

Hong Kong Standards and Testing Centre

No.: HM155921

Applicant: J P Products Co., Ltd.

Rm 1303 Grandmark, No. 8A-10 Granville Road,

Tsimshatsui, Kowloon, Hong Kong

Description of Samples: Model name: Walkie Talkie

Model no.: SVDJP-83412

Brand name: N/A

FCC ID: SVDJP-83412

Date Samples Received: 2006-01-24

Date Tested: 2006-01-26

Investigation Requested: FCC Part 15 Subpart C

Conclusions: The submitted product <u>COMPLIED</u> with the

requirements of Federal Communications Commission [FCC] Rules and Regulations Part 15. The tests were performed in accordance with the standards described above and on

Section 2.2 in this Test Report.

Remarks: ----

LEE Kam Chuen, EMD
For and on behalf of

The Hong Kong Standards and Testing Centre Ltd.

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香港新界大埔工業村大宏街 10 號



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1.0 General Details

1.1 Test Laboratory

The Hong Kong Standards and Testing Centre Ltd. EMC Laboratory 10 Dai Wang Street, Taipo Industrial Estate New Territories, Hong Kong

Telephone: 852 2666 1888 Fax: 852 2664 4353

1.2 Applicant Details Applicant

J P Products Co., Ltd. Rm 1303 Grandmark, No. 8A-10 Granville Road, Tsimshatsui, Kowloon, Hong Kong

Manufacturer

J P Products Co., Ltd. Rm 1303 Grandmark, No. 8A-10 Granville Road, Tsimshatsui, Kowloon, Hong Kong



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1.3 Equipment Under Test [EUT] Description of Sample

Model Name: Walkie Talkie

Manufacturer: J P Products Co., Ltd.

Brand Name: N/A

Model Number: SVDJP-83412

Band Combination: FM

Input Voltage: 6Vd.c ("AG13" battery x 4)

1.3.1 Description of EUT Operation

The Equipment Under Test (EUT) is a J P Products Co., Ltd., Walkie Talkie. The transmitter is a 1 button transmitter. The EUT continues to transmit while button is being pressed. It is voice transmission, Modulation by microphone, and type is amplitude modulation.

1.4 Date of Order

2006-01-24

1.5 Submitted Sample(s):

1 Sample per model

1.6 Test Duration

2006-01-26

1.7 Country of Origin

China



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2.0 Technical Details

2.1 Investigations Requested

Perform ElectroMagnetic Interference measurement in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15: 2005 and ANSI C63.4:2003 for FCC Certification.

2.2 Test Standards and Results Summary Tables

EMISSION Results Summary						
Test Condition	Test Requirement	Test Method	Class /	Te	est Result	!
			Severity	Pass	Failed	N/A
Field Strength of Fundamental Emissions & Spurious Emissions	FCC 47CFR 15.235	ANSI C63.4:2003	N/A	\boxtimes		
Radiated Emissions, 30MHz to 1GHz	FCC 47CFR 15.209	ANSI C63.4:2003	N/A	\boxtimes		Ü.
Conducted Emissions on AC, 0.15MHz to 30MHz	FCC 47CFR 15.207	ANSI C63.4:2003	N/A			\boxtimes

Note: N/A - Not Applicable



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3.0 Test Results

3.1 Emission

3.1.1 Radiated Emissions (30 – 1000MHz)

Test Requirement: FCC 47CFR 15.209
Test Method: ANSI C63.4:2003
Test Date: 2006-01-26

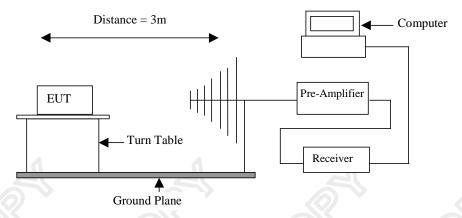
Mode of Operation: FM Mode, Tx Mode & Rx Mode

Test Method:

The sample was placed 0.8m above the ground plane on a standard radiated emission test site. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

*: On a standard radiated emission test site located at HKSTC with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules, with Registration Number: 90657 / 607756.

Test Setup:





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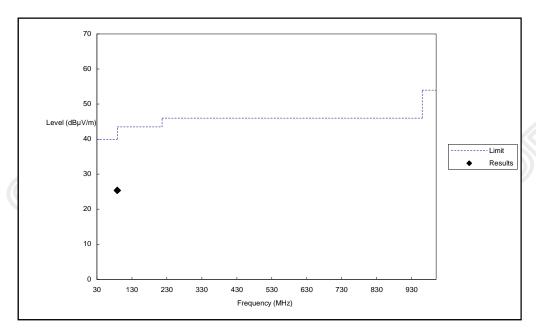
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Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:

Frequency Range	Quasi-Peak Limits		
[MHz]	[µV/m]		
30-88	100		
88-216	150		
216-960	200		
Above960	500		

The emission limits shown in the above table are based on measurement employing a CISPR quasipeak detector and above 1000MHz are based on measurements employing an average detector.

Results of FM Mode: PASS



Radiated Emissions Quasi-Peak						
Turned	Turned Emission Measured Limit Measured Limit E-Field					
Frequency	Frequency	Level @3m	@3m	Level @3m	@3m	Polarity
MHz	MHz	dΒμV/m	dBµV/m	μV/m	μV/m	
88	88	25.4	43.5	18.6	150	Vertical

Remark:



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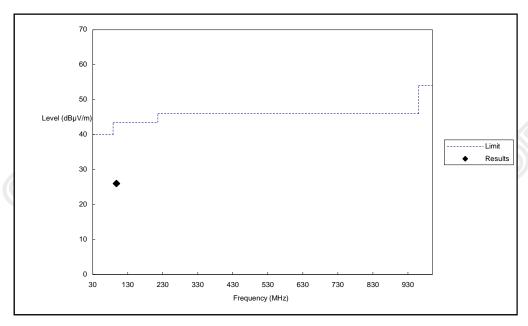
No.: HM155921

Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:

Frequency Range	Quasi-Peak Limits		
[MHz]	[µV/m]		
30-88	100		
88-216	150		
216-960	200		
Above960	500		

The emission limits shown in the above table are based on measurement employing a CISPR quasipeak detector and above 1000MHz are based on measurements employing an average detector.

Results of FM Mode: PASS



	Radiated Emissions Quasi-Peak					
Turned	7,000 1 7,000					
Frequency	Frequency	Level @3m		Level @3m		Polarity
MHz	MHz	dBµV/m	dBµV/m	μV/m	μV/m	
98	98	26	43.5	20.0	150	Vertical

Remark:



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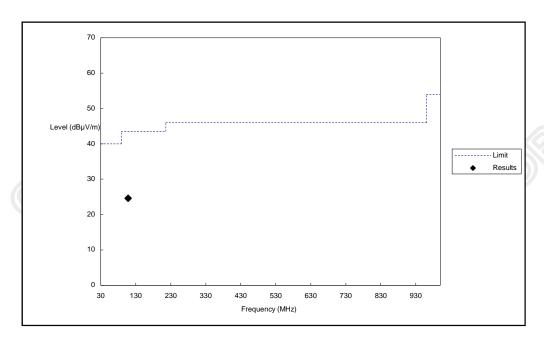
No.: HM155921

Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:

Frequency Range	Quasi-Peak Limits		
[MHz]	[µV/m]		
30-88	100		
88-216	150		
216-960	200		
Above960	500		

The emission limits shown in the above table are based on measurement employing a CISPR quasipeak detector and above 1000MHz are based on measurements employing an average detector.

Results of FM Mode: PASS



Radiated Emissions Quasi-Peak						
Turned	Emission	Measured	Limit	Measured	Limit	E-Field
Frequency	Frequency	Level @3m	@3m	Level @3m	@3m	Polarity
MHz	MHz	dBµV/m	dBµV/m	μV/m	μV/m	
108	108	24.6	43.5	17.0	150	Vertical

Remark:



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Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.235]:

Frequency Range of	Field Strength of	Field Strength of
Fundamental	Fundamental Emission	Fundamental Emission
	[Peak]	[Average]
[MHz]	[μV/m]	[μV/m]
49.82-49.90	100.000	10.000

Results of Transmitter Mode: PASS

Field Strength of Fundamental Emissions Peak Value						
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field
	Level @3m	Factor	Strength	Strength		Polarity
MHz	dΒμV	dB/m	dBμV/m	μV/m	μV/m	-
49.86	29.5	9.4	38.9	88.1	100,000	Vertical

Field Strength of Fundamental Emissions Average						
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field
	Level @3m	Factor	Strength	Strength		Polarity
MHz	dΒμV	dB/m	dBµV/m	μV/m	μV/m	
49.86	29.3	9.4	38.7	86.1	10,000	Vertical

Remarks:

According to FCC 47CFR15.35, the limit on the radio frequency emissions as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

For effective averaging, the bandwidth of the video filter must be smaller than the resolution bandwidth. The higher the ratio of resolution bandwidth to video bandwidth, the greater the averaging will be recorded. Below setting for HP8572A EMI Receiver.

Resolution Bandwidth =3MHz Video Bandwidth =1Hz

Correction Factor includes Antenna Factor and Cable Attenuation.



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Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range	Quasi-Peak Limits		
[MHz]	[µV/m]		
30-88	100		
88-216	150		
216-960	200		
Above960	500		

The emission limits shown in the above table are based on measurement employing a CISPR quasipeak detector and above 1000MHz are based on measurements employing an average detector.

Results of Transmitter Mode: PASS

Radiated Emissions Quasi-Peak						
Frequency	Measured	Correction Field		Field	Limit @3m	E-Field
	Level @3m	Factor	Strength	Strength	4	Polarity
MHz	dΒμV	dB/m	dBµV/m	μV/m	μV/m	-
99.72	< 1.0	11.0	< 12.0	< 4.0	150	Vertical
149.58	< 1.0	9.8	< 10.8	< 3.5	150	Vertical
199.44	< 1.0	11.5	< 12.5	< 4.2	150	Vertical
249.30	< 1.0	15.9	< 16.9	< 7.0	200	Vertical
299.16	< 1.0	16.9	< 17.9	< 7.9	200	Vertical
349.02	< 1.0	17.2	< 18.2	< 8.1	200	Vertical
398.88	< 1.0	18.8	< 19.8	< 9.8	200	Vertical
448.74	< 1.0	19.7	< 20.7	< 10.8	200	Vertical
498.60	< 1.0	20.6	< 21.6	< 12.0	200	Vertical

Remarks:

Correction Factor includes Antenna Factor and Cable Attenuation.



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Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]		
30-88	100		
88-216	150		
216-960	200		
Above960	500		

The emission limits shown in the above table are based on measurement employing a CISPR quasipeak detector and above 1000MHz are based on measurements employing an average detector.

Results of Receiver Mode: PASS

Radiated Emissions Quasi-Peak						
Emission	E-Field	Level	Limit	Level @3m	Limit	
Frequency	Polarity	@3m	@3m	@3m	@3m	
MHz		dBµV/m	dBµV/m	μV/m	μV/m	
277.7	Horizontal	40.6	46	107.2	200	



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3.1.1 Conducted Emissions (0.15MHz to 30MHz)

Test Requirement: FCC 47CFR 15.207
Test Method: ANSI C63.4:2003

Test Date: N/A Mode of Operation: N/A

Results: N/A

The EUT is operated by a single source of internal battery power [located in the battery compartment], therefore power line conducted emission was deemed unnecessary.

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3.2 26dB Bandwidth of Fundamental Emission

Test Requirement: FCC 47 CFR 15.235

Test Method: ANSI C63.4:2003 (Section 13.1.7)

Test Date: 2006-01-26 Mode of Operation: On mode

Test Method:

The bandwidth is measured at an amplitude level reduced from the reference level by a specified ratio. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

Test Setup:

As Test Setup of clause 3.1.1 in this test report.



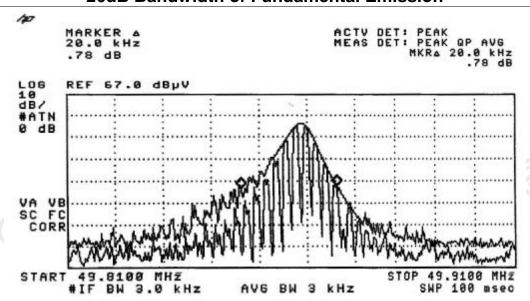
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Limits for 26dB Bandwidth of Fundamental Emission:

Frequency Range	26dB Bandwidth	FCC Limits
[MHz]	[KHz]	[MHz]
49.86	20.0	within 49.82-49.90

26dB Bandwidth of Fundamental Emission





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Appendix A

List of Measurement Equipment

Radiated Emission

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL
EM007	SPECTRUM ANALYZER	HEWLETT PACKARD	HP85660B	3144A21192	27/06/05
EM008	SPECTRUM ANALYZER DISPLAY	HEWLETT PACKARD	HP85662A	3144A20514	27/06/05
EM009	QUASI PEAK ADAPTOR	HEWLETT PACKARD	HP85650A	3303A01702	27/06/05
EM010	RF PRESELECTOR	HEWLETT PACKARD	HP85685A	3221A01410	27/06/05
EM011	ATTENUATOR/SWITCH	HEWLETT PACKARD	HP11713A	2508A10595	27/06/05
EM012	PRE-AMPLIFIER	HEWLETT PACKARD	HP8449B	3008A00262	27/06/05
EM013	CONTROLLER (COMPUTER), COLOR MONITOR, KEYBOARD , MOUSE & FLOPPY DRIVE	HEWLETT PACKARD	HP9000 HP A1097C HP9133L	6226A60314 3151J39517 2623A02468	N/A
EM020	HORN ANTENNA	ETS-Linggren	3115	4032	30/07/03
EM022	LOOP ANTENNA	ETS-Linggren	6502	1189-2424	19/09/03
EM072	SIGNAL GENERATOR	HEWLETT PACKARD	8640B	1948A11892	N/A
EM083	OPEN AREA TEST SITE	HKSTC	N/A	N/A	08/02/03
EM131	EMC ANALYZER	HEWLETT PACKARD	8595EM	3710A00155	13/01/04
EM145	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESCS 30	830245/021	04/10/04
EM195	ANTENNA POSITIONING MAST	ETS-Linggren	2075	2368	N/A
EM196	MULTI-DEVICE CONTROLLER	ETS-Linggren	2090	1662	N/A
EM215	MULTIDEVICE CONTROLER	ETS-Linggren	2090	00024676	N/A
EM216	MINI MAST SYSTEM	ETS-Linggren	2075	00026842	N/A
EM217	ELECTRIC POWERED TURNTABLE	ETS-Linggren	2088	00029144	N/A
EM218	ANECHOIC CHAMBER	ETS-Linggren	FACT-3		19/03/04
EM219	BICONILOG ANTENNA	ETS-Linggren	3142C	00029071	28/10/03

Line Conducted

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL
EM078	VARIAC	SHANGHAI VOLTAGE	TDGC-3/0.5	N/A	CM
EM081	SMALL SCREENED ROOM	MIKO INST HK	N/A	N/A	27/01/05
EM119	LISN	ROHDE & SCHWARZ	ESH3-Z5	0831.5518.52	14/10/04
EM127	ISOLATION TRANSFORMER 220 TO 300V	WING SUN	N/A	N/A	CM
EM142	PULSE LIMITER	ROHDE & SCHWARZ	ESH3Z2	357.8810.52	04/08/04
EM181	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESIB7	100072	06/01/04
EM154	SHIELDING ROOM	SIEMENA MATSUSHITA COMPONENTS	N/A	803-740-057- 99A	27/01/05
EM197	LISN	ETS-Linggren	4825/2	1193	27/06/05
EM213	DIGITAL POWER METER	VICNOBL	VIP120	00277	14/09/04

Remarks:-

CM Corrective Maintenance N/A Not Applicable or Not Available

TBD To Be Determined



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Appendix B

Photographs of EUT

Front View of the product



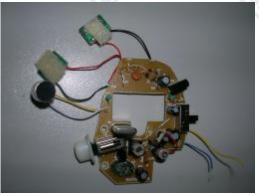
Rear View of the product



Inner Circuit Top View



Inner Circuit Bottom View

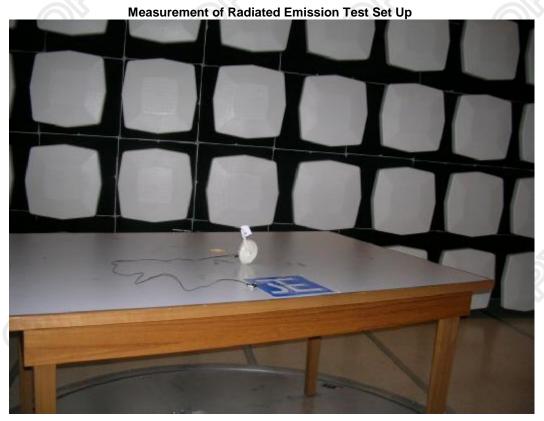




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Photographs of EUT



**** End of Test Report ****