RETLIF TESTING LABORATORIES
TEST REPORT R-4797N-2
June 27, 2007

FCC COMPLIANCE TEST REPORT
ON

FITSENSE TECHNOLOGY, INC.
CSAFE BODYLAN MODULE
(WIRELESS CARDIO NETWORK ADAPTER)
FCC ID: 09DCB

APPLICANT	MANUFACTURER
FITSENSE TECHNOLOGY 21 Boston Road Southborough, MA 01772	SAME

TEST SPECIFICATION: FCC Rules and Regulations Part 15, Subpart C, Para. 15.249

TEST PROCEDURE: ANSI C63.4:2003

TEST SAMPLE DESCRIPTION

BRANDNAME: Fitsense Part #: 710-00032-01

Model: CSAFE Bodylan Module (Wireless Cardio Network Adapter)

POWER REQUIREMENTS: Internal Battery

FREQUENCY BAND OF OPERATION: 2400 to 2483.5MHz

FREQUENCY OF OPERATION : 2429.0MHz

FCC ID: 09DCB

APPLICABLE RULE SECTION: Part 15, Subpart C, Section 15.249

TESTS PERFORMED

15.249 (a) Fundamental & Harmonic Emissions

15.249 (d) Out of Band/Bandedge Emissions

15.249 (e) Peak Field Strength

TEST SAMPLE DESCRIPTION

The EUT is a FITSENSE TECHNOLOGY, CSAFE Bodylan Module (Cardio Wireless Network Adapter) Wireless Transceiver which transmits at 2429.0MHz. The intended application is to for communications with fitness equipment by way of it's CSAFE Port and to transmit data to a local server via wireless communication link. This device is powered by 3.6VDC via internal battery. There is no connection to the AC mains during use.

ANTENNA DESCRIPTION

The device uses an integral PCB Etch Antenna and has no connection for external antenna.

TEST SAMPLE / TEST RESULTS SUMMARY

- The fundamental field strength at 2429.0MHz did not exceed 50mV/M at a test distance of 3 meters.

- The field strength of harmonic emissions did not exceed 500μV/M. No harmonic emissions were observed within 10dB of the specified limit at 3 meter or 1 meter test distances above the second harmonic (4858.26MHz).

- The field strength of non-harmonic out of band/bandedge emissions were attenuated more than 50dB below the level of the fundamental or to the limits of 15.209 as applicable. No out of band spurious emissions were observed within 10dB of the specified limit at 3 meter or 1 meter test distances.

- The peak field strength of the fundamental emission did not exceed the maximum permitted average field strength by more than 20dB.

- Radiated Emissions from the EUT were measured in all three axis. The worst case fundamental emission was found with the EUT in the "Z" Access. The worst case harmonic emission was found with the EUT in the "Y" Access.

MEASUREMENT PROCEDURES

15.249 (a/d/e) Field Strength of Fundamental, Harmonic and Out of Band/Band Edge Emissions & Peak Field Strength

The field strength of the fundamental, harmonic and out of band/bandedge emissions were measured. The transceiver was placed on a 80cm high wooden test stand which was located 3 meters from the test antenna on an FCC listed open area test site. Emissions from the EUT were maximized by rotating the test sample and adjusting the test sample orientation and antenna polarization. The maximized field strength of each observed emission was measured, recorded and compared to the specified limits of 15.249 (a), (d)/15.209 as appropriate. Peak field strength of emissions were measured, recorded and verified to meet the specified limit (limit corresponds to 20dB above the maximum permitted average limit). When necessary the marker/delta method was used to verify bandedge compliance.

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

Test Method:	Fundamental Field Strength & Harmonics		
Customer:	Fitsense Technology	**Job No:**	R-4797N-2
Test Sample:	CBM 2.429GHz Transceiver CSAFE Bodylan Module (CBM) (Wireless Cardio Network Adapter)		
Model No:	Part #710-00032-01	**Serial No:**	HPCR-00:02:56:00:01:96
Test Specification:	FCC Part 15 Paragraph: 15.249 (a)		
Operating Mode:	Continuously Transmitting		
Technician:	M.Seamans	**Date:**	3/30/2007
Notes:	Average Readings to Average Limits		

Transmit Frequency	Test Frequency	Antenna/EUT Position	Meter Reading	Correction Factor	Duty Cycle Correction	Corrected Reading			Converted Reading	Limit at 3 Meters
MHz	MHz	Polarization/Axis	dBuV	dB	dB	dBuV/m			uV/m	uVm
2429.00	2428.83	V/Y	80.94	-15.00	0.00	65.94			1981.53	50000.00
	4858.26	V/Z	49.85	-11.20	0.00	38.65			85.61	500.00
	7287.00	-	-	-	-	-			-	500.00
	9716.00	-	-	-	-	-			-	500.00
	12145.00	-	-	-	-	-			-	500.00
	14574.00	-	-	-	-	-			-	500.00
	17003.00	-	-	-	-	-			-	500.00
	19432.00	-	-	-	-	-			-	500.00
	21861.00	-	-	-	-	-			-	500.00
	24290.00	-	-	-	-	-			-	500.00

At the harmonic frequencies where no meter reading is recorded, there was no harmonic observed above the baseline of the spectrum analyzer which was a minimum of 10 dB below the limit.

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

Test Method:	Peak Field Strength		
Customer:	Fitsense Technology	**Job No:**	R-4797N-2
Test Sample:	CBM 2.429GHz Transceiver CSAFE Bodylan Module (CBM) (Wireless Cardio Network Adapter		
Model No:	Part #710-00032-01	**Serial No:**	HPCR-00:02:56:00:01:96
Test Specification:	FCC Part 15 Paragraph: 15.249 (e)		
Operating Mode:	Continuously Transmitting		
Technician:	M.Seamans	**Date:**	3/30/2007
Notes:	Peak Readings to Peak Limits(20dB above average limits)		

Transmit Frequency	Test Frequency	Antenna/EUT Position	Meter Reading	Correction Factor	Duty Cycle Correction	Corrected Reading			Converted Reading	Limit at 3 Meters
MHz	MHz	Polarization/Axis	dBuV	dB	dB	dBuV/m			uV/m	uVm
2429.00	2428.83	V/Y	108.27	-15.00	0.00	93.27			46078.68	500000.00
	4858.26	H/Y	75.71	-11.20	0.00	64.51			1680.74	5000.00
	7287.00	-	-	-	-	-			-	5000.00
	9716.00	-	-	-	-	-			-	5000.00
	12145.00	-	-	-	-	-			-	5000.00
	14574.00	-	-	-	-	-			-	5000.00
	17003.00	-	-	-	-	-			-	5000.00
	19432.00	-	-	-	-	-			-	5000.00
	21861.00	-	-	-	-	-			-	5000.00
	24290.00	-	-	-	-	-			-	5000.00

At the harmonic frequencies where no meter reading is recorded, there was no harmonic observer above the baseline of the spectrum analyzer which was a minimum of 10 dB below the limit.

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	**Out of Band Radiated Emissions 30 MHz to 26.5 GHz**		
Customer	Fitsense Technology	**Job No.**	R-4797N-2
Test Sample	CBM 2.429GHz Transceiver CSAFE Bodylan Module (CBM) (Wireless Cardio Network Adapter		
Model No.	Part #710-00032-01	**Serial No.**	HPCR-00:02:56:00:01:96
Test Specification:	FCC Part 15 Subpart C Paragraph: 15.249 (d)		
Operating Mode:	Continuously Transmitting		
Technician:	M.Seamans	**Date:**	March 30, 2007
Notes:	Test Distance: 3 Meters		

Test Frequency	Antenna Position	Turntable Position	Uncorrected Reading	Correction Factor	Corrected Reading					Limit at 3 Meters
MHz	(H/V) - Height	Degrees	dBuV	dB	dBuV/m					dBuV/m
30.00	-	-	-	-	-					40.0
|	-	-	-	-	-					|
88.00	-	-	-	-	-					40.0
88.00	-	-	-	-	-					43.5
|	-	-	-	-	-					|
216.00	-	-	-	-	-					43.5
216.00	-	-	-	-	-					46.0
|	-	-	-	-	-					|
960.00	-	-	-	-	-					46.0
960.00	-	-	-	-	-					54.0
|	-	-	-	-	-					|
26500.00	-	-	-	-	-					54.0

No EUT emissions within 10 dB of the specified test limit were observed at the specified test distance throughout the given frequency spectrum.

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

Test Method:	Band Edge
Customer:	Fitsense Technology **Job No:** R-4797N-2
Test Sample:	CBM 2.429GHz Transceiver CSAFE Bodylan Module (CBM) (Wireless Cardio Network Adapter
Model No:	Part #710-00032-01 **Serial No:** HPCR-00:02:56:00:01:96
Test Specification:	FCC Part 15 Paragraph: 15.249 (d)
Operating Mode:	Continuously Transmitting
Technician:	M.Seamans **Date:** 3/30/2007
Notes:	Peak Readings Test Distance 3 Meters

Test Frequency		Meter Reading	Correction Factor		Duty Cycle Correction	Corrected Reading		Limit		
MHz		dBuV	dB		dB	dBuV/m		dBuV/m		
2400.00		44.4	-15.00		0.00	29.44		54.0		
2483.50		43.6	-15.00		0.00	28.62		54.0		
					-					
					-					
					-					
					-					
					-					
					-					
					-					
					-					

EQUIPMENT LIST

Fundamental & Harmonic Emissions

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due
3116	Pre-Amplifier	Miteq	0.1 GHz - 18 GHz	AFS42-35	8/25/2006	8/25/2007
3117	Power Supply	B&K Precision	0-30 Vdc, 3.0 A	1630	1/23/2007	1/23/2008
4029B	Test Site Attenuation	Retlif	3 / 10 Meters	RNH	5/24/2006	5/24/2007
4895	Spectrum Analyzer	Hewlett Packard	9kHz - 22GHz	8593EM	2/13/2007	2/13/2008
4984A	High Gain Horn	Microlab/FXR	1.0 - 1.7 GHz	L638A	1/24/2007	1/24/2008
4984B	High Gain Horn	Microlab/FXR	1.7 - 2.6 GHz	R638A	1/24/2007	1/24/2008
4984C	High Gain Horn	Microlab/FXR	2.6 - 3.95 GHz	S638A	1/24/2007	1/24/2008
4984D	High Gain Horn	Microlab/FXR	3.95 - 5.85 GHz	H638A	1/24/2007	1/24/2008
4984E	High Gain Horn	Microlab/FXR	5.8 - 8.2 GHz	C638A	1/24/2007	1/24/2008
4984F	High Gain Horn	Microlab/FXR	8.2 - 12.4 GHz	X638A	1/24/2007	1/24/2008
4984G	High Gain Horn	Microlab/FXR	12.4 GHz - 18 GHz	Y638A	1/24/2007	1/24/2008
4984H	High Gain Horn	Microlab/FXR	18 - 26.5 GHz	K638AF	1/24/2007	1/24/2008
5053	Biconilog	EMCO	26 MHz - 3 GHz	3142C	2/8/2006	4/8/2007
5070	EMI Test Receiver	Rohde & Schwarz	20Hz - 40GHz	ESIB40	11/22/2006	11/22/2007
5072	Preamplifier	Miteq	18 GHz-40 GHz	JS4-18004000-30	01/10/2007	01/10/2008

RADIATED EMISSIONS TEST SETUP PHOTOGRAPH