

Exhibit M: Spurious Radiated Emissions

FCC ID: CM676A91341-600

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

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	91341-05	P016
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

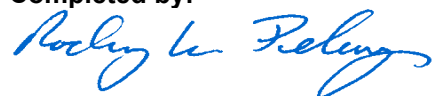
Requirement: The field strength of spurious radiated emissions shall meet the limits as defined in 47 CFR 95.1115. Field strength limits are specified at a distance of 3 meters. Below 960 MHz, measurements are made using instrumentation with a CISPR quasi-peak detector. Above 960 MHz, measurements are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

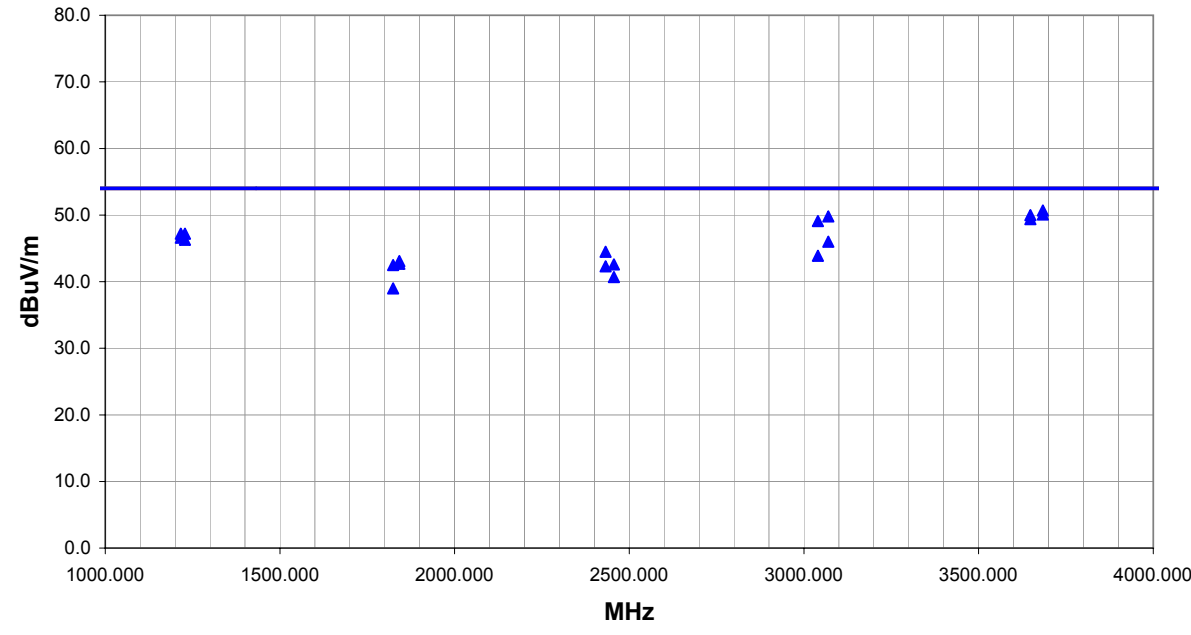
Configuration: The antenna to be used with the EUT was tested. The EUT was transmitting while set at the lowest and highest channels available. The spectrum was scanned from 30 MHz to 6.14 GHz. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna 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		REV d12.02 05/20/2002										
EMC		OATS DATA SHEET										
EUT: 91341-05		Work Order: SPAC0307										
Serial Number: PO16		Date: 6/14/02 12:47										
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 #									
Pass		3	1									
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)
3683.876	47.3	3.4	102.0	1.2	3.0	0.0	V-Horn	AV	0.0	50.7	54.0	-3.3
3683.930	46.7	3.4	168.0	1.3	3.0	0.0	H-Horn	AV	0.0	50.1	54.0	-3.9
3648.018	46.7	3.3	237.0	1.4	3.0	0.0	H-Horn	AV	0.0	50.0	54.0	-4.0
3069.930	48.8	1.0	151.0	1.3	3.0	0.0	H-Horn	AV	0.0	49.8	54.0	-4.2
3648.042	46.1	3.3	121.0	1.4	3.0	0.0	V-Horn	AV	0.0	49.4	54.0	-4.6
3040.017	48.2	0.9	358.0	1.2	3.0	0.0	H-Horn	AV	0.0	49.1	54.0	-4.9
1216.025	53.5	-6.3	309.0	1.2	3.0	0.0	H-Horn	AV	0.0	47.2	54.0	-6.8
1227.921	53.5	-6.3	59.0	1.4	3.0	0.0	H-Horn	AV	0.0	47.2	54.0	-6.8
1216.025	52.9	-6.3	129.0	1.0	3.0	0.0	V-Horn	AV	0.0	46.6	54.0	-7.4
1227.945	52.6	-6.3	46.0	1.7	3.0	0.0	V-Horn	AV	0.0	46.3	54.0	-7.7
3069.930	45.0	1.0	20.0	1.0	3.0	0.0	V-Horn	AV	0.0	46.0	54.0	-8.0
2432.015	45.5	-1.0	254.0	1.2	3.0	0.0	H-Horn	AV	0.0	44.5	54.0	-9.5
3040.065	43.0	0.9	323.0	1.1	3.0	0.0	V-Horn	AV	0.0	43.9	54.0	-10.1
1841.900	46.1	-3.0	55.0	1.4	3.0	0.0	H-Horn	AV	0.0	43.1	54.0	-10.9
1841.874	45.7	-3.0	117.0	1.9	3.0	0.0	V-Horn	AV	0.0	42.7	54.0	-11.3
2455.914	43.6	-1.0	35.0	1.3	3.0	0.0	V-Horn	AV	0.0	42.6	54.0	-11.4
1824.040	45.5	-3.0	0.0	1.5	3.0	0.0	H-Horn	AV	0.0	42.5	54.0	-11.5
2432.015	43.3	-1.0	180.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.3	54.0	-11.7
2455.950	41.7	-1.0	335.0	2.4	3.0	0.0	H-Horn	AV	0.0	40.7	54.0	-13.3
1824.040	42.0	-3.0	76.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.0	54.0	-15.0