



權億科技股份有限公司
Master Wave Technology Co., Ltd.

承認書

APPROVAL SHEET

Customers: 神準科技股份有限公司

Customer Model No.: 7102A0414000

Master Wave Model No. 98143URSX000

Product Description: 8143 Replacement Ant.

Issue Date: 2016/5/4

REV.: 00

客戶承認用印		權億承認用印	
			
核准 Approve	主管 Chief	承辦 Responsible	
Hero	Matt	Mango	

MASTER WAVE TECHNOLOGY CO., LTD.

權億科技股份有限公司

Address: No.81-8, Longshou St., Taoyuan City, Taoyuan County 330, Taiwan (R.O.C.)

Tel: +886-3-3600306 Fax: +886-3-3600979

Shengyih Electronic Plastic Co. Ltd (Shou Zhou)

聲億電子塑膠有限公司(蘇州廠)

Address: No.95 Wusong south Rd of Luzhi Town Wu zhong Area Suzhou City, China

Tel : +86-512-65046030 Fax : +86-512-65046033

Shengyih Electronic Plastic Manufactory (Dongguan)

聲億電子塑膠製品廠(東莞廠)

Address: Mu-Lun Administration Area, Changping Town, Dongguan City, Guangdong Province, China

Tel : +86-769-83914045 Fax : +86-769-83914046



Table of Contents

Item

1. Antenna Specifications

-Drawing

2. Test Report

-Electrical test
-Antenna Efficiency
-Pattern test

3. Material Certifications

-Connector
-Cable

4. Packing

-PE Bag
-Carton

Modification History:

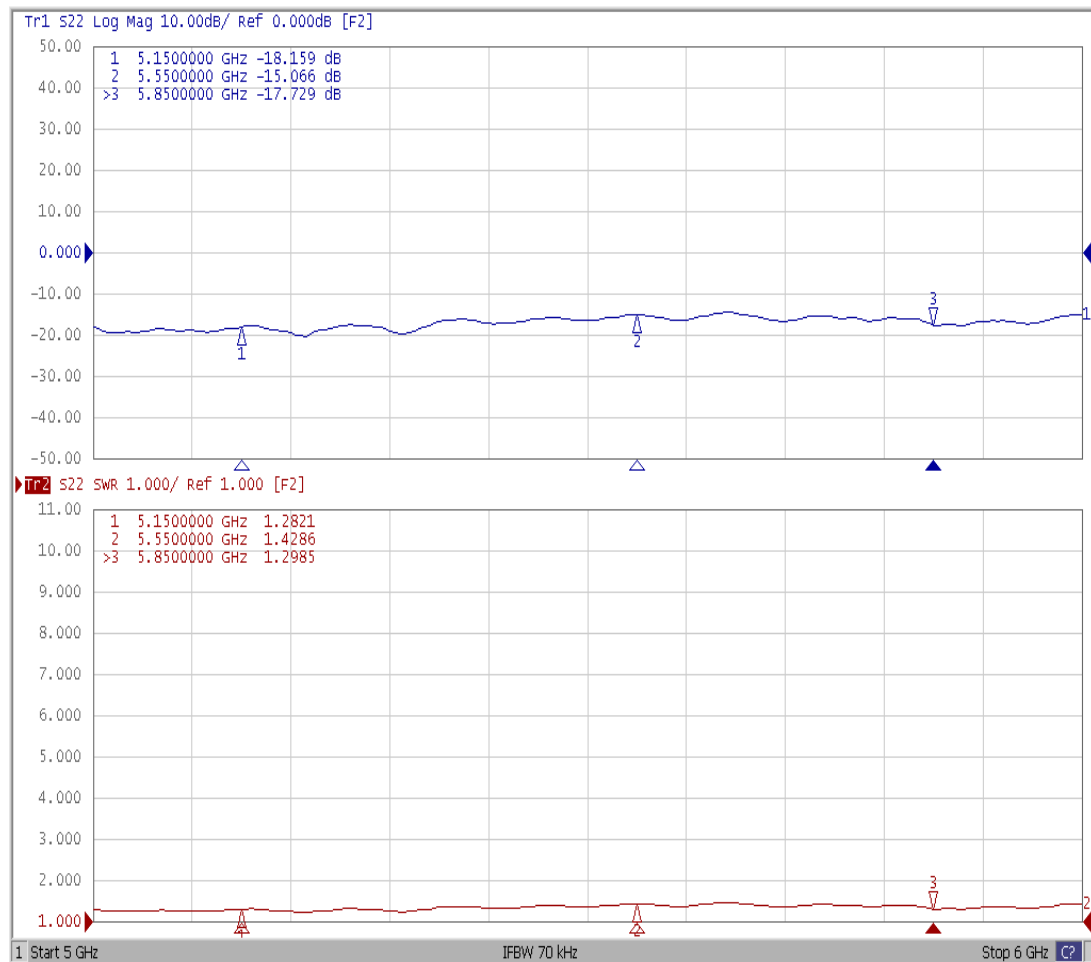
REV.	Date	Content
00	2016/5/4	



4		3		2		1																													
REV		ZONE		DESCRIPTION		ENG		APPROVED		DATE																									
<table border="1"><thead><tr><th colspan="2">Electrical Properties</th></tr></thead><tbody><tr><td>Frequency Range</td><td>5.X GHz</td></tr><tr><td>Impedance</td><td>50Ω</td></tr><tr><td>V.S.W.R.</td><td>≤2.0</td></tr><tr><td>Radiation</td><td>Omni</td></tr><tr><td>Gain</td><td>5 dBi</td></tr><tr><td>Polarization</td><td>Vertical</td></tr></tbody></table> <table border="1"><thead><tr><th colspan="2">Mechanical Properties</th></tr></thead><tbody><tr><td>Whip</td><td>TPE</td></tr><tr><td>Connector</td><td>Brass</td></tr><tr><td>Weight</td><td>-</td></tr><tr><td>Operating Temp</td><td>-20°C~+65°C</td></tr></tbody></table>												Electrical Properties		Frequency Range	5.X GHz	Impedance	50Ω	V.S.W.R.	≤2.0	Radiation	Omni	Gain	5 dBi	Polarization	Vertical	Mechanical Properties		Whip	TPE	Connector	Brass	Weight	-	Operating Temp	-20°C~+65°C
Electrical Properties																																			
Frequency Range	5.X GHz																																		
Impedance	50Ω																																		
V.S.W.R.	≤2.0																																		
Radiation	Omni																																		
Gain	5 dBi																																		
Polarization	Vertical																																		
Mechanical Properties																																			
Whip	TPE																																		
Connector	Brass																																		
Weight	-																																		
Operating Temp	-20°C~+65°C																																		
UNLESS OTHERWISE SPECIFIED TOLERANCES ON : ±0.5		DATE: 2016/5/4		MAT'L:		Master Wave Technology CO.,LTD																													
UNIT: mm		THIRD ANGLE PROJECTION		FINISH: White		SCALE: 1/1		TITLE : 8143 Replacement Antenna																											
APPROVED BY:		CHECKED BY:		DESIGNED BY: Daniel		DRAWN BY: Mango		MODEL NO. : 98143URSX000																											
								PART NO. : 00																											
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MASTER WAVE AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.																																			



Electrical Test



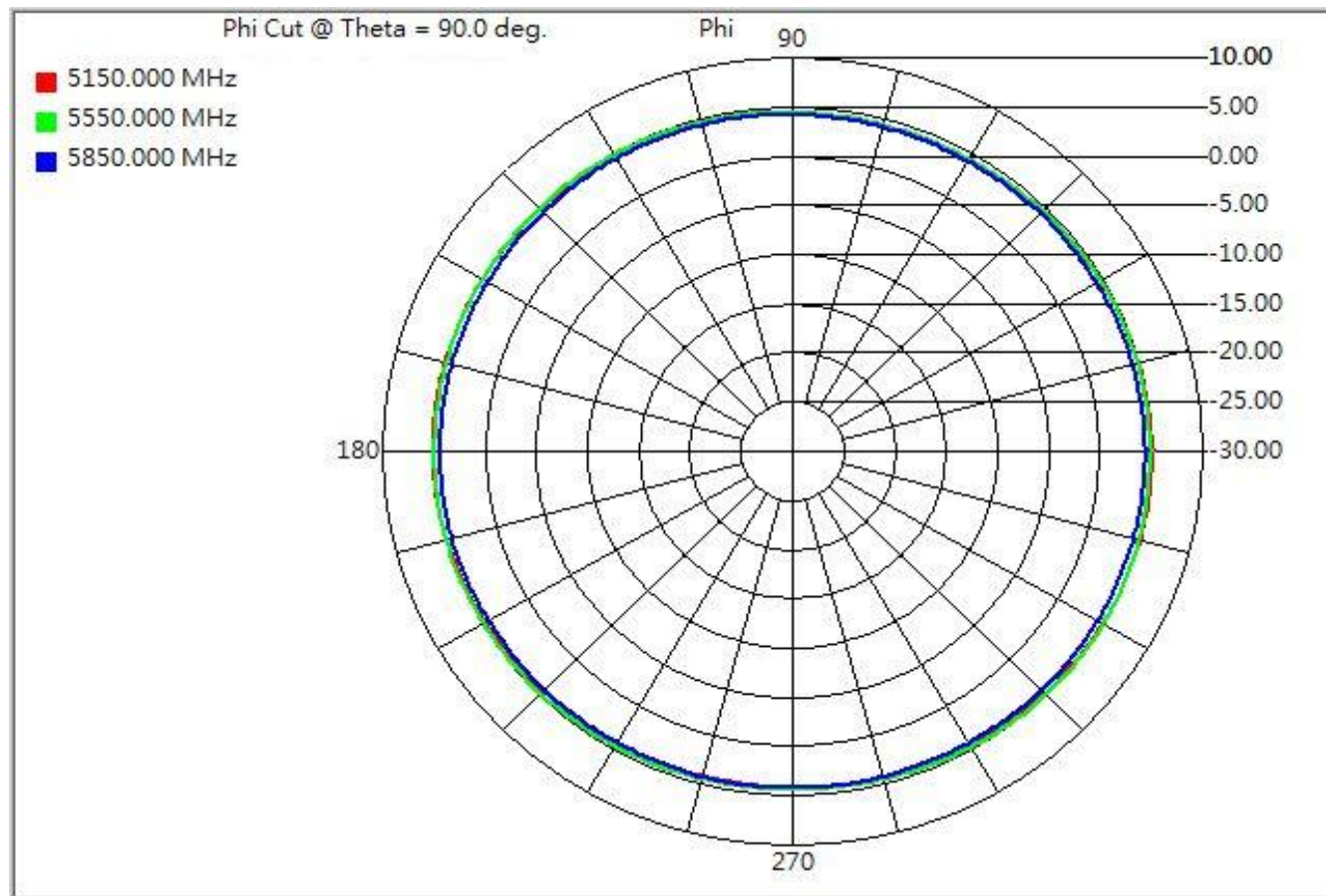


Antenna Efficiency

Frequency (MHz)	5150	5550	5850
Peak Gain (dBi)	5.12	5.09	5.17
Directivity (dBi)	6.51	6.44	6.43
Efficiency (dB)	-1.39	-1.35	-1.26
Efficiency (%)	72.54	73.12	74.65

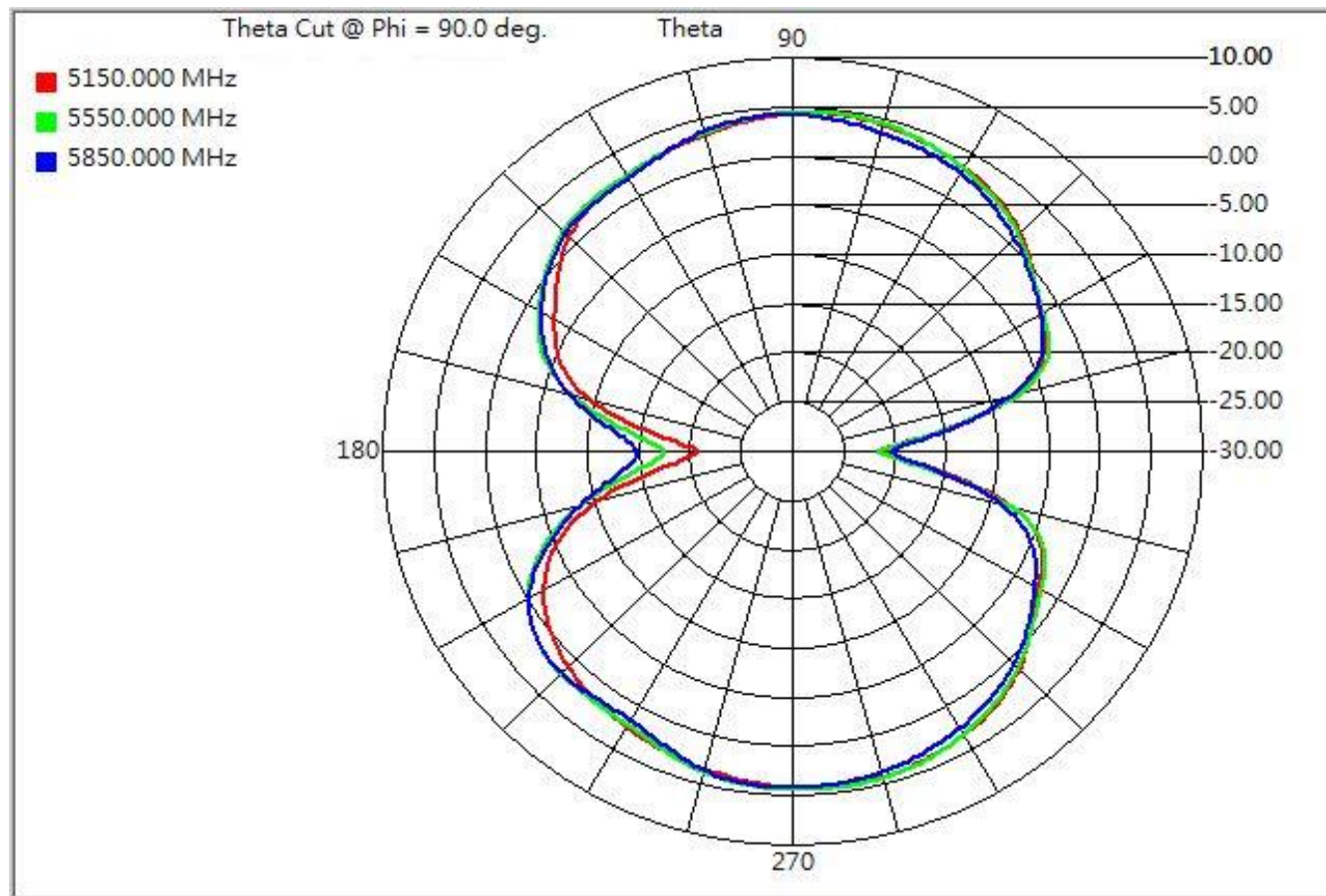


2D Radiation Pattern H-Plan





2D Radiation Pattern E-Plan





Connector

SMA

Electrical Properties	Impedance	50 ohm
	Frequency Range	0~6 GHz
	V.S.W.R	≤ 1.5
	Working Voltage	$\leq 170\text{Vrms}$
	Dielectric Withstanding	$\leq 500\text{ Vrms}$
	Voltage Insulation Resistance	$\geq 2000\text{ Megohms}$
	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	$\geq 60\text{ lbs.}$
	Contact captivation axial	$\geq 6\text{ lbs.}$
	Coupling Proof Torque	15 in-1lbs.min

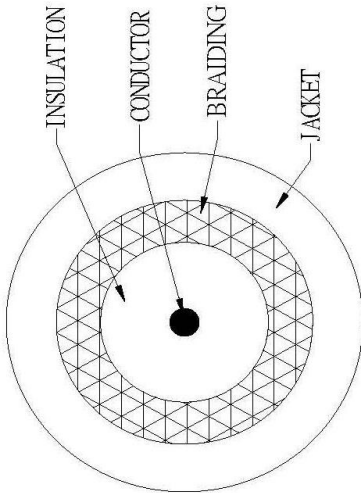
Operating Temperature	-65°C ~ +165°C
-----------------------	----------------

Material Specifications	Material Data	Material
	Body	Brass
	Center Contact	Brass
	Insulator	Teflon



線材規格

CABLE SPECIFICATION

SPECIFICATION: RG178 CABLE			CONSTRUCTION D.W.G				
ITEM		SPECIFICATION					
CONDUCTOR	MATERIAL	Silverplated Copper coated steel Wire					
	Composition(No./mm)	7/0.102					
	NOM.O.D	0.306±0.03					
INSULATION	Material	FEP(Natural)/PTFE					
	Nom.Thick.(mm)	0.275					
	NOM.O.D	0.88±0.03					
BRAIDING	MATERIAL	Silver-coated annealed copper wire					
	Composition	16*3/0.1;Coverage ≥ 90%					
	MATERIAL	FEP(*color)					
JACKET	Nom.Thick(mm)	0.25					
	Nom.O.D(mm)	1.78±0.05					
	Color	Brown					
							
Electrical Properties(at 20 °C)							
Item		Unit	Details	Characteristic Impedance	Ω		
Conductor Resistance	Ω/km	Max.800	Attenuation	dB/m	50±2.0		
Insulation Resistance	MΩ.km	Min.500			1GHz	1.70	
Dielectric Strength	V(AC)/min	1000			2GHz	2.42	
	Capacitance	pF/m			105(1kHz)	3GHz	3.08
						4GHz	3.63
				5GHz	4.15		
				6GHz	4.80		
				Temperature range	°C		
				Standing wave(0-6GHz)	/		
				-55~150			
				≤ 1.35			
MASTER WAVE TECHNOLOGY CO., LTD.							
CHECKED			DATE				
DRAWING			REV				
			2013/8/8				
			01				



4		3		2		1	
REV	ZONE	DESCRIPTION		ENG	APPROVED	DATE	

F

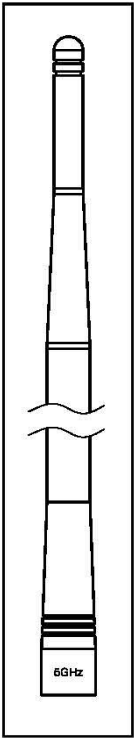
E

D

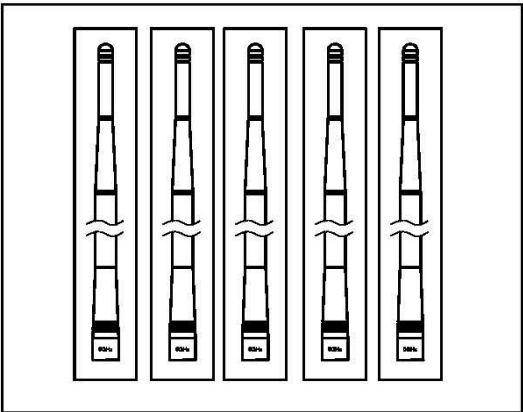
C

B

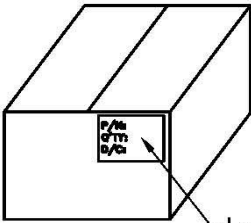
A



1PCS ANTENNA OF A BAG



50PCS ANTENNA OF A BIG BAG



Label
標籤Label貼於外箱側邊

DATE:		MAT'L:		Master Wave Technology CO.,LTD			
UNIT: mm		FINISH:					
THIRD ANGLE PROJECTION		SCALE: -		TITLE : 8143 Replacement Antenna Packing			
APPROVED BY:	CHECKED BY:	DESIGNED BY:	DRAWN BY:	MODEL NO. :		REV	
				PART NO. :		00	

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MASTER WAVE AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.

4		3		2		1	