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District, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Report No.: SZEM140300127701

Fax: +86 (0) 755 2671 0594 Page : 1 of 16

FCC REPORT

Application No.: SZEM1403001277RF

Applicant: Philips Consumer Lifestyle
Manufacturer: IDT Technology limited
Factory: IDT Technology limited
Product Name: Personal Activity Monitor

Model No.(EUT): DL8725

Add Model No.: DL8725/XX ("X" can be A-Z or 0-9)

Trade Mark: Philips

FCC ID: BOUDL8725

Standards: 47 CFR Part 15B (2013)

 Date of Receipt:
 2014-03-31

 Date of Test:
 2014-04-11

 Date of Issue:
 2014-05-04

Test Result: PASS *

Authorized Signature:



Jack Zhang EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

^{*} In the configuration tested, the EUT complied with the standards specified above.



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2 Test Summary

Test Item	Test Requirement	Test method	Result	
Radiated Emission	Radiated Emission 47 CFR Part 15B		PASS	
Conducted Emission	47 CED Dort 15D	ANCL C62 4 (2000)	PASS	
(150kHz to 30MHz)	47 CFR Part 15B	ANSI C63.4 (2009)		

Remark:

Model No.: DL8725, DL8725/XX ("X" can be A-Z or 0-9)

Only the model DL8725 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for all above models. Only different on exterior printing.



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4 General Information

4.1 Client Information

Applicant:	Philips Consumer Lifestyle
Address of Applicant:	5/F., Philips Electronics Building, 5 Science Park East Avenue, Hong Kong
Manufacturer:	IDT Technology limited
Address of Manufacturer:	Block C, 9/F., Kaiser Estate, Phase 1, 41Man YueStreet, Hunghom, Kowloon, Hong Kong.
Factory:	IDT Technology limited
Address of Factory:	Chentian industrial Estate Xixiang, BaoAn, ShenZhen, PRC

4.2 General Description of EUT

Name:	Personal Activity Monitor
Model No.:	DL8725, DL8725/XX ("X" can be A-Z or 0-9)
Trade Mark:	Philips
Sample Type:	Portable production
The Highest Frequency:	24MHz
Antenna Type:	Integral
Power Supply:	USB port (during PC connected)
Test Voltage:	DC 5V from USB
USB Cable:	10cm (Unshield)

4.3 Test Environment and Mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	50 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
PC connection mode:	Build the connection between EUT and PC, keep data transmit.



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4.4 Description of Support Units

Supporting equipments:

Description	Manufacturer	Model No.	Serial No.	Data Cable	Power Cable
Personal Computer	IBM	8172	L3L0361	N/A	1.5m
Personal Computer	IBM	8172	L3N7632	N/A	1.5m
Monitor	DELL	SP2208WFPt	DT09068168FB	VGA	1.5m
Monitor	IBM	6737-66N/A	E173Fb	N/A	1.5m
Printer	Canon	BJC-1000SP	000812	LPT	1.8m
Universal Programmer	HengTong ELECTRON	HT4000	SEL0038	COM	1.5m (DC)
Keyboard	Lenovo	SK-8115	09779673	USB ²⁾	N/A
Mouse	Lenovo	MO28UOL	23-049011	USB ³⁾	N/A-

Note: For the cable detail please refer to below table.

Cables:

#	Туре	Length, m	Shield	Metallic hood	Ferrite
1	VGA	1.8	Yes	No	Yes
2	LPT	1.8	Yes	No	No
3	COM	1.5	Yes	No	No
4	USB ¹⁾	1.5	Yes	No	No
5	USB ²⁾	1.8	Yes	No	No

Software:

Description	Manufacturer	Software name	Version no.
USB Driver	Microsoft	USB Input Device Driver	6.1.7601.17514
Test software	Test software Philips Consumer Lifestyle		6.0.21.17831

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab, No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, Chin. 518057

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.



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4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

VCCI

The 3m Semi-anechoic chamber, Full-anechoic Chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197, G-416, T-1153 and C-2383 respectively.

FCC – Registration No.: 556682

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

Industry Canada (IC)

Two 3m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1 & 4620C-2.

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.

4.9 Other Information Requested by the Customer

None.



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4.10Equipment List

	RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)		
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2014-06-10		
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2014-05-16		
3	EMI Test software	AUDIX	E3	SEL0050	N/A		
4	Coaxial cable	SGS	N/A	SEL0027	2014-05-29		
5	Coaxial cable	SGS	N/A	SEL0189	2014-05-29		
6	Coaxial cable	SGS	N/A	SEL0121	2014-05-29		
7	Coaxial cable	SGS	N/A	SEL0178	2014-05-29		
8	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2014-10-24		
9	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2014-10-24		
10	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2014-05-16		
11	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2014-10-24		
12	Barometer	ChangChun	DYM3	SEL0088	2014-05-24		
13	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2014-10-24		
14	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2014-10-24		
15	Signal Generator	Rohde & Schwarz	SMY01	SEL0155	2014-10-24		
16	Signal Generator (10M-27GHz)	Rohde & Schwarz	SMR27	SEL0067	2014-05-16		
17	Loop Antenna	Beijing Daze	ZN30401	SEL0203	2014-06-04		



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	Conducted Emission	n				
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)	
1	Shielding Room	ZhongYu Electron	GB-88	SEL0042	2014-06-10	
2	LISN	Rohde & Schwarz	ENV216	SEL0152	2014-10-24	
3	LISN	ETS-LINDGREN	3816/2	SEL0021	2014-05-16	
4	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T8-02	SEL0162	2014-11-10	
5	4 Line ISN	Fischer Custom Communications Inc.		SEL0163	2014-11-10	
6	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T2-02	SEL0164	2014-11-10	
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	2014-05-16	
8	Coaxial Cable	SGS	N/A	SEL0025	2014-05-29	
9	DC Power Supply	DC Power Supply Zhao Xin R.		SEL0117	2014-10-24	
10	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2014-10-24	
11	Barometer	Chang Chun	DYM3	SEL0088	2014-05-24	

Note: The calibration interval is one year, all the instruments are valid.



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5 Test results and Measurement Data

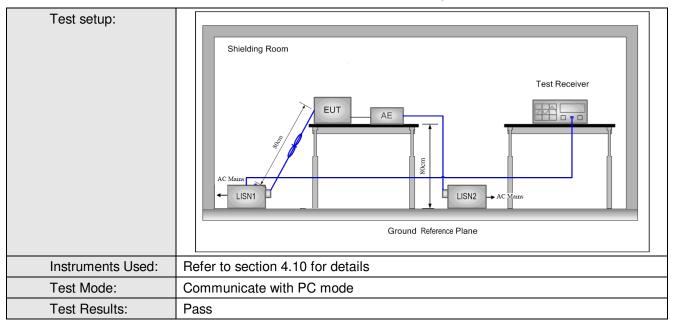
5.1 Conducted Emissions

Test Requirement:	47 CFR Part 15B				
Test Method:	ANSI C63.4: 2009				
Test Frequency Range:	150kHz to 30MHz				
Limit:	Fueron and a (MILE)	Limit (dBuV)		
	Frequency range (MHz)	Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	5-30	60	50		
	* Decreases with the logarithm	n of the frequency.			
Test Procedure:	 5-30 60 50 * Decreases with the logarithm of the frequency. 1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was no exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m about the ground reference plane. And for floor-standing arrangement, and the ground reference plane. 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. A other units of the EUT and associated equipment was at least 0.8 m 				
	5) In order to find the maximum equipment and all of the in ANSI C63.4: 2009 on cond	iterface cables must be	•		



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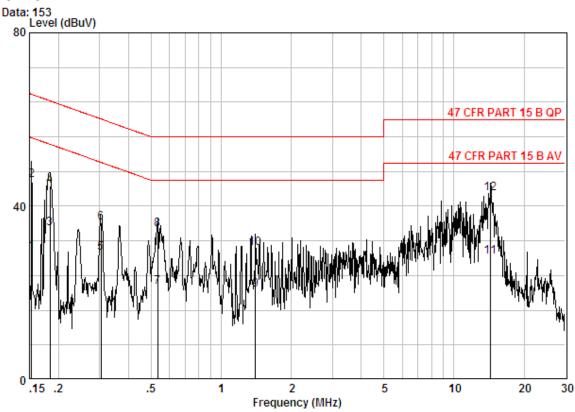
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Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live Line:



Site : Shielding Room

Condition : 47 CFR PART 15 B QP CE LINE

Job No. : 1277RF

Mode : Communicate with PC

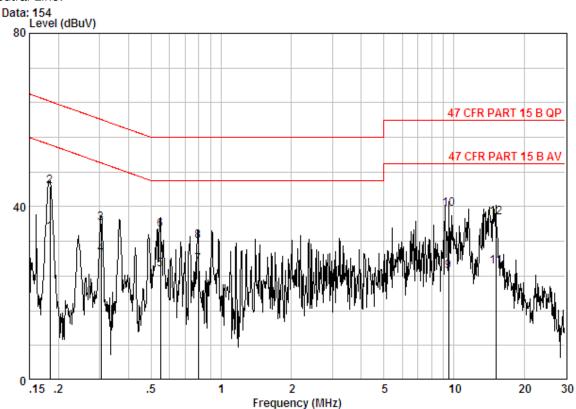
			Cable	LISN	Read		Limit	Over	
		Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	-	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.15321	0.02	9.70	19.64	29.36	55.82	-26.47	Average
2		0.15321	0.02	9.70	36.35	46.07	65.82	-19.75	QP
3		0.18346	0.02	9.70	25.07	34.79	54.33	-19.54	Average
4		0.18346	0.02	9.70	35.07	44.79	64.33	-19.54	QP
5		0.30509	0.01	9.71	19.53	29.25	50.10	-20.86	Average
6		0.30509	0.01	9.71	26.52	36.24	60.10	-23.87	QP
7		0.53215	0.01	9.80	11.45	21.26	46.00	-24.74	Average
8		0.53215	0.01	9.80	24.77	34.58	56.00	-21.42	QP
9		1.403	0.02	9.80	10.81	20.63	46.00	-25.37	Average
10		1.403	0.02	9.80	20.49	30.31	56.00	-25.69	QP
11		14.364	0.01	10.08	18.15	28.24	50.00	-21.76	Average
12	@	14.364	0.01	10.08	32.78	42.87	60.00	-17.13	QP



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Neutral Line:



Site : Shielding Room

Condition : 47 CFR PART 15 B QP CE NEUTRAL

Job No. : 1277RF

Mode : Communicate with PC

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.18346	0.02	9.70	24.28	34.00	54.33	-20.33	Average
2	0.18346	0.02	9.70	34.88	44.60	64.33	-19.73	QP
3	0.30509	0.01	9.71	26.49	36.21	60.10	-23.90	QP
4	0.30509	0.01	9.71	19.29	29.01	50.10	-21.10	Average
5	0.54934	0.01	9.80	15.78	25.59	46.00	-20.41	Average
6	0.54934	0.01	9.80	24.77	34.58	56.00	-21.42	QP
7 @	0.79600	0.02	9.80	16.77	26.59	46.00	-19.41	Average
8	0.79600	0.02	9.80	22.26	32.08	56.00	-23.92	QP
9	9.502	0.01	10.00	15.10	25.11	50.00	-24.89	Average
10	9.502	0.01	10.00	29.34	39.35	60.00	-20.65	QP
11	15.146	0.02	10.00	16.21	26.23	50.00	-23.77	Average
12	15.146	0.02	10.00	27.42	37.44	60.00	-22.56	QP

Notes:

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.



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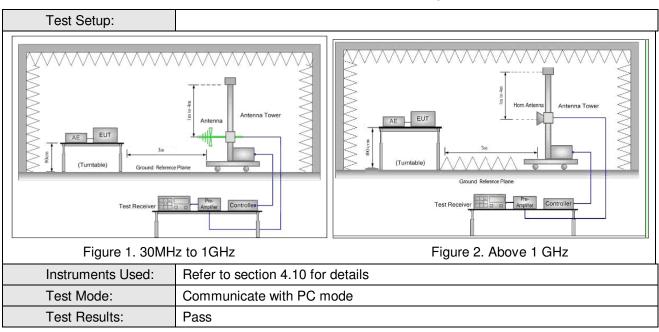
5.2 Radiated Emission

Test Requirement:	47 CFR Part 15B							
Test Method:	ANSI C63.4: 2009							
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)							
Receiver Setup:		Frequency	Detector	RBW	VBW	Remark		
	3	30MHz-1GHz	Quasi-pea	k 100kHz	300kHz	Quasi-peak Value		
		Above 1GHz	Peak	1MHz	3MHz	Peak Value		
Limit:		Freque	ency	Limit (dBuV	/m @3m)	Remark		
		30MHz-8	30MHz-88MHz)	Quasi-peak Value		
		88MHz-2	16MHz	43.5	5	Quasi-peak Value		
		216MHz-9	60MHz	46.0		Quasi-peak Value		
		960MHz-	-1GHz	54.0)	Quasi-peak Value		
		A1 4011		54.0		Average Value		
		Above 1GHz		74.0		Peak Value		
Test Procedure:	 a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 							



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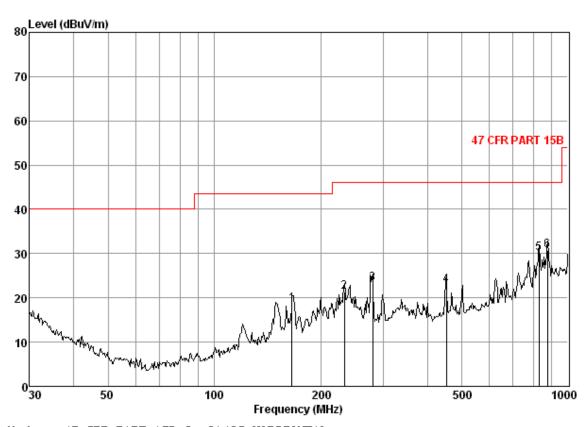


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QP value: 30MHz~1GHz

Horizontal



Condition: 47 CFR PART 15B 3m 3142C HORIZONTAL

Job No. : 1277RF

Test Mode: Communicate with PC

	Freq			Preamp Factor				
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	165. 49 233. 35 280. 02 452. 72 827. 49 875. 25	1.81 2.42 3.32	8. 42 9. 30 12. 92 19. 00	26. 83 26. 58 26. 45 27. 46 27. 13 26. 89	37.85 38.65 35.05 34.91	21. 28 23. 31 22. 93 30. 10	46.00 46.00 46.00	-24.72 -22.69 -23.07 -15.90

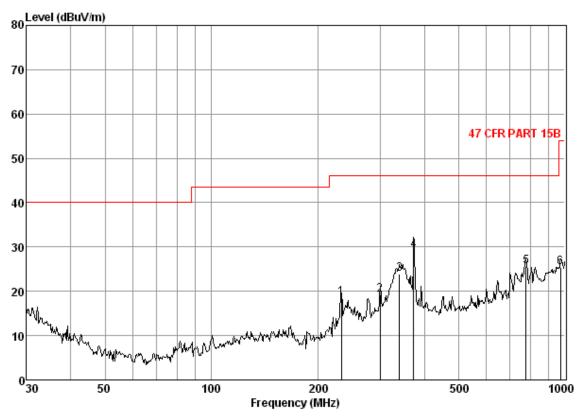




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Vertical



Condition: 47 CFR PART 15B 3m 3142C VERTICAL

Job No. : 1277RF

Test Mode: Communicate with PC

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	$\overline{\text{dBuV/m}}$	$\overline{\text{dBuV/m}}$	d B
1 2 3 4 5	233. 35 300. 37 340. 78 373. 31 776. 88 972. 34	1.59 1.90 2.03 2.13 3.14 3.67	8. 42 9. 70 10. 50 11. 41 17. 92 21. 20	26.58 26.40 26.73 26.95 27.32 26.44	35. 14 33. 95 38. 15 42. 68 31. 84 26. 97	18. 57 19. 15 23. 95 29. 27 25. 58 25. 40	46.00 46.00 46.00 46.00	-27. 43 -26. 85 -22. 05 -16. 73 -20. 42 -28. 60

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor