Exhibit M: Spurious Radiated Emissions

FCC ID: CM676A91343-600

Spurious Radiated Emissions

Revision 2/4/02

Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:		
High		
Low		

Operating Modes Investigated:	
Typical	

Antennas Investigated:	
Integral	

Data Rates Investigated:	
Maximum	

Output Power Setting(s) Investigated:	
Maximum	

Power Input Settings Investigated:
Battery

Frequency Range Investigated			
Start Frequency	30 MHz	Stop Frequency	6.14 GHz

Software\Firmware Applied During Test					
Exercise software Standard Production Version Unknown					
Description					
The system was tested using standard operating production software to exercise the functions of the device during the testing.					

Equipment Modifications

No EMI suppression devices were added or modified. The EUT was tested as delivered.

EUT and Peripherals

Description	Manufacturer	Model/Part Number	Serial Number
EUT	SpaceLabs Medical	91343-05	P025
Shorting bar	SpaceLabs Medical	N/A	N/A

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Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
ECG Leads (5)	No	.61	No	EUT	Shorting bar
Patient cable1	No	1.5	No	EUT	Unterminated
Patient cable2	No	1.7	No	EUT	Unterminated

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Measurement Equipment

Description	Manufacturer	Model	Identifier	Last Cal	Interval
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	03/19/2002	12 mo
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQF	03/19/2002	12 mo
Antenna, Biconilog	EMCO	3141	AXE	12/31/2001	12 mo
Antenna, Horn	EMCO	3115	AHC	08/24/2001	12 mo
Pre-Amplifier	Amplifier Research	LN1000A	APS	12/03/2001	12 mo
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	11/26/2001	12 mo
High Pass Filter	Hewlett-Packard	84300-80037	HFE	02/04/2002	12 mo
High Pass Filter	MicroLab	FH-1001	HFI	02/04/2002	12 mo

Test Description

Requirement: The field strength of spurious radiated emissions shall meet the limits as defined in 47 CFR 95.1115. Field strength limits are specified at a distance of 3 meters. Below 960 MHz, measurements are made using instrumentation with a CISPR quasi-peak detector. Above 960 MHz, measurements are made using instrumentation with an averaging detector and a 1 MHz bandwidth.

<u>Configuration</u>: The antenna to be used with the EUT was tested. The EUT was transmitting while set at the lowest and highest channels available. The spectrum was scanned from 30 MHz to 6.14 GHz. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:1992). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

Bandwidths Used for Measurements

J. Kip

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)	
0.01 – 0.15	1.0	0.2	0.2	
0.15 – 30.0	10.0	9.0	9.0	
30.0 – 1000	100.0	120.0	120.0	
Above 1000	1000.0	N/A	1000.0	
Measurements were ma	Measurements were made using the bandwidths and detectors specified. No video filter was used.			

Completed by:

NORTHWEST **OATS DATA SHEET EMC** EUT: 91343-05 Work Order: SPAC0310 Serial Number: P025 Date: 6/17/02 18:24 Customer: SpaceLabs Medical, Inc. Temperature: 73 Humidity: 42% Attendees: none Barometric Pressure 30.2 Cust. Ref. No.: Tested by: Greg Kiemel Power: Battery Job Site: EV01 EST SPECIFICATIONS Specification: FCC 95_1115 Year: 2001 Method: ANSI C63.4 Year: 1992 SAMPLE CALCULATIONS Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator **EUT OPERATING MODES** DEVIATIONS FROM TEST STANDARD No deviations RESULTS Test Distance (m) Run # Pass 3 Other Tested By: 120 100 80 dBuV/m 60 40 20 0 100 1000 10000 MHz External Distance Compared to Freq Amplitude Height Attenuation Detector Adjustment Adjusted (dBuV) (dB) (meters) (dB) dBuV/m dBuV/m (degrees) (meters) (dB) Comments (MHz) 6688.420 194 0 V-Horn 53.8 54.0 -0.2 "Low Channel" 45.6 82 17 3.0 0.0 ΑV 0.0 6688.420 40.8 8.2 159.0 1.0 3.0 0.0 H-Horn ΑV 0.0 49.0 54.0 -5.0 "Low Channel" 3683.621 44.2 3.4 301.0 2.0 3.0 0.0 H-Horn ΑV 0.0 47.6 54.0 -6.4 "High Channel" 1824.118 47.6 -3.0 168.0 1.0 3.0 0.0 H-Horn AV0.0 44.6 54.0 -9.4 "Low Channel" 3648.212 358.0 V-Horn 44.4 54.0 -9.6 "Low Channel" 41.1 3.3 1.1 3.0 0.0 ΑV 0.0 43.7 54.0 -10.3 "Low Channel" 3648.212 40.4 3.3 154.0 1.6 H-Horn ΑV 0.0 3.0 0.0 1216.076 49.4 -6.3 56.0 1.0 3.0 0.0 H-Horn ΑV 0.0 43.1 54.0 -10.9 "Low Channel" 3040.181 41.3 0.9 19.0 2.0 3.0 0.0 H-Horn AV 0.0 42.2 54.0 -11.8 "Low Channel" 1841.800 44.2 -3.0 158.0 3.0 H-Horn ΑV 0.0 41.2 54.0 -12.8 "High Channel" 1.0 0.0 -12.8 "High Channel" 3069.695 40.2 16.0 3.0 H-Horn 0.0 41.2 54.0 1.0 1.1 0.0 ΑV -5.6 "Low Channel" 129.618 38.0 159.0 20.0 H-Biloa ΩP 37.9 43.5 -20.1 2.5 3.0 0.0