

Exhibit M: Spurious Radiated Emissions

FCC ID: CM676A91343-600

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	6.14GHz
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Software\Firmware Applied During Test

Exercise software	Standard Production Software	Version	Unknown
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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	91347-05	PO07
Shorting bar	SpaceLabs Medical	N/A	N/A

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
ECG Leads (5)	No	.61	No	EUT	Shorting bar

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
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
Antenna, Biconilog	EMCO	3141	AXE	12/31/2001	12 mo
Antenna, Horn	EMCO	3115	AHC	08/24/2001	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

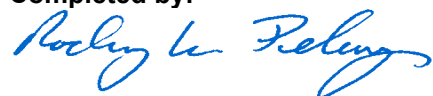
Requirement: The field strength of spurious radiated emissions shall meet the limits as defined in 47 CFR 95.1115. Field strength limits are specified at a distance of 3 meters. Below 960 MHz, measurements are made using instrumentation with a CISPR quasi-peak detector. Above 960 MHz, measurements are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


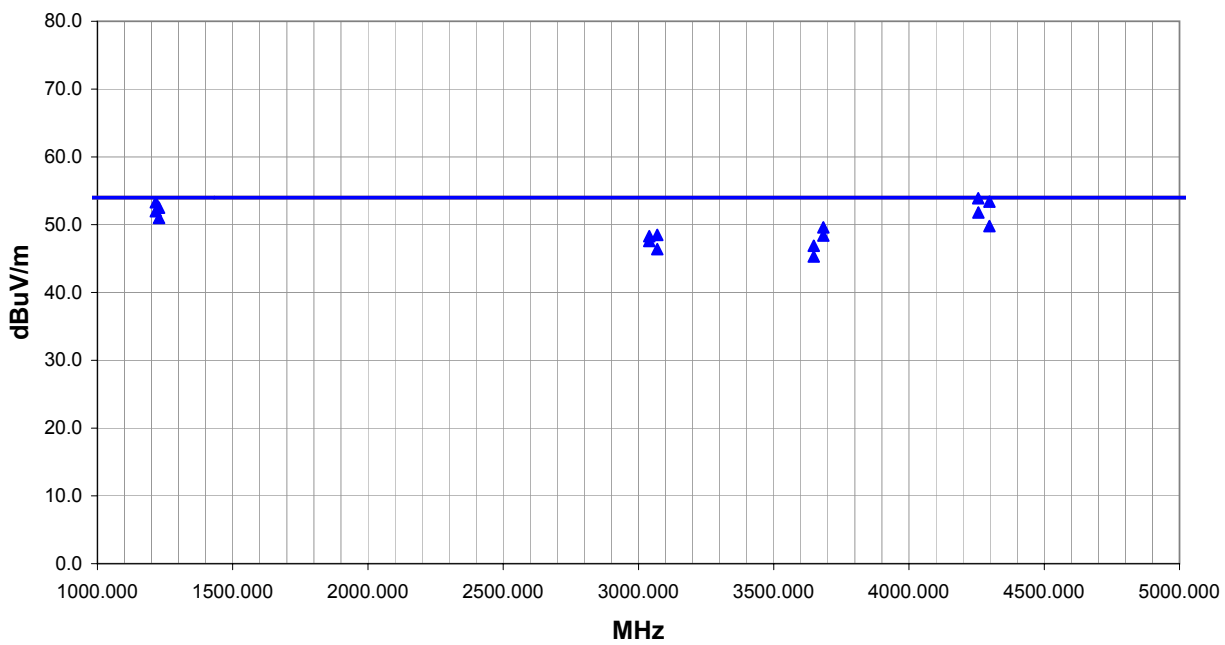
Configuration: The antenna to be used with the EUT was tested. The EUT was transmitting while set at the lowest and highest channels available. The spectrum was scanned from 30 MHz to 6.14 GHz. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna 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

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
<i>Measurements were made using the bandwidths and detectors specified. No video filter was used.</i>			

Completed by:



NORTHWEST EMC										OATS DATA SHEET				REV df2.02 05/20/2002	
EUT: 91347-05										Work Order: SPAC0309					
Serial Number: PO07										Date: 6/14/02 16:33					
Customer: SpaceLabs Medical, Inc.										Temperature: 75					
Attendees: None										Humidity: 42%					
Cust. Ref. No.:										Barometric Pressure: 30.01					
Tested by: Rod Peloquin						Power: 9VDC Battery		Job Site: EV01							
TEST 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															
COMMENTS															
5 leads, shorting bar															
EUT OPERATING MODES															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Test Distance (m)		Run #			
Fail										3		2			
Other										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4256.206	49.2	4.7	112.0	1.0	3.0	0.0	V-Horn	AV	0.0	53.9	54.0	-0.1			
4297.548	48.7	4.7	240.0	1.0	3.0	0.0	V-Horn	AV	0.0	53.4	54.0	-0.6			
1216.069	59.6	-6.3	270.0	1.2	3.0	0.0	V-Horn	AV	0.0	53.3	54.0	-0.7			
1227.875	58.8	-6.3	330.0	1.7	3.0	0.0	H-Horn	AV	0.0	52.5	54.0	-1.5			
1216.075	58.3	-6.3	291.0	1.2	3.0	0.0	H-Horn	AV	0.0	52.0	54.0	-2.0			
4256.263	47.1	4.7	28.0	1.3	3.0	0.0	H-Horn	AV	0.0	51.8	54.0	-2.2			
1227.878	57.3	-6.3	261.0	1.2	3.0	0.0	V-Horn	AV	0.0	51.0	54.0	-3.0			
4297.563	45.1	4.7	171.0	1.3	3.0	0.0	H-Horn	AV	0.0	49.8	54.0	-4.2			
3683.626	46.2	3.4	81.0	1.1	3.0	0.0	V-Horn	AV	0.0	49.6	54.0	-4.4			
3069.685	47.5	1.0	80.0	1.3	3.0	0.0	H-Horn	AV	0.0	48.5	54.0	-5.5			
3683.624	45.0	3.4	241.0	1.2	3.0	0.0	H-Horn	AV	0.0	48.4	54.0	-5.6			
3040.188	47.4	0.9	91.0	1.3	3.0	0.0	H-Horn	AV	0.0	48.3	54.0	-5.7			
3040.188	46.7	0.9	14.0	1.0	3.0	0.0	V-Horn	AV	0.0	47.6	54.0	-6.4			
3648.225	43.6	3.3	69.0	1.3	3.0	0.0	H-Horn	AV	0.0	46.9	54.0	-7.1			
3069.686	45.4	1.0	0.0	1.3	3.0	0.0	V-Horn	AV	0.0	46.4	54.0	-7.6			
3648.225	42.0	3.3	146.0	1.2	3.0	0.0	V-Horn	AV	0.0	45.3	54.0	-8.7			