MEASUREMENT REPORT
of
WIRELESS PHONE

Applicant	:	GEORGE TANG INDUSTRIAL CORP.
Model No.	:	CL-2200XP, PBX-990XP-B
EUT	:	Wireless Phone
FCC ID	:	M4SPBX-990XP
Report No.	:	**G0615197**

Test by :

Training Research Co., Ltd.

TEL : 886-2-26935155 FAX : 886-2-26934440

2, Lane 194, Huan-Ho Street, Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

CERTIFICATION

We here by verify that:

The test data, data evaluation, test procedures and equipment configurations shown in this report were made mainly in accordance with the procedures given in ANSI C63.4 (1992) as a reference. All test were conducted by ***Training Research Co., Ltd.***, 2, Lane 194, Huan-Ho Street, Hsichi, Taipei Hsien 221, Taiwan, R.O.C. Also, we attest to the accuracy of each.

We further submit that the energy emitted by the sample EUT tested as described in the report is **in compliance with** the technical requirements set forth in the FCC Rules Part 15 Subpart C Section 15.249.

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Test Date	:	12/13/2000

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Approved by: Jacob Lin *JACOB LIN*

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I. GENERAL

1.1 Introduction

The following measurement report is submitted on behalf of Applicant in support of a Cordless Telephone certification in accordance with Part 2 Subpart J and Part 15 Subpart A and C of the Commission's Rules and Regulations.

1.2 Description of EUT

EUT	:	Wireless Phone
Model No.	:	CL-2200XP, PBX-990XP-B
FCC ID	:	M4SPBX-990XP
Frequency Range	:	Base: 926.1500 – 927.8250 MHz
		Handset: 902.2000 – 903.8750 MHz
Support Channel	:	68 Channel
Power Type	:	Base Powered by 120Vac 60Hz / 12Vdc 1000mA
		Handset Powered by 120Vac 60Hz / 12Vdc 1000mA
Power Cord	:	N/A
Data Cable	:	RJ-11 x 2 => Non-shielded, 7' long, Plastic hoods, No bead
Applicant	:	GEORGE TANG INDUSTRIAL CORP.

1.3 Description of Support Equipment

PABX	:	**King Design**
Model No.	:	KD8705-A
Serial No.	:	GV101101186
Power type	:	220 VAC 50Hz
Power cord	:	non-shielded, 1.8m long, no ferrite bead

Telephone	:	**HUSTON**
Model No.	:	4782
Serial No.	:	N/A
Power type	:	Powered by PSTN
Data Cable	:	non-shielded, 1.8m long, no ferrite bead

1.4 Configuration of System Under Test

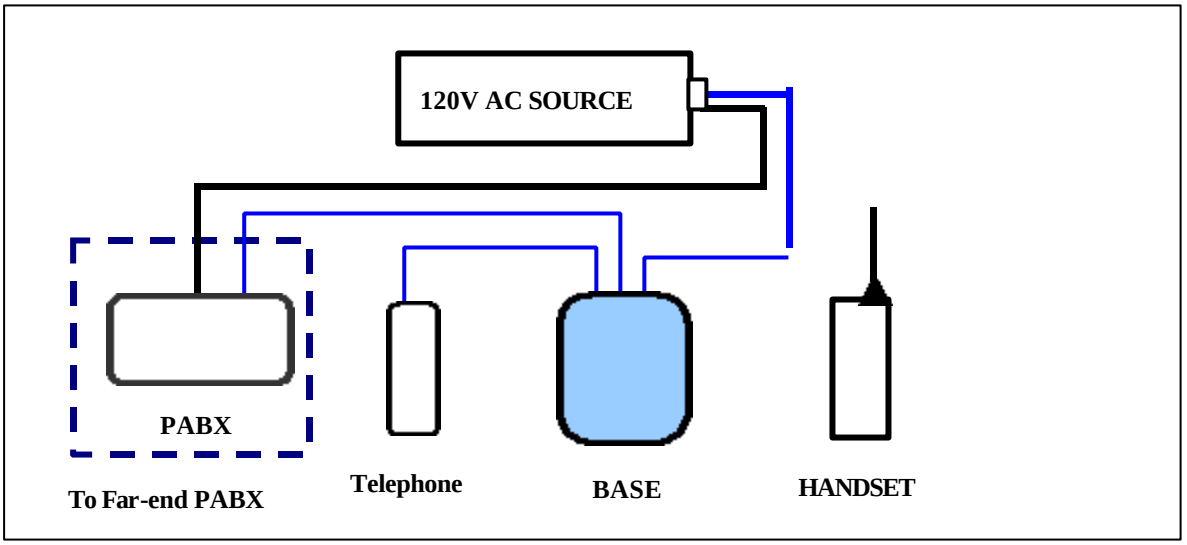

Fig. 1 Configuration of system under test

During testing the EUT was connected with a terminated. A diagram of the complete test configuration was shown in Fig 1.

1.5 Test Procedure

All measurements contained in this report were performed mainly according to the techniques described in Measurement procedure ANSI C63.4 (1992).

1.6 Location of the Test Site

The radiated emissions measurements required by the rules were performed on the **OATS**. Complete description and measurement data have been placed on file with the commission. The conducted power line emissions tests and other test items were performed in a anechoic chamber located at Training Research Co., Ltd. No. 15, Lane 530, Pa-Lian RD., Sec. 1, Hsichih City, Taipei Hsien, Taiwan, R.O.C.. *Training Research Co., Ltd.* is listed by the FCC as a facility available to do measurement work for others on a contract basis.

1.7 General Test Condition

The conditions under which the EUT operates were varied to determine their effect on the equipment's emission characteristics. The final configuration of the test system and the mode of operation used during these tests was chosen as that which produced the highest emission levels. However, only those conditions which the EUT was considered likely to encounter in normal use were investigated.

In test, the base and handset are tested separately. They were set in Ch01, Ch68 of EUT and continuously transmitting mode that controlled by test mode of EUT.

II. Conducted Emissions Measurements

2.1 Test Condition & Setup

The power line conducted emission measurements were performed in an anechoic chamber. The EUT was assembled on a wooden table, which is 80 centimeters high, was placed 40 centimeters from the backwall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and Line Impedance Stabilization Networks (LISNs). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer (or EMI receiver) was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPER quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 450 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 2.4.

2.2 List of Test Instruments

				Calibration Date	
Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
Spectrum analyzer	8594EM	H P	3710A00198	06/29/00	06/29/01
LISN (EUT)	3825/2	EMCO	9411-2284	06/10/00	06/10/01
LISN (Support E.)	3825/2	EMCO	9210-2007	05/31/00	05/31/01
Preamplifier	EQ3-006	TRC	---------	05/15/00	05/15/01
Line switch box	EQ3-007	TRC	---------	05/15/00	05/15/01

The level of confidence of 95% , the uncertainty of measurement of conducted emission is ± 2.4 dB .

2.3 Test Configuration of Conducted Emission

Fig. 1 Conducted Emissions Test Configuration (Handset Charging only)

Fig. 1 Conducted Emissions Test Configuration (Handset Charging only)

Fig. 1 Conducted Emissions Test Configuration (Base Charging only)

Fig. 2 Conducted Emissions Test Configuration (Base Charging only)

Fig. 1 Conducted Emissions Test Configuration (Operating only)

Fig. 2 Conducted Emissions Test Configuration (Operating only)

2.4 Test Result of Conducted Emissions

The following table shows a summary of the highest emissions of power line conducted emissions on the HOT and NATURAL conductors of the EUT power cord.

Model No. : CL-2200XP, PBX-990XP-B

EUT : Wireless Phone

Table 1 Power Line Conducted Emissions (Channel 1)

Power Conductor	*Connected Emissions Frequency (KHz)*	*Peak Amplitude (dBuV)*	*FCC Class B Limit (dBuV)*	*Margin (dB)*
Line 1	461.00	39.75	48.00	-8.25
	480.00	41.50	48.00	-6.50
	496.00	41.60	48.00	-6.40
	527.00	41.19	48.00	-6.81
	560.00	40.97	48.00	-7.03
	601.00	40.52	48.00	-7.48
	637.00	40.06	48.00	-7.94
	658.00	39.76	48.00	-8.24
	684.00	39.79	48.00	-8.21
	719.00	38.82	48.00	-9.18
LINE 2	452.00	44.56	48.00	-3.44
	467.00	44.42	48.00	-3.58
	493.00	43.46	48.00	-4.54
	502.00	43.51	48.00	-4.49
	527.00	43.12	48.00	-4.88
	553.00	43.39	48.00	-4.61
	579.00	42.46	48.00	-5.54
	590.00	42.46	48.00	-5.54
	615.00	41.84	48.00	-6.16
	641.00	41.77	48.00	-6.23

Note:

1. Margin = Peak Amplitude - Limit
2. A "+" sign in the margin column means the emission is OVER the Class B Limit and "–" sign of means UNDER the Class B limit.

Table 2 Power Line Conducted Emissions (Channel 68)

Power Conductor	*Connected Emissions*		*FCC Class B*	
	Frequency (KHz)	*Peak Amplitude (dBuV)*	*Limit (dBuV)*	*Margin (dB)*
Line 1	455.00	42.05	48.00	-5.95
	489.00	41.36	48.00	-6.64
	502.00	40.92	48.00	-7.08
	518.00	41.26	48.00	-6.74
	549.00	41.31	48.00	-6.69
	582.00	40.21	48.00	-7.79
	597.00	40.20	48.00	-7.80
	628.00	40.00	48.00	-8.00
	658.00	40.42	48.00	-7.58
	680.00	39.91	48.00	-8.09
LINE 2	457.00	44.74	48.00	-3.26
	467.00	44.28	48.00	-3.72
	518.00	43.30	48.00	-4.70
	545.00	43.02	48.00	-4.98
	579.00	42.28	48.00	-5.72
	593.00	42.32	48.00	-5.68
	612.00	41.79	48.00	-6.21
	624.00	41.74	48.00	-6.26
	667.00	41.11	48.00	-6.89
	697.00	40.89	48.00	-7.11

Table3 Power Line Conducted Emissions (Linking)

Power	*Connected*	*Emissions*	*FCC*	*Class B*
Conductor	*Frequency (KHz)*	*Peak Amplitude (dBuV)*	*Limit (dBuV)*	*Margin (dB)*
Line 1	457.00	42.10	48.00	-5.90
	473.00	41.92	48.00	-6.08
	489.00	42.18	48.00	-5.82
	502.00	42.15	48.00	-5.82
	518.00	42.12	48.00	-5.88
	538.00	41.10	48.00	-6.90
	579.00	41.11	48.00	-6.89
	593.00	40.48	48.00	-7.52
	608.00	40.78	48.00	-7.22
	624.00	40.52	48.00	-7.48
LINE 2	455.00	44.77	48.00	-3.23
	473.00	44.44	48.00	-3.56
	493.00	44.22	48.00	-3.78
	502.00	43.58	48.00	-4.42
	518.00	43.65	48.00	-4.35
	534.00	43.53	48.00	-4.47
	564.00	43.12	48.00	-4.88
	579.00	42.81	48.00	-5.19
	597.00	42.74	48.00	-5.26
	633.00	42.16	48.00	-5.84

Ⅲ. Radiated Emissions Measurements

3.1 Test Condition & Setup

The EUT was placed in a anechoic chamber and scanned at 3 meter distance to determine its emission characteristics. The physical arrangement of the EUT was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude, directivity, and frequency. The exact system configuration, which produced the highest emissions was noted so it could be reproduced later during the final tests. This was done to ensure that the final measurements would demonstrate the worst-case interference potential of the EUT.

Final radiation measurements were made on a three-meter, open site. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. There are two spectrum analyzers use on this testing , HP 8594EM for frequency 30MHz to 1000MHz, and 8564E for frequency 1 GHz to 18 GHz. No post-detector video filters were used in the test. The spectrum analyzer's 6 dB bandwidth was set to 120 KHz (spectrum was examined from 30 MHz to 1000 MHz), the spectrum analyzer's 6 dB bandwidth was set to 1 MHz (spectrum was examined from 1 GHz to 18GHz) and the analyzer was operated in the maximum hold mode.

At each frequency, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

The actual field intensity in decibels referenced to 1 microvolt per meter (dB μ V/m) is determined by algebraically adding the measured reading in dB μ V, the antenna factor (dB), and cable loss (dB) at the appropriate frequency.

For frequency between 30MHz to 1000MHz

FIa (dBuV/m) = FIr (dBuV) – Correction Factors

FIa : Actual Field Intensity

FIr : Reading of the Field Intensity

Correction Factor = Antenna Factor + (Cable Loss – Amplitude Gain)

For frequency between 1GHz to 18GHz

FIa (dBuV/m) = FIr (dBuV) + Correction Factor

FIa : Actual Field Intensity

FIr : Reading of the Field Intensity

Correction Factors = Antenna Factor + Cable Loss – Amplifier Gain

3.2List of Test Instruments

				Calibration Date	
Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
30MHz~1GHz :					
Spectrum analyzer	8594EM	H P	3710A00279	06/22/00	06/22/01
Antenna (30M-1.5G Hz)	VULB 9160	M.E.	3063	06/26/00	06/23/01
Antenna (30M-2G Hz)	3141	EMCO	9711-1076	05/15/00	05/15/01
RF Pre-selector	EQ3-003	TRC	- - - - - - - - -	05/15/00	05/15/01
Open test side (Antenna, Amplify, cable calibrated together)				05/15/00	05/15/01
1GHz~18GHz :					
EMI Receiver	8546A	H P	3520A00242	10/01/99	10/01/00
RF Filter Section	85460A	H P	3448A00217	10/01/99	10/01/00
Bi-log Antenna	CBL6141A	Schaffner	4151	07/04/00	07/04/01
Switch/Control Unit (> 30MHz)	3488A	HP	N/A	11/20/99	11/20/00
Auto Switch Box (> 30MHz)	ASB-01	TRC	9904-01	11/20/99	11/20/20
Spectrum Analyzer	8564E	HP	US36433002	08/03/99	08/03/00
Microwave Preamplifier	83051A	HP	3232A00347	08/04/99	08/04/00
Horn Antenna	3115	EMCO	9704 – 5178	08/09/99	08/09/00

The level of confidence of 95% , the uncertainty of measurement of radiated emission is ± 4.96 dB .

3.3 Test Configuration of Radiated Emission

Picture 1 Front View of the Test Configuration (BASE)

Picture 2 Rear View of the Test Configuration (BASE)

Picture 1 Front View of the Test Configuration (HANDSET)

Picture 2 Rear View of the Test Configuration (HANDSET)

3.4 Test Result of Radiated Emissions

The peak values of fundamental emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Model No. : CL-2200XP, PBX-990XP-B

EUT : Wireless Phone

Table 4 Open Field Fundamental Emissions

Channel	*Frequency (MHz)*	*A.P. (H/V)*	*A.H. (m)*	*Table (degree)*	*Amplitude (Peak) (dBuV/m)*	*Limit (dBuV)*	*Margin (dB)*
Base 01	926.150	H	2.51	154	75.03	94.00	-18.97
		V	2.52	160	79.83	94.00	-14.17
Base 161	927.824	H	2.52	131	72.14	94.00	-21.86
		V	2.50	91	78.94	94.00	-15.06
Handset 01	902.201	H	0.99	224	65.60	94.00	-28.40
		V	0.99	293	75.16	94.00	-18.84
Handset 161	903.876	H	0.99	66	66.32	94.00	-27.68
		V	0.99	132	76.96	94.00	-17.04

Note:

1. A. P. means antenna polarization, horizontal and vertical.
2. A. H. means antenna height.
3. Table means turntable turning position.
4. Amplitude means the fundamental emission measured.
5. Margin = Amplitude-limit

3.5 Test Result of Spurious Radiated Emissions

The highest peak values of radiated emissions form the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Model No. : CL-2200XP, PBX-990XP-B

· **EUT** : Wireless Phone

Table 5 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Base Horizontal]

Radiated Emission				*Correction Factors*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (MHz)	*Amplitude (dBuV/m)*	*Ant. H. (m)*	*Table ( )*	*(dB)*	*(dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
926.015	94.52	2.51	154	-19.49	75.03	94.00	-18.97
***							

***The other emissions are under limit more than20dB.**

Note:

1. Margin = Corrected – Limit.
2. Peak Amplitude – Correction Factors = Corrected
3. Correction Factor = Antenna Factor + (Cable Loss – Amplitude Gain)

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Table 6 Open Field Radiated Emissions for 1GHz ~ 18GHz [Channel 01, Base Horizontal]

Radiated Emission				*Correction Factors*	*Distance*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (GHz)	*Amplitude (dBuV/m)*	*Ant. H. (cm)*	*Table ( )*	*(dB)*	*(dB)*	*(dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
1.840	46.10	100.00	35	-8.67	0	37.43	54.00	-16.57
2.633	43.27	100.00	328	-8.67	0	34.60	54.00	-19.40
3.710	47.24	100.00	193	-5.64	0	41.60	54.00	-12.40
4.631	45.34	100.00	168	-3.91	0	41.43	54.00	-12.57
5.098	48.34	100.00	47	-3.91	0	44.43	54.00	-9.57
5.552	47.32	100.00	254	-9.72	0	37.60	54.00	-16.40
***								

Note:

1. Margin = Corrected - Limit.
2. Peak Amplitude + Correction Factor + Distance = Corrected

Table 7 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Base Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	FCC Class B (3 m)	
Frequency (MHz)	Amplitude (dBuV/m)	Ant. H. (m)	Table ( )	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
926.150	99.32	2.52	160	-19.49	79.83	94.00	-14.17
***							

***The other emissions are under more than limit 20dB.**

Table 8 Open Field Radiated Emissions for 1GHz ~ 18GHz [Channel 01, Base Vertical]

Radiated Emission				*Correction Factors*	*Distance*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (GHz)	*Amplitude (dBuV/m)*	*Ant. H. (cm)*	*Table ( )*	*(dB)*	*(dB)*	*(dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
1.840	48.44	100.00	48	-8.67	0	39.77	54.00	-14.23
2.633	50.27	100.00	196	-8.67	0	41.60	54.00	-12.40
3.243	51.44	100.00	325	-6.84	0	44.60	54.00	-9.40
3.710	49.74	100.00	40	-5.64	0	44.10	54.00	-9.90
4.631	48.01	100.00	8	-3.91	0	44.10	54.00	-9.90
5.098	51.68	100.00	159	-3.91	0	47.77	54.00	-6.23
5.552	54.42	100.00	233	-9.72	0	44.70	54.00	-9.30
9.263	57.65	100.00	48	-9.72	0	47.93	54.00	-6.07
***								

Table 9 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 68, Base Horizontal]

Radiated Emission				*Correction Factors*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (MHz)	*Amplitude (dBuV/m)*	*Ant. H. (m)*	*Table ( )*	*(dB)*	*. (dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
927.824	91.49	2.52	131	-19.35	72.14	94.00	-21.86
***							

***The other emissions are under more than limit 20dB.**

Table 10 Open Field Radiated Emissions For 1GHz ~ 18GHz [Channel 68, Base Horizontal]

Radiated Emission				Correction Factors	Distance	Corrected Amplitude	FCC Class B (3 m)	
Frequency (GHz)	Amplitude (dBuV/m)	Ant. H. (cm)	Table ( )	(dB)	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
1.854	47.94	100.00	3	-8.67	0	39.27	54.00	-14.73
2.633	42.94	100.00	10	-8.67	0	34.27	54.00	-19.73
4.645	47.51	100.00	185	-3.91	0	43.60	54.00	-10.40
5.113	45.34	100.00	49	-3.91	0	41.43	54.00	-12.57
5.566	51.49	100.00	103	-9.72	0	41.77	54.00	-12.23
6.033	47.32	100.00	156	-9.72	0	37.60	54.00	-16.40
7.436	51.82	100.00	323	-9.72	0	42.10	54.00	-11.90
***								

Table 11 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 68, Base Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	FCC Class B (3 m)	
Frequency (MHz)	Amplitude (dBuV/m)	Ant. H. (m)	Table ( )	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
927.824	98.29	2.50	91	-19.35	78.94	94.00	-15.06
***							

***The other emissions are under more than limit 20dB.**

Note:

1. Margin = Corrected – Limit.
2. Peak Amplitude – Correction Factors = Corrected
3. Correction Factor = Antenna Factor + (Cable Loss – Amplitude Gain)

Table 12 Open Field Radiated Emissions for 1GHz ~ 18GHz [Channel 68, Base Vertical]

Radiated Emission				*Correction Factors*	*Distance*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (GHz)	*Amplitude (dBuV/m)*	*Ant. H. (cm)*	*Table ( )*	*(dB)*	*(dB)*	*. (dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
1.854	50.44	100.00	72	-8.67	0	41.77	54.00	-12.23
2.633	49.10	100.00	104	-8.67	0	40.43	54.00	-13.57
3.257	51.61	100.00	282	-6.84	0	44.77	54.00	-9.23
3.738	45.57	100.00	336	-5.64	0	39.93	54.00	-14.07
4.645	46.18	100.00	2	-3.91	0	42.27	54.00	-11.73
5.113	51.51	100.00	149	-3.91	0	47.60	54.00	-6.40
5.566	59.82	100.00	101	-9.72	0	50.10	54.00	-3.90
6.033	55.99	100.00	316	-9.72	0	46.27	54.00	-7.73
7.436	58.82	100.00	28	-9.72	0	49.10	54.00	-4.90
9.292	58.65	100.00	166	-9.72	0	48.93	54.00	-5.07
***								

Table 13 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Handset Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	FCC Class B (3 m)	
Frequency (MHz)	Amplitude (dBuV/m)	Ant. H. (m)	Table (°)	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
902.201	86.24	0.99	224	-20.64	65.60	94.00	-28.40
***							

***The other emissions are under more than limit 20dB.**

Table 14 Open Field Radiated Emissions For 1GHz ~ 18GHz [Channel 01, Handset Horizontal]

Radiated Emission				*Correction Factors*	*Distance*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (GHz)	*Amplitude (dBuV/m)*	*Ant. H. (cm)*	*Table ( )*	*(dB)*	*(dB)*	*. (dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
1.798	40.60	100.00	71	-8.67	0	31.93	54.00	-22.07
2.693	52.94	100.00	95	-8.67	0	44.27	54.00	-9.73
3.611	49.41	100.00	328	-5.64	0	43.77	54.00	-10.23
4.064	50.91	100.00	171	-5.64	0	45.27	54.00	-8.73
5.410	60.99	100.00	126	-9.72	0	51.27	54.00	-2.73
5.863	59.49	100.00	86	-9.72	0	49.77	54.00	-4.23
6.770	58.49	100.00	213	-9.72	0	48.77	54.00	-5.23
7.223	57.15	100.00	27	-9.72	0	47.43	54.00	-6.57
7.677	61.99	100.00	125	-9.72	0	52.27	54.00	-1.73
***								

Table 15 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 01, Handset Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	FCC Class B (3 m)	
Frequency (MHz)	Amplitude (dBuV/m)	Ant. H. (m)	Table ( )	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
902.201	95.80	0.99	293	-20.64	75.16	94.00	-18.84
***							

***The other emissions are under more than limit 20dB.**

Table 16 Open Field Radiated Emissions for 1GHz ~ 18GHz [Channel 01, Handset Vertical]

Radiated Emission				*Correction Factors*	*Distance*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (GHz)	*Amplitude (dBuV/m)*	*Ant. H. (cm)*	*Table ( )*	*(dB)*	*(dB)*	*. (dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
1.798	43.10	100.00	254	-8.67	0	34.43	54.00	-19.57
2.693	45.27	100.00	125	-8.67	0	36.60	54.00	-17.40
3.611	49.57	100.00	255	-5.64	0	43.93	54.00	-10.07
4.064	47.07	100.00	54	-5.64	0	41.43	54.00	-12.57
5.410	59.49	100.00	59	-9.72	0	49.77	54.00	-4.23
5.863	60.82	100.00	241	-9.72	0	51.10	54.00	-2.90
6.770	57.49	100.00	19	-9.72	0	47.77	54.00	-6.23
7.223	53.32	100.00	211	-9.72	0	43.60	54.00	-10.40
***								

Table 17 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 68, Handset Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	FCC Class B (3 m)	
Frequency (MHz)	Amplitude (dBuV/m)	Ant. H. (m)	Table (°)	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
903.876	86.92	0.99	66	-20.60	66.32	94.00	-27.68
***							

***The other emissions are under more than limit 20dB.**

Table 18 Open Field Radiated Emissions For 1GHz ~ 18GHz [Channel 68, Handset Horizontal]

Radiated Emission				Correction Factors	Distance	Corrected Amplitude	FCC Class B (3 m)	
Frequency (GHz)	Amplitude (dBuV/m)	Ant. H. (cm)	Table ( )	(dB)	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
2.704	45.44	100.00	43	-6.84	0	38.60	54.00	-15.40
3.625	54.91	100.00	193	-5.64	0	49.27	54.00	-4.73
4.078	49.07	100.00	318	-5.64	0	43.43	54.00	-10.57
4.991	51.51	100.00	176	-3.91	0	47.60	54.00	-6.40
5.424	61.49	100.00	263	-9.72	0	51.77	54.00	-2.23
5.878	56.15	100.00	258	-9.72	0	46.43	54.00	-7.57
6.331	59.15	100.00	17	-9.72	0	49.43	54.00	-4.57
6.784	57.65	100.00	39	-9.72	0	47.93	54.00	-6.07
7.691	61.65	100.00	358	-9.72	0	51.93	54.00	-2.07
***								

Table 19 Open Field Radiated Emissions for 30MHz ~ 1GHz [Channel 68, Handset Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	FCC Class B (3 m)	
Frequency (MHz)	Amplitude (dBuV/m)	Ant. H. (m)	Table ( )	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)
903.876	97.56	0.99	132	-20.60	76.96	94.00	-17.04
***							

***The other emissions are under more than limit 20dB.**

Table 20 Open Field Radiated Emissions for 1GHz ~ 18GHz [Channel 68, Handset Vertical]

Radiated Emission				*Correction Factors*	*Distance*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (GHz)	*Amplitude (dBuV/m)*	*Ant. H. (cm)*	*Table ( )*	*(dB)*	*(dB)*	*(dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
1.812	43.27	100.00	94	-8.67	0	34.60	54.00	-19.4
2.704	42.44	100.00	31	-6.84	0	35.60	54.00	-18.4
3.625	49.91	100.00	6	-5.64	0	44.27	54.00	-9.73
4.078	49.57	100.00	251	-5.64	0	43.93	54.00	-10.07
4.991	47.18	100.00	200	-3.91	0	43.27	54.00	-10.73
5.424	56.49	100.00	180	-9.72	0	46.77	54.00	-7.23
5.878	59.65	100.00	150	-9.72	0	49.93	54.00	-4.07
6.331	60.32	100.00	362	-9.72	0	50.60	54.00	-3.40
6.784	61.82	100.00	187	-9.72	0	52.10	54.00	-1.90
7.691	56.99	100.00	14	-9.72	0	47.27	54.00	-6.73
***								

IV. Verify Frequencies and Channels

	Handset(MHz	Base (MHz)		Handset(MHz	Base (MHz)		Handset(MHz	Base (MHz)
CH 1	926.150	902.200	CH24	926.725	902.775	CH47	927.300	903.350
CH 2	926.175	902.225	CH25	926.750	902.800	CH48	927.325	903.375
CH 3	926.200	902.250	CH26	926.775	902.825	CH49	927.350	903.400
CH 4	926.225	902.275	CH27	926.800	902.850	CH50	927.375	903.425
CH 5	926.250	902.300	CH28	926.825	902.875	CH51	927.400	903.450
CH 6	926.275	902.325	CH29	926.850	902.900	CH52	927.425	903.475
CH 7	926.300	902.350	CH30	926.870	902.925	CH53	927.450	903.500
CH 8	926.325	902.375	CH31	926.900	902.950	CH54	927.475	903.525
CH 9	926.350	902.400	CH32	926.925	902.975	CH55	927.500	903.550
CH10	926.375	902.425	CH33	926.950	903.000	CH56	927.525	903.575
CH11	926.400	902.450	CH34	926.975	903.025	CH57	927.550	903.600
CH12	926.425	902.475	CH35	927.000	903.050	CH58	927.575	903.625
CH13	926.450	902.500	CH36	927.025	903.075	CH59	927.600	903.650
CH14	926.475	902.525	CH37	927.050	903.100	CH60	927.625	903.675
CH15	926.500	902.550	CH38	927.075	903.125	CH61	927.650	903.700
CH16	926.525	902.575	CH39	927.100	903.150	CH62	927.675	903.725
CH17	926.550	902.600	CH40	927.125	903.175	CH63	927.700	903.750
CH18	926.575	902.625	CH41	927.150	903.200	CH64	927.725	903.775
CH19	926.600	902.650	CH42	927.175	903.225	CH65	927.750	903.800
CH20	926.625	902.675	CH43	927.200	903.250	CH66	927.775	903.825
CH21	926.650	902.700	CH44	927.225	903.275	CH67	927.800	903.850
CH22	926.675	902.725	CH45	927.250	903.300	CH68	927.825	903.875
CH23	926.700	902.750	CH46	927.275	903.325			

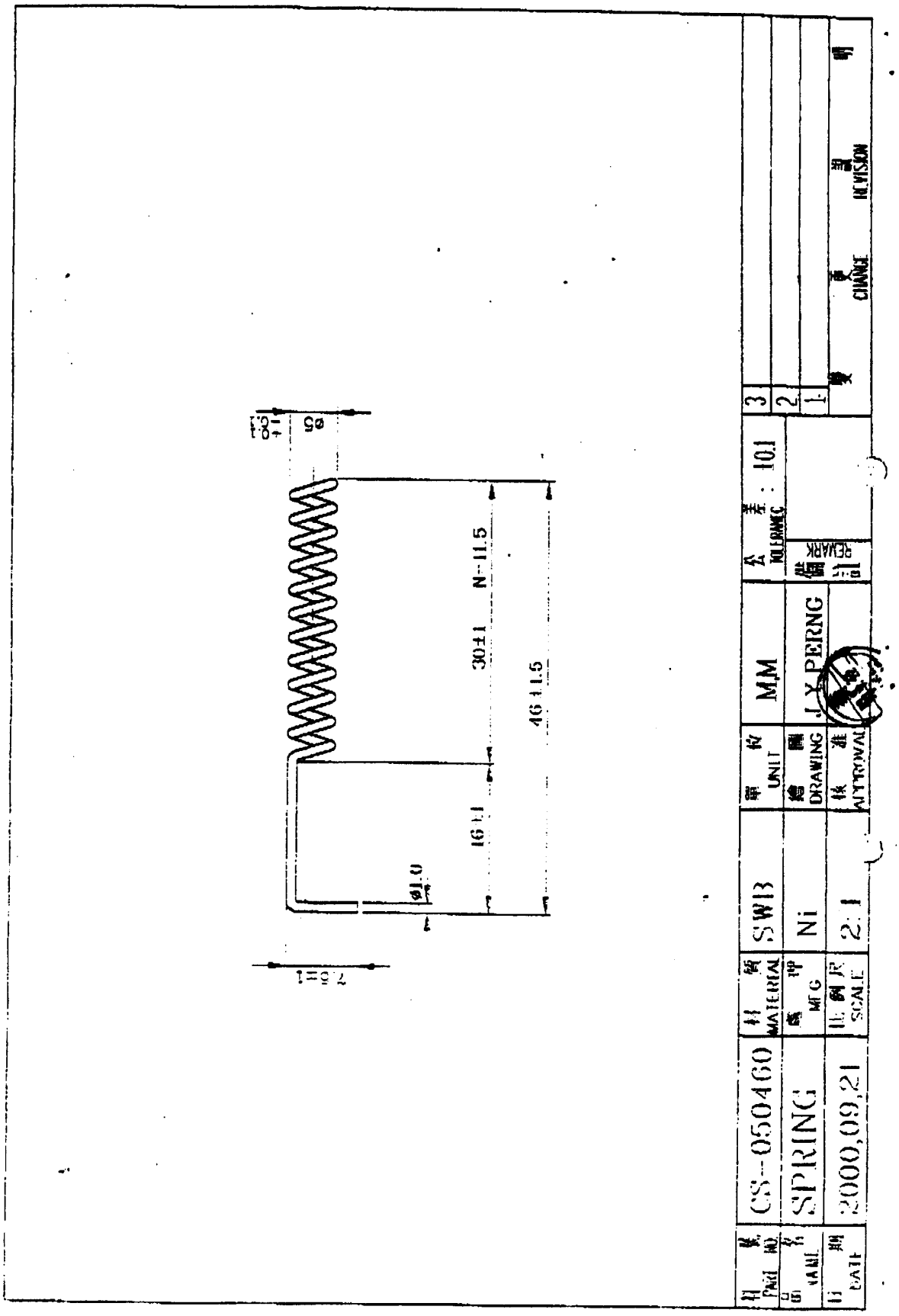
This is for sure that all frequencies are in 902 MHz to 928 MHz that verifies the frequency pairs as follow pages.

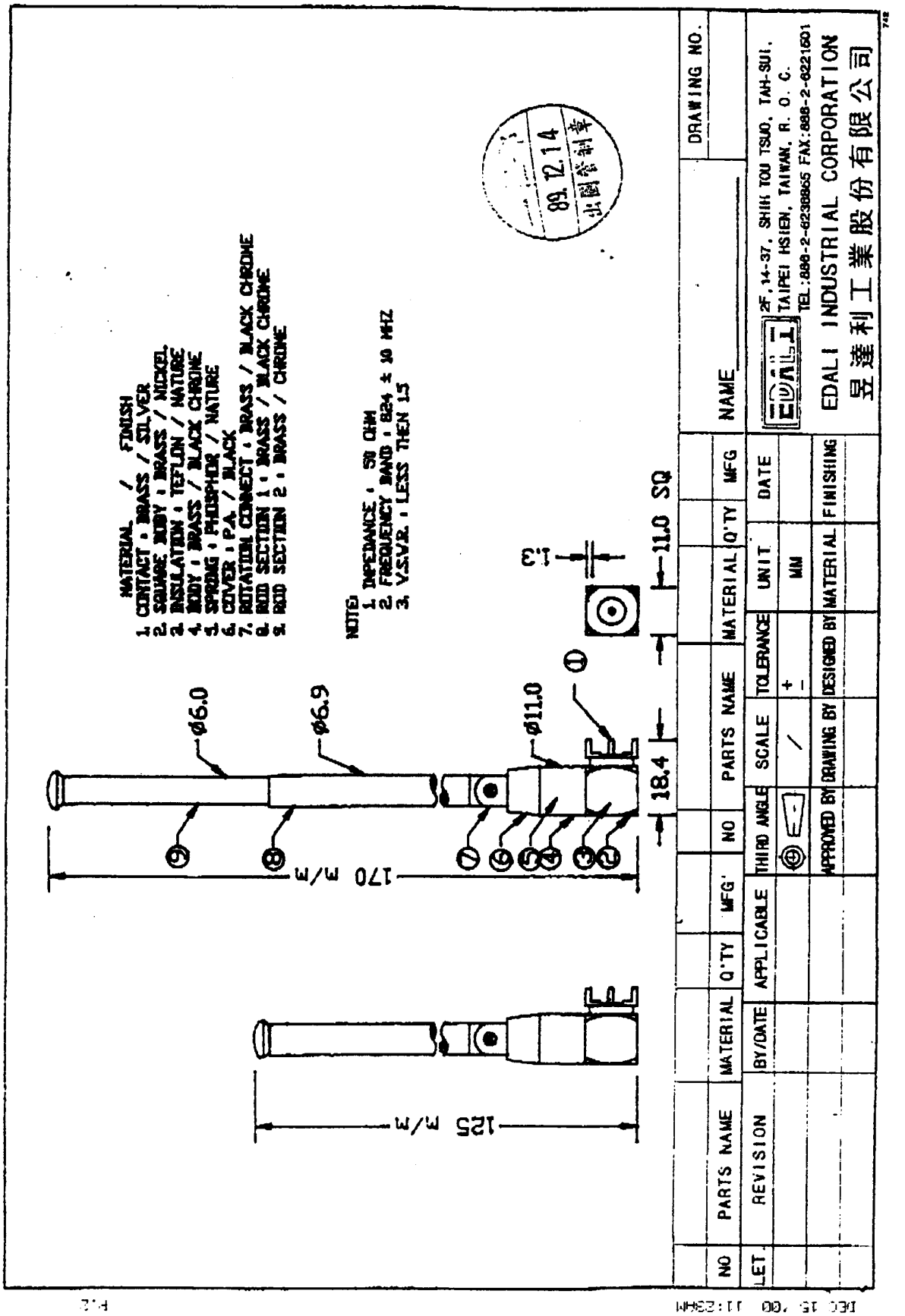
Section 15.214(d) <u>The security code is set automatic :</u>

Every time when you place the handset in the base, your cordless will randomly select one of 65,000 possible security codes.

Appendix A

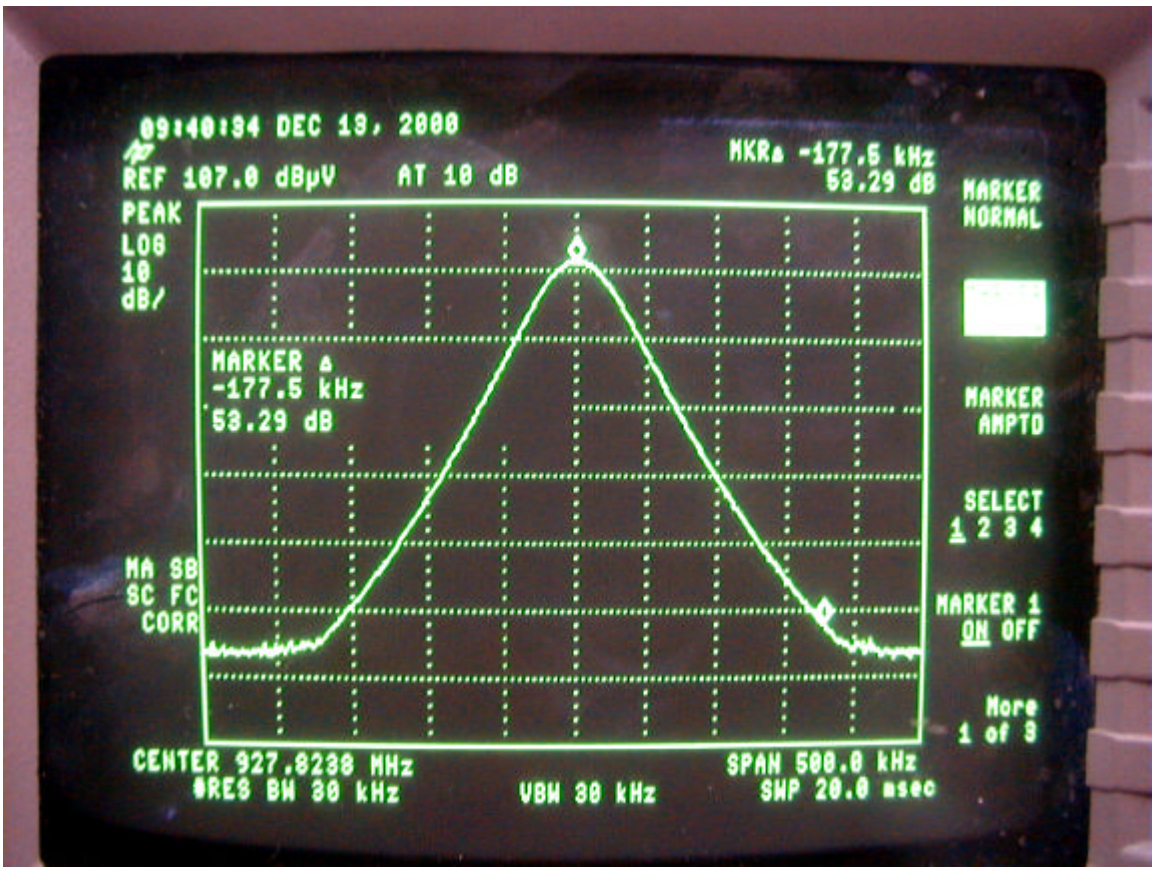
The antenna of the device is screwed inside the device, the user can not remove it freely without any tools from outside the device. This is comply with the FCC rules part 15.203

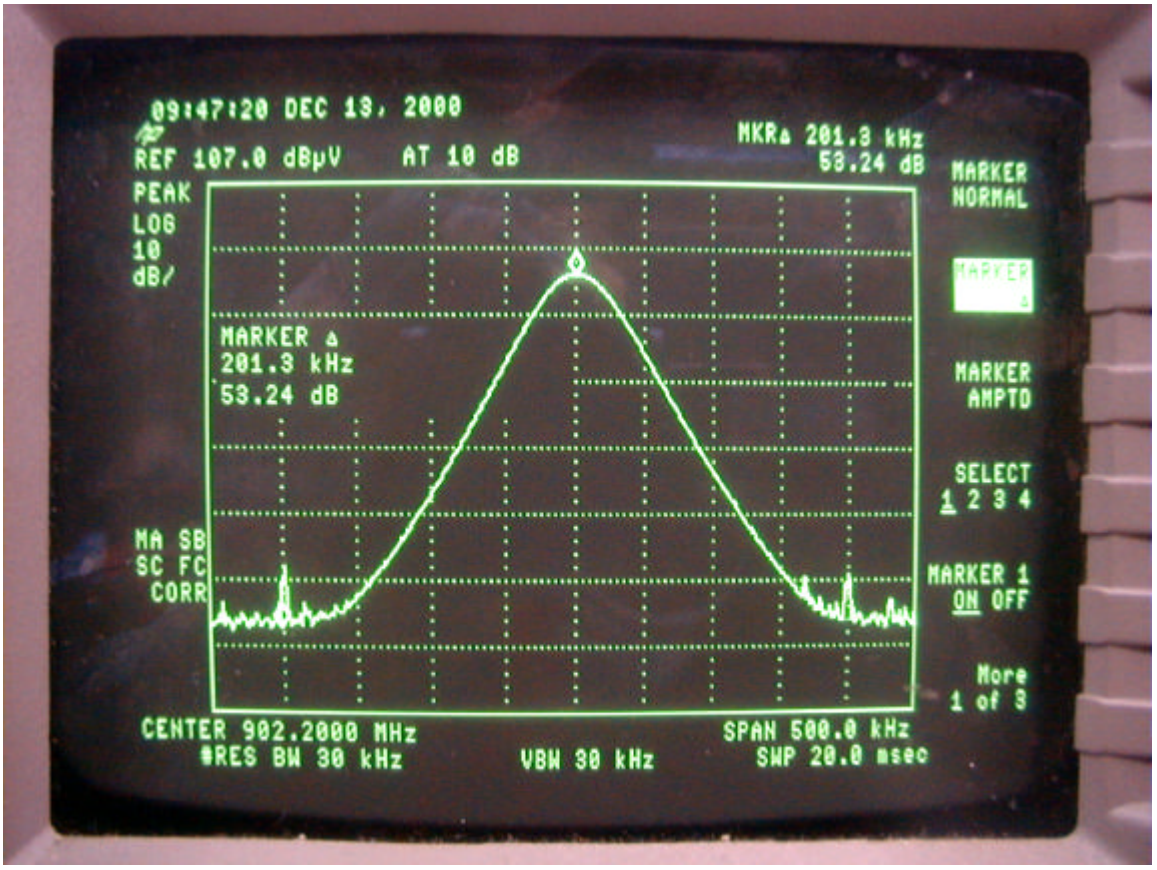

3
2
1
CHANGE
MM
J.Y.PERNG
SW13
Ni
2:1
CS--050460
SPRING
2000.09.21


MATERIAL / FINISH
1. CONTACT : BRASS / SILVER
2. SQUARE BODY : BRASS / NICKEL
3. INSULATION : TEFLON / NATURE
4. BODY : BRASS / BLACK CHROME
5. SPRING : PHOSPHOR / NATURE
6. COVER : P.A. / BLACK
7. ROTATION CONNECT : BRASS / BLACK CHROME
8. ROD SECTION 1 : BRASS / BLACK CHROME
9. ROD SECTION 2 : BRASS / CHROME
NOTE:
1. IMPEDANCE : 50 OHM
2. FREQUENCY BAND : 824 ± 10 MHZ
3. V.S.W.R. : LESS THEN 1.5
89.12.14
Ø6.0
Ø6.9
Ø11.0
11.0 SQ
18.4
170 M/M
125 M/M
DRAWING NO.
NAME
EDALI INDUSTRIAL CORPORATION
昱達利工業股份有限公司
2F, 14-37, SHIH TOU TSUO, TAH-SUI,
TAIPEI HSIEN, TAIWAN, R. O. C.
TEL:886-2-26368865 FAX:886-2-6221601
NO
PARTS NAME
REVISION
BY/DATE
MATERIAL
Q'TY
MFG'
APPLICABLE
THIRD ANGLE
SCALE
TOLERANCE
UNIT
DATE
MFG
MATERIAL
Q'TY
NO
PARTS NAME
APPROVED BY
DRAWING BY
DESIGNED BY
MATERIAL
FINISHING

Appendix B

§ 15.245 (b)(3) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.


09:40:34 DEC 13, 2000
REF 107.0 dBµV
AT 10 dB
MKRΔ -177.5 kHz
53.29 dB
PEAK
LOG
10
dB/
MARKER Δ
-177.5 kHz
53.29 dB
MARKER
NORMAL
MARKER
AMPTD
SELECT
1 2 3 4
MARKER 1
ON OFF
More
1 of 3
MA SB
SC FC
CORR
CENTER 927.8238 MHz
#RES BW 30 kHz
VBW 30 kHz
SPAN 500.0 kHz
SWP 20.0 msec


09:47:20 DEC 13, 2000
REF 107.0 dBµV
AT 10 dB
MKRΔ 201.3 kHz
53.24 dB
PEAK
LOG
10
dB/
MARKER Δ
201.3 kHz
53.24 dB
MARKER
NORMAL
MARKER
AMPTD
SELECT
1 2 3 4
MARKER 1
ON OFF
More
1 of 3
MA SB
SC FC
CORR
CENTER 902.2000 MHz
#RES BW 30 kHz
VBW 30 kHz
SPAN 500.0 kHz
SWP 20.0 msec