GENERAL INFORMATION REQUIREMENTS

Paragraph 2.983(a)

Name of Applicant:	Samson Technologies
Address of Applicant:	575 Underhill Blvd. Syosset, NY 11791

Name of Manufacturer: Samson Technologies

Paragraph 2.983(b)

Equipment		
Identification:	FCC ID:	CCRAG1M

Paragraph 2.02(c)(1)

Necessary Bandwidth Determination:

The necessary bandwidth was calculated utilizing the following formula:

 $B_n = 2M + 2D \qquad \qquad M = 15 \text{ kHz} \\ D = 32.8 \text{ kHz}$

 $B_n = 2(15) + 2(32.8) = 95.6 \text{ kHz}$

Paragraph 2.1046

Power Output, Effective Radiated Power

POWER OUTPUT, EFFECTIVE RADIATED POWER (Para. 2.1046)

A. Measurement Procedure:

The transmitter under test was placed on an 80 cm. high non metallic table on the Open Air Test Site with its antenna polarized vertically. A receive dipole antenna was placed three meters away from the transmitter. The turntable was rotated 360 degrees and the receive antenna was raised and lowered from 1 to 4 meters until a maximum reading was obtained. This reading was recorded. The transmitter under test was replaced with a dipole and signal generator. The signal generator was set to the frequency of the transmitter under test. The level of the signal generator was increased until the level was equal to that previously measured. The required input level from the signal generator in dBm was recorded and converted into milliwatts. This was the Effective Radiated Power of the transmitter.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named ERP.pdf.

Paragraph 2.1047

Modulation Characteristics

MODULATION CHARACTERISTICS (2.1047)

A. Measurement Procedure:

An Audio Oscillator was directly coupled to the audio input of the transmitter under test. The RF Output at the antenna terminals was loosely coupled to a modulation meter as shown below. The audio level applied to the input was adjusted from -50dBm to +10dBm at each frequency listed herein. At each test frequency and level, the FM modulation was recorded.

Setup of the above test is shown below:



B. Test Results:

The test data for this method are being submitted as a separate attachment, named modchar.pdf.

Paragraph 2.1049

Occupied Bandwidth

OCCUPIED BANDWIDTH (PARA.2.1049)

A. Measurement Procedure:

An audio signal was directly coupled to the audio input of the test sample. The RF output was monitored using a deviation meter. The audio input level was increased to produce a 50% deviation +16dB. The RF output was then loosely coupled through external attenuators to a spectrum analyzer. The occupied bandwidth of the RF carrier, modulated at 50% deviation +16dB, was then measured. The above procedure was performed with the audio input frequencies of 1000, 2500, and 15000 Hz. The modulated signal must be within the template as specified by the applicable paragraph in Part 74. The above procedure was then repeated with the Audio Input acoustically coupled to the microphone at a level of 100dBspl.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named occbw.pdf.

Para. 2.1053

Field Strength of Spurious Radiation

FIELD STRENGTH OF SPURIOUS RADIATION (PARA 2.1053)

A. Measurement Procedure:

The test sample was then placed on an 80cm high wooden test stand, which was located three meters from the test antenna on an FCC listed test site. The frequency range scanned was from the lowest frequency generated by the test sample to its tenth harmonic. In order to maximize the level of each emission observed from the test sample, the broadband antenna was tuned to the frequency of each emission and the test sample was rotated 360 degrees. To further maximize the each emission observed, the test antenna was both horizontally and vertically polarized, and then was raised and lowered from one to four meters from the ground plane. The limits for all of the spurious emissions was calculated utilizing the measured output power and the following equation:

Limit $\langle dB\mu V/M \rangle = 20 \log [\{(49.2 \text{ x } P_T)^{\frac{1}{2}}] \times 10^6] - (43 + 10 \log P_T)$

The above procedure was performed at the lower, middle and upper frequencies of the device's range.



Setup of the test is shown below:

B. Test Results:

The results for the above test are submitted as a separate attachment named spurious case.doc.

Paragraph 2.1055

Frequency Stability

FREQUENCY STABILITY MEASUREMENTS

A. Measurement Procedure (Frequency vs. Voltage):

The RF output of the test sample was coupled to a frequency counter through external attenuation. Using a Variable power supply and voltmeter, the input voltage was varied. Measurements were taken with the device being supplied with 85, 100, and 115 percent of its rated input voltage and set to transmit the unmodulated carrier frequency.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named freq voltage.pdf.

FREQUENCY STABILITY MEASUREMENTS (PARA 2.995)

A. Measurement Procedure (Frequency vs. Temperature)

The RF output of the test sample was coupled to a frequency counter through external attenuators.
With the counter connected, the test sample was activated and placed into a temperature chamber.
The temperature was then programmed to start at -30 degrees Celsius and reach +50 degrees
Celsius in 10 degrees increments. Each increment was held for 30 minutes in order to let the test sample stabilize at that temperature.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named freq temp.pdf.

EQUIPMENT LISTS Effective Radiated Power

EN	Туре	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	10/15/2000	10/15/2003
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	08/03/2000	02/03/2001
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	08/02/2000	02/02/2001
451C	Tuned Dipole Antenna	Empire Devices	400 - 1000 MHz	DM-105-T3	08/08/2000	08/08/2001
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	06/08/2000	06/08/2001
574	Signal Generator	Marconi Instru.	9 kHz - 2.4 GHz	2024	05/01/2000	05/01/2001

FCC 74.861(e)(3) Frequency Response and Modulation Characteristics

EN	Туре	Manufacturer	Description.	Model No.	Cal Date	Due Date
091	Shielded Enclosure	Retlif	10 kHz - 1 GHz	Room 6	07/14/1999	07/14/2000
159	Frequency Counter	Leader	10 Hz - 1 GHz	LDC-825	09/15/1999	09/15/2000
419	Modulation Meter	Boonton Electronics	.01 - 1.2 GHz	82AD	05/03/2000	05/03/2001
488	HP Test Oscillator	Hewlett Packard	10 Hz - 10 MHz	654A	05/02/2000	05/02/2001

Frequency Stability versus Input Voltage (85% to 115%) Manufacturer Description Model No Cal Date Due Date

EN	Туре	Manufacturer	Description.	Model No.	Cal Date	Due Date
091	Shielded Enclosure	Retlif	10 kHz - 1 GHz	Room 6	07/14/1999	07/14/2000
159	Frequency Counter	Leader	10 Hz - 1 GHz	LDC-825	09/15/1999	09/15/2000
520F	Digital Multimeter	Wavetek	N/A	DM25XT	01/06/2000	07/06/2000
696	DC Power Supply	BK Precision	30V/3A	1730	08/20/1999	08/20/2000

Frequency Stability versus Temperature (-30 degrees C. to 50 degrees C.)

EN	Туре	Manufacturer	Description.	Model No.	Cal Date	Due Date
159	Frequency Counter	Leader	10 Hz - 1 GHz	LDC-825	09/15/1999	09/15/2000
520F	Digital Multimeter	Wavetek	N/A	DM25XT	01/06/2000	07/06/2000
612	Temperature Chamber	Thermotron Corp.	N/A	SE-1000L	01/18/2000	01/18/2001
696	DC Power Supply	BK Precision	30V/3A	1730	08/20/1999	08/20/2000

FCC 74.861(e)(5) Occupied Bandwidth Manufacturer **Description.** Model No. EN Type Cal Date Due Date 10 kHz - 1 GHz 091 Shielded Enclosure Retlif Room 6 07/14/1999 07/14/2000 Graphics Plotter 7470A 141A Hewlett Packard N/A 03/08/2000 03/08/2001 488 HP Test Oscillator Hewlett Packard 10 Hz - 10 MHz 654A 05/02/2000 05/02/2001 544 **EMC** Analyzer Hewlett Packard 9.0 kHz - 1.8 GHz 8591EM 08/25/1999 08/25/2000

FCC2.1053 Spurious Radiated Emissions, 30MHz-9GHz EN Manufacturer Model No. Type Description Cal Date Due Date 067 **Open Area Test Site** Retlif 3 Meter RNY 10/15/2000 10/15/2003 128C Double Ridge Guide Eaton Corporation 1 GHz - 18 GHz 96001 09/18/2000 09/18/2001 133 **Broadband Pre-Amplifier Electro-Metrics** 10 kHz - 1 GHz, 26dB BPA-1000 06/13/2000 06/13/2001 100 Hz - 40 GHz 141 Spectrum Analyzer Hewlett Packard 8566B 08/03/2000 02/03/2001 141A **Graphics Plotter** Hewlett Packard N/A 7470A 03/08/2000 03/08/2001 Hewlett Packard 85650A 141B Quasi-Peak Adaptor 100 Hz - 1 GHz 08/02/2000 02/02/2001 6.0 dB Attenuator 0 - 1.0 GHz FP-50 - 6 dB 206B Texscan 06/13/2000 06/13/2001 Biconilog **Electro-Mechanics** 26 - 2000 MHz 3142B 06/08/2000 523 06/08/2001 Preamplifier Hewlett Packard 1.0 GHz - 26.5 GHz 8449B 543 06/16/1999 06/16/2001 617 Interference Analyzer **Electro-Metrics** 10 kHz - 1 GHz EMC-30 01/17/2000 01/17/2001

TEST SETUP PHOTOGRAPHS



ŀ	AF1 / AG1 PCB ADJU	ISTMENT			
	ITEMS	DETAILS	ADJUSTMENT POINTS/EQUIPMENT TO CONFIRM	SETTING / REGULATION	NOTES
				PCB POWER SW = ON	
	1 Initial Setting	SET PCB, INITIAL SETTINGS		ATT = 0dB	
	0			AF INPUT SIGNAL = 1kHz Sinewave, Level = 0	
	2 Powered ON	Supply power at battery terminal.		1.5V	
	3 Check Consumption Current	at 1.5V		Less than 70mA	
	4 Check Internal Voltage	Ouput voltage of DC-DC converter		3.0V	
	5 Check Initial Frequency	at initial setting			
	6 Frequency Adjustment	Adjust each channel to designated frequency	VR2, Spectrum Analyzer	Designated Frequency (fo+10kHz within +/-5kHz)	
	7 Check RF Output Level	Check with Spectrum Analyzer		+3dBm - +10dBm	
	8 Check Spurious Level	Check with Spectrum Analyzer		Less than 1uW	
	9 Deviation Adjustment 1	Adjust with receiver audio output.	VR1, Audio Analyzer	Receiver Output THD3.5% +/-0.5%	Audio Generator -8 dBv
	10 Deviation Adjustment 2	Adjust with receiver audio output.	VR3, Audio Analyzer	Receiver Output 10dBv +/-1dB	Audio Generator -8 dBv
	11 Check Input THD	Check THD at FET Source.	Audio Analyzer	Less than 1%	Audio Generator -2 dBv
	12 Check Deviation - 1	Check at receiver audio output.	Audio Analyzer	Receiver Output -2dBv +/-3dB	Audio Generator -20 dBv
	13 Check Distortion - 1	Check at receiver audio output.	Audio Analyzer	Fither one is less than 2%	Audio Generator -20 dBv
	14 Check Distortion - 2	Check at receiver audio output.	Audio Analyzer		Audio Generator -30 dBv
	15 Check Frequency Response	Check at receiver audio output.	Audio Analyzer	Within +/-3.5dB to the level at 1kHz (50Hz-15kHz)	Audio Generator -50 dBv
	16 Check Deviation - 2	Check at receiver audio output.	Att-20dBv/Audio Analyzer	Within +/-2dB to the receiver output level at "ITEM 2".	Audio Generator 0 dBv
	17 Power SW Operation Check - 1	Measure consumption current at power switch OFF.		0mA	
	18 Power SW Operation Check - 2	Check LED1 flash at power switch ON.	Check with Jig.		
	19 Check Low Battery Indication - 1	Check LED1 lighting OFF.	Check with Jig.	Power Supply Voltage 1.15V	
1	20 Check Low Battery Indication - 2	Check LED1 lighting ON.	Check with Jig.	Power Supply Voltage 1.05V	
	21 Check Low Battery Operation	Check output voltage at DC-DC converter.		Power Supply Voltage 0.9V	within 3.0V +/-0.1V

AF1/AG1 Explanation of Spurious Limitation

- 1 Not use lower frequency than the transmission frequency 800MHz Direct Oscillation.
- 2 Emitter coupling which has less spurious is used for between oscillation stage and buffer.
- 3 Ouput side of the final stage is tuning type which has proper matching. It limits higher harmonic factor.
- 4 Low pass filter located at the final stage eliminates higher harmonic factor.

Utilizing SAW Resor VCO etc. process.

Pai type 2 stages.

nator.

		TABULAR DATA SHEET										
TEST METHOD:		POWER OL	JTPUT, EFFECTIVE	RADIATED POWER M	ETHOD, PAR	AGRAPH 2.10	46					
CUSTOMER:		Samson Teo	chnologies			JOB No.:	R-8512-6					
TEST SAMPLE:		800MHz Wi FCC ID:CCI	reless Transmitter RAG1M									
MODEL No.:		AG1			5	ERIAL No.:	N/A					
TEST		FCC PART	2									
SPECIFICATION:							PARAGRAF	PH: 2.1046				
OPERATING MODE:		CONTINUO	USLY TRANSMITTI	NG A CW SIGNAL AT C	CENTER FRE	QUENCY/CHAI	NNEL SHOWN	BELOW.				
TECHNICIAN:		Peter Lananr	าล			ATE:	December '	13, 2000				
NOTES:												
CENTER FREQUENCY	CH	ANNEL	Antenna Orientation	METER READING				Signal Gen. Output Level	CONVERTED READING	LIMIT		
MHz				dBuV				dBm	mWatts	mWatts		
										250		
803 7		1 14	13	73.8				1 9	1.5	I		
000.1		V I	1.0	, 0.0				1.0	1.0	ı		
										V		
										250		
	The E	UT was	<u>placed on a ta</u>	bletop, and the r	adiated ou	tput level v	vas measur	ed with a dipole	e antenna. After			
	the le	<u>vel was r</u> tor was i	naximized, the raised until it	<u>LUF was replaced</u> matched the level	with anot recorded	<u>her dipole</u> from the	<u>and a sign</u> EUT and	<u>al generator. T</u> this was conside	he level of the ered to be the			
	output	power.										

RETLIF TESTING LABORATORIES TABULAR DATA SHEET TEST METHOD: Frequency Stability (-30°C to +50°C) JOB No.: CUSTOMER: Samson Technologies R-8512-6 TEST UHF Wireless Transmitter SAMPLE: AG1 MODEL No.: SERIAL No.: N/A FCC ID: CCRAG1 TEST FCC Part 74, Subpart H; Experimental Radio, Auxiliary Special Broadcast, & other Program Distributional SPECIFICATION: Services, Subpart H; Low Power Auxiliary Stations. PARAGRAPH: 74.861 (e) (4) OPERATING Transmitting on channel U4 (803.75 MHz) MODE: DATE: April 27, 2000 TECHNICIAN: N. Dragotta NOTES: Tolerance: +/- 0.005% (+/- .040188 MHz) Channel Channel Act. Transmit Temperature Lower Limit Meter Reading Upper Limit Pass / Fail Frequency Frequency MHz MHz Degrees C. MHz MHz MHz 04 803.75 803.7737 -30 803.79 803.7211 803.71 Pass -20 803.7394 Pass -10 I 803.7563 Pass 0 803.7679 Pass Pass 10 803.7741 20 803.7736 Pass I room temp 803.7737 Pass I T 30 803.7673 Pass V V V 40 V 803.7546 V Pass 04 803.75 803.7737 50 803.79 803.7362 803.71 Pass The test sample performed within the limits specified by the above listed specification 2 OF 2 R-8512-6 DATA SHEET

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			IADULA	N DATA 3	NEEI			
TEST METHOD:	Frequency	Stability (DC Inpo	ut Power 85% TO 115%)				
CUSTOMER:	Samson Te	echnologies		JOB No.:	R-8512-6			
TEST SAMPLE	UHF Wirele	ess Transmitter						
MODEL No.:	AG1			SERIAL N	lo.: N/A	FCC ID: CCRAG1		
TEST SPECIFICATION:	FCC Part 7 Services, 5	74, Subpart H;Experime Subpart H; Low Power A	ntal Radio, Auxiliary Specia uxiliary Stations.	al Broadcast, & othe	r Program Distributior PARAGRA	nal PH: 74.861 (e)	(4)	
OPERATING MODE:	Transmittin	g on channel U4 (803.7	5 MHz)					
TECHNICIAN:	N. Dragotta	1		DATE:	April 27, 20	000		
NOTES:	Tolerance: Temperatu	+/- 0.005% (+/0401) re: 23° C. Humidit	38 MHz) y: 29%					
Channel	TRANSMIT FREQUENCY	INPUT VOLTAGE	INPUT VOLTAGE		LOWER LIMIT	METER READING	UPPER LIMIT	Pass / Fail
	MHz	%	VDC		MHz	MHz	MHz	
04	803.75	85	1.28		803.79	803.7735	803.71	Pass
04	803.75	100	1.50		803.79	803.7737	803.71	Pass
04	803.75	115	1.73		803.79	803.7737	803.71	Pass
04	803.75	Battery End Point	**1.15		803.79	803.7735	803.71	Pass
 								
		1						
	The test sample	performed within the	e limits specified by th	e above listed sp	pecification.			
	** = At this input	voltage, the low bat	tery LED on the unit i	luminated.				

			TABULA	AR DATA SH	EEI		
TEST METHOD:	Audio Freq	uency Response	(100 Hz TO 20 KH	z)			
CUSTOMER:	Samson Te	chnologies		JOB No.:	R-8512-6		
TEST SAMPLE:	UHF Wirele	ess Transmitter					
MODEL No .:	AG1			SERIAL No.:	N/A	FCC ID: CCRAG1	
TEST SPECIFICATION:	FCC Part 7 Services, S	4, Subpart H;Experime Subpart H; Low Power /	ental Radio, Auxiliary Spe Auxiliary Stations.	cial Broadcast, & other P	rogram Distributiona PARAGRAP	al H: 74.861(e)(3)	
OPERATING MODE:	Transmitting	g on channel U4 (803.	75 MHz)				
TECHNICIAN:	N. Dragotta			DATE:	May 5, 2000		
NOTES:	**Modulation **Maximum	n signal direct input of a Allowable Audio Frequ	a 1 kHz signal at a level o uency Response = 75 kHz	f -10 dBm. z Temperature: 23° C	. Humidity:39%	1	
Audio Input Frequency	Input Level	FM Deviation					
kHz	dB	kHz					
0.100	-10	20.3	<u> </u>				
0.300	-10	20.0					
0.500	-10	26.5					
1.000	-10	29.0					
1.500	-10	29.4					
2.000	-10	29.4					
2.500	-10	29.4					
5.000	-10	29.3					
10.000	-10	30.9					
15.000	-10	16.9					
20.000	-10	12.9					

			TABUL	AR DATA S	SHEET		
TEST METHOD:	Modulation	Characteristics (100 Hz TO 15 KHz)	Para 2.1047			
CUSTOMER:	Samson Teo	chnologies		JOB No	: R-8512-6		
TEST SAMPLE:	UHF Wirele	ss Transmitter					
MODEL No.:	AG1			SERIAL	No.: N/A	FCC ID: CCRAG1	
TEST SPECIFICATION:	FCC Part 7 Services, S	4, Subpart H;Experime ubpart H; Low Power A	ntal Radio, Auxiliary Sp Auxiliary Stations.	ecial Broadcast, & oth	er Program Distribution PARAGRA	al PH: 74.861(e)(3)	
OPERATING MODE:	Transmitting	on channel U4 (803.7	′5 MHz)				
TECHNICIAN:	N. Dragotta			DATE:	May 5, 200	0	
NOTES:	Temperatur	e: 23° C. Humidit	y: 39%				
INPUT LEVEL	Deviation @ 100 Hz AF	Deviation @ 300 Hz AF	Deviation @ 500 Hz AF	Deviation @ 1 kHz AF	Deviation @ 1.5 kHz AF	Deviation @ 2 kHz AF	MAXIMUM DEVIATION
dbm	kHz	kHz	kHz	kHz	kHz	kHz	kHz
-50	9.6	10.2	10.6	11.4	12.4	13.7	75.0
-40	16.4	17.3	18.0	19.1	20.4	21.4	75.0
-30	22.0	21.7	21.7	21.9	23.0	26.6	75.0
-20	21.5	20.5	21.0	28.1	28.8	29.1	75.0
-10	20.3	20.0	26.5	29.0	29.4	29.4	75.0
0	20.3	23.8	28.8	29.5	29.6	29.7	75.0
+10	21.6	22.7	29.6	29.8	29.8	29.7	75.0
	The test sample p	performed within the	e limits specified by	the above listed s	pecification.		

TEOTMETHOS		Characterist		Bare 0 4047	ΠΕΕΙ		
TEST METHOD:	Modulation	Characteristics	100 Hz TO 15 KHz)	Para 2.1047			
CUSTOMER:	Samson Te	chnologies		JOB No.:	R-8512-6		
TEST SAMPLE:	UHF Wirele	ess Transmitter					
MODEL No.:	AG1			SERIAL N	o.: N/A	FCC ID: CCRAG1	
TEST SPECIFICATION:	FCC Part 7 Services, S	4, Subpart H;Experime Subpart H; Low Power	ental Radio, Auxiliary Sp Auxiliary Stations.	pecial Broadcast, & other	Program Distributional PARAGRAPH:	74.861(e)(3)	
OPERATING MODE:	Transmitting	g on channel U4 (803.	75 MHz)				
TECHNICIAN:	N. Dragotta			DATE:	May 5, 2000		
NOTES:	Temperatur	re: 23° C. Humid	ty: 39%				
INPUT LEVEL	Deviation @ 2.5 kHz AF	Deviation @ 5 kHz AF	Deviation @ 10 kHz AF	Deviation @ 15 kHz AF	Deviation @ 20 kHz AF		MAXIMUM DEVIATION
dbm	kHz	kHz	kHz	kHz	kHz		kHz
-50	15.3	23.5	30.9	31.8	24.8		75.0
-40	22.3	27.6	31.4	32.5	25.3		75.0
-30	27.8	27.8	31.6	32.8	25.4		75.0
-20	29.2	29.9	31.6	19.5	14.8		75.0
-10	29.4	29.3	30.9	16.9	12.9		75.0
0	29.6	29.2	30.0	16.6	12.8		75.0
+10	29.6	29.2	29.8	16.5	12.7		75.0
	The test sample r	erformed within th	limits specified by	w the above listed or	ecification		
	THE LEST SATIFIE		o mino specified D				
							1







		TABULAR DATA SHEET											
TEST METHOD:		POWER OUTPUT, EFFECTIVE RADIATED POWER METHOD, PARAGRAPH 2.1046											
CUSTOMER:		Samson Teo	chnologies		JC	OB No.:	R-8512-6						
TEST SAMPLE:		800MHz Wi FCC ID:CCI	reless Transmitter RAG1M										
MODEL No.:		AG1			SE	RIAL No.:	N/A						
TEST		FCC PART	2										
SPECIFICATION:							PARAGRAF	PH: 2.1046					
OPERATING MODE:		CONTINUOUSLY TRANSMITTING A CW SIGNAL AT CENTER FREQUENCY/CHANNEL SHOWN BELOW.											
FECHNICIAN:		Peter Lananr	าล		D/	ATE:	December '	13, 2000					
NOTES:													
CENTER FREQUENCY	CH	ANNEL	Antenna Orientation	METER READING				Signal Gen. Output Level	CONVERTED READING	LIMIT			
MHz				dBuV				dBm	mWatts	mWatts			
										250			
802 7		1.14	1.2	72.0				1.0	1.5	I			
803.7		04	1.5	73.0				1.9	1.5				
										V			
										250			
	The E	UT was	placed on a ta	bletop, and the r	adiated outp	out level v	vas measur	ed with a dipole	e antenna. After				
	the le	vel was n	naximized, the	EUT was replaced	with anoth	er dipole from the	and a sign FUT and	al generator. T	he level of the				
	outout	nower			TECOINED			uno wao conside					

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			IADULA								
TEST METHOD:	Frequency	Aguency Stability (DC Input Power 85% TO 115%)									
CUSTOMER:	Samson Te	echnologies		JOB No.:	R-8512-6						
TEST SAMPLE	UHF Wirele	ess Transmitter									
MODEL No.:	AG1			SERIAL N	lo.: N/A	FCC ID: CCRAG1					
TEST SPECIFICATION:	FCC Part Services, S	FCC Part 74, Subpart H;Experimental Radio, Auxiliary Special Broadcast, & other Program Distributional Services, Subpart H; Low Power Auxiliary Stations. PARAGRAPH: 74.861 (e) (4)									
OPERATING MODE:	Transmittin	g on channel U4 (803.7	'5 MHz)								
TECHNICIAN:	N. Dragotta	1		DATE:	April 27, 20	000					
NOTES:	Tolerance: Temperatu	+/- 0.005% (+/0401) re: 23° C. Humidit	88 MHz) y: 29%								
Channel	TRANSMIT FREQUENCY	INPUT VOLTAGE	INPUT VOLTAGE		LOWER LIMIT	METER READING	UPPER LIMIT	Pass / Fail			
	MHz	%	VDC		MHz	MHz	MHz				
04	803.75	85	1.28		803.79	803.7735	803.71	Pass			
04	803.75	100	1.50		803.79	803.7737	803.71	Pass			
04	803.75	115	1.73		803.79	803.7737	803.71	Pass			
04	803.75	Battery End Point	**1.15		803.79	803.7735	803.71	Pass			
	The test sample	performed within the	e limits specified by th	e above listed sp	pecification.						
	** = At this input	voltage, the low bat	ttery LED on the unit i	lluminated.							

			TABULA	R DATA SH	<u>= E I</u>							
TEST METHOD:	Audio Freq	uency Response	(100 Hz TO 20 KHz)								
CUSTOMER:	Samson Te	chnologies		JOB No.:	R-8512-6							
TEST SAMPLE:	UHF Wirele	UHF Wireless Transmitter										
MODEL No .:	AG1			SERIAL No.:	N/A F	FCC ID: CCRAG1						
TEST SPECIFICATION:	FCC Part 7 Services, S	FCC Part 74, Subpart H;Experimental Radio, Auxiliary Special Broadcast, & other Program Distributional Services, Subpart H; Low Power Auxiliary Stations. PARAGRAPH: 74.861(e)(3)										
OPERATING MODE:	Transmitting	g on channel U4 (803.7	75 MHz)									
TECHNICIAN:	N. Dragotta			DATE:	May 5, 2000							
NOTES:	**Modulation **Maximum	**Modulation signal direct input of a 1 kHz signal at a level of -10 dBm. **Maximum Allowable Audio Frequency Response = 75 kHz Temperature: 23° C. Humidity:39%										
Audio Input Frequency	Input Level	FM Deviation										
kHz	dB	kHz										
0.100	-10	20.3										
0.300	-10	20.0										
0.500	-10	26.5										
1.000	-10	29.0										
1.500	-10	29.4										
2.000	-10	29.4										
2.500	-10	29.4										
5.000	-10	29.3										
10.000	-10	30.9										
15.000	-10	16.9										
20.000	-10	12.9										

			TABUL	AR DATA S	SHEET					
TEST METHOD:	Modulation	Modulation Characteristics (100 Hz TO 15 KHz) Para 2.1047								
CUSTOMER:	Samson Teo	chnologies		JOB No	: R-8512-6	R-8512-6				
TEST SAMPLE:	UHF Wirele	ss Transmitter								
MODEL No.:	AG1			SERIAL	No.: N/A	FCC ID: CCRAG1				
TEST SPECIFICATION:	FCC Part 7 Services, S	FCC Part 74, Subpart H;Experimental Radio, Auxiliary Special Broadcast, & other Program Distributional Services, Subpart H; Low Power Auxiliary Stations. PARAGRAPH: 74.861(e)(3)								
OPERATING MODE:	Transmitting	on channel U4 (803.7	′5 MHz)							
TECHNICIAN:	N. Dragotta			DATE:	May 5, 200	0				
NOTES:	Temperatur	e: 23° C. Humidit	y: 39%							
INPUT LEVEL	Deviation @ 100 Hz AF	Deviation @ 300 Hz AF	Deviation @ 500 Hz AF	Deviation @ 1 kHz AF	Deviation @ 1.5 kHz AF	Deviation @ 2 kHz AF	MAXIMUM DEVIATION			
dbm	kHz	kHz	kHz	kHz	kHz	kHz	kHz			
-50	9.6	10.2	10.6	11.4	12.4	13.7	75.0			
-40	16.4	17.3	18.0	19.1	20.4	21.4	75.0			
-30	22.0	21.7	21.7	21.9	23.0	26.6	75.0			
-20	21.5	20.5	21.0	28.1	28.8	29.1	75.0			
-10	20.3	20.0	26.5	29.0	29.4	29.4	75.0			
0	20.3	23.8	28.8	29.5	29.6	29.7	75.0			
+10	21.6	22.7	29.6	29.8	29.8	29.7	75.0			
	The test sample p	performed within the	e limits specified by	the above listed s	pecification.					

		Characterist		AR DAIAS							
TEST METHOD:	Modulation	Invoculation Characteristics (100 Hz TO 15 KHz) Para 2.104/									
CUSTOMER:	Samson Te	chnologies		JOB No.:	R-8512-6						
TEST SAMPLE:	UHF Wirele	UHF Wireless Transmitter									
MODEL No.:	AG1			SERIAL N	lo.: N/A	FCC ID: CCRAG1					
TEST SPECIFICATION:	FCC Part 7 Services, S	FCC Part 74, Subpart H;Experimental Radio, Auxiliary Special Broadcast, & other Program Distributional Services, Subpart H; Low Power Auxiliary Stations. PARAGRAPH: 74.861(e)(3) Transmitting on channel U4 (803.75 MHz) Transmitting on channel U4 (803.75 MHz) Transmitting on channel U4 (803.75 MHz)									
OPERATING MODE:	Transmitting										
TECHNICIAN:	N. Dragotta			DATE:	May 5, 2000						
NOTES:	Temperatur	e: 23° C. Humid	ity: 39%								
INPUT LEVEL	Deviation @ 2.5 kHz AF	Deviation @ 5 kHz AF	Deviation @ 10 kHz AF	Deviation @ 15 kHz AF	Deviation @ 20 kHz AF		MAXIMUM DEVIATION				
dbm	kHz	kHz	kHz	kHz	kHz		kHz				
-50	15.3	23.5	30.9	31.8	24.8		75.0				
-40	22.3	27.6	31.4	32.5	25.3		75.0				
-30	27.8	27.8	31.6	32.8	25.4		75.0				
-20	29.2	29.9	31.6	19.5	14.8		75.0				
-10	29.4	29.3	30.9	16.9	12.9		75.0				
0	29.6	29.2	30.0	16.6	12.8		75.0				
+10	29.6	29.2	29.8	16.5	12.7		75.0				
	The test sample r	Derformed within th	ne limits specified b	v the above listed s	pecification.	I					

		TABULAR DATA SHEET											
TEST METHOD:		POWER OUTPUT, EFFECTIVE RADIATED POWER METHOD, PARAGRAPH 2.1046											
CUSTOMER:		Samson Teo	chnologies		JC	OB No.:	R-8512-6						
TEST SAMPLE:		800MHz Wi FCC ID:CCI	reless Transmitter RAG1M										
MODEL No.:		AG1			SE	RIAL No.:	N/A						
TEST		FCC PART	2										
SPECIFICATION:							PARAGRAF	PH: 2.1046					
OPERATING MODE:		CONTINUOUSLY TRANSMITTING A CW SIGNAL AT CENTER FREQUENCY/CHANNEL SHOWN BELOW.											
FECHNICIAN:		Peter Lananr	าล		D/	ATE:	December '	13, 2000					
NOTES:													
CENTER FREQUENCY	CH	ANNEL	Antenna Orientation	METER READING				Signal Gen. Output Level	CONVERTED READING	LIMIT			
MHz				dBuV				dBm	mWatts	mWatts			
										250			
802 7		1.14	1.2	72.0				1.0	1.5	I			
803.7		04	1.5	73.0				1.9	1.5				
										V			
										250			
	The E	UT was	placed on a ta	bletop, and the r	adiated outp	out level v	vas measur	ed with a dipole	e antenna. After				
	the le	vel was n	naximized, the	EUT was replaced	with anoth	er dipole from the	and a sign FUT and	al generator. T	he level of the				
	outout	nower			TECOINED			uno wao conside					