

# 承認書 APPROVAL SHEET

Customers: 金運科技股份有限公司
Customer Model No.:

Master Wave Model No.:98282MRSX000

Product Description: 8282 Replacement Ant.
Issue Date: 2011/9/7

**REV.:** 00

客戶承認用印	權億承認用印
Customer Approved	Confirmation Signature
	<sup>***</sup> 2011. 9. 7 <sup>***</sup> <b>發行章</b> <i>RF</i> BU

核准 Approve	主管 Chief	承辦 Responsible
Hero	Corey	Charlene

#### MASTER WAVE TECHNOLOGY CO., LTD.

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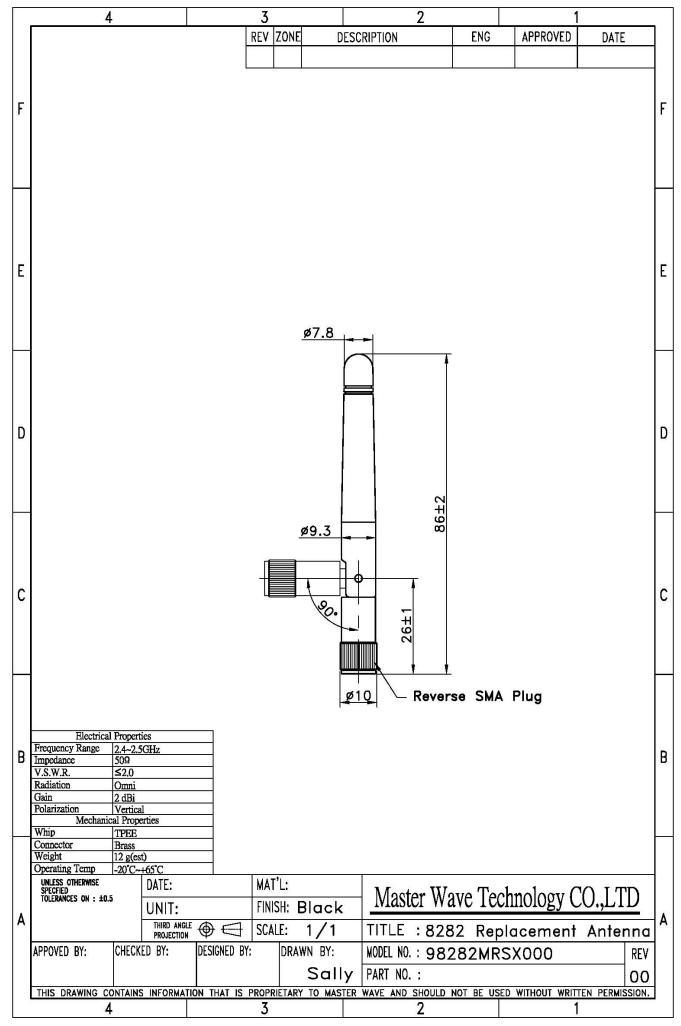
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### **Modification History:**

REV.	Date	Content
00	2011/9/7	



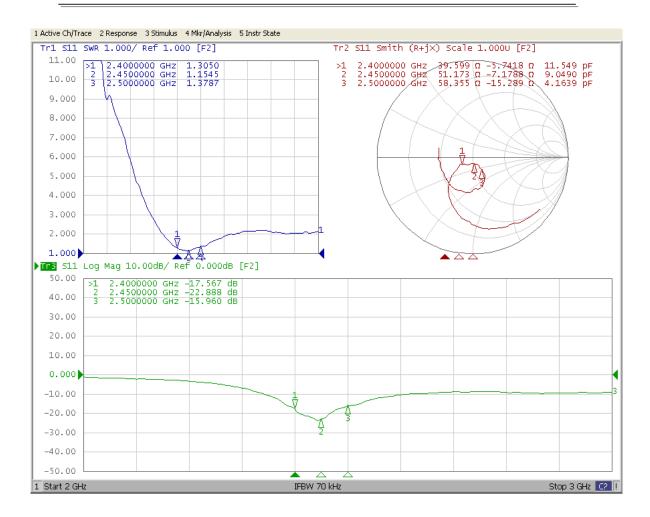
## **Electrical Properties**

Туре	8282 Replacement Antenna
Frequency range	2.4~2.5 GHz
Impedance	50 Ohms
VSWR	≦2.0

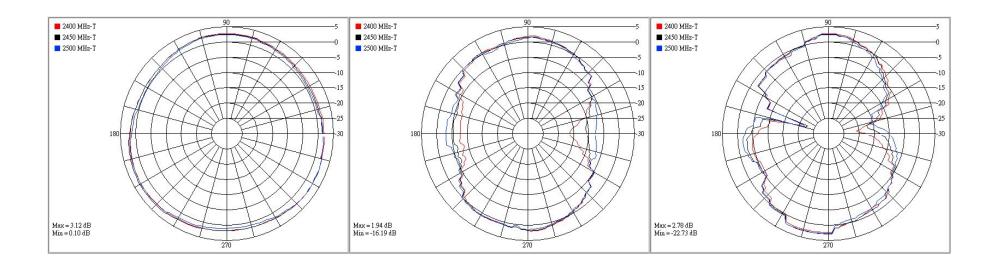
## **Mechanical Properties**

Material	TPEE
Connector	RP SMA Plug
Dimension(L*W*H)	86*Ø10 mm

### **Electrical Test**



## 2D Radiation Pattern



XY-Plane XZ-Plane YZ-Plane

## **Antenna Efficiency**

XY-Plane			
Frequency (MHz)	2400	2450	2500
Peak Gain (dBi)	2.75	3.12	2.68
Average Gain (dB)	2	1.96	1.58
XZ-Plane			
Frequency (MHz)	2400	2450	2500
Peak Gain (dBi)	1.94	1.85	1.52
Average Gain (dB)	-2.47	-2.23	-2.09
YZ-Plane			
Frequency (MHz)	2400	2450	2500
Peak Gain (dBi)	2.71	2.78	2.76
Average Gain (dB)	-2.49	-2.25	-2.34

Frequency (MHz)	2400	2450	2500
Peak EIRP (dBm)	2.7	3.09	2.65
Efficiency (%)	89.7	92.3	85.9



**Connector** SMA

	Impedance	50 ohm
	Frequency Range	0~6 GHz
	V.S.W.R	≦1.5
	Working Voltage	≤250Vrms
	Dielectric Withstanding	≦670 Vrms
	Voltage Insulation Resistance	≥2000 Megohms
Electrical Properties	Contact Resistance	Center contact: 3.0 Milliohms (Max.) Outer contact: 2.0 Milliohms (Max.)
	Recommended coupling nut torque	4.0 in. lbs. ~ 8.8in. lbs.
	Coupling nut retention force	$\geq$ 60 lbs.
	Contact captivation axial	$\geq$ 6 lbs.
	Coupling Proof Torque	15 in-1bs.min
	Durability (mating)	≥500 cycles
	Operating Temperature	-65°C ~ +165°C
	Thermal shock	MIL-STD-202,METHOD 107,Condition B
Environmental Ratings	Corrosion	MIL-STD-202,METHOD 101,Condition B
Environmental Ratings	Shock	MIL-STD-202,METHOD 213,Condition I
	Vibration	MIL-STD-202,METHOD 204,Condition D
	Moisture Resistance	MIL-STD-202,METHOD 106
	Material Data	Material
Material Specifications	Body	Brass
Tracerial Specifications	Center Contact	Brass
	Insulator	Teflon



### 線材規格

### CABLE SPECIFICATION

TTEM	SPECIFICATION:	TION: 1.37mm	n CABLE		CONSRUCTION	TION D.W.G	
AWG	II	EM		SPECIFICATION			
MATERIAL   Silver-plated cooplet wire strended conductor   COONDUCTOR   MATERIAL   COONDUCTOR   MATERIAL   COLOUR   CO		AWG		30AWG			
Avident   Totlon EPP   Avident EPP   Avide	CONDUCTOR	MATERIAL	Silver-plated	copper wire stranded conductor		-INSULATION	
N.O. D. O. D. O. D. O. D. O. D. O. D.		COND.SIZE		7/0.102±0.008 mm			
O. D         DO 90000 mm         DEADDING           NO.         1C         DIAMENTAL COLOR         Silver-plated copper wire           SIZE         \$1600.05 Min 90% †         Am. 90% †         ACOLOUR CODE:           SIZE         \$1600.05 Min 90% †         COLOUR CODE:         ACOLOUR CODE:           COLOR         White, Black, Brown, Gray, Red, Blue, Yellow         1.304WG*IC         COLOUR CODE:           COLOR         White, Black, Brown, Gray, Red, Blue, Yellow         1.304WG*IC         COLOUR CODE:           COLOR         White, Black, Brown, Gray, Red, Blue, Yellow         1.304WG*IC         ARKING           O. D         Character of electrical         Detail of spec.         I.304WG*IC           O. D         Character of electrical         Society         ARKING           1.00HZ         dBbM         2.1         ARKING           2.0HZ         dBbM         2.4         ARKING           4.00HZ         dBbM         3.5         ARKING           6.00HZ         dBbM         3.5         ARKING           A.00HZ         dBbM         3.5         ARKING           6.00HZ         dBbM         3.5         ARKING           A.00HZ         dBbM         3.5         ARKING		MATERIAL		Teflon FEP		CONDUCTOR	
NO   1C   Natural color   Na	WOTT A TITOM	O.D		0.9±0.03 mm		—— T\$P	
SIZE	INSULATION	NO.		10		BRAIDING	
SIZE   SI/Nor-plated copper wire   SI/Nor-plated copper wire   SI/Nor-plated copper wire   SI/Nor05 Min.90% †   COL.OUR CODE:   COL.OUR CODE		COLOR		Natural color			
SIZE	BRAID	MATERIAL	S	ilver-plated copper wire		JACKET	
AATBENIAL   Tetlon FEP   L.30AWG*IC   COLOUR CODE:  COLOR   White, Black, Brown, Gray, Red, Blue, Yellow	COPPER	SIZE	<i>'</i> S				
COLOR         White, Black, Brown, Gray, Red. Blue, Yellow         1.304WG*IC           O. D         Character of electrical         ARKING           Indept         Detail of spec.         MARKING           Indept         BbM         1.5           2.06HZ         dBM         2.1         REMARK           2.06HZ         dBM         2.1         REMARK           3.06HZ         dBM         2.4         REMARK           4.06HZ         dBM         3.3         APPROVED           4.06HZ         dBM         3.5         APPROVED           6.06HZ         dBM         3.5         APPROVED           6.06HZ         dBM         3.9         APPROVED           APPROVED         REV           APPROVED         REV           PHXING         DATE		MATERIAL		Teflon FEP	20103		
O. D         Character of electrical         Detail of spec.         MARKING           1.06HZ         dBM         50±2         MARKING           2.06HZ         dBM         1.5         REMARK           2.06HZ         dBM         2.4         REMARK           3.06HZ         dBM         2.4         REMARK           4.06HZ         dBM         3.1         REMARK           5.06HZ         dBM         3.3         Aspence Technology Co., I           5.06HZ         dBM         3.5         Aspence Wave Technology Co., I           6.06HZ         dBM         3.9         Approve Maye Technology Co., I           APPROVED         CUSTOMER           APPROVED         REV           APPROVED         REV           APPROVED         DARWING         DARWING         DATE	JACKET	COLOR	White, Black	c, Brown, Gray, Red, Blue, Yellow		l	
Character of electrical         Detail of spec.         MARKING           1.0GHZ         Unit         95         MARKING           1.0GHZ         dBM         1.5         REMARK           2.0GHZ         dBM         2.1         REMARK           2.0GHZ         dBM         2.4         REMARK           3.0GHZ         dBM         3.1         Atochic           4.0GHZ         dBM         3.5         Atochic           6.0GHZ         dBM         3.5         Attric           6.0GHZ         dBM         3.9         Attric           APPROVED         CUSTOMER           APPROVED         CUSTOMER           APPROVED         REV           APPROVED         REV           APPROVED         REV           APPROVED         REV           APPROVED         REV		O.D		1.37±0.10 mm			
Custom   Detail of spec.   MARKING			Character of electric	cal			
pFM 95   89±2   89±2   84   84   84   84   84   84   84   8	Ä	tem	Unit	Detail of spec.	MA	RKING	
	1.Capacitance(No		pF/M	95			
1.0GHZ         dBM         1.5           2.0GHZ         dBM         2.4         REMARK           2.0GHZ         dBM         2.4         REMARK           3.0GHZ         dBM         3.1         Accid to the control of the contro	2.Impedance	-	0	50±2			
2.0GHZ         dBM         2.1         REMARK           2.4GHZ         dBM         2.4         REMARK           3.0GHZ         dBM         3.1         REMARK           5.0GHZ         dBM         3.5         Amater Wave Technology Co., L           6.0GHZ         dBM         3.9         Amater Wave Technology Co., L           6.0GHZ         dBM         3.9         Approve Technology Co., L           CHECKED         REV           CHECKED         REV           DRAWING         Dyan         DATE		1.0GHZ	dB/M	1.5			
2.4GHZ         dBM         2.4         REMARK           3.0GHZ         dBM         2.6         ABM         3.1           5.0GHZ         dBM         3.5         ABM         3.5           6.0GHZ         dBM         3.9         ABSTER Wave Technology Co., L           PART NO PARKET         PART NO         APPROVED         CUSTOMER           CHECKED         REV           DRAWING         Dyan         DATE		2.0GHZ	dB/M	2.1			
3.0GHZ         dBM         2.6           4.0GHZ         dBM         3.1           5.0GHZ         dBM         3.5           6.0GHZ         dBM         3.9           ACHZ         Master Wave Technology Co., L           PART NO         PART NO           APPROVED         CUSTOMER           CHECKED         REV           DRAWING         Dyan           DATE         DATE		2.4GHZ	dB/M	2.4	RE	MARK	
4,0GHZ         dBM         3.1           5,0GHZ         dBM         3.5           6,0GHZ         dBM         3.9           PHYSICAL PROPERTIES OF JACKET         Master Wave Technology Co., L           PART NO         APPROVED           CHECKED         REV           DRAWING         Dyan           DRAWING         Dyan	3.Attenuation(Ma		4B/M	2.6			
ABM	65	Ш	4B/M	3.1			
ABM		5.0GHZ	dB/M	3.5			
LPROPERTIES OF JACKET  PART NO.  APPROVED  CHECKED  DRAWING  Dyan DATE		6.0GHZ	dB/M	3.9			
CUSTOMER REV Dyan DATE		PHN	SICAL PROPERTIES OF	§ JACKET	Master Wave Te	schnology Co., L	td.
CUSTOMER REV Dyan DATE							
CUSTOMER REV Dyan DATE					PART NO.		
REV Dyan DATE					APPROVED	CUSTOMER	
Dyan DATE					CHECKED	REV	A
					$\overline{}$		2007/10/8