APPRO

版本：A1

:

DESCRIPTION: 2.4G Antenna-L200mm

PART NO.: YS030-0105

CUS PART NO.:

D A T E: 2024-12-23

ADDRESS.: Room 303, Building A, No. 164 Junxin Road, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province

ENGINEERING DEPARTMENT	Q C DEPARTMENT	SALES DEPARTMENT

:

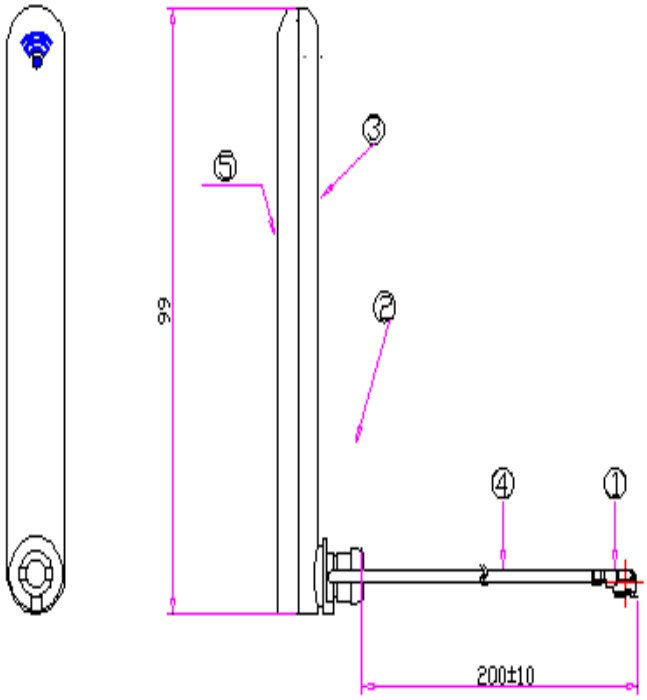
ENGINEERING DEPARTMENT	Q C DEPARTMENT	PURCHASING DEPARTMENT

:

Electrical Specifications	
Frequency Range	2400-2483.5MHZ
VSWR	≤2.0
GAIN	2.5DBI
Input Impedance	50 Ω
Mechanical Specifications	
Antenna Color	WHITE
Input connector	IPEX1.13
Cable length	200mm
Working Temperature	-40℃~+85℃
Working Humidity	20~80%

（Product picture）：

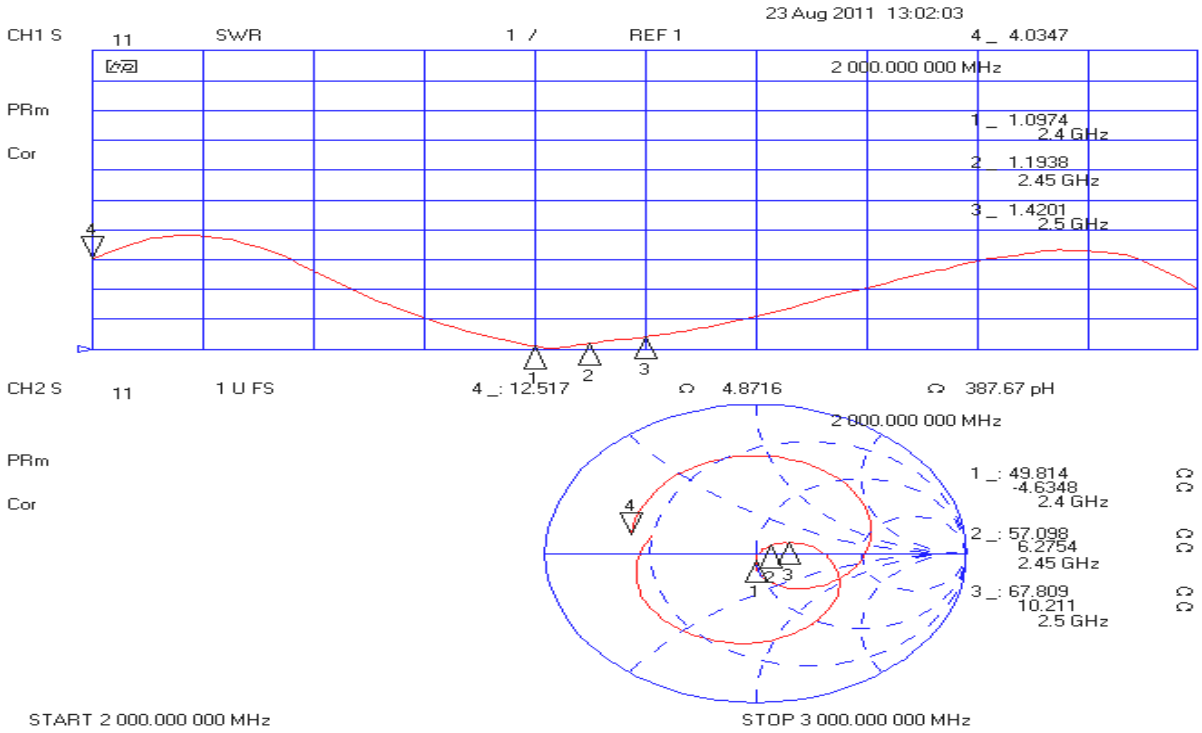
（Product Specification）：



（Environmental performance test）：

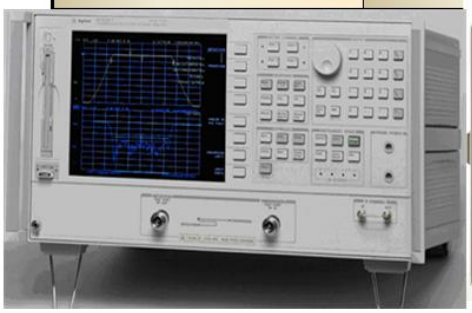
ITEM	TEST CONDITION	TEST RESULT
The storage environment	In the absence of the specified circumstances test temperature, humidity, air pressure is as follows: 1 temperature is -30 ℃ ~ +80 ℃ 2 relative humidity for 45%-85% The 3 pressure is 86kpa-106kpa	Electrical and mechanical properties of normal
Thermocycling ;	5 cycles between 70 ℃ and 40 ℃, then under normal conditions 1-2H, appearance quality inspection.	Dimensions should meet the requirements and shall satisfy In the mechanical, electrical properties
Resistance to damp heat Test	Relative humidity is 95 ± 3%, test temperature: 40 ℃. Continue after 2H, Test within the product after removing the 5min determination of the electrical properties, in the normal sample Under 1-2H, the appearance of quality inspection	Dimensions should meet the requirements and shall satisfy In the mechanical, electrical properties
vibration test ;	Displacement amplitude of vibration frequency range: 10-55HZ, 0.35MM, the amplitude of acceleration: 50.0M/S, sweep cycle times: 30 times	Electrical and mechanical properties of normal
fall-down test ;	1M high altitude in accordance with the perpendicular axis free fall 3	Electrical and mechanical properties of normal

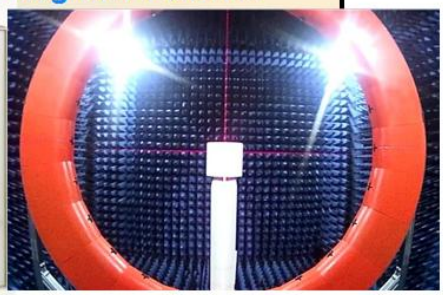
（Agilent network analyzer test chart）：

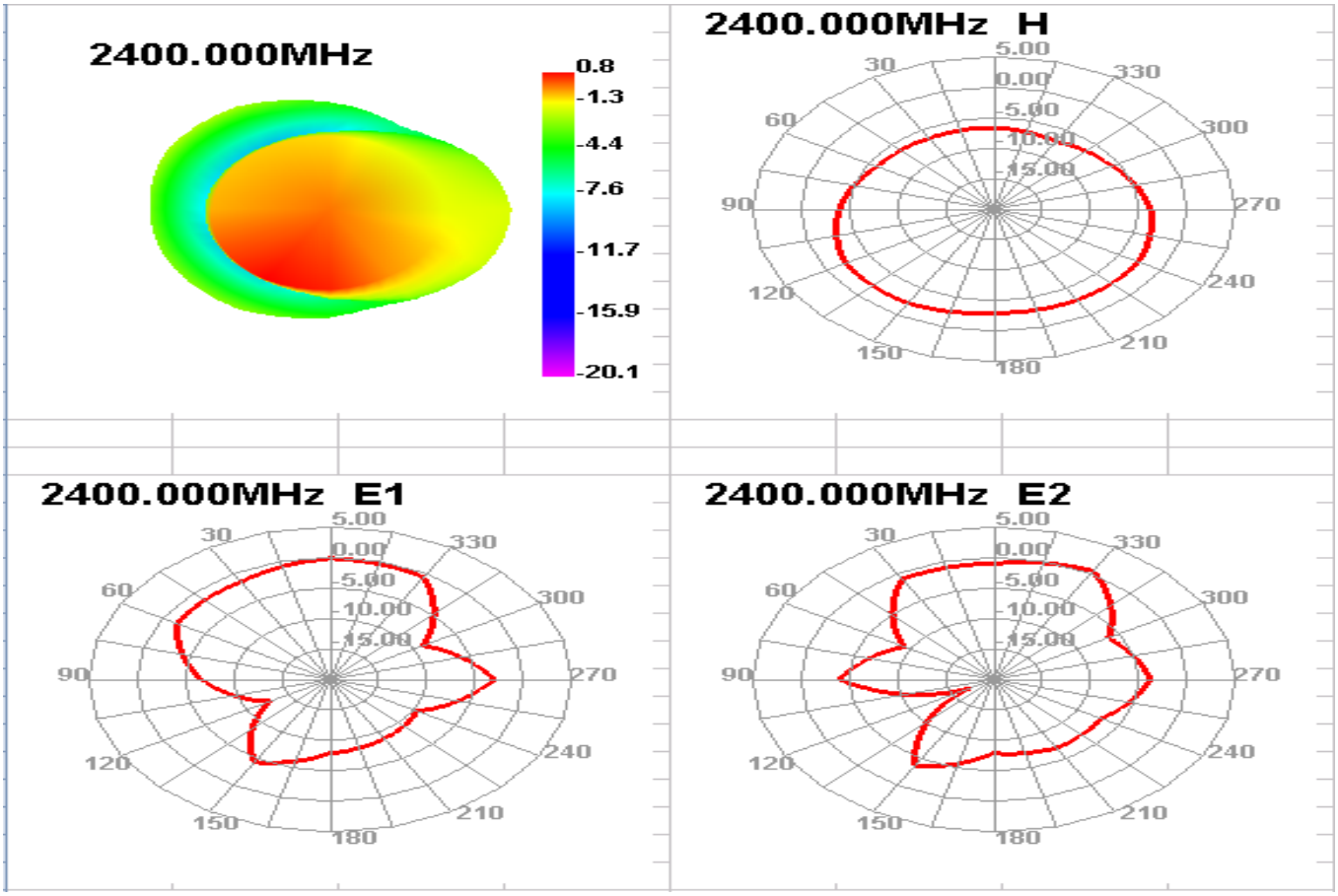


(Gain-Tset)：

	测试项目	设备
1. S参数	1. 回波损耗 2. 驻波比	网络分析仪: Agilent E5071B
2. 耦合功率测试	1. 发射功率 2. 接收灵敏度	GSM 测试仪: Agilent 8960 E5515C LTE /WIFI/BT测试仪：R&S CMW500
3. 辐射模式与增益	1. 辐射模式 2. 天线增益	1. 暗室： 8x4x4 m (3D) 2. 网络分析仪：Agilent E5071B



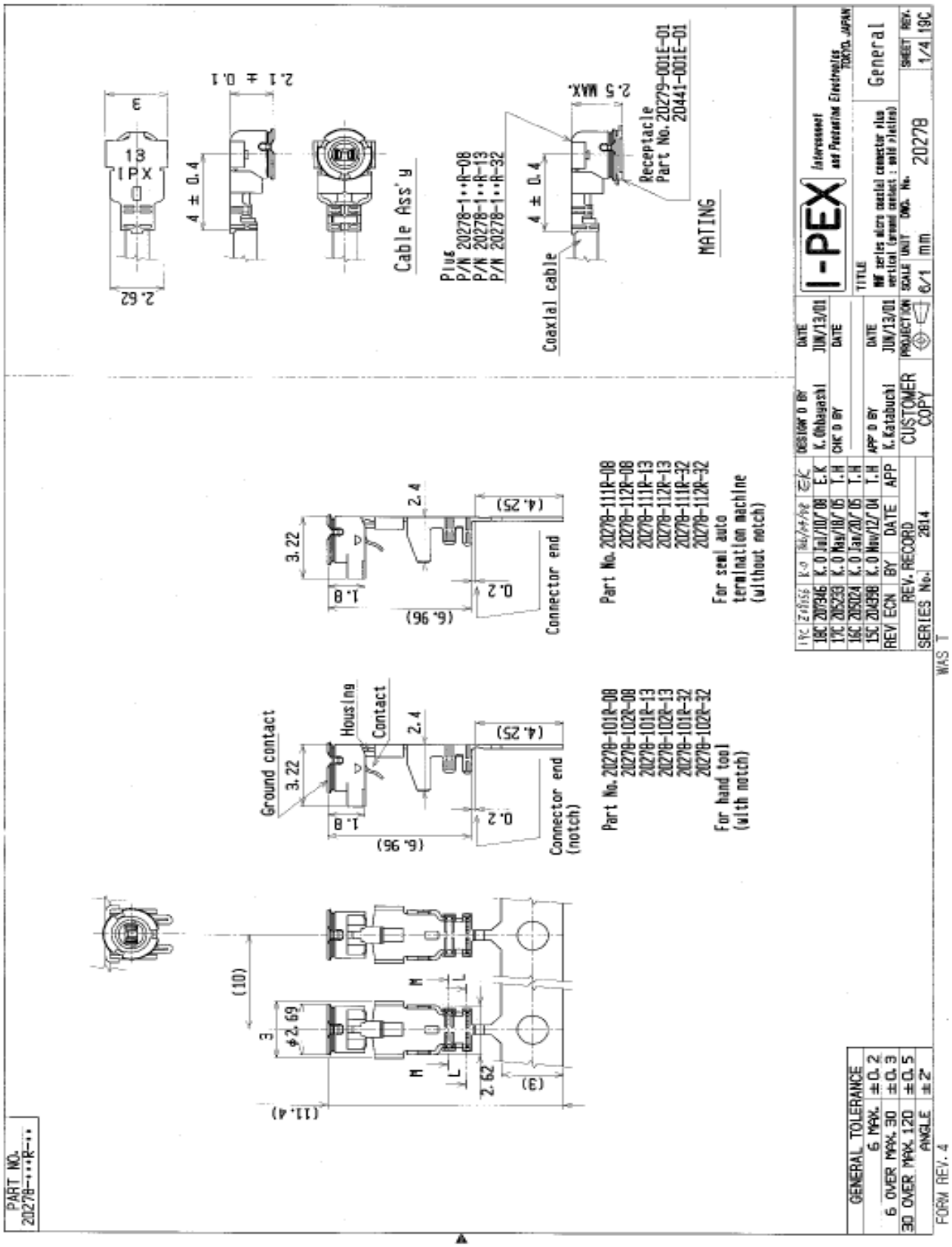




Passive Test For 2.4-5.8										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2200	33.96	-4.69	-0.38	-2.53	20.318	13.645	-0.38	-20.54	44.82	43.93
2250	41.03	-3.87	0.11	-2.04	24.423	16.604	0.11	-18.71	45.23	44.53
2300	37.92	-4.21	0.1	-2.05	23.408	14.512	0.1	-21.08	45.78	45.31
2350	37.41	-4.27	-0.07	-2.22	22.677	14.729	-0.07	-19.21	46.38	45.92
2400	34.11	-4.67	0.79	-1.36	22.873	11.234	0.79	-20.1	46.87	46.67
2450	34.91	-4.57	0.82	-1.33	26.498	8.41	0.82	-20.44	47.72	47.63
2500	37.35	-4.28	1.35	-0.8	30.749	6.6	1.35	-16.56	47.75	47.52
2550	33.02	-4.81	0.64	-1.51	28.059	4.962	0.64	-19.86	47.22	46.83
2600	43.64	-3.6	1.28	-0.87	36.884	6.755	1.28	-17.04	47.84	47.56
2650	46.2	-3.35	1.43	-0.72	38.444	7.758	1.43	-16.52	48.18	48.08
2700	43.25	-3.64	0.9	-1.25	35.536	7.714	0.9	-16	48.52	48.56
2750	43.27	-3.64	0.74	-1.41	34.558	8.715	0.74	-14.41	49.05	49.21
2800	49.02	-3.1	1.01	-1.14	38.365	10.654	1.01	-13.09	49.69	49.92
2850	49.05	-3.09	0.49	-1.66	37.492	11.555	0.49	-12.68	49.92	49.65

Material Data Sheet

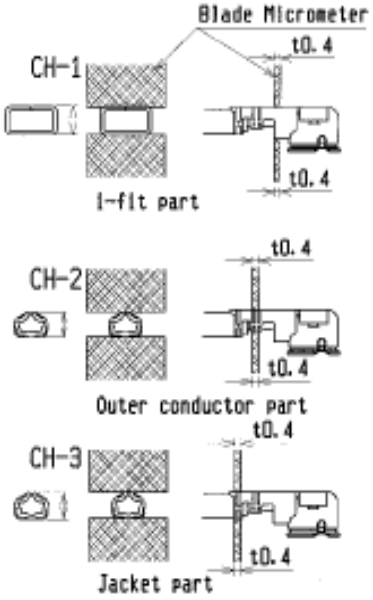
MHF Connector



Part No. of non halogen free type	20278-101R-08 / 20278-111R-08	20278-101R-13 / 20278-111R-13	20278-101R-32 / 20278-111R-32	20278-101R-18 / 20278-111R-18
Part No. of halogen free type	20278-102R-08 / 20278-112R-08	20278-102R-13 / 20278-112R-13	20278-102R-32 / 20278-112R-32	20278-102R-18 / 20278-112R-18
Housing color	White	Black	Black	White
Applicable cable nominal dimension	2.09±0.1, 1.25±0.1, 1.16±0.1, φ0.81 Nominal, (φ0.65), φ0.4 Nominal, AWG36(7/0.05) ※ NOTE-1	2.09±0.1, 1.25±0.1, 1.16±0.1, φ1.13 Nominal, (φ0.93), φ0.68 Nominal, AWG32(7/0.08) ※ NOTE-1	2.09±0.1, 1.25±0.1, 1.16±0.1, φ1.32 Nominal, (φ1.12), φ0.66 Nominal, AWG32(7/0.08) ※ NOTE-1	RG178 B/U, 2.09±0.1, 1.25±0.1, 1.16±0.1, φ1.8 Nominal, (φ1.35), φ0.84 Nominal, AWG30(7/0.102) ※ NOTE-1
Braided shield of Outer conductor 外部導体の編組	Single / 1重編組	Single / 1重編組	Double / 2重編組	Single / 1重編組
P/N of hand Tool / P/N of semi auto termination machine	90187-008C / 90213-008C	90187-013C / 90213-013C	90187-032C / 90213-032C	90233-018 / 90232-018
Sect. M-M	1.68, 1.12	2.24, 1.48	2.29, 1.56	2.71, 1.9
Sect. L-L	1.72, 1.19	2.28, 1.55	2.37, 1.71	3.1, 2.26
Crimp Height CH-1	1.34~1.40	1.34~1.40	1.34~1.40	1.34~1.40
Crimp Height CH-2	0.76~0.84	1.06~1.14	1.20~1.30	1.41~1.49
Crimp Height CH-3	0.85~0.97	1.15~1.35	1.26~1.46	1.70~1.80

Cable cut length

Crimp Height



NOTE-1
中心導体，外部導体への半田コーティング は不可
Must not use solder coated
inner conductor and outer conductor.

REV	ECN	BY	DATE	APP

REV. RECORD
SERIES No. 2814

DESIGN'D BY DATE
CHK'D BY DATE
APP'D BY DATE

CUSTOMER COPY

PROJECTION

I-PEX Interconnect and Protective Electronics TOKYO JAPAN

TITLE: MMF series micro coaxial connector plug vertical (ground contact : gold plating)

General

SCALE	UNIT	DWG. No.	SHEET	REV.
-/-	mm	20278	3/4	19C

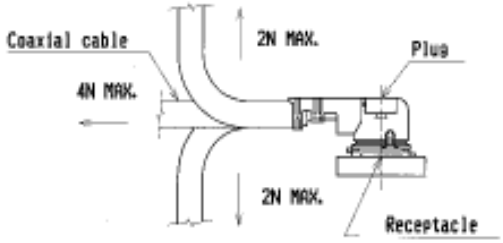
FORM REV. 4

WAS T

Notes

1. Material
 (1) Housing : PBT , UL94V-0
 (2) Contact
  phosphor bronze
  gold plating 0.1μm MIN.
  over nickel 1.27μm MIN.
 (3) Ground contact
  phosphor bronze
  gold plating 0.05μm MIN.
  over nickel 1.27μm MIN.
2. Packing : reel
3. Mating partner part No.
 : 20279-001E-01, 20441-001E-01
4. Permissible load of cable at mating

1. 材 料
 (1) ハウジング：PBT, UL94V-0
 (2) コンタクト
  りん青銅
  金メッキ0.1μm MIN.
  下地 ニッケル1.27μm MIN.
 (3) グランドコンタクト
  りん青銅
  金メッキ0.05μm MIN.
  下地 ニッケル1.27μm MIN.
2. 梱包 : リール
3. かん合相手 part No.
 : 20279-001E-01, 20441-001E-01
4. コネクタかん合後のケーブルに対する荷重



5. Suggestions for mating & unmating operation.

5-1 Mating.
Please mate the connector straightly to vertical direction as much as possible, adjusting the mating axis of plug and receptacle.
As excessive slant angle mating may break the connector , please don't do it.

5. コネクタかん合時および抜去時の注意

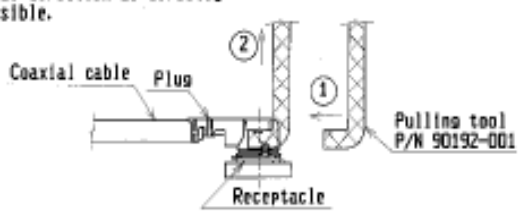
5-1 コネクタ挿入時
PlugとReceptacleのかん合軸を合わせ、できるだけ垂直に挿入して下さい。
傾斜挿入時の挿入は行わないで下さい。
コネクタ破損の原因となりますので、過度なこじり挿入は行わないで下さい。

5-2 Unmating.

(1) In case of unmating by pulling tool.
Please use the pulling tool as the following drawing, and please pull plug to vertical direction as directly as possible.

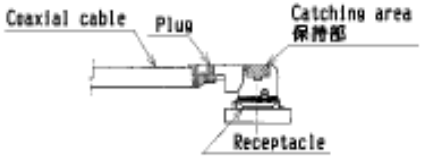
5-2 コネクタ抜去時

(1) 抜去ジグを用いる場合
下図のようにできるだけ垂直に引き抜いて下さい。



(2) In case of unmating directly by hand
Please catch the catching area of plug , and please pull plug to vertical direction as directly as possible.

(2) 手で直接引き抜く場合
下図の保持部をつかみ、できるだけ垂直に引き抜いて下さい。



5-3 Crimp over standards of outer conductor

Standards:Less than 10% from total numbers of outer conductor
(Numbers of outer conductor's crimp over from outer conductor's barrel)

5-3 外部導体はみ出し量

外部導体はみ出し量規定
：外部導体トータル本数の10%以下
（外部導体バレルの外にはみ出した量）

5-4 Caution about Heat shrinkage tubes

Please be cureful not to melt housing when using heat shrinkage tubes.
It will become cause of open circuit.

5-4 熱収縮チューブについての注意
熱収縮チューブで外部導体を覆う場合は、導通不良の原因になりますので、熱によりハウジングを溶融させないよう注意してください。

6. This is 'Pb-free' connector.

6. 本コネクタは'Pb-free'である

GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX. 30	±0.3
30 OVER MAX. 120	±0.5
ANGLE	±2°

REV	ECN	BY	DATE	APP
REV. RECORD				
SERIES No.	2814			

DESIGN'D BY DATE
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PROJECTION

I-PEX Interconnect and Packaging Electronics TOKYO, JAPAN

TITLE
MMF series micro coaxial connector plug vertical (ground contact : gold plating)

General

SCALE -/- UNIT mm DWG. No. 20278 SHEET 4/4 REV. 19C

FORM REV. 4

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