



佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.

客戶名稱 : 本伟技术  
CUSTOMER

Document No.: \_\_\_\_\_

Approval Sheet Rev.: A0

Spec. Rev. : P0

產品品名/Product Model No. : WAG-F-LB-00-092

客戶料號/Customer No. : \_\_\_\_\_

專案名稱/Project Name: X708

發行日期/ Issue Date : 2024/04/11

承認日期/ Approved Date : \_\_\_\_\_

Approved by customer: (signing or stamping here)



INPAQ WEB

# WAG-F-LB-00-092 Specification

## 1. Explanation of part number :

WAG - F - LB - 00 - 092  
(1) (2) (3) (4) (5)

(1) Product Type : WiFi Antenna

(2) Material: FPC

(3) Frequency : 2400-2500MHz; 5150-5850MHz

(4) Coaxial Cable Type : 00

(5) Suffix :092

## 2. Storage Condition:

Temperature -40 to +70 °C  
Humidity 65±20 % RH

## 3. Operating Condition:

Temperature -40 to +70 °C  
Humidity 65±20 % RH

## 4. Electrical Specification :

Those specifications were specially defined for 龙旗 X708 (WiFi CH1) model, and all characteristics were measured under the model's handset testing.

### 4-1. Frequency Band:

| Frequency Band | MHz                    |
|----------------|------------------------|
| WiFi CH1       | 2400-2500<br>5150-5850 |

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±

ANGLES=± HOLEDIA=±

SCALE :

UNIT : mm

DRAWN BY : 靳静

CHECKED BY : 赵付辉

DESIGNED BY : 熊勇

APPROVED BY : 赵付辉



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 : WAG-F-LB-00-092 Specification

DOCUMENT  
NO.

PAGE REV  
P0

## 4-2. Impedance

50 ohm nominal

## 4-3. Matching circuit

None

## 4-4. VSWR

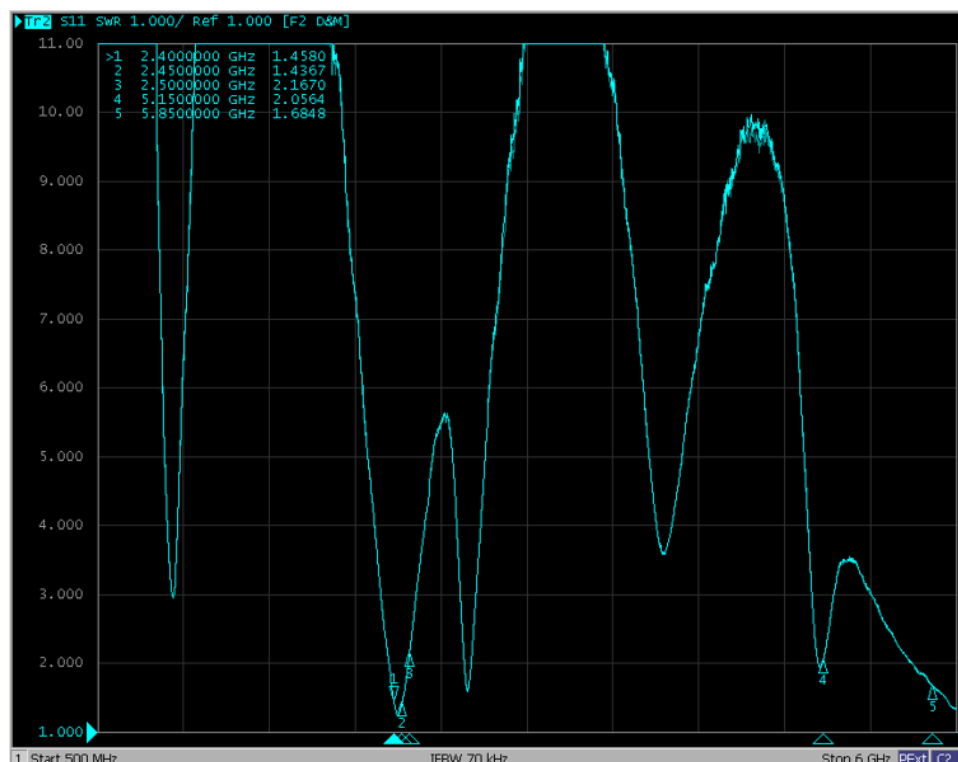
### 4-4.1 Measuring Method

1.A 50 $\Omega$  coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR

2.Keeping this jig away from metal at least 20cm

### 4-4.2 Measurement frequency points and VSWR value

| Frequency (Unit MHz) | 2400 | 2450 | 2500 | 5150 | 5850 |
|----------------------|------|------|------|------|------|
| VSWR                 | 1.45 | 1.43 | 2.1  | 2.05 | 1.68 |



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±      X.X=±      X.XX=±

ANGLES=±      HOLEDIA=±

SCALE :

UNIT : mm

DRAWN BY : 靳静

CHECKED BY : 赵付辉

DESIGNED BY : 熊勇

APPROVED BY : 赵付辉

TITLE : WAG-F-LB-00-092 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.

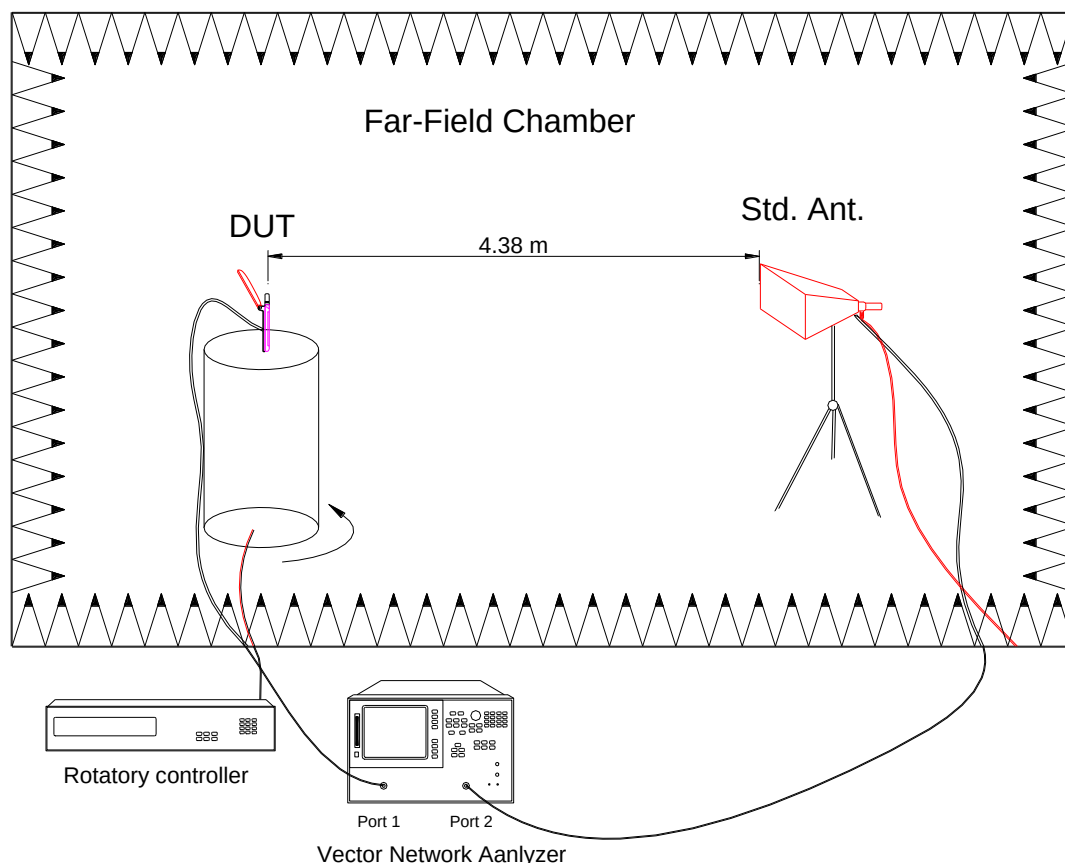
PAGE REV  
P0

## 4-5. Efficiency and Gain

### 4-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

### 4-5.2 Chamber definition



1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±      X.X=±      X.XX=±

ANGLES=±      HOLEDIA=±

SCALE :

UNIT : mm

DRAWN BY : 靳静

CHECKED BY : 赵付辉

DESIGNED BY : 熊勇

APPROVED BY : 赵付辉

TITLE : WAG-F-LB-00-092 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.

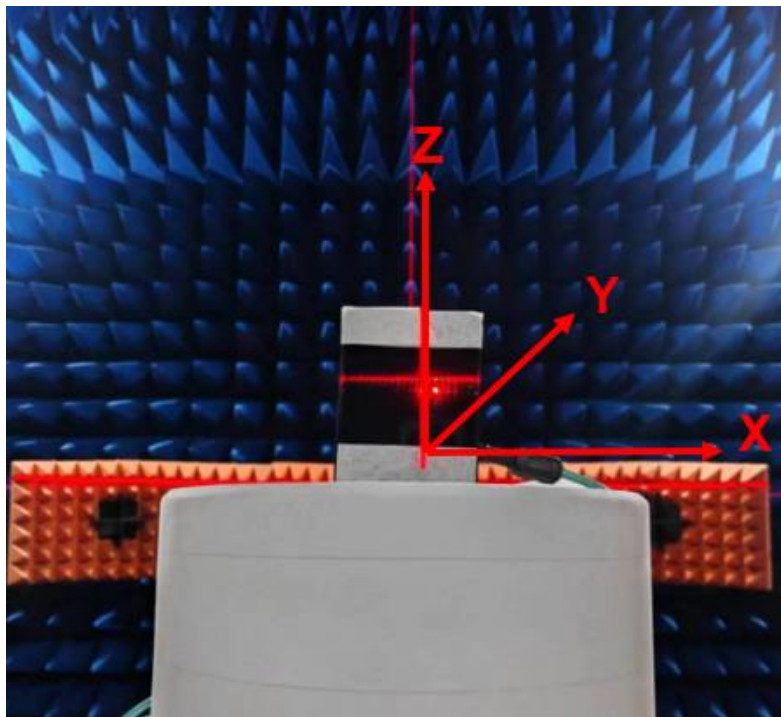
PAGE REV  
P0

### 4-5.3 Efficiency and Gain

Antenna gain is marked (dBi) and is based on STANDARD HORN antenna. The data shows Peak Gain and Average Gain.

| Frequency | Efficiency | Efficiency | MaxGain/d | Frequency | Efficiency | Efficiency | MaxGain/dBi |
|-----------|------------|------------|-----------|-----------|------------|------------|-------------|
| 2400      | -4.35      | 36.73      | -0.24     | 5150      | -5.21      | 30.13      | 4.05        |
| 2410      | -4.31      | 37.07      | -0.44     | 5200      | -5.55      | 27.86      | 3.07        |
| 2420      | -4.17      | 38.28      | -0.29     | 5250      | -5.99      | 25.18      | 1.74        |
| 2430      | -4.08      | 39.08      | -0.37     | 5300      | -6.18      | 24.1       | 1.95        |
| 2440      | -4.08      | 39.08      | -0.36     | 5350      | -5.44      | 28.58      | 2.29        |
| 2450      | -3.92      | 40.55      | -0.4      | 5400      | -4.99      | 31.7       | 2.09        |
| 2460      | -4.19      | 38.11      | -0.58     | 5450      | -4.81      | 33.04      | 1.47        |
| 2470      | -4.01      | 39.72      | -0.57     | 5500      | -4.38      | 36.48      | 2.12        |
| 2480      | -4.3       | 37.15      | -0.82     | 5550      | -3.98      | 39.99      | 2.58        |
| 2490      | -4.24      | 37.67      | -0.88     | 5600      | -3.67      | 42.95      | 2.76        |
| 2500      | -4.57      | 34.91      | -1.25     | 5650      | -3.55      | 44.16      | 2.52        |
|           |            |            |           | 5700      | -3.56      | 44.06      | 2.69        |
|           |            |            |           | 5750      | -3.14      | 48.53      | 3.29        |
|           |            |            |           | 5800      | -3.25      | 47.32      | 3.1         |
|           |            |            |           | 5850      | -3.49      | 44.77      | 2.98        |

### 4-5.4 2/3D Radiation Pattern Results



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±                      X.X=±                      X.XX=±

ANGLES=±                      HOLEDIA=±

SCALE :

UNIT : mm

DRAWN BY : 靳静

CHECKED BY : 赵付辉

DESIGNED BY : 熊勇

APPROVED BY : 赵付辉

TITLE : WAG-F-LB-00-092 Specification

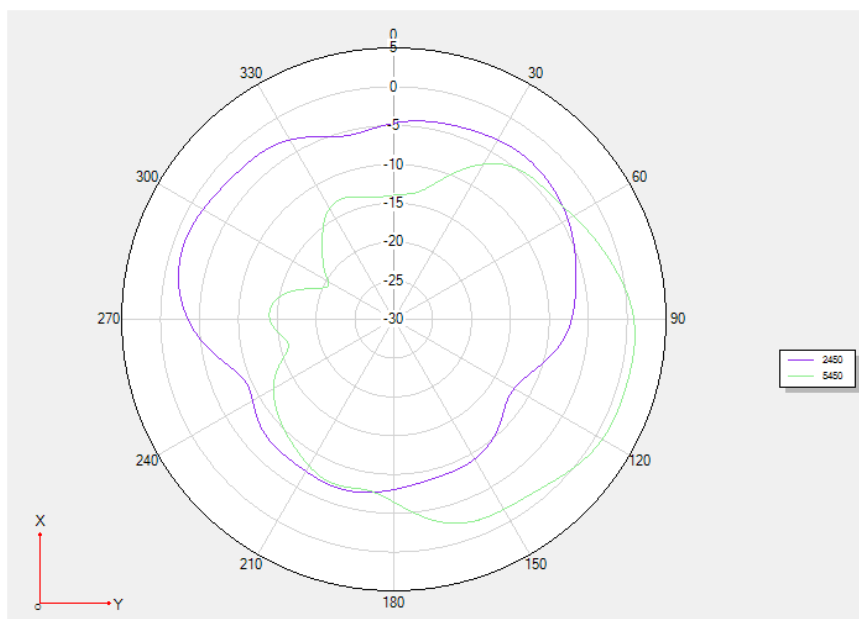
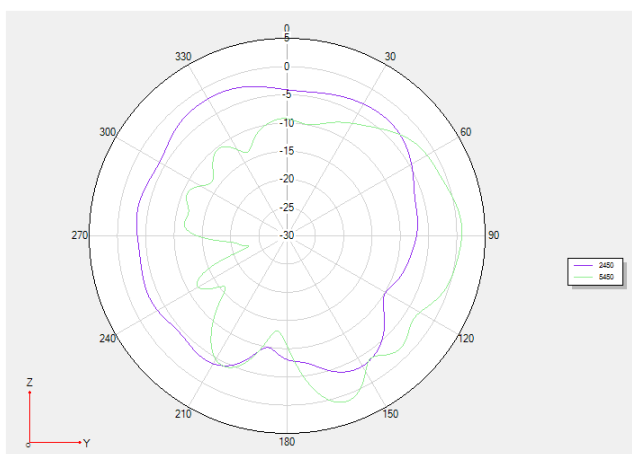
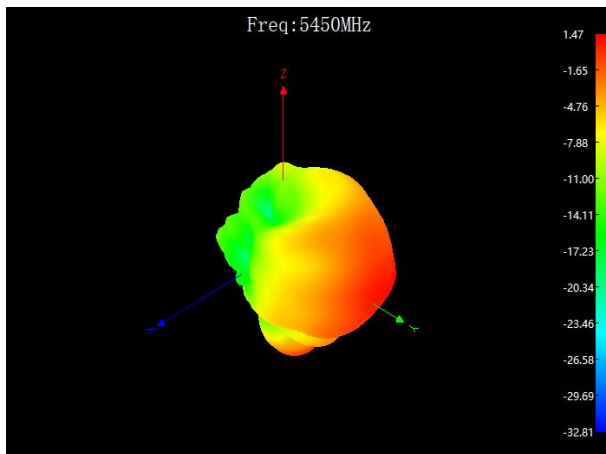
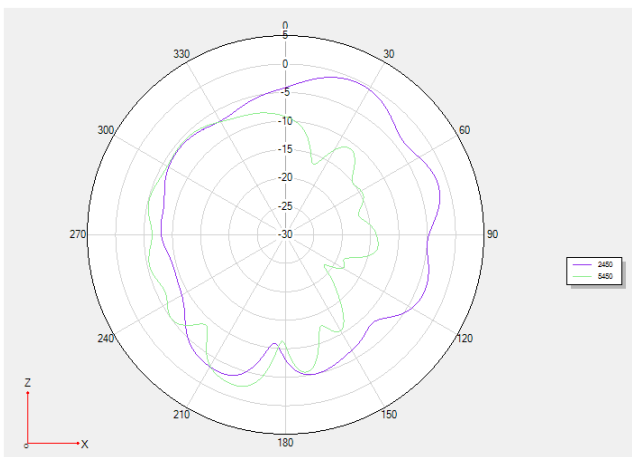
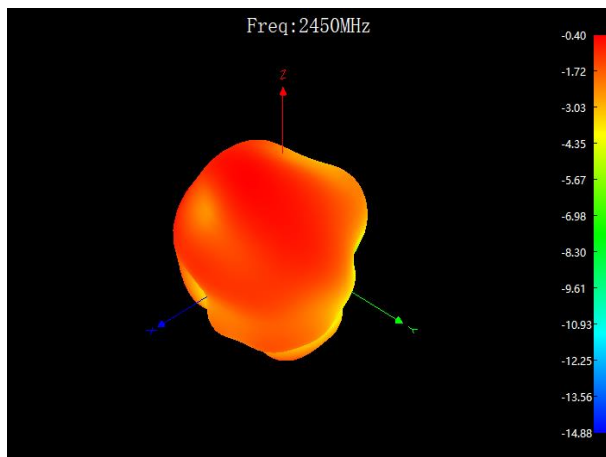


佳邦科技股份有限公司  
INPAQ TECHNOLOGY CO., LTD.

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.

PAGE REV  
P0



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±      X.X=±      X.XX=±

ANGLES=±      HOLEDIA=±

SCALE :

UNIT : mm

DRAWN BY : 靳静

CHECKED BY : 赵付辉

DESIGNED BY : 熊勇

APPROVED BY : 赵付辉

TITLE : WAG-F-LB-00-092 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.

PAGE REV  
P0

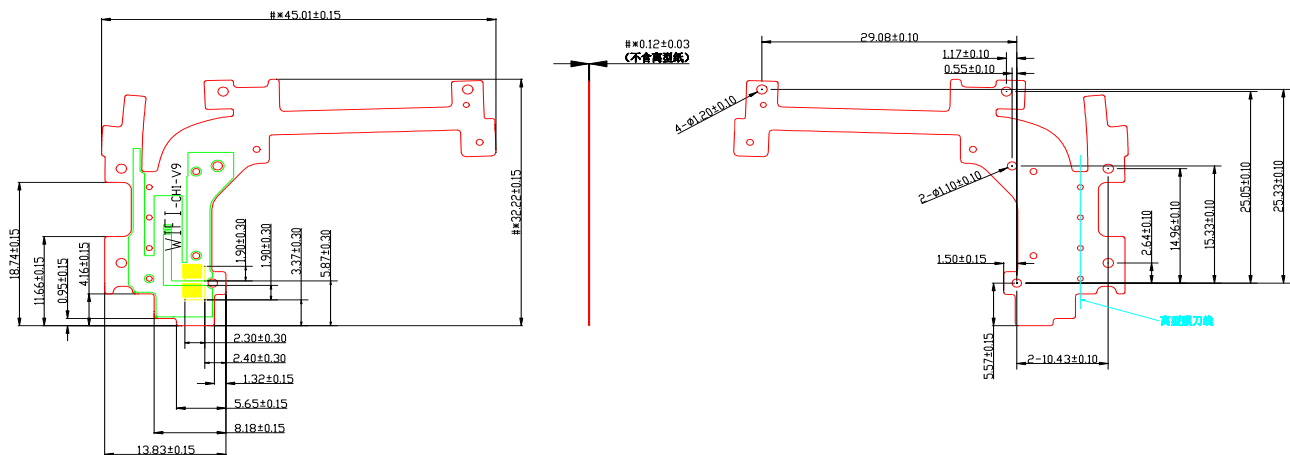
## 4-5.5 Active Measurement Data

| WIFI CH0+CH1 |         |       |        |
|--------------|---------|-------|--------|
| Band         | channel | TRP   | TIS    |
| WIFI B       | 1       | 15.1  | -84.5  |
|              | 7       | 15.4  | -87.3  |
|              | 13      | 15.6  | -86.96 |
| WIFI A       | 36      | 17.4  | -76.02 |
|              | 100     | 17.42 | -75.11 |
|              | 165     | 17.62 | -74.55 |

## 5. Mechanical Specification:

### 5-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 5-1-1



## 6. Physical illustration



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±

ANGLES=± HOLEDIA=±

SCALE :

UNIT : mm

DRAWN BY : 靳静

CHECKED BY : 赵付辉

DESIGNED BY : 熊勇

APPROVED BY : 赵付辉

TITLE : WAG-F-LB-00-092 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.

PAGE REV  
P0