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No.: HM156814

Applicant: ACCO Brands, Inc.

333 Twin Dolphin Drive, 6th Floor, Redwood Shores, CA

United States of America, 94065

Description of Samples: Model name: Kensington RDS FM Transmitter/Car

Charger

Model no.: K33364

Brand name: ACCO Brands, Inc.

FCC ID: GV333364

Date Samples Received: 2006-06-12

Date Tested: 2006-06-19 to 2006-06-21

FCC Part 15 Subpart C **Investigation Requested:**

The submitted product COMPLIED with the requirements of Conclusions:

> 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:

TSANG Chi Ho, EMD For and on behalf of

The Hong Kong Standards and Testing Centre Ltd.



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Appendix A

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Appendix B

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The Hong Kong Standards and Testing Centre Ltd. 10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong
Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: www.hkstc.org E-mail: hkstc@hkstc.org



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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

ACCO Brands, Inc.
333 Twin Dolphin Drive, 6th Floor, Redwood Shores, CA,
United States of America, 94065

Manufacturer

Shenzhen Synchron Electronics Co., Ltd. No. 9, Mei Lin Road, Xia Mei Lin, Fu Tian Area, Shenzhen, China



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1.3 Equipment Under Test [EUT] Description of Sample

Model Name: Kensington RDS FM Transmitter/Car Charger Manufacturer: Shenzhen Synchron Electronics Co., Ltd.

Brand Name: ACCO Brands, Inc.

Model Number: K33364

Input Voltage: 12Vd.c. car battery

1.3.1 Description of EUT Operation

The Equipment Under Test (EUT) is an ACCO Brands, Inc., Kensington RDS FM Transmitter/Car Charger. It is trigger transmitter, modulation by audio input and type is frequency modulation.

1.4 Date of Order

2006-06-12

1.5 Submitted Sample(s):

1 Sample per model

1.6 Test Duration

2006-06-19 to 2006-06-21

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 15.239	ANSI C63.4:2003	N/A	\boxtimes							
Radiated Emissions, 30MHz to 1GHz	FCC 47CFR 15.209	ANSI C63.4:2003	Class B								
Conducted Emissions on AC, 0.15MHz to 30MHz	FCC 47CFR 15.207	ANSI C63.4:2003	Class B			\boxtimes					

Note: N/A - Not Applicable



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3.0 Test Results

3.1 Emission

3.1.1 Radiated Emissions (30 - 1000MHz)

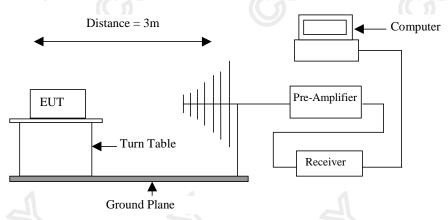
Test Requirement: FCC 47CFR 15.239
Test Method: ANSI C63.4:2003
Test Date: 2006-06-21
Mode of Operation: Tx mode

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 or 607756.

Test Setup:



The Hong Kong Standards and Testing Centre Ltd.

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: www.hkstc.org E-mail: hkstc@hkstc.org



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Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.239]:

Frequency Range of Fundamental	Peak Limits	Average Limits
[MHz]	[μV/m]	[μV/m]
88-108	2,500	250

Results of Tx mode: PASS

	Field Strength of Fundamental Emissions Peak Value										
Frequency	ency Measured Correction Field Field Limit @3m										
	Level @3m	Factor	Strength	Strength		Polarity					
MHz	dΒμV	dB/m	dBµV/m	μV/m	μV/m						
88.10	24.60	8.9	33.5	47.3	2,500	Horizontal					

	Field Strength of Fundamental Emissions										
	Average Value										
Frequency	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						
88.10	24.50	8.9	33.4	46.8	250	Horizontal					

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB

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.



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

Frequency Range [MHz]	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 quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Results of Tx mode: PASS

	Radiated Emissions										
	Quasi-Peak										
Frequency	Me	easured	Correction		Field		Field	Limit @3m	E-Field		
	Lev	/el @3m	Factor	s	trength	S	trength		Polarity		
MHz	C	ďΒμV	dB/m	d	BµV/m		μV/m	μV/m			
176.20	<	1.0	10.9	<	11.9	<	3.9	150	Vertical		
264.30	<	1.0	14.0	<	15.0	<	5.6	200	Vertical		
352.40	<	1.0	17.5	<	18.5	<	8.4	200	Vertical		
440.50	<	1.0	10.2	<	11.2	<	3.6	200	Vertical		
528.60	<	1.0	11.9	<	12.9	<	4.4	200	Vertical		
616.70	<	1.0	12.4	<	13.4	<	4.7	200	Vertical		
704.80	<	1.0	13.2	<	14.2	<	5.1	200	Vertical		
792.90	<	1.0	15.0	<	16.0	<	6.3	200	Vertical		
881.00	<	1.0	16.1	<	17.1	<	7.2	200	Vertical		

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB



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Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.239]:

Frequency Range of Fundamental	Peak Limits	Average Limits
[MHz]	[μV/m]	[μV/m]
88-108	2,500	250

Results of Tx mode: PASS

Field Strength of Fundamental Emissions Peak Value										
Frequency	ency Measured Correction Field Field Limit @3m E-									
	Level @3m	Factor	Strength	Strength		Polarity				
MHz	dΒμV	dB/m	dBµV/m	μV/m	μV/m					
98.30	30.80	9.5	40.3	103.5	2,500	Horizontal				

	Field Strength of Fundamental Emissions										
	Average Value										
Frequency	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						
98.30	30.70	9.5	40.2	102.3	250	Horizontal					

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB

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.



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

Frequency Range [MHz]	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 quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Results of Tx mode: PASS

	Radiated Emissions									
Frequency Measured Correction Field Field Limit @3m E-Field										
' '	Lev	el @3m	Factor	s	trength	s	trength		Polarity	
MHz	C	lΒμV	dB/m	d	BµV/m		μV/m	μV/m	-	
196.60	<	1.0	11.3	<	12.3	<	4.1	150	Vertical	
294.90	<	1.0	14.8	<	15.8	<	6.2	200	Vertical	
393.20	<	1.0	18.4	<	19.4	<	9.3	200	Vertical _	
491.50	<	1.0	10.2	<	11.2	<	3.6	200	Vertical	
589.80	<	1.0	11.9	<	12.9	<	4.4	200	Vertical	
688.10	<	1.0	12.4	<	13.4	<	4.7	200	Vertical	
786.40	<	1.0	13.2	<	14.2	<	5.1	200	Vertical	
884.70	<	1.0	15.0	<	16.0	<	6.3	200	Vertical	
983.00	<	1.0	16.1	<	17.1	<	7.2	200	Vertical	

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB



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Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.239]:

Frequency Range of Fundamental	Peak Limits	Average Limits
[MHz]	[μV/m]	[μV/m]
88-108	2,500	250

Results of Tx 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	
107.90	32.40	9.2	41.6	120.2	2,500	Horizontal

Field Strength of Fundamental Emissions								
	Average 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			
107.90	32.30	9.2	41.5	118.9	250	Horizontal		

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB

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.



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

Frequency Range [MHz]	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 quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Results of Tx mode: PASS

Radiated Emissions									
	Quasi-Peak								
Frequency	Me	easured	Correction		Field		Field	Limit @3m	E-Field
	Lev	/el @3m	Factor	s	trength	S	trength		Polarity
MHz	C	dΒμV	dB/m	d	BµV/m		μV/m	μV/m	-
215.80	<	1.0	12.2	<	13.2	<	4.6	150	Vertical
323.70	<	1.0	16.3	<	17.3	<	7.3	200	Vertical
431.60	<	1.0	18.7	<	19.7	<	9.7	200	Vertical
539.50	<	1.0	10.2	<	11.2	<	3.6	200	Vertical
647.40	<	1.0	11.9	<	12.9	<	4.4	200	Vertical
755.30	<	1.0	12.4	<	13.4	<	4.7	200	Vertical
863.20	<	1.0	13.2	<	14.2	<	5.1	200	Vertical
971.10	<	1.0	15.0	<	16.0	<	6.3	200	Vertical
1079.00	<	1.0	16.1	<	17.1	<	7.2	200	Vertical

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB



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3.1.2 Conducted Emissions (0.15MHz to 30MHz)

Test Requirement: FCC 47CFR 15.207 Test Method: FCC 47CFR 15.207 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 car battery power, therefore power line conducted emission was deemed unnecessary.



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3.2 20B Bandwidth of Fundamental Emission

Test Requirement: FCC 47 CFR 15.227

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

Test Date: 2006-06-19 Mode of Operation: Tx 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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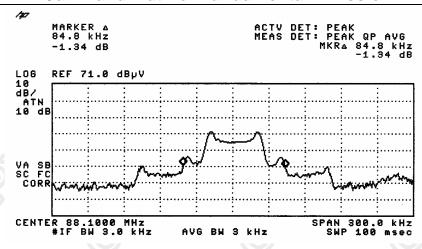
Limits for 20dB Bandwidth of Fundamental Emission:

Frequency Range	20dB Bandwidth	FCC Limits
[MHz]	[kHz]	[kHz]
88.1	84.8	200

Result:

The following figure is the measured bandwidth of Fundamental Emission.

20dB Bandwidth of Fundamental Emission





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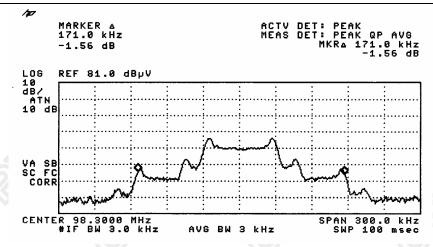
Limits for 20dB Bandwidth of Fundamental Emission:

Frequency Range	20dB Bandwidth	FCC Limits
[MHz]	[kHz]	[kHz]
98.3	171.0	200

Result:

The following figure is the measured bandwidth of Fundamental Emission.

20dB Bandwidth of Fundamental Emission





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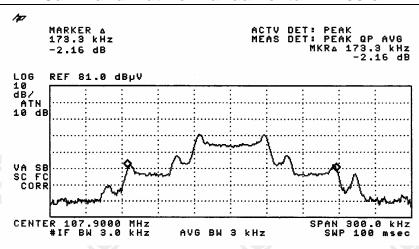
Limits for 20dB Bandwidth of Fundamental Emission:

Frequency Range	20dB Bandwidth	FCC Limits
[MHz]	[kHz]	[kHz]
107.9	173.3	200

Result:

The following figure is the measured bandwidth of Fundamental Emission.

20dB 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
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	08/12/05
EM131	EMC ANALYZER	HEWLETT PACKARD	8595EM	3710A00155	14/03/06
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	01/02/06
EM229	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESIB40	100248	04/02/05

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	12/01/06
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
EM233	PULSE LIMITER	ROHDE & SCHWARZ	ESH3-Z2	100314	09/01/06
EM181	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESIB7	100072	17/03/06
EM154	SHIELDING ROOM	SIEMENA MATSUSHITA COMPONENTS	N/A	803-740-057- 99A	12/01/06
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



Front View of the product



Rear View of the product



The Hong Kong Standards and Testing Centre Ltd.

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Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: www.hkstc.org E-mail: hkstc@hkstc.org



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Photographs of EUT

Measurement of Radiated Emission Test Set Up

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

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