



深圳市鑫恒阳科技有限公司

<https://www.xhy-2008.com>

承 认 书

SPECIFICATION FOR APPROVAL

客户名称 Customer Name: 顶设

产品型号 Product Model: HS156-L

客户料号 Customer P/N :

鑫恒阳料号 X INHENG YANG P/N: TX. 10. A00520005

产品规格 SPEC IFFCATIONS: TWS

制作日期 Production date: 2024-6-22

封样版本 Samp le Version: V1

鑫恒阳（XINHENG YANG）		
编制（FICTION）	结构（Structure）	研发（R&D）
客户（Customer）		
采 购（PUR）	品质（QC）	研发（R&D）

Manufacturer：ShenZhenXinHengYangTechnologyco., Ltd

Address:

1st Floor, Building B, No. 7 Keji North 2nd Road, Nanshan District, Shenzhen

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网 址: <https://www.XHY-2008.com>

R & D, production and sales of professional wireless terminal antenna

一、The basic parameters:

A. Electrical Characteristics	
Frequency	2400MHZ~2500MHZ
VSWR	< 3
Avg Efficiency	>25%
Impedance	50 ± 25 Ohm
Polarization	Linear
Peak Gain	2.4G:-0.29dBi
B. Material & Mechanical Characteristics	
Material of Radiator	FPC black
Cable Type	/
Connector Type	/
Dimension	/
C. Environmental	
Operation Temperature	- 20 °C ~ + 60 °C
Storage Temperature	- 30 °C ~ + 70 °C

二、Electrical Specification :

Those specifications were specially defined for HS156-L model.

三、VSWR

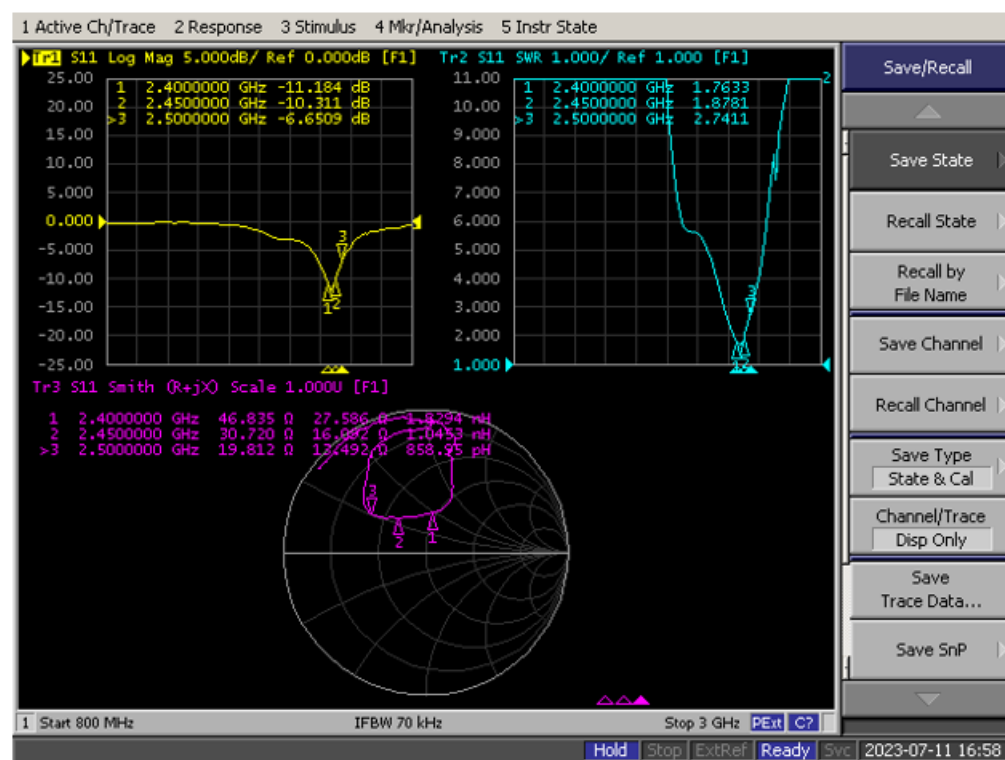
1 Measuring Method

1.A 50Ω 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

2 Measurement frequency points and VSWR value

Return Loss&VSWR-L



四、 Anechoic chamber

Introduction:

Microwave darkroom and no reflection chamber, absorbing short wave darkroom dark room. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

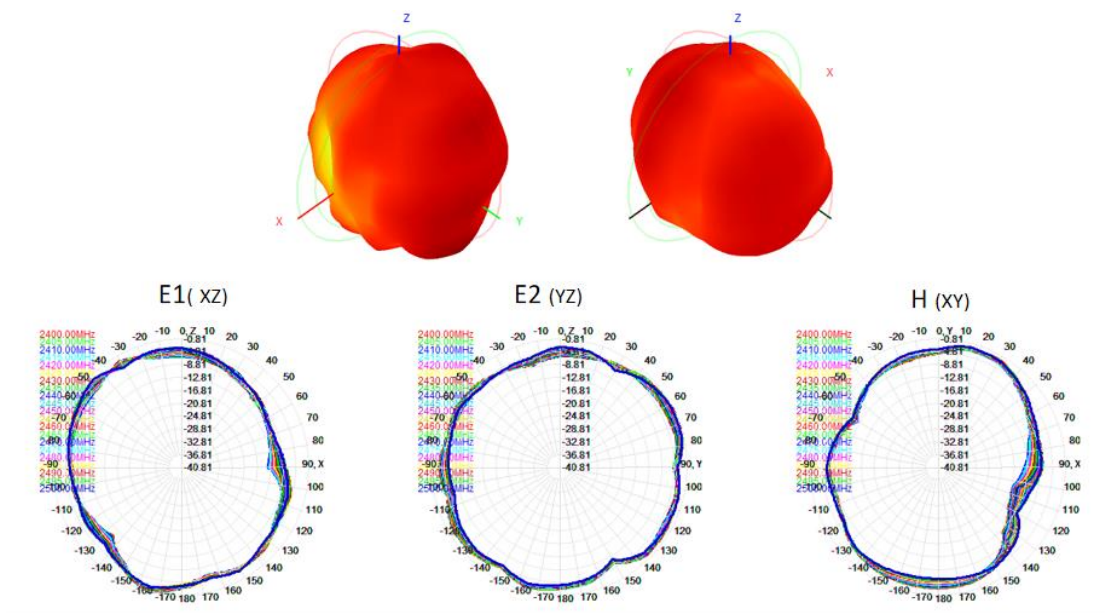
main performance :

Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)



五、Gain table of Antenna

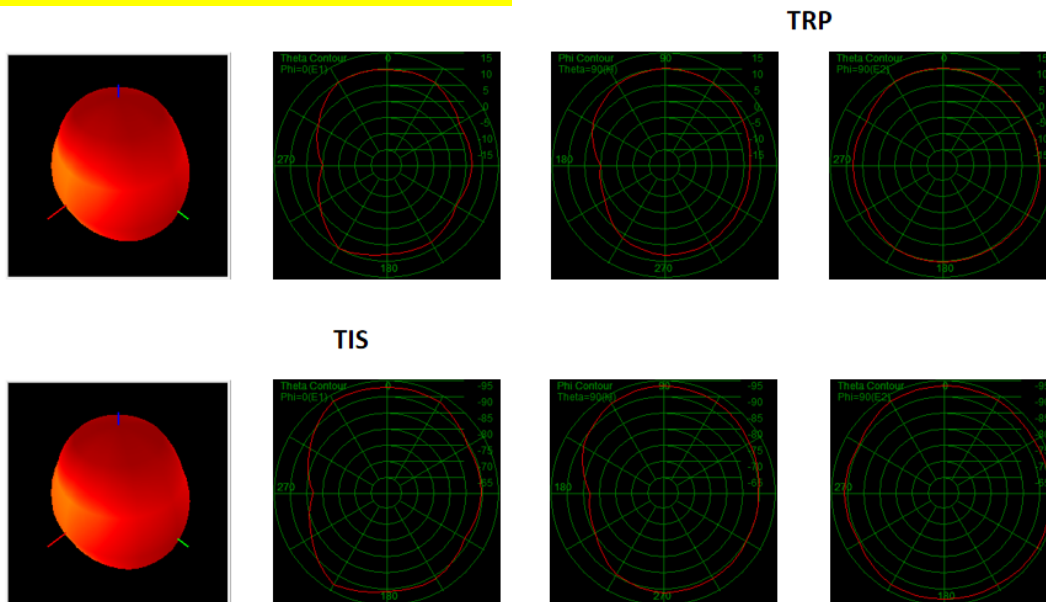
无源场型图-L



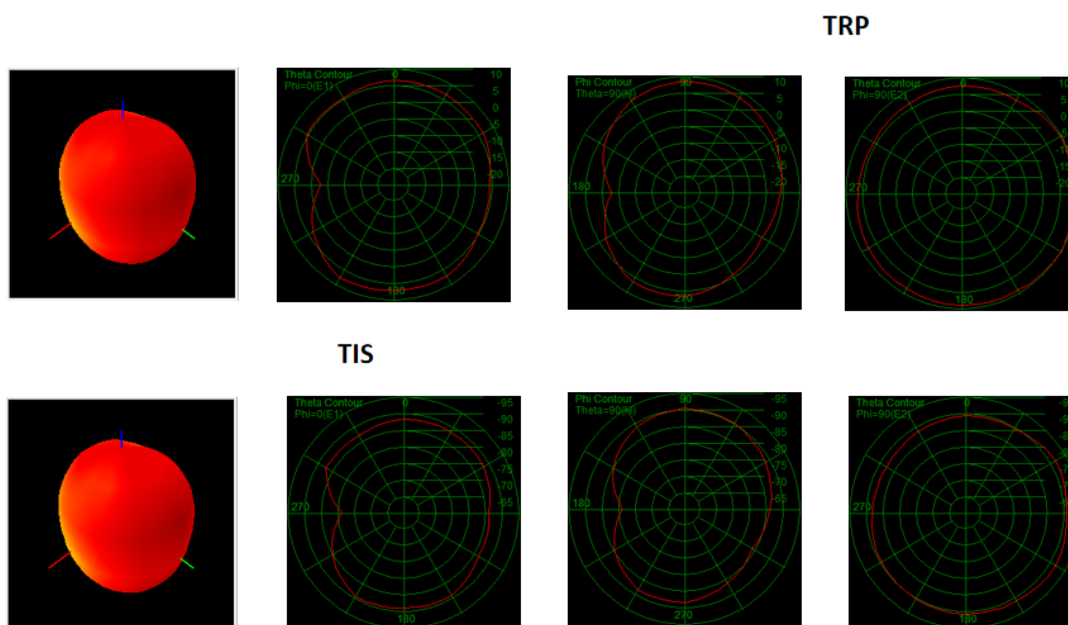
无源效率增益

L		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	26.04	-0.83
2410	26.17	-0.75
2420	27.88	-0.67
2430	28.78	-0.85
2440	30.74	-0.57
2450	31.61	-0.39
2460	31.64	-0.44
2470	30.72	-0.74
2480	29.91	-0.88
2490	30.25	-0.52
2500	29.42	-0.29

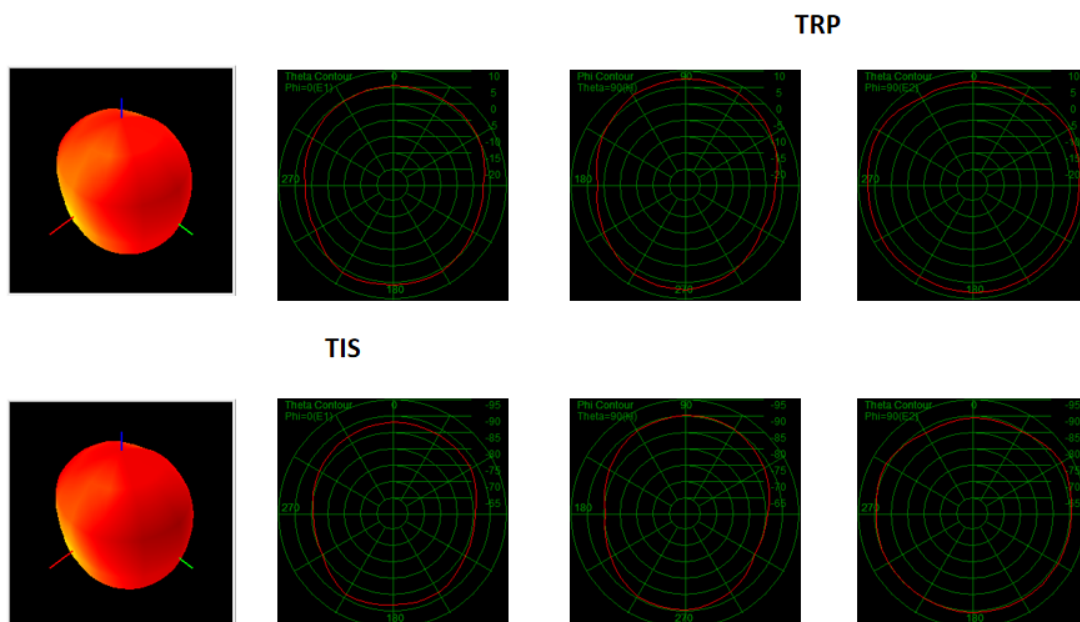
有源自由空间场型图-L -ch0



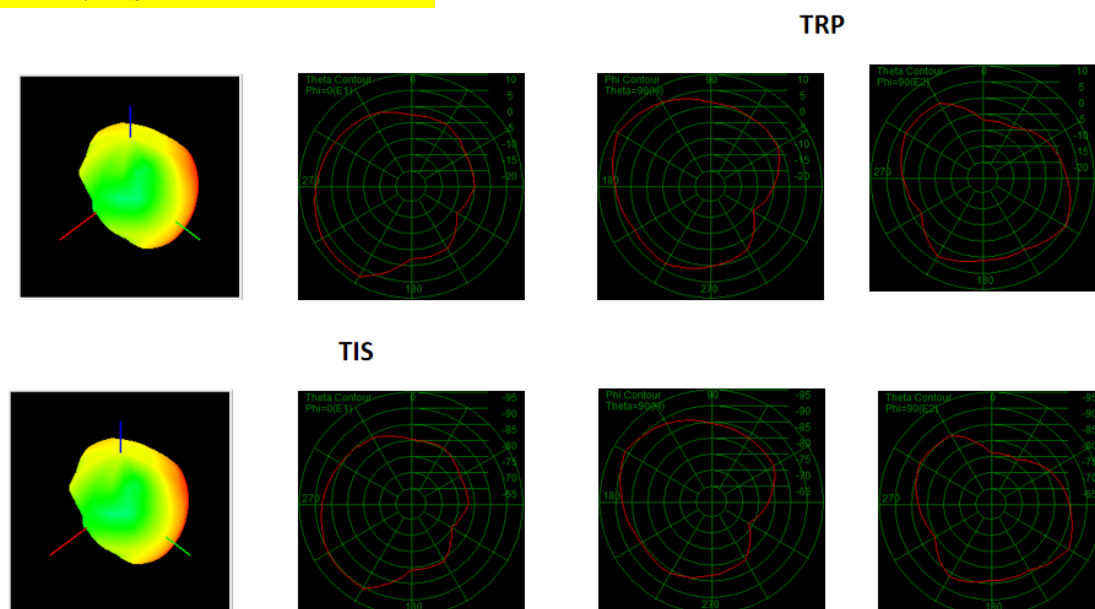
有源自由空间场型图-L -ch39



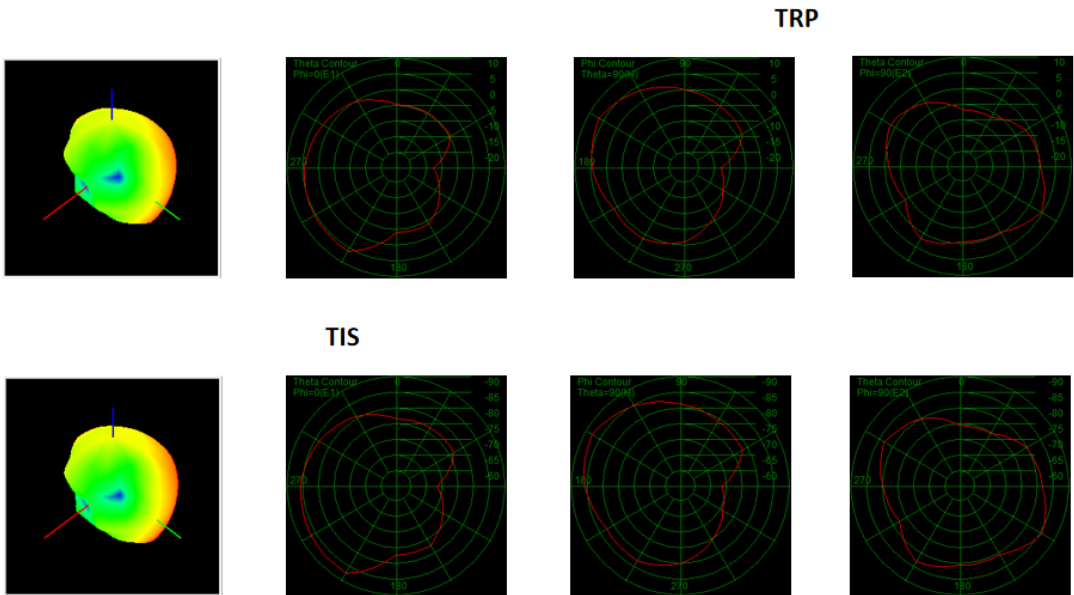
有源自由空间场型图-L -ch78



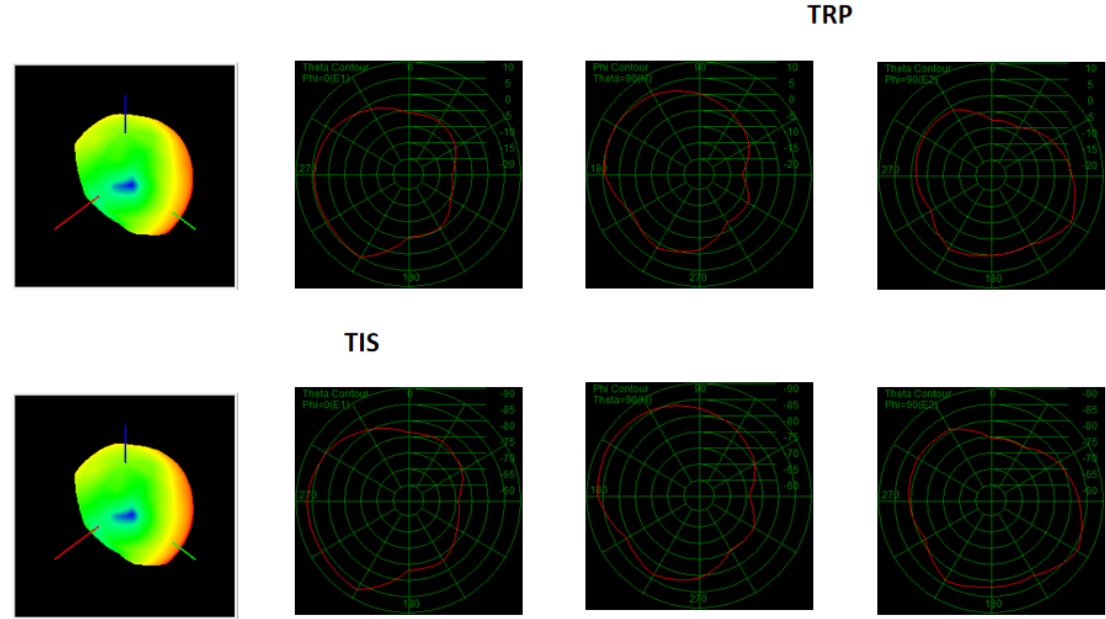
有源头模场型图-L -ch0



有源头模场型图-L -ch39



有源头模场型图-L -ch78





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OTA 有源

L				
BAND	自由空間		頭模	
	TRP (dBm)	TIS (dBm)	TRP (dBm)	TIS (dBm)
0	8.07	-91.11	2.50	-85.50
39	6.69	-88.49	0.93	-82.18
78	6.07	-88.59	0.21	-82.34

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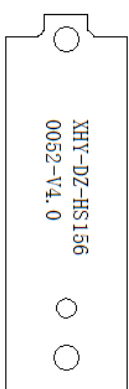
六、 Machine Picture:



R & D, production and sales of professional wireless terminal antenna

五

-
- Technical drawing of a rectangular component. The overall width is $\phi 6.1 \pm 0.2$ and the overall height is $\phi 19.12 \pm 0.2$. The component features a central rectangular area with a cross-hatched pattern, containing two circular holes. Below this central area is a smaller rectangular section with a diagonal hatching pattern, also containing two circular holes. Two labels with leader lines point to the bottom of the component: "无胶区" (No glue area) points to the bottom edge of the central hatched area, and "正面背胶" (Front back glue) points to the bottom edge of the lower diagonal-hatched area.



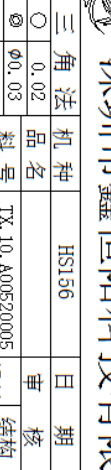
FPC黄色 丝印亮白色字码
总厚度(含离型纸)0.25±0.05mm

6	7	8
REV	DATE	DESCRIPTION
REV1	2024-06-22	首次发行

1	2	3	4	5	6	7	8
					REV	DATE	DESCRIPTION
					REV1	2024-06-22	首次发行

无胶区

正面背胶



*6.1±0.2

*19.12±0.2

XHY-DZ-HS156

0052-V4.0

○

○

1: 表面沉黄金3u

2: 布铜区域

3: 基材区域

4: 背胶采用3M9471LE厚度0.05mm, 背胶外形与基材一致, 覆在基材背面, 背胶做半切;

5: 材质FPC电解铜、单面板, 厚度0.12mm

6: 产品覆油后经180°折弯表面无裂痕现象, 柔韧性要好;

7: 金手指表面镀沉金3~5u, 不可有氧化现象, 以铜箔相接处, 经180°折弯之后无裂痕、不导电现象, 非模样可不电镀;

8: 走线及孔精确公差范围: ±0.03mm, 外形尺寸公差控制在0.1mm以内;

9: 未标注尺寸按CAD电子图档1:1量取;

10: 标“*”尺寸为重点管控尺寸;

11: 未开模产品打样外形会用激光切割, 如果用手工切割, 要注意外形要切割准一些, 已开模产品打样外形需要用模具冲切;

12: 表面印字, 具体内容及位置见图

1	FPC	PI 电解铜单面板 黄色	1
No.	Name	Specification.	Amount

Φ

□

第三角法

机种

HS156

日期

2024-06-22

张群

李明

赵红

0~10

±0.10

0.02

品名

TX.10.A00520005

设计

结构

射频

10~20

±0.12

0.03

料号

TX.10.A00520005

设计

结构

射频

20~40

±0.15

0.02

材料

材料

设计

结构

射频

40~

±0.20

0.04

材料

材料

设计

结构

射频

客户料号

客户料号

确认

单位

mm

比例

1:1

版本

REV:A

深圳市鑫恒阳科技有限公司

总厚度(含离型纸)0.25±0.05mm

FPC黄色 丝印亮白色字码

八、 ROHS:

Antenna TX. 10. A00520005 meets RoHS requirements.

九、 **Product packaging instructions:**

A. packing should meet the moistureproof, vibration, pressure and mildew proof, etc.

B. the smallest packing unit logo must have the manufacturer trademarks, product model, name, code and quantity.

C. in the attached packing list, certificate of approval, and the factory inspection report.

*****END*****