

# PA1575MZ50J4G-xx-16

## Series Engineering Specification

### 1. Application

Automotive, recreational , military, marine , aviation , surveying

### 2. Typical Electrical Properties ( For Example : 1580MHz )

Characteristics	Specification	Unit	Conditions
Center Frequency $f_0$	1580.0 $\pm$ 2.0	MHz	with 50mm Square ground plane
Bandwidth	9.0 min.	MHz	Return Loss -10dB
Gain at Zenith	+2.5 typ.	dBic	@1580.0 MHz*
Gain at 10° elevation	-4.5 typ.	dBic	@1580.0 MHz*
Polarization	RHCP		
Impedance	50	$\Omega$	
Frequency Temperature Coefficient	0 $\pm$ 20	ppm/°C	-40°C to +85°C
Working Temperature			-40°C to +120°C

\*: PA1575MZ50J4G-04-16, G: Green parts (RoHS compliance),  
04 for  $f_0 = 1580$  MHz, -16 show of appendix

XX	$f_0$	XX	$f_0$	XX	$f_0$	XX	$f_0$	XX	$f_0$
00	1576	10	1586	20	1596	30	1606	40	1616
01	1577	11	1587	21	1597	31	1607	41	1617
02	1578	12	1588	22	1598	32	1608	42	1618
03	1579	13	1589	23	1599	33	1609	43	1619
04	1580	14	1590	24	1600	34	1610	44	1620
05	1581	15	1591	25	1601	35	1611	45	1621
06	1582	16	1592	26	1602	36	1612	46	1622
07	1583	17	1593	27	1603	37	1613	47	1623
08	1584	18	1594	28	1604	38	1614	48	1624
09	1585	19	1595	29	1605	39	1615	49	1625

UNLESS OTHER SPECIFIED TOLERANCES ON :

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

ANGLES =  $\pm$       HOLEDIA =  $\pm$

SCALE :      UNIT : mm

DRAWN BY : 蕭富美 Hysio      CHECKED BY : 曾源標 P. J. W.

DESIGNED BY : 鄭大福 D.F.      APPROVED BY : 曾泓璋 H.W.

TITLE : PA1575MZ50J4G-xx-16  
Series Engineering Specification



佳邦科技股份有限公司  
INPAQ TECHNOLOGY CO., LTD.

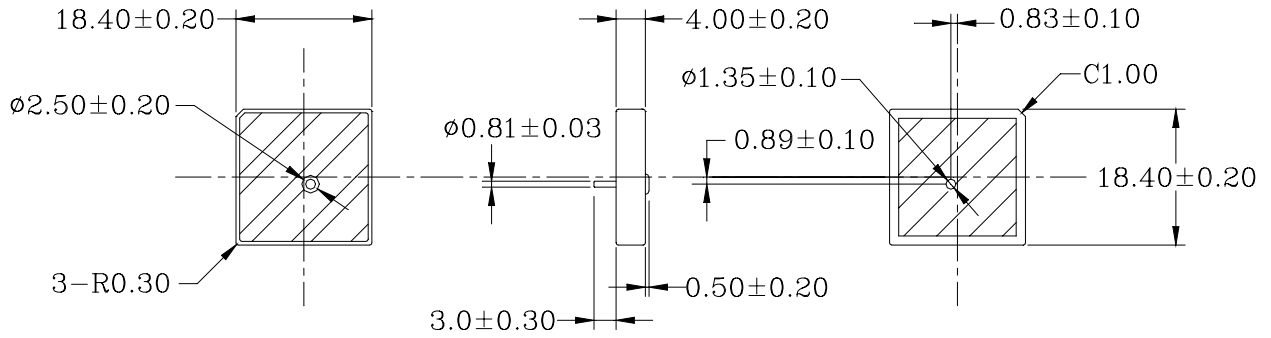
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT NO.

0004612xx80x

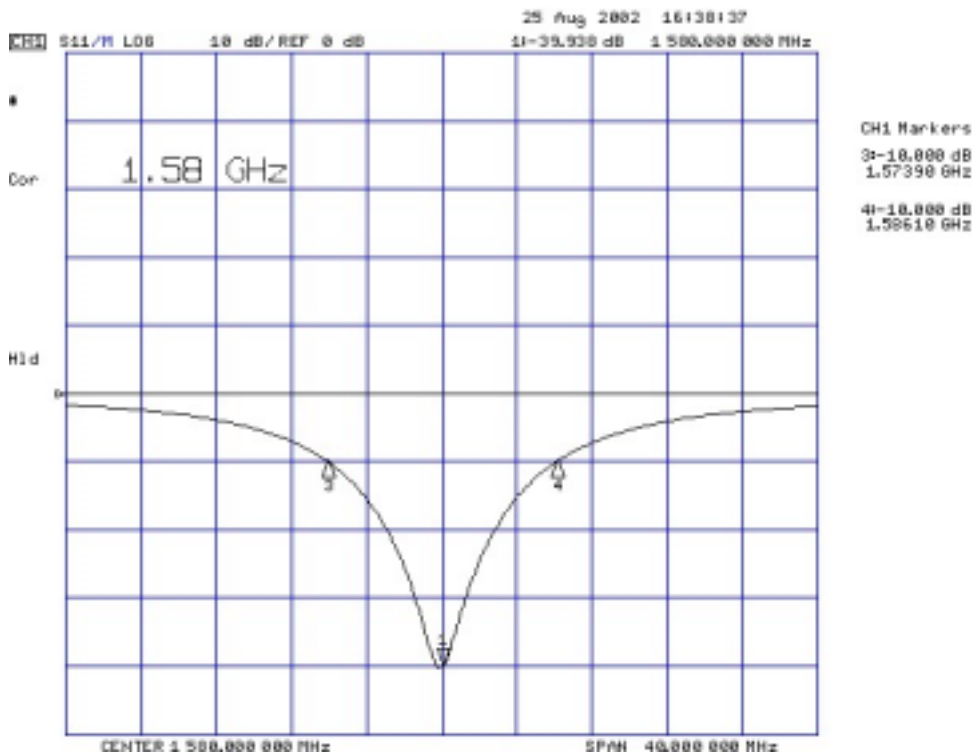
PAGE REV.  
A0

### 3. Dimensions



Unit : mm

### 4. Return Loss Characteristics ( For Example : 1580MHz )



UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ±      X.X = ±      X.XX = ±  
 ANGLES = ±      HOLEDIA = ±

SCALE :      UNIT : mm

DRAWN BY : 蕭富美 Hysio      CHECKED BY : 曾源標 P. J. W.

DESIGNED BY : 鄭大福 D.F.      APPROVED BY : 曾泓璋 H.W.

TITLE : PA1575MZ50J4G-xx-16  
 Series Engineering Specification

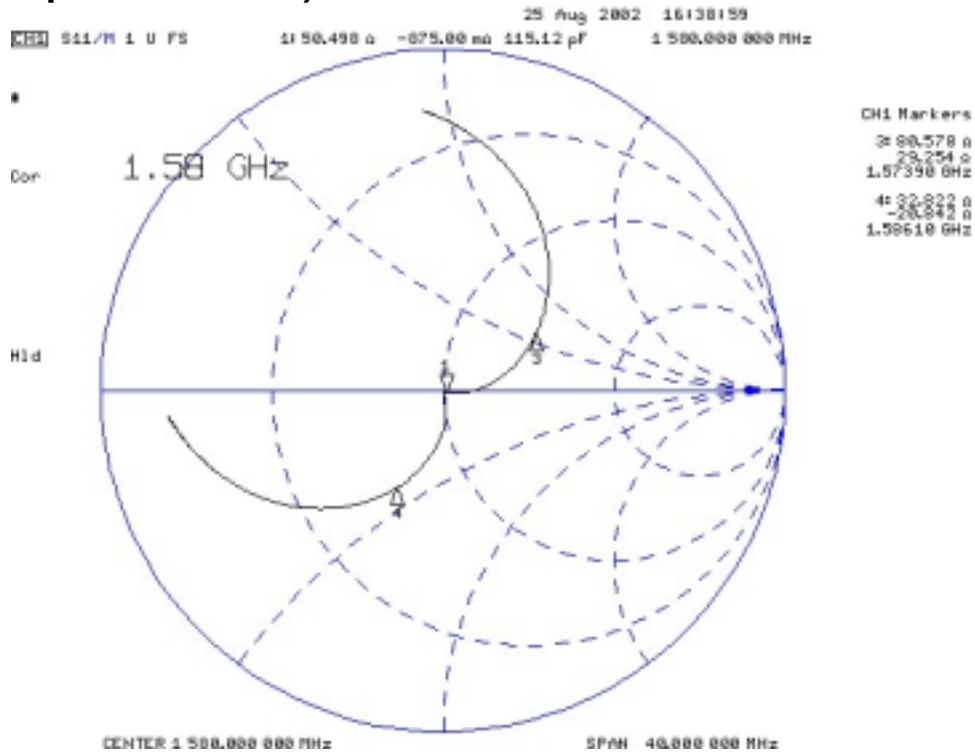


佳邦科技股份有限公司  
 INPAQ TECHNOLOGY CO., LTD.

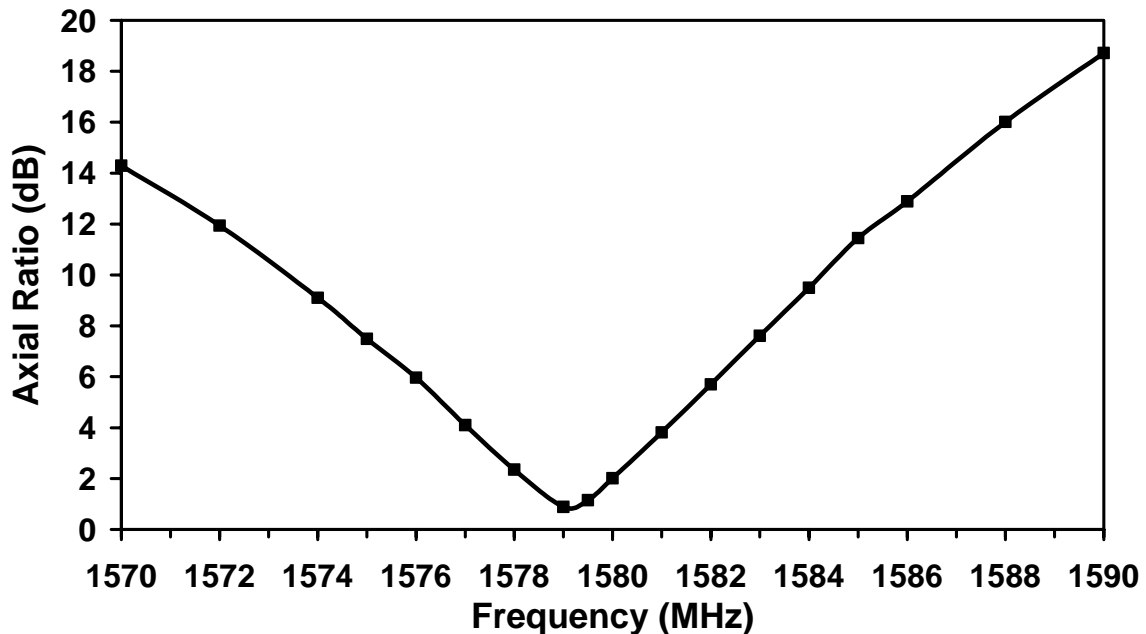
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT NO.	0004612xx80x	PAGE REV.
		A0

## 5. Measured Input Impedance on a Smith Chart ( For Example : 1580MHz )

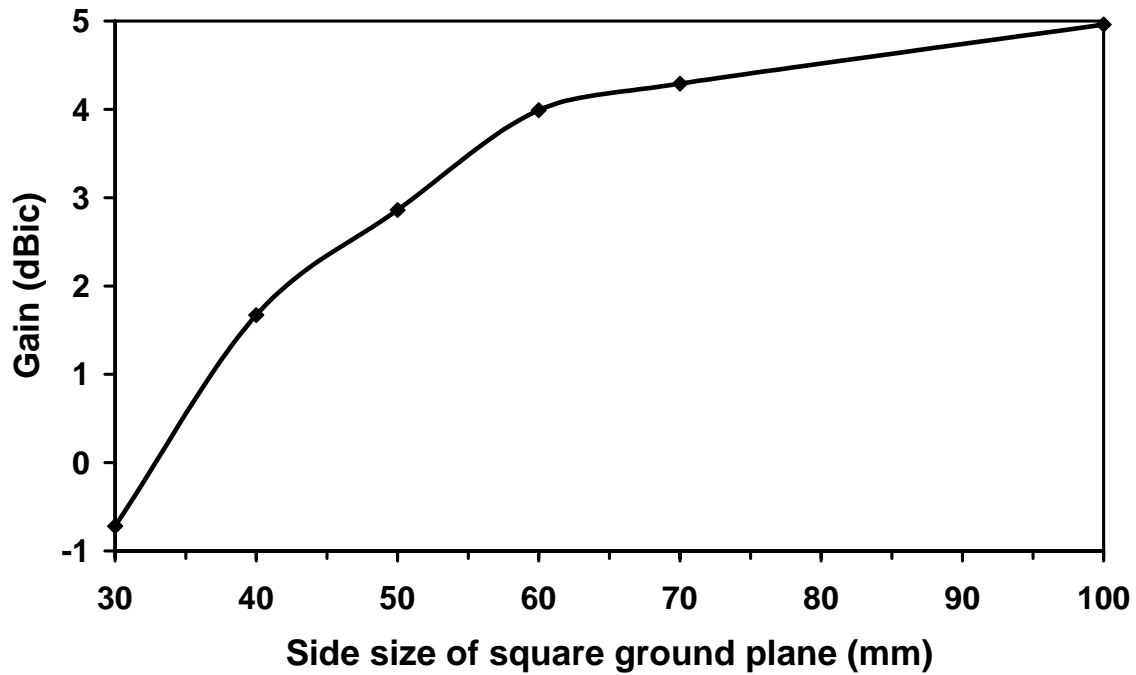


## 6. Measured Axial Ratio ( For Example : 1580MHz )

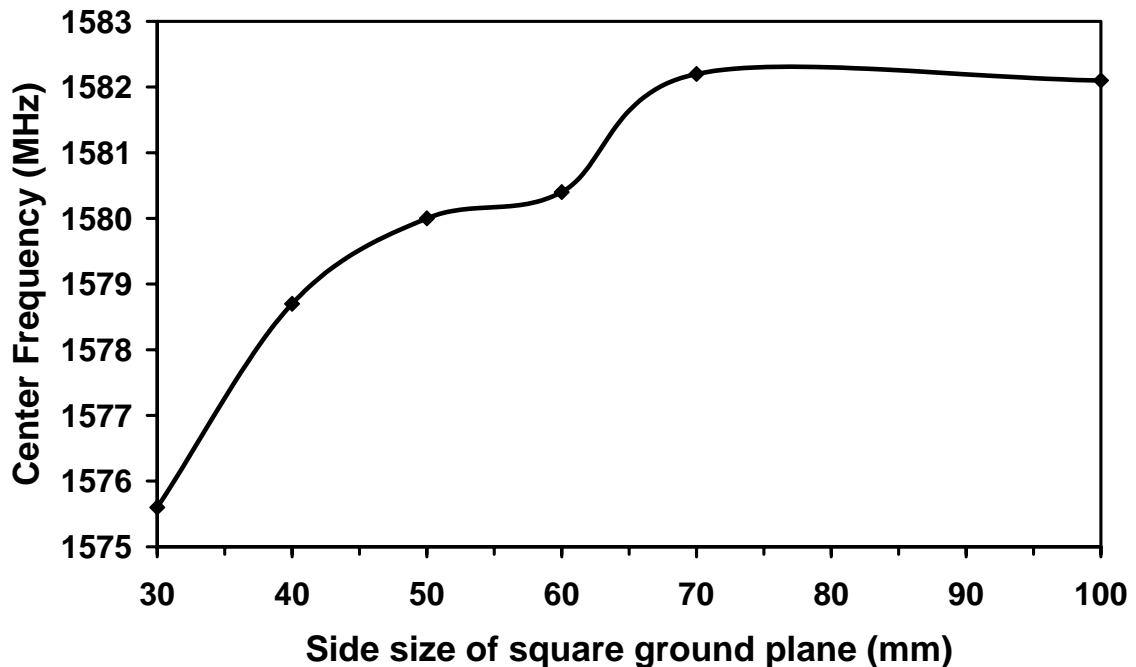


UNLESS OTHER SPECIFIED TOLERANCES ON:		with 50mm square ground plane	
X = ±	X.X = ±	X.XX = ±	 <b>佳邦科技股份有限公司</b> <b>INPAQ TECHNOLOGY CO., LTD.</b>
ANGLES = ±	HOLEDIA = ±		
SCALE :	UNIT : mm		
DRAWN BY : 蕭富美 Hsiao	CHECKED BY : 曾源標 P. J. W.		
DESIGNED BY : 鄭大福 C. F.	APPROVED BY : 曾泓璋 H. W.		
TITLE : PA1575MZ50J4G-xx-16 Series Engineering Specification		DOCUMENT NO.	0004612xx80x
			PAGE REV. A0

## 7. Antenna Gain vs. Ground Plane Size ( For Example : 1580MHz )



## 8. Center Frequency vs. Ground plane ( For Example : 1580MHz )



UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ±      X.X = ±      X.XX = ±  
 ANGLES = ±      HOLEDIA = ±

SCALE :      UNIT : mm

DRAWN BY : 蕭富美 Hgiao      CHECKED BY : 曾源標 P.yuan

DESIGNED BY : 鄭大福 D.F      APPROVED BY : 曾泓瑋 H.w



佳邦科技股份有限公司  
 INPAQ TECHNOLOGY CO., LTD.

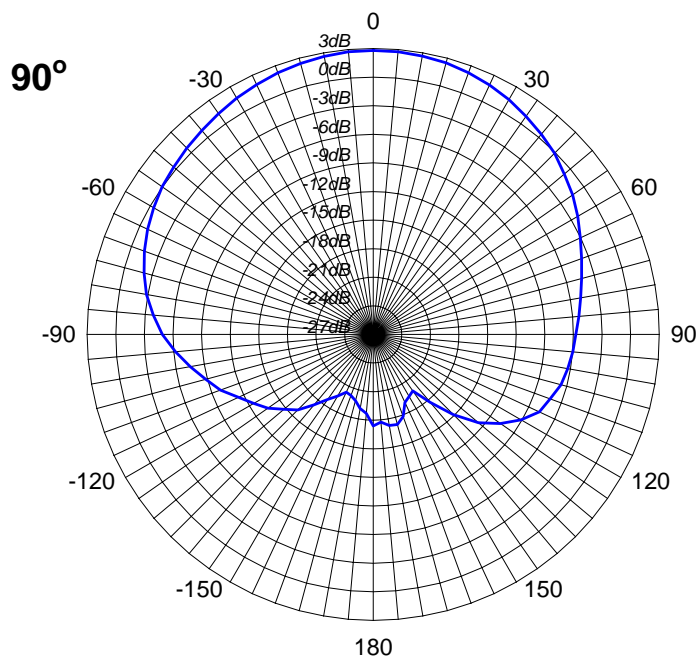
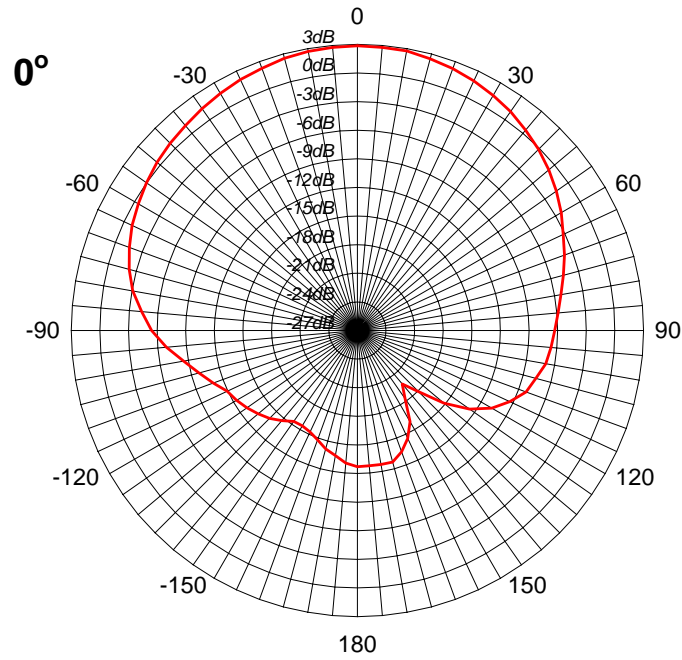
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : PA1575MZ50J4G-xx-16  
 Series Engineering Specification

DOCUMENT NO.      0004612xx80x

PAGE REV.  
 A0

## 9. The Normalized Antenna Gain Chart ( For Example : 1580MHz )



**TX: Right hand circular polarized signal**  
**Frequency = 1580MHz**  
**Radiation Pattern (with 50mm square ground plane)**

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ±      X.X = ±      X.XX = ±  
 ANGLES = ±      HOLEDIA = ±

SCALE :      UNIT : mm

DRAWN BY : 蕭富美 Hgiao      CHECKED BY : 曾源標 P.1000

DESIGNED BY : 鄭大福 D.F      APPROVED BY : 曾泓璋 H.W

TITLE : PA1575MZ50J4G-xx-16  
 Series Engineering Specification



**佳邦科技股份有限公司**  
**INPAQ TECHNOLOGY CO., LTD.**

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT NO.	0004612xx80x	PAGE REV.
		A0

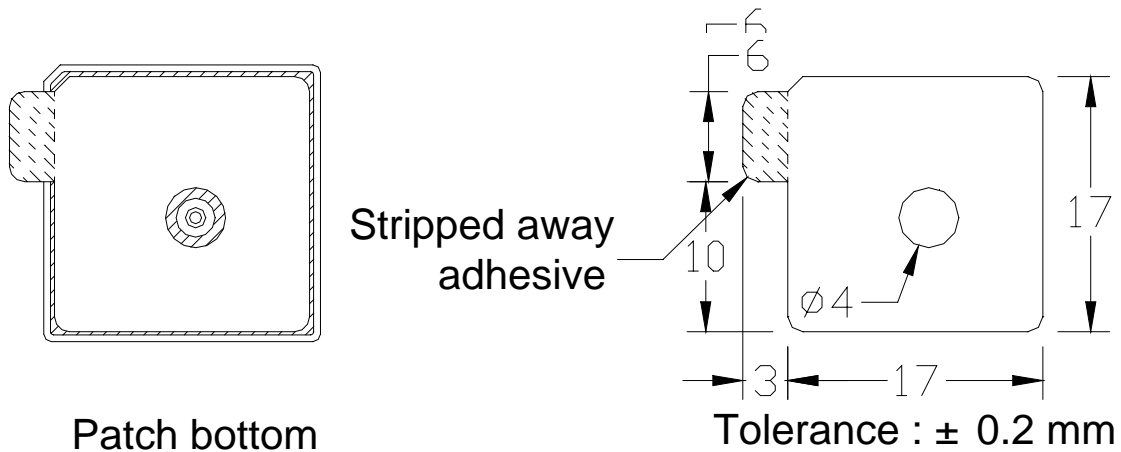
# 10. Explanation of Appendix ( For Example : 1580MHz )

P A 1 5 7 5 M J 4 G - 0 4 - 1 6  
(1)

## (1) Adhesive Tape 6 17x17mm

### Adhesive Transfer Tape Specification

- 1.1 TAPE : Nitto 5000NS 17x17x0.16mm
- 1.2 Thickness :  $0.16 \pm 5\%$  mm
- 1.3 Release Liner : 0.1mm (typ.) printed paper or paper
- 1.4 Dimension : mm



UNLESS OTHER SPECIFIED TOLERANCES ON :

X =  $\pm$       X.X =  $\pm$       X.XX =  $\pm$   
 ANGLES =  $\pm$       HOLEDIA =  $\pm$

SCALE :      UNIT : mm

DRAWN BY : 蕭富美 Hgiao      CHECKED BY : 曾源標 P.wei

DESIGNED BY : 鄭大福 D.F      APPROVED BY : 曾泓瑋 H.W

TITLE : PA1575MZ50J4G-xx-16  
 Series Engineering Specification



佳邦科技股份有限公司  
 INPAQ TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT NO.

0004612xx80x

PAGE REV.  
 A0