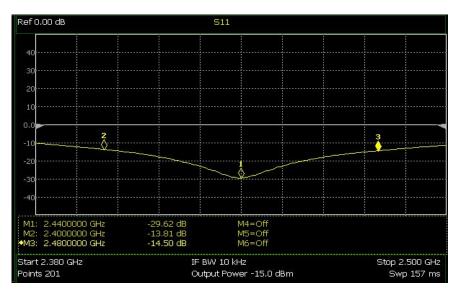
* Test condition: Test board size 90*40 mm

Matching circuit: Pi matching circuit will be required

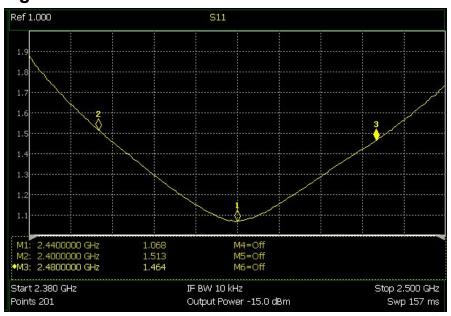
| UNLESS OTHER SPEC X=± X.X=± ANGLES = ± | IFIED TOLERANCES ON: X.XX= HOLEDIA = ± | PengBanXingYe ShenZhen Technology C | | yy Co. , Ltd |
|--|--|---|------|--------------|
| SCALE: N/A | UNIT: mm | THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PB TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS | | |
| DRAWN BY : Sera | CHECKED BY: XD | | | |
| DESIGNED BY: Sera | APPROVED BY: XD | DEVICES WITHOUT PERMISSION | | |
| TITLE: CHIP2450-3216 Specification | | DOCUMENT | 3216 | SPEC REV. |
| 1111 EE; SIM 2430-3210 | opecinication | NO. | 3210 | P1 |

6. Electrical Characteristics:

Return loss



Standing wave ratio

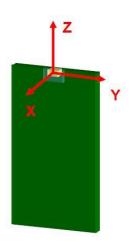


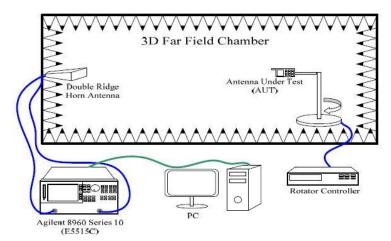
| Mark | Frequency | VSWR |
|------|-----------|-------|
| 1 | 2400 MHz | 1.513 |
| 2 | 2440 MHz | 1.068 |
| 3 | 2480 MHz | 1.464 |

| UNLESS OTHER SPECI X=± X.X=± | X.XX = | PengBanXingYe ShenZhen Technology | | y Co. , Ltd |
|------------------------------------|-----------------|---|------|-------------|
| $ANGLES = \pm$ | $HOLEDIA = \pm$ | | | |
| SCALE: N/A | UNIT: mm | THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PB | | - |
| DRAWN BY : Sera | CHECKED BY: XD | TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS | | |
| DESIGNED BY: Sera | APPROVED BY: XD | DEVICES WITHOUT PERMISSION | | |
| TITLE: CHIP2450-3216 Specification | | DOCUMENT | 3216 | SPEC REV. |
| TITLE: CHIP2450-3216 Specification | | NO. | 3210 | P1 |

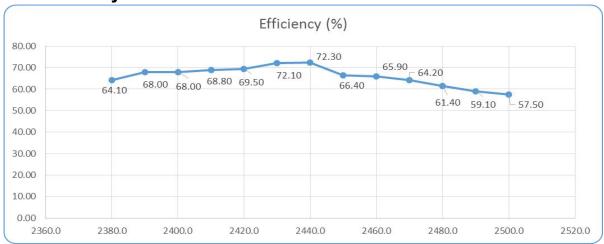
Radiation Pattern

The Gain pattern is measured in FAR-field chamber. DUT is placed on the table of rotator,a standard horn antenna and Vector Network Analyzer is used to collect data.

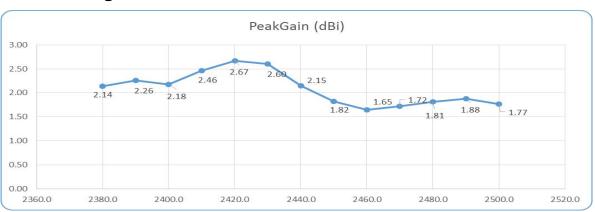




© Efficiency

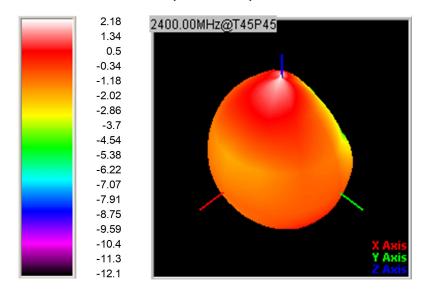


Maximum gain

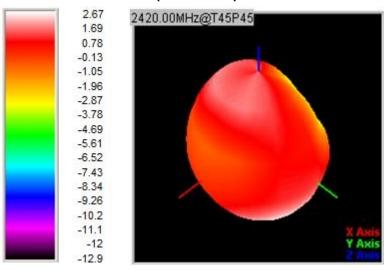


| UNLESS OTHER SPEC X=± X.X=± ANGLES = ± | CIFIED TOLERANCES ON: X.XX= HOLEDIA = ± | PENGBANXING F | PengBanXingYe ShenZhen Technolog | y Co. , Ltd |
|--|---|---|-------------------------------------|-------------|
| SCALE: N/A | UNIT: mm | | S AND SPECIFICATIONS ARE THE PROPER | |
| DRAWN BY : Sera | CHECKED BY: XD | TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS (| | |
| DESIGNED BY: Sera | APPROVED BY: XD | DEVICES WITHOUT PERMISSION | | |
| TITLE: CHIP2450-3216 Specification | | DOCUMENT | 3216 | SPEC REV. |
| 111 LL: CHIF 2430-3210 | Specification | NO. | 3210 | P1 |

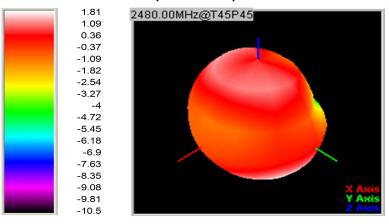
○ 3D Gain Pattern (2400 MHz)



◎ 3D Gain Pattern (2420 MHz)



O 3D Gain Pattern (2480 MHz)



| $X=\pm$ $X.X=\pm$ | FIED TOLERANCES ON: X.XX= | PengBanXingYe ShenZhen Technology | | y Co. , Ltd |
|------------------------------------|---------------------------|--|--------|-------------|
| $ANGLES = \pm$ | HOLEDIA = ± | | | |
| SCALE: N/A | UNIT: mm | THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PB. TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AT THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OF THE BASIS FOR T | | - |
| DRAWN BY : Sera | CHECKED BY: XD | | | |
| DESIGNED BY: Sera | APPROVED BY: XD | DEVICES WITHOUT PERMISSION | | |
| TITLE: CHIP2450-3216 Specification | | DOCUMENT | 3216 | SPEC REV. |
| TITLE: CHIP2450-3216 Specification | | NO. |] 3210 | P1 |

PengBanXingYe ShenZhen Technology Co. , Ltd

Address: Room 608, Building 4,1970 Science and Technology Town, Minzhi Street, Longhua District, Shenzhen.

7. Environmental Characteristics

(1) Reliability Test

| Item | Condition | Specification |
|-----------------------------------|---|---|
| Thermal shock | 1. 30±3 minutes at -40° C±5° C, 2. Convert to +105° C (5 minutes) 3. 30±3 minutes at +105° C±5° C, 4. Convert to -40° C (5 minutes) 5. Total 100 continuous cycles | No apparent damage Fulfill the electrical spec. after test. |
| Humidity resistance | 1. Humidity: 85% R.H. 2. Temperature: $85\pm5^{\circ}$ C 3. Time: 1000 hours. | No apparent damage Fulfill the electrical spec. after test. |
| High temperature resistance | 1. Temperature: 150° C±5° C 2. Time: 1000 hours. | No apparent damage Fulfill the electrical spec. after test. |
| Low temperature resistance | 1. Temperature: -40° C±5° C 2. Time: 1000 hours. | No apparent damage Fulfill the electrical spec. after test. |
| Soldering heat resistance | 1. Solder bath temperature : $260\pm5^{\circ}$ C 2. Bathing time: 10 ± 1 seconds | No apparent damage |
| Solderability | The dipped surface of the terminal shall be at least 95% covered with solder after dipped in solder bath of $245\pm5^\circ\!$ | No apparent damage |

(2) Storage Condition

(a) At warehouse:

The temperature should be within 0 ~ 30°C and humidity should be less than 60% RH.

The product should be used within 1 year from the time of delivery.

(b) On board:

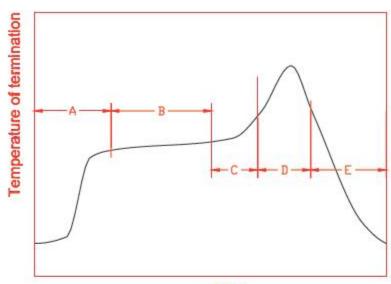
The temperature should be within -40~85°C and humidity should be less than 85% RH.

(3) Operating Temperature Range

Operating temperature range : -40° C to $+105^{\circ}$ C.

| UNLESS OTHER SPECI X=± X.X=± ANGLES = ± | FIED TOLERANCES ON: X.XX= HOLEDIA = ± | PengBanXingYe ShenZhen Technology Co. , L | | y Co. , Ltd |
|---|---|---|------|-------------|
| SCALE: N/A | UNIT: mm | THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBX | | |
| DRAWN BY : Sera | CHECKED BY: XD | TECHNOLOGY Limited and shall not be reproduced or used A THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS O | | |
| DESIGNED BY: Sera | APPROVED BY: XD | DEVICES WITHOUT PERMISSION | | |
| TITLE: CHIP2450-3216 | Specification | 7)16 | | SPEC REV. |
| 1111EE; 51111 2430-3210 | | NO. | 3210 | P1 |

8. Recommended Reflow Soldering



Time

| Α | 1 st rising temperature | The normal to Preheating temperature | 30s to 60s |
|--------|--|--------------------------------------|---------------|
| В | Preheating | 140°C to 160°C | 60s to 120s |
| С | 2 nd rising temperature | Preheating to 200°C | 20s to 40s |
| D Main | | if 220°C | 50s∼60s |
| | | if 230°C | 40s~50s |
| | Main heating | if 240°C | 30s~40s |
| | 5-00-00 00 00 00 00 00 00 00 00 00 00 00 | if 250°C | 20s~40s |
| | | if 260°C | 20s~40s |
| E | Regular cooling | 200°C to 100°C | 1°C/s ~ 4°C/s |
| | 75050 (0) | AT | 277 |

^{*}reference: J-STD-020C

(1) Soldering Gun Procedure

Note the follows, in case of using solder gun for replacement.

- (a) The tip temperature must be less than $350^{\circ}\,$ C for the period within 3 seconds by using soldering gun under 30 W.
- (b) The soldering gun tip shall not touch this product directly.

(2) Soldering Volume

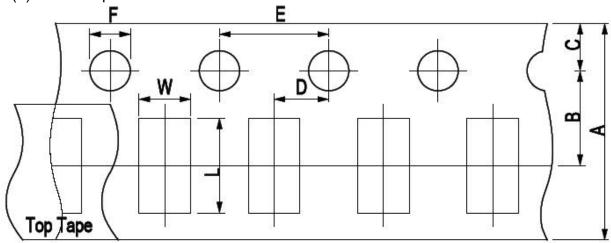
Note that excess of soldering volume will easily get crack the body of this product.

| UNLESS OTHER SPECIF X=± X.X=± ANGLES = ± | TIED TOLERANCES ON: X.XX= HOLEDIA = ± | PENGBANXING F | engBanXingYe ShenZhen Technolog | y Co. , Ltd | |
|--|--|---|---------------------------------|-------------|--|
| | • | | | | |
| SCALE: N/A | UNIT: mm | THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY | | | |
| DRAWN BY : Sera | CHECKED BY: XD | TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USI THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATU | | | |
| DESIGNED BY: Sera | APPROVED BY: XD | DEVICES WITHOUT PERMISSION | | | |
| TITLE: CHIP2450-3216 S | necification | DOCUMENT | 3216 | SPEC REV. | |
| TITLE: Offin 2430-3210 Specification | | NO. | 3210 | P1 | |

9. Taping Package and Label Marking: (unit: mm)

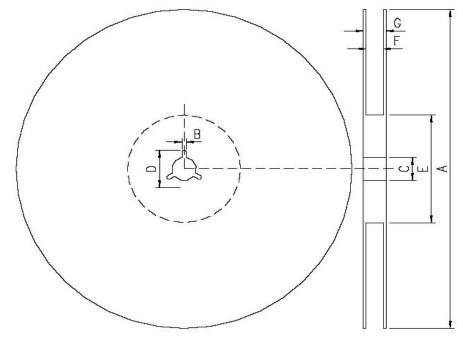
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



| Type | A | В | С | D | E | F | L | W |
|---------|--------------|---------------|----------------|---------------|--------------|--------------|--------------|----------------|
| 2450-21 | 8.00 ± 0.3 | 3.50 ± 0.05 | 1.75 \pm 0.1 | 2.00 ± 0.05 | 4.00 ± 0.1 | 1.50 ± 0.1 | 2.30 ± 0.1 | 1.55 \pm 0.1 |

(3) Taping reel dimensions



| Α | 178.0±2.0 |
|---|-----------|
| В | 2.0±0.5 |
| С | 13.0±0.5 |
| D | 21.0±0.8 |
| Ε | 62.0±1.5 |
| F | 9.0±0.5 |
| G | 13.0±1.0 |
| | |

| UNLESS OTHER SPECIFIED | TOLERANCES ON: |
|------------------------|----------------|
|------------------------|----------------|

 $X=\pm X.X=\pm X.XX=$

 $ANGLES = \pm HOLEDIA = \pm$

 SCALE:
 N/A
 UNIT:
 mm

 DRAWN BY:
 Sera
 CHECKED BY:
 XD

 DESIGNED BY:
 Sera
 APPROVED BY:
 XD

| pb |
|-------------|
| PENGBANXING |

 $\label{thm:pengBanXingYe} PengBanXingYe \ ShenZhen \ Technology \ Co. \ , \ Ltd$

SPEC REV.

P1

THESEDRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE: CHIP2450-3216 Specification

DOCUMENT NO. 3216