

EMC Test Report

Application for Grant of Equipment Authorization

FCC Part 15 Subpart C

Model: MERCURY 5800 OUTDOOR SUBSCRIBER

FCC ID:	E5MDS-MERCODU5
APPLICANT:	GE MDS LLC 175 Science Parkway Rochester, NY 14620
TEST SITE(S):	Elliott Laboratories 41039 Boyce Road. Fremont, CA. 94538-2435
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REVISION HISTORY

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SCOPE

An electromagnetic emissions test has been performed on the GE MDS LLC model MERCURY 5800 OUTDOOR SUBSCRIBER, pursuant to the following rules:

FCC Part 15 Subpart C

Conducted and radiated emissions data has been collected, reduced, and analyzed within this report in accordance with measurement guidelines set forth in the following reference standards and as outlined in Elliott Laboratories test procedures:

ANSI C63.4:2003 FCC DTS Measurement Procedure KDB558074, March 2005

The intentional radiator above has been tested in a simulated typical installation to demonstrate compliance with the relevant Industry Canada performance and procedural standards.

Final system data was gathered in a mode that tended to maximize emissions by varying orientation of EUT, orientation of power and I/O cabling, antenna search height, and antenna polarization.

Every practical effort was made to perform an impartial test using appropriate test equipment of known calibration. All pertinent factors have been applied to reach the determination of compliance.

OBJECTIVE

The primary objective of the manufacturer is compliance with the regulations outlined in the previous section.

Prior to marketing in the USA, all unlicensed transmitters and transceivers require certification. Receive-only devices operating between 30 MHz and 960 MHz are subject to either certification or a manufacturer's declaration of conformity, with all other receive-only devices exempt from the technical requirements.

Certification is a procedure where the manufacturer submits test data and technical information to a certification body and receives a certificate or grant of equipment authorization upon successful completion of the certification body's review of the submitted documents. Once the equipment authorization has been obtained, the label indicating compliance must be attached to all identical units, which are subsequently manufactured.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which may result in increased emissions should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing or I/O cable changes, etc.).

STATEMENT OF COMPLIANCE

The tested sample of GE MDS LLC model MERCURY 5800 OUTDOOR SUBSCRIBER complied with the requirements of the following regulations:

FCC Part 15 Subpart C

Maintenance of compliance is the responsibility of the manufacturer. Any modifications to the product should be assessed to determine their potential impact on the compliance status of the device with respect to the standards detailed in this test report.

The test results recorded herein are based on a single type test of GE MDS LLC model MERCURY 5800 OUTDOOR SUBSCRIBER and therefore apply only to the tested sample. The sample was selected and prepared by Dennis McCarthy of GE MDS LLC.

DEVIATIONS FROM THE STANDARDS

No deviations were made from the published requirements listed in the scope of this report.

TEST RESULTS SUMMARY

DIGITAL TRANSMISSION SYSTEMS (5725 –5850 MHz)

FCC Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.247(a)	Digital Modulation	System uses OFDM techniques	System must utilize a digital transmission technology	Complies
15.247 (a) (2)	6dB Bandwidth	3.5 MHz: 3.12 MHz 5.0 MHz: 4.43 MHz 7.0 MHz: 6.40 MHz 8.75 MHz: 7.63 MHz 10.0 MHz: 8.90 MHz	>500kHz	Complies
15.247 (b)	Output Power (multipoint systems)	3.5 MHz: 17.5 dBm 5 MHz: 17.4 dBm 7 MHz: 18.0 dBm 8.75 MHz: 17.4 dBm 10 MHz: 18.0 dBm EIRP = 4.0 W ^{Note 1}	1 Watt, EIRP limited to 4 Watts.	Complies
15.247(d)	Power Spectral Density	3.5 MHz: -1.0 dBm 5 MHz: -5.0 dBm 7 MHz: -7.0 dBm 8.75 MHz: -8.0 dBm 10 MHz: -7.9 dBm All in 3kHz	Maximum permitted is 8dBm/3kHz	Complies
15.247(c)	Antenna Port Spurious Emissions – 30MHz – 40 GHz	All spurious emissions < -30dBc	< -30dBc ^{Note 2}	Complies
15.247(c) / 15.209	Radiated Spurious Emissions 30MHz – 40 GHz	51.6dBµV/m @ 11454.4MHz (-2.4dB)	15.207 in restricted bands, all others <-30dBc ^{Note 2}	Complies
15.203	RF Connector	Integral Antenna	Unique or integral antenna required	Complies
15.207	AC Conducted Emissions	49.9dBµV @ 23.781MHz (-0.1dB)	Refer to page 17	Complies
15.247 (b) (5) 15.407 (f)	RF Exposure Requirements	Refer to MPE calculations and User Manual statements.	Refer to OET 65 and FCC Part 1	Complies
Note 2: Limit	calculated using antenna gain of 18.0 dF of -30dBc used because the power was a transmission burst).			

MEASUREMENT UNCERTAINTIES

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level and were calculated in accordance with UKAS document LAB 34.

Measurement Type	Measurement Unit	Frequency Range	Expanded Uncertainty
RF power, conducted (power meter)	dBm	25 to 7000 MHz	$\pm 0.52 \text{ dB}$
RF power, conducted (Spectrum analyzer)	dBm	25 to 7000 MHz	$\pm 0.7 \text{ dB}$
Conducted emission of transmitter	dBm	25 to 26500 MHz	$\pm 0.7 \text{ dB}$
Conducted emission of receiver	dBm	25 to 26500 MHz	$\pm 0.7 \text{ dB}$
Radiated emission (substitution method)	dBm	25 to 26500 MHz	± 2.5 dB
Radiated emission (field strength)	dBµV/m	25 to 1000 MHz 1000 to 40000 MHz	$\frac{\pm 3.6 \text{ dB}}{\pm 6.0 \text{ dB}}$
Conducted Emissions (AC Power)	dBµV	0.15 to 30 MHz	± 2.4 dB

EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The GE MDS LLC model MERCURY 5800 OUTDOOR SUBSCRIBER is a WiMAX transceiver that is designed to transmit data. Since the EUT could be placed anywhere in use, it was placed on a table top during testing to simulate the end-user environment. The electrical rating of the EUT is 10 - 60 Volts DC, 3 Amps.

The sample was received on June 23, 2011 and tested on June 23, September 19 and 27, October 13, 17, 19, 21 and 24 and December 14, 2011. The EUT consisted of the following component(s):

Company	Model	Description	Serial Number	FCC ID
GE MDS LLC	MERCURY5800	WiMAX	PreProduction	E5MDS-
	ODU	transceiver		MERCODU5

ANTENNA SYSTEM

The EUT antenna is integral panel, 18dBi.

The antenna is integral to the EUT, thereby meeting the requirements of FCC 15.203.

ENCLOSURE

The EUT enclosure is primarily constructed of Aluminum. It measures approximately 20cm wide by 11cm deep by 5cm high.

MODIFICATIONS

No modifications were made to the EUT during the time the product was at Elliott.

SUPPORT EQUIPMENT

The following equipment was used as remote support equipment for emissions testing:

Company	Model	Description	Serial Number	FCC ID
		POE Adapter		-

EUT INTERFACE PORTS

The I/O cabling configuration during testing was as follows:

Dort	Connected	Cable(s)		
Port	То	Description	Shielded or Unshielded	Length(m)
LAN	Remote POE	CAT 5	Unshielded	15

Note: The USB and COM1 ports were not connected during testing. GE MDS stated that these are for diagnostic/maintenance purposes and therefore would not normally be connected.

EUT OPERATION

During emissions testing the EUT was set to transmit at a specified power setting on the selected channel.

TEST SITE

GENERAL INFORMATION

Final test measurements were taken at the test sites listed below. Pursuant to section 2.948 of the FCC's Rules and section 3.3 of RSP-100, construction, calibration, and equipment data has been filed with the Commission and with industry Canada.

Site	Registration Numbers		Location
Site	FCC	Canada	Location
Chamber 3	769238	2845B-3	
Chamber 4	211948	2845B-4	41039 Boyce Road
Chamber 5	211948	2845B-5	Fremont,
Chamber 7	A2LA	2845B-7 CA 94538-24	CA 94538-2435
Chamber 7	accreditation	2043D-/	

ANSI C63.4:2003 recommends that ambient noise at the test site be at least 6 dB below the allowable limits. Ambient levels are below this requirement. The test site(s) contain separate areas for radiated and conducted emissions testing. Considerable engineering effort has been expended to ensure that the facilities conform to all pertinent requirements of ANSI C63.4:2003.

CONDUCTED EMISSIONS CONSIDERATIONS

Conducted emissions testing is performed in conformance with ANSI C63.4:2003. Measurements are made with the EUT connected to the public power network through a nominal, standardized RF impedance, which is provided by a line impedance stabilization network, known as a LISN. A LISN is inserted in series with each current-carrying conductor in the EUT power cord.

RADIATED EMISSIONS CONSIDERATIONS

The FCC has determined that radiation measurements made in a shielded enclosure are not suitable for determining levels of radiated emissions. Radiated measurements are performed in an open field environment or in a semi-anechoic chamber. The test sites are maintained free of conductive objects within the CISPR defined elliptical area incorporated in ANSI C63.4:2003 guidelines and meet the Normalized Site Attenuation (NSA) requirements of ANSI C63.4:2003.

MEASUREMENT INSTRUMENTATION

RECEIVER SYSTEM

An EMI receiver as specified in CISPR 16-1-1 is used for emissions measurements. The receivers used can measure over the frequency range of 9 kHz up to 2000 MHz. These receivers allow both ease of measurement and high accuracy to be achieved. The receivers have Peak, Average, and CISPR (Quasi-peak) detectors built into their design so no external adapters are necessary. The receiver automatically sets the required bandwidth for the CISPR detector used during measurements. If the repetition frequency of the signal being measured is below 20Hz, peak measurements are made in lieu of Quasi-Peak measurements.

For measurements above the frequency range of the receivers, a spectrum analyzer is utilized because it provides visibility of the entire spectrum along with the precision and versatility required to support engineering analysis. Average measurements above 1000MHz are performed on the spectrum analyzer using the linear-average method with a resolution bandwidth of 1 MHz and a video bandwidth of 10 Hz, unless the signal is pulsed in which case the average (or video) bandwidth of the measuring instrument is reduced to onset of pulse desensitization and then increased.

INSTRUMENT CONTROL COMPUTER

The receivers utilize either a Rohde & Schwarz EZM Spectrum Monitor/Controller or contain an internal Spectrum Monitor/Controller to view and convert the receiver measurements to the field strength at an antenna or voltage developed at the LISN measurement port, which is then compared directly with the appropriate specification limit. This provides faster, more accurate readings by performing the conversions described under Sample Calculations within the Test Procedures section of this report. Results are printed in a graphic and/or tabular format, as appropriate. A personal computer is used to record all measurements made with the receivers.

The Spectrum Monitor provides a visual display of the signal being measured. In addition, the controller or a personal computer run automated data collection programs which control the receivers. This provides added accuracy since all site correction factors, such as cable loss and antenna factors are added automatically.

LINE IMPEDANCE STABILIZATION NETWORK (LISN)

Line conducted measurements utilize a fifty microhenry Line Impedance Stabilization Network as the monitoring point. The LISN used also contains a 250 uH CISPR adapter. This network provides for calibrated radio frequency noise measurements by the design of the internal low pass and high pass filters on the EUT and measurement ports, respectively.

FILTERS/ATTENUATORS

External filters and precision attenuators are often connected between the receiving antenna or LISN and the receiver. This eliminates saturation effects and non-linear operation due to high amplitude transient events.

ANTENNAS

A loop antenna is used below 30 MHz. For the measurement range 30 MHz to 1000 MHz either a combination of a biconical antenna and a log periodic or a bi-log antenna is used. Above 1000 MHz, horn antennas are used. The antenna calibration factors to convert the received voltage to an electric field strength are included with appropriate cable loss and amplifier gain factors to determine an overall site factor, which is then programmed into the test receivers or incorporated into the test software.

ANTENNA MAST AND EQUIPMENT TURNTABLE

The antennas used to measure the radiated electric field strength are mounted on a nonconductive antenna mast equipped with a motor-drive to vary the antenna height. Measurements below 30 MHz are made with the loop antenna at a fixed height of 1m above the ground plane.

ANSI C63.4:2003 specifies that the test height above ground for table mounted devices shall be 80 centimeters. Floor mounted equipment shall be placed on the ground plane if the device is normally used on a conductive floor or separated from the ground plane by insulating material from 3 to 12 mm if the device is normally used on a non-conductive floor. During radiated measurements, the EUT is positioned on a motorized turntable in conformance with this requirement.

INSTRUMENT CALIBRATION

All test equipment is regularly checked to ensure that performance is maintained in accordance with the manufacturer's specifications. All antennas are calibrated at regular intervals with respect to tuned half-wave dipoles. An exhibit of this report contains the list of test equipment used and calibration information.

TEST PROCEDURES

EUT AND CABLE PLACEMENT

The regulations require that interconnecting cables be connected to the available ports of the unit and that the placement of the unit and the attached cables simulate the worst case orientation that can be expected from a typical installation, so far as practicable. To this end, the position of the unit and associated cabling is varied within the guidelines of ANSI C63.4:2003, and the worst-case orientation is used for final measurements.

CONDUCTED EMISSIONS

Conducted emissions are measured at the plug end of the power cord supplied with the EUT. Excess power cord length is wrapped in a bundle between 30 and 40 centimeters in length near the center of the cord. Preliminary measurements are made to determine the highest amplitude emission relative to the specification limit for all the modes of operation. Placement of system components and varying of cable positions are performed in each mode. A final peak mode scan is then performed in the position and mode for which the highest emission was noted on all current carrying conductors of the power cord.

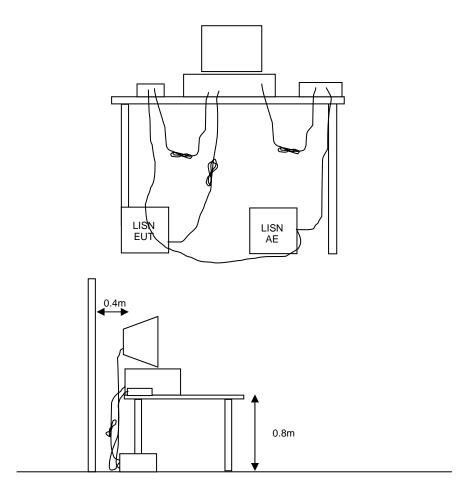


Figure 1 Typical Conducted Emissions Test Configuration

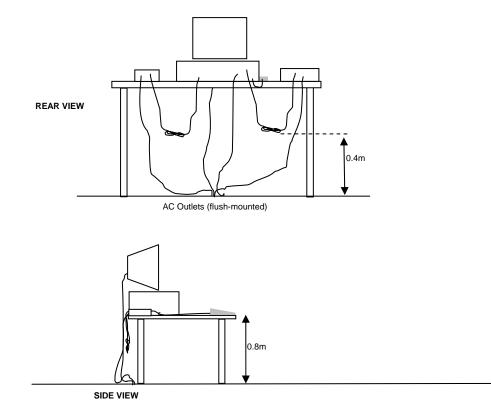
RADIATED EMISSIONS

A preliminary scan of the radiated emissions is performed in which all significant EUT frequencies are identified with the system in a nominal configuration. At least two scans are performed, one scan for each antenna polarization (horizontal and vertical; loop parallel and perpendicular to the EUT). During the preliminary scans, the EUT is rotated through 360°, the antenna height is varied (for measurements above 30 MHz) and cable positions are varied to determine the highest emission relative to the limit. Preliminary scans may be performed in a fully anechoic chamber for the purposes of identifying the frequencies of the highest emissions from the EUT.

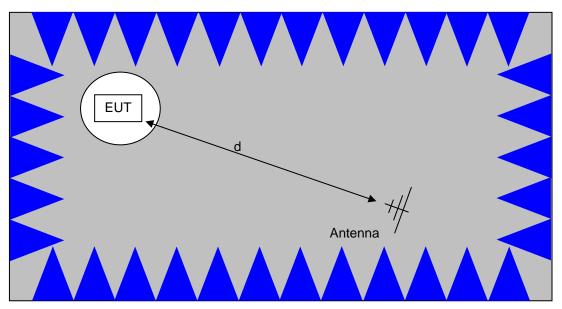
A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

Final maximization is a phase in which the highest amplitude emissions identified in the spectral search are viewed while the EUT azimuth angle is varied from 0 to 360 degrees relative to the receiving antenna. The azimuth, which results in the highest emission is then maintained while varying the antenna height from one to four meters (for measurements above 30 MHz, measurements below 30 MHz are made with the loop antenna at a fixed height of 1m). The result is the identification of the highest amplitude for each of the highest peaks. Each recorded level is corrected in the receiver using appropriate factors for cables, connectors, antennas, and preamplifier gain.

When testing above 18 GHz, the receive antenna is located at 1 meter from the EUT and the antenna height is restricted to a maximum of 2.5 meters.

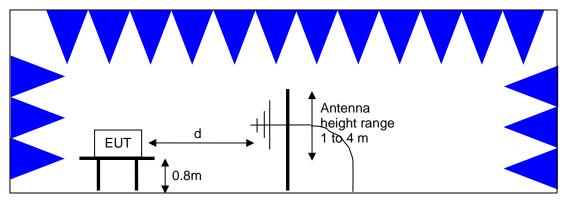


Typical Test Configuration for Radiated Field Strength Measurements



The anechoic materials on the walls and ceiling ensure compliance with the normalized site attenuation requirements of CISPR 16 / CISPR 22 / ANSI C63.4 for an alternate test site at the measurement distances used.

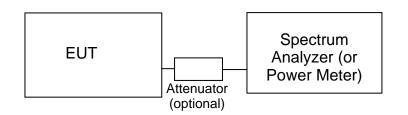
Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



<u>Test Configuration for Radiated Field Strength Measurements</u> <u>Semi-Anechoic Chamber, Plan and Side Views</u>

CONDUCTED EMISSIONS FROM ANTENNA PORT

Direct measurements of power, bandwidth and power spectral density are performed, where possible, with the antenna port of the EUT connected to either the power meter or spectrum analyzer via a suitable attenuator and/or filter. These are used to ensure that the front end of the measurement instrument is not overloaded by the fundamental transmission.



Test Configuration for Antenna Port Measurements

Measurement bandwidths (video and resolution) are set in accordance with the relevant standards and Elliott's test procedures for the type of radio being tested. When power measurements are made using a resolution bandwidth less than the signal bandwidth the power is calculated by summing the power across the signal bandwidth using either the analyzer channel power function or by capturing the trace data and calculating the power using software. In both cases the summed power is corrected to account for the equivalent noise bandwidth (ENBW) of the resolution bandwidth used.

If power averaging is used (typically for certain digital modulation techniques), the EUT is configured to transmit continuously. Power averaging is performed using either the built-in function of the analyzer or, if the analyzer does not feature power averaging, using external software. In both cases the average power is calculated over a number of sweeps (typically 100). When the EUT cannot be configured to continuously transmit then either the analyzer is configured to perform a gated sweep to ensure that the power is averaged over periods that the device is transmitting or power averaging is disabled and a max-hold feature is used.

If a power meter is used to make output power measurements the sensor head type (peak or average) is stated in the test data table.

BANDWIDTH MEASUREMENTS

The 6dB, 20dB and/or 26dB signal bandwidth is measured in using the bandwidths recommended by ANSI C63.4. When required, the 99% bandwidth is measured using the methods detailed in RSS GEN.

SPECIFICATION LIMITS AND SAMPLE CALCULATIONS

The limits for conducted emissions are given in units of microvolts, and the limits for radiated emissions are given in units of microvolts per meter at a specified test distance. Data is measured in the logarithmic form of decibels relative to one microvolt, or dB microvolts (dBuV). For radiated emissions, the measured data is converted to the field strength at the antenna in dB microvolts per meter (dBuV/m). The results are then converted to the linear forms of uV and uV/m for comparison to published specifications.

For reference, converting the specification limits from linear to decibel form is accomplished by taking the base ten logarithm, then multiplying by 20. These limits in both linear and logarithmic form are as follows:

CONDUCTED EMISSIONS SPECIFICATION LIMITS: FCC 15.207; FCC 15.107(a), RSS GEN

The table below shows the limits for the emissions on the AC power line from an intentional radiator and a receiver.

Frequency (MHz)	Average Limit (dBuV)	Quasi Peak Limit (dBuV)
0.150 to 0.500	Linear decrease on logarithmic frequency axis between 56.0 and 46.0	Linear decrease on logarithmic frequency axis between 66.0 and 56.0
0.500 to 5.000	46.0	56.0
5.000 to 30.000	50.0	60.0

GENERAL TRANSMITTER RADIATED EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from transmitters that fall in restricted bands¹ (with the exception of transmitters operating under FCC Part 15 Subpart D and RSS 210 Annex 9), the limits for all emissions from a low power device operating under the general rules of RSS 310 (tables 3 and 4), RSS 210 (table 2) and FCC Part 15 Subpart C section 15.209.

Frequency Range (MHz)	Limit (uV/m)	Limit (dBuV/m @ 3m)
0.009-0.490	2400/F _{KHz} @ 300m	67.6-20*log ₁₀ (F _{KHz}) @ 300m
0.490-1.705	24000/F _{KHz} @ 30m	87.6-20*log ₁₀ (F _{KHz}) @ 30m
1.705 to 30	30 @ 30m	29.5 @ 30m
30 to 88	100 @ 3m	40 @ 3m
88 to 216	150 @ 3m	43.5 @ 3m
216 to 960	200 @ 3m	46.0 @ 3m
Above 960	500 @ 3m	54.0 @ 3m

RECEIVER RADIATED SPURIOUS EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from receivers as detailed in FCC Part 15.109, RSS 210 Table 2, RSS GEN Table 1 and RSS 310 Table 3. Note that receivers operating outside of the frequency range 30 MHz – 960 MHz are exempt from the requirements of 15.109.

Frequency Range (MHz)	Limit (uV/m @ 3m)	Limit (dBuV/m @ 3m)
30 to 88	100	40
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0

¹ The restricted bands are detailed in FCC 15.203, RSS 210 Table 1 and RSS 310 Table 2

OUTPUT POWER LIMITS - DIGITAL TRANSMISSION SYSTEMS

The table below shows the limits for output power and output power density. Where the signal bandwidth is less than 20 MHz the maximum output power is reduced to the power spectral density limit plus 10 times the log of the bandwidth (in MHz).

Operating Frequency (MHz)	Output Power	Power Spectral Density
902 - 928	1 Watt (30 dBm)	8 dBm/3kHz
2400 - 2483.5	1 Watt (30 dBm)	8 dBm/3kHz
5725 - 5850	1 Watt (30 dBm)	8 dBm/3kHz

The maximum permitted output power is reduced by 1dB for every dB the antenna gain exceeds 6dBi. Fixed point-to-point applications using the 5725 - 5850 MHz band are not subject to this restriction.

TRANSMIT MODE SPURIOUS RADIATED EMISSIONS LIMITS – FHSS and DTS SYSTEMS

The limits for unwanted (spurious) emissions from the transmitter falling in the restricted bands are those specified in the general limits sections of FCC Part 15 and RSS 210. All other unwanted (spurious) emissions shall be at least 20dB below the level of the highest in-band signal level (30dB if the power is measured using the sample detector/power averaging method).

SAMPLE CALCULATIONS - CONDUCTED EMISSIONS

Receiver readings are compared directly to the conducted emissions specification limit (decibel form) as follows:

$$R_r - S = M$$

where:

 $R_r = Receiver Reading in dBuV$

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

SAMPLE CALCULATIONS - RADIATED EMISSIONS

Receiver readings are compared directly to the specification limit (decibel form). The receiver internally corrects for cable loss, preamplifier gain, and antenna factor. The calculations are in the reverse direction of the actual signal flow, thus cable loss is added and the amplifier gain is subtracted. The Antenna Factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

A distance factor, when used for electric field measurements above 30MHz, is calculated by using the following formula:

$$F_d = 20*LOG_{10} (D_m/D_s)$$

where:

 F_d = Distance Factor in dB D_m = Measurement Distance in meters D_s = Specification Distance in meters

For electric field measurements below 30MHz the extrapolation factor is either determined by making measurements at multiple distances or a theoretical value is calculated using the formula:

$$F_d = 40*LOG_{10} (D_m/D_s)$$

Measurement Distance is the distance at which the measurements were taken and Specification Distance is the distance at which the specification limits are based. The antenna factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

The margin of a given emission peak relative to the limit is calculated as follows:

$$R_c = R_r + F_d$$

and

 $M = R_c - L_s$

where:

 R_r = Receiver Reading in dBuV/m

 F_d = Distance Factor in dB

 R_c = Corrected Reading in dBuV/m

 L_S = Specification Limit in dBuV/m

M = Margin in dB Relative to Spec

SAMPLE CALCULATIONS - FIELD STRENGTH TO EIRP CONVERSION

Where the radiated electric field strength is expressed in terms of the equivalent isotropic radiated power (eirp), or where a field strength measurement of output power is made in lieu of a direct measurement, the following formula is used to convert between eirp and field strength at a distance of d (meters) from the equipment under test:

E = $\underline{1000000 \sqrt{30 P}}$ microvolts per meter

d

where P is the eirp (Watts)

For a measurement at 3m the conversion from a logarithmic value for field strength (dBuV/m) to an eirp power (dBm) is -95.3dB.

Appendix A Test Equipment Calibration Data

Manufacturer	s - AC Power Ports, 23-Jun-11 <u>Description</u>	Model	Asset #	<u>Cal Due</u>
Rohde & Schwarz EMCO Rohde & Schwarz	Pulse Limiter LISN, 10 kHz-100 MHz EMI Test Receiver, 20 Hz-7 GHz	ESH3 Z2 3825/2 ESIB7	812 1292 1756	1/18/2012 3/1/2012 4/6/2012
Radio Antenna Port (F	Power and Spurious Emissions), 7	19-Sep-11		
Manufacturer Agilent	Description PSA, Spectrum Analyzer, (installed options, 111, 115, 123, 1DS, B7J, HYX,	<u>Model</u> E4446A	<u>Asset #</u> 2139	<u>Cal Due</u> 1/26/2012
Radio Antenna Port (F				
<u>Manufacturer</u> Agilent	<u>Description</u> PSA, Spectrum Analyzer, (installed options, 111, 115, 123, 1DS, B7J, HYX,	<u>Model</u> E4446A	<u>Asset #</u> 2139	<u>Cal Due</u> 1/26/2012
	Power and Spurious Emissions), ²	13-Oct-11		
Manufacturer Hewlett Packard	<u>Description</u> SpecAn 30 Hz -40 GHz, SV (SA40) Red	<u>Model</u> 8564E (84125C)	<u>Asset #</u> 1148	<u>Cal Due</u> 8/15/2012
Radiated Emissions, 1	1000 - 18,000 MHz, 17-Oct-11			
<u>Manufacturer</u> Hewlett Packard	Description Microwave Preamplifier, 1- 26.5GHz	<u>Model</u> 8449B	<u>Asset #</u> 263	<u>Cal Due</u> 12/8/2011
Hewlett Packard	SpecAn 30 Hz -40 GHz, SV (SA40) Red	8564E (84125C)	1148	8/15/2012
EMCO Micro-Tronics	Antenna, Horn, 1-18 GHz Band Reject Filter, 5725-5875 MHz	3115 BRC50705-02	1561 1682	6/22/2012 3/23/2012
Radiated Emissions, 1	1000 - 40,000 MHz, 19-Oct-11			
Manufacturer	Description	Model	<u>Asset #</u>	Cal Due
Hewlett Packard	Microwave Preamplifier, 1- 26.5GHz	8449B	785	5/18/2012
EMCO Hewlett Packard	Antenna, Horn, 1-18GHz SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	3115 8564E (84125C)	868 1393	6/8/2012 8/9/2012
Hewlett Packard	Head (Inc W1-W4, 1742 , 1743) Blue	84125C	1620	5/9/2012
A.H. Systems Micro-Tronics	Blue System Horn, 18-40GHz Band Reject Filter, 5725-5875 MHz	SAS-574, p/n: 2581 BRC50705-02	2159 2241	3/23/2012 10/4/2012
Radiated Emissions, 1	1000 - 18,000 MHz, 21-Oct-11			
Manufacturer Hewlett Packard	Description Microwave Preamplifier, 1- 26.5GHz	<u>Model</u> 8449B	<u>Asset #</u> 263	<u>Cal Due</u> 12/8/2011
Hewlett Packard	20.5GH2 SpecAn 30 Hz -40 GHz, SV (SA40) Red	8564E (84125C)	1148	8/15/2012
EMCO	Antenna, Horn, 1-18 GHz (SA40-Blu)	3115	1386	9/21/2012
Micro-Tronics	Band Reject Filter, 5725-5875 MHz	BRC50705-02	2241	10/4/2012

Radiated Emissions,	Radiated Emissions, 1000 - 18,000 MHz, 14-Dec-11											
Manufacturer	Description	Model #	Asset #	Cal Due								
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1538	06-Dec-12								
Sunol Sciences	Biconilog, 30-3000 MHz	JB3	1548	24-Jun-12								
Hewlett Packard	Preamplifier, 100 kHz - 1.3 GHz	8447D OPT 010	1826	17-May- 12								

Appendix B Test Data

T83697 Pages 25 - 91



EMC Test Data

An DCLP	5 company		
Client:	GE MDS LLC	Job Number:	J83512
Model:	Mercury5800	T-Log Number:	T83697
		Account Manager:	Susan Pelzl
Contact:	Dennis McCarthy		-
Emissions Standard(s):	FCC 15.247, RSS-210	Class:	А
Immunity Standard(s):	-	Environment:	Radio

EMC Test Data

For The

GE MDS LLC

Model

Mercury5800

Date of Last Test: 12/14/2011

EMC Test Data

	An ZALED company		
Client:	GE MDS LLC	Job Number:	J83512
Model: Mercury5800	Marcura E900	T-Log Number:	T83697
would.	Mercu y5600	Account Manager:	Susan Pelzl
Contact:	Dennis McCarthy		
Standard:	FCC 15.247, RSS-210	Class:	А

Radiated Emissions

(Elliott Laboratories Fremont Facility, Semi-Anechoic Chamber)

Test Specific Details

Elliott

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 12/14/2011 Test Engineer: Vishal Narayan Test Location: Fremont Chamber #4 Config. Used: 1 Config Change: None EUT Voltage: POE

General Test Configuration

The EUT and any local support equipment were located on the turntable for radiated emissions testing. Any remote support equipment was located outside the semi-anechoic chamber. Any cables running to remote support equipment where routed through metal conduit and when possible passed through a ferrite clamp upon exiting the chamber.

The test distance and extrapolation factor (if applicable) are detailed under each run description.

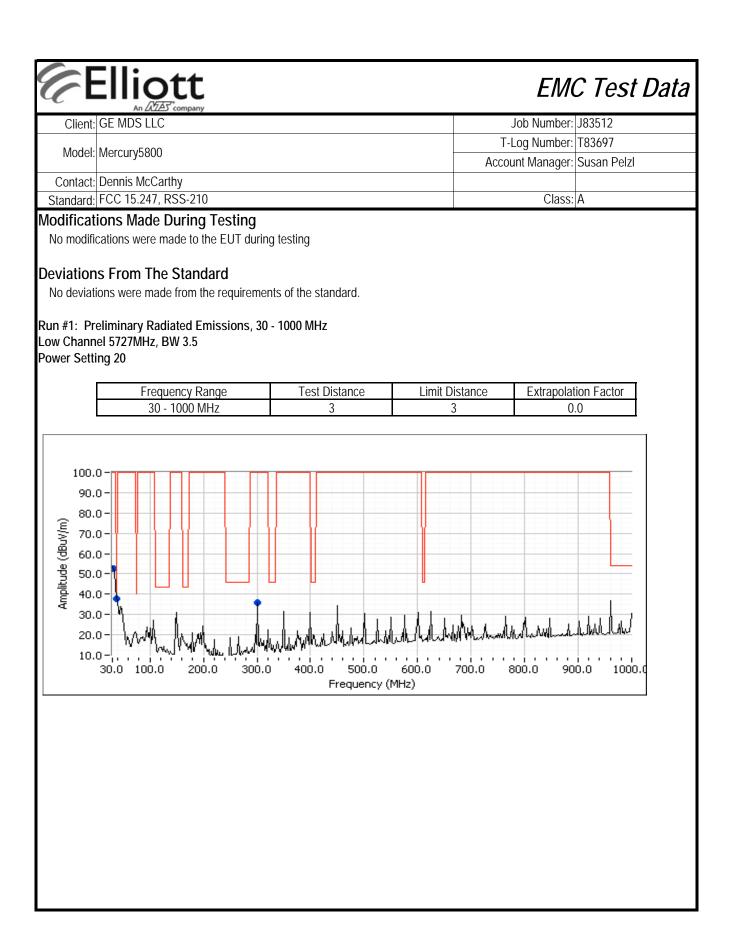
Note, preliminary testing indicates that the emissions were maximized by orientation of the EUT and elevation of the measurement antenna. Maximized testing indicated that the emissions were maximized by orientation of the EUT, elevation of the measurement antenna, and manipulation of the EUT's interface cables.

Ambient Conditions:

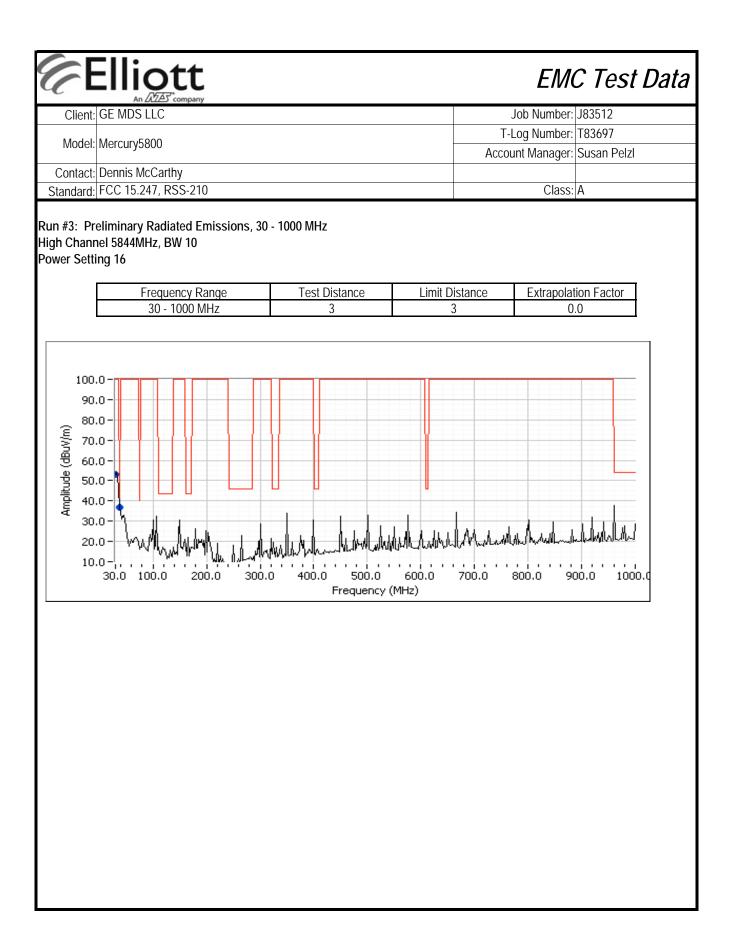
Temperature:	20 °C
Rel. Humidity:	41 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	Radiated Emissions FCC Part 15.209 /		Pass	36.0dBµV/m @ 37.56MHz (-4.0dB)
Ι	30 - 1000 MHz, Preliminary	15.247(c)	Pass	50.00Bµ V/III @ 57.50WIHZ (-4.00B)
n	Radiated Emissions	FCC Part 15.209 /	Pass	36.0dBµV/m @ 37.56MHz (-4.0dB)
Z	30 - 1000 MHz, Maximized	15.247(c)	Pass	50.00BµV/III @ 57.50WIHZ (-4.00B)
2	Radiated Emissions	FCC Part 15.209 /	Pass	26.8dBµV/m @ 38.02MHz
3	30 - 1000 MHz, Preliminary	15.247(c)	Pass	(-13.2dB)
Λ	Radiated Emissions	FCC Part 15.209 /	Dace	26.8dBµV/m @ 38.02MHz
4	30 - 1000 MHz, Maximized	15.247(c) Pass		(-13.2dB)
			-	



	GE MDS LL	С						Job Number:	J83512
Madal	MoreuryEQ0	า		T	-Log Number:	T83697			
Model: Mercury5800								ount Manager:	Susan Pelzl
Contact:	Dennis McC	arthy							
Standard:	FCC 15.247	, RSS-210						Class:	А
Continuatio	on of Run #1								
	peak readir							1	
Frequency	Level	Pol		t 15.209 / 47(c)	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
37.555	37.9	V	40.0	-2.1	Peak	347	1.0		
33.070	52.6	V	100.0	-47.4	Peak	201	1.0		
300.006	35.8	V	100.0	-64.2	Peak	186	1.5		
					T interface c		11.2.1.1	0	
Frequency	Level	Pol		t 15.209 / 47(c)	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
07.555	36.0	V	10.0	1.0		240	4.0	00 (1 00)	
37.555	30.0		40.0	-4.0	QP	348	1.0	QP (1.00s)	
37.555 33.070	46.1	V	100.0	-4.0 -53.9	QP QP	348 203	1.0	QP (1.00s)	
33.070 300.006	46.1 34.7	V V	100.0 100.0						
33.070 300.006 Run #2: Ma Maximized Frequency	46.1 34.7 aximized Rea quasi-peak Level	V V adings Fro readings (Pol	100.0 100.0 om Run #1 includes ma FCC Par 15.2	-53.9 -65.3 anipulation t 15.209 / 47(c)	QP QP of EUT interfa	203 188 ace cables) Azimuth	1.0 1.5 Height	QP (1.00s)	
33.070 300.006 Run #2: Ma Maximized Frequency MHz	46.1 34.7 aximized Rea quasi-peak Level dBµV/m	V V adings Fro readings (Pol v/h	100.0 100.0 om Run #1 includes ma FCC Par 15.2 Limit	-53.9 -65.3 anipulation t 15.209 / 47(c) Margin	QP QP of EUT interfa Detector Pk/QP/Avg	203 188 ace cables) Azimuth degrees	1.0 1.5 Height meters	QP (1.00s) QP (1.00s) Comments	
33.070 300.006 Run #2: Ma Maximized Frequency	46.1 34.7 aximized Rea quasi-peak Level	V V adings Fro readings (Pol	100.0 100.0 om Run #1 includes ma FCC Par 15.2	-53.9 -65.3 anipulation t 15.209 / 47(c)	QP QP of EUT interfa	203 188 ace cables) Azimuth	1.0 1.5 Height	QP (1.00s) QP (1.00s)	



	GE MDS LLO	Dett Company						Job Number:	J83512
Model	Mercury5800)					T-Log Number: T83697		
	5						Acco	ount Manager:	Susan Pelzl
	Dennis McCa	5						Class	٨
	FCC 15.247, n of Run #3	, RSS-210						Class:	А
Jontinuatio	11 01 KUI1 #3								
Preliminary	peak readin	igs captur	ed during p	ore-scan					
Frequency	Level	Pol	FCC Par	t 15.209 / 47(c)	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
38.017	36.7	V	40.0	-3.3	Peak	27	1.0		
30.879	53.3	V	100.0	-46.7	Peak	132	1.0		
Droliminary	auasi poak	roadings	(no maninu	lation of EU	T interface c	ablas)			
Frequency	Level	Pol		t 15.209 /	Detector	Azimuth	Height	Comments	
requeries		1 01		47(c)	DOLOGIO		rioigint	50111101115	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
38.017	26.8	V	40.0		QP		1.0	QP (1.00s)	
30.017		v	40.0	-13.Z	UP UP	28	1.0	QP(1.005)	
30.800	24.1	V	100.0	-13.2 -75.9	QP	28 140	1.2	QP (1.00s)	
30.800 Run #4: Ma	24.1 aximized Rea	V adings Fro	100.0 om Run #3 includes ma	-75.9 anipulation t 15.209 /		140			
30.800 Run #4: Ma Maximized (Frequency	24.1 Iximized Rea quasi-peak r Level	V adings Fro readings (i Pol	100.0 om Run #3 includes ma FCC Pai 15.2	-75.9 anipulation t 15.209 / 47(c)	QP of EUT interfa	140 ace cables) Azimuth	1.2 Height	QP (1.00s)	
30.800 Run #4: Ma Maximized (24.1 Iximized Rea quasi-peak r	V adings Fro readings (i	100.0 om Run #3 includes ma	-75.9 anipulation t 15.209 /	QP of EUT interfa	140 ace cables)	1.2	QP (1.00s)	

EMC Test Data

 Client:
 GE MDS LLC
 Job Number:
 J83512

 Model:
 Mercury5800
 T-Log Number:
 T83697

 Contact:
 Dennis McCarthy
 Account Manager:
 Susan Pelzl

 Standard:
 FCC 15.247, RSS-210
 Class:
 N/A

RSS 210 and FCC 15.247 (DTS) Radiated Spurious Emissions

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

Elliott

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature:	20.4 °C
Rel. Humidity:	39 %

Summary of Results - Device Operating in the 5725 - 5850 MHz Band

Channel	Power Setting	Measured	Test Performed		
		Power	rest renomed	Limit	Result / Margin
low -	20		Radiated Emissions,	FCC Part 15.209 /	51.6dBµV/m @
5727 MHz	20	-	1 - 40GHz	15.247(c)	11454.4MHz (-2.4dB)
center -	20		Radiated Emissions,	FCC Part 15.209 /	49.7dBµV/m @
5788 MHz	20	-	1 - 40GHz	15.247(c)	4742.9MHz (-4.3dB)
high - 5847	18		Radiated Emissions,	FCC Part 15.209 /	50.0dBµV/m @
MHz	10	-	1 - 40GHz	15.247(c)	11694.1MHz (-4.0dB)
low -	16		Radiated Emissions,	FCC Part 15.209 /	47.5dBµV/m @
5728 MHz	10	-	1 - 40GHz	15.247(c)	5456.6MHz (-6.5dB)
center -	14		Radiated Emissions,	FCC Part 15.209 /	43.5dBµV/m @
5788 MHz	16	-	1 - 40GHz	15.247(c)	4743.2MHz (-10.5dB)
high - 5847	15		Radiated Emissions,	FCC Part 15.209 /	47.7dBµV/m @
MHz	10	-	1 - 40GHz	15.247(c)	4802.1MHz (-6.3dB)
low -	17		Radiated Emissions,	FCC Part 15.209 /	40.1dBµV/m @
5729 MHz	17	-	1 - 40GHz	15.247(c)	4675.8MHz (-13.9dB)
center -	17		Radiated Emissions,	FCC Part 15.209 /	41.4dBµV/m @
5788 MHz	17	-	1 - 40GHz	15.247(c)	4740.0MHz (-12.6dB)
high - 5846	16		Radiated Emissions,	FCC Part 15.209 /	47.4dBµV/m @
MHz	10	-	1 - 40GHz	15.247(c)	4801.4MHz (-6.6dB)
	5788 MHz high - 5846	5788 MHz 17 high - 5846 16	5788 MHz 17 - high - 5846 16 -	5788 MHz 17 1 - 40GHz high - 5846 16 Radiated Emissions,	5788 MHz 17 - 1 - 40GHz 15.247(c) high - 5846 16 Radiated Emissions, FCC Part 15.209 /

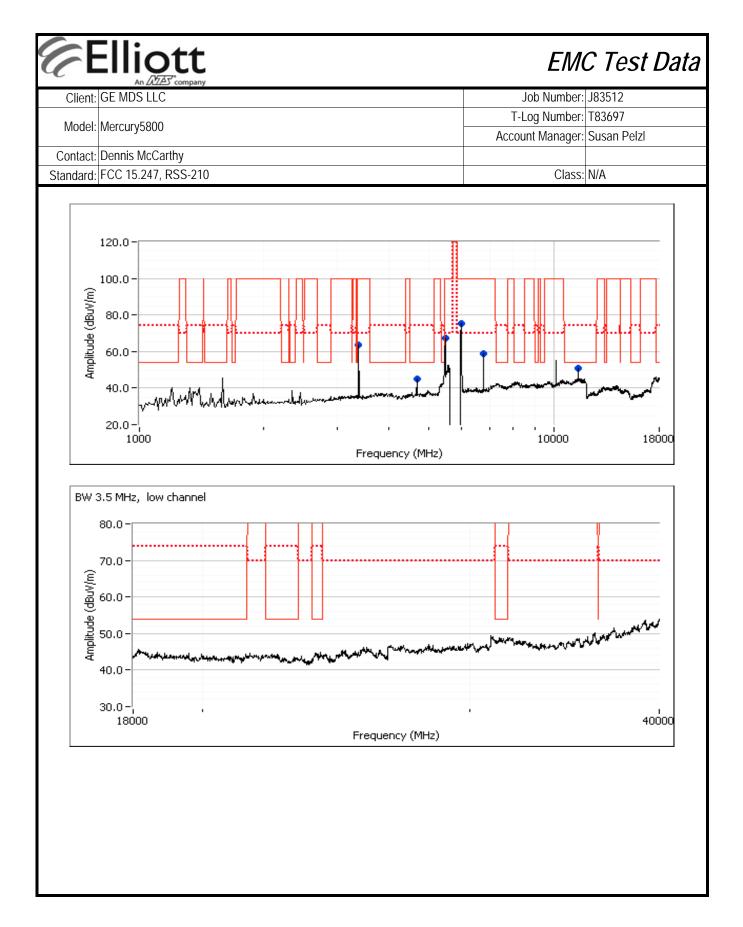
	Elliott EMC Test Data								
Client	GE MDS LL	.C				Job Number:	J83512		
Madal		0		T-Log Number:	T83697				
Wodel	Mercury580	0		Account Manager:	Susan Pelzl				
Contact	Contact: Dennis McCarthy								
Standard	FCC 15.247	, RSS-210				Class:	N/A		
Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin		
4a	BW 8.75	low -	16	-	Radiated Emissions,	FCC Part 15.209 /	42.2dBµV/m @		
14	DIVOID	5730 MHz	10		1 - 40GHz	15.247(c)	4685.3MHz (-11.8dB)		
4b	BW 8.75	center -	16	-	Radiated Emissions,	FCC Part 15.209 /	42.9dBµV/m @		
10	511 0.70	5788 MHz			1 - 40GHz	15.247(c)	4743.6MHz (-11.1dB)		
4c	BW 8.75	high - 5845	15	_	Radiated Emissions,	FCC Part 15.209 /	49.0dBµV/m @		
10	DW 0.70	MHz	10		1 - 40GHz	15.247(c)	4800.4MHz (-5.0dB)		
5a	BW 10	low -	17	_	Radiated Emissions,	FCC Part 15.209 /	40.9dBµV/m @		
Ja	DW IU	5732 MHz	17	_	1 - 40GHz	15.247(c)	4687.3MHz (-13.1dB)		
5b	BW 10	center -	17		Radiated Emissions,	FCC Part 15.209 /	43.1dBµV/m @		
uc	DVV IU	5788 MHz	17	-	1 - 40GHz	15.247(c)	4743.4MHz (-10.9dB)		
Fo	DW/ 10	high - 5844	14		Radiated Emissions,	FCC Part 15.209 /	47.9dBµV/m @		
5c	BW 10	MHz	16	-	1 - 40GHz	15.247(c)	4799.7MHz (-6.1dB)		

Modifications Made During Testing No modifications were made to the EUT during testing

Deviations From The Standard

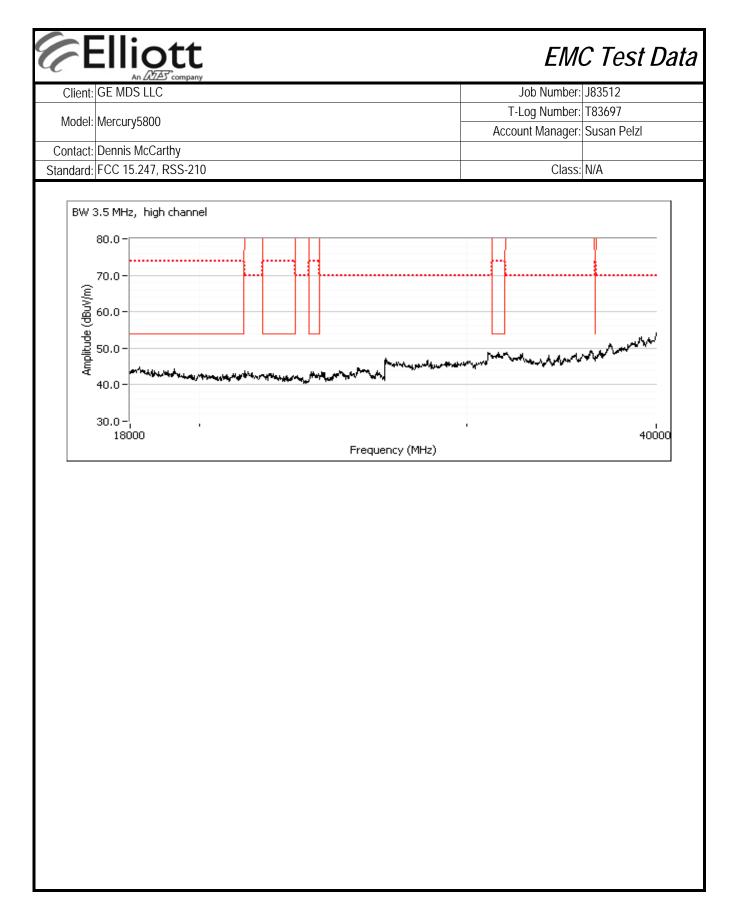
No deviations were made from the requirements of the standard.

	Ellic	D tt						EM	C Test Da
Client:	GE MDS LL							Job Number:	J83512
							T-	Log Number:	T83697
Model:	Mercury5800							Account Manager: Susan Pelzl	
Contact:	Dennis McC	arthy							
Standard: FCC 15.247, RSS-210								Class:	N/A
I T€ T(Date of Test: est Engineer: est Location:	10/17/2011 Rafael Vare FT Chambe	las r #5	40000 MHz.	Operating M	ode: BW 3.	5		
	ow Channel					:m 1 MI I - om			n 100kl l-
				iverage value / 15.247	es measured				
Frequency MHz		Pol v/h	Limit		Detector Pk/QP/Avg	Azimuth	Height	Comments	
	dBµV/m		Limit	Margin	Ŭ	degrees	meters		
5727.950 5727.180	121.6 121.1	V H	-	-	PK PK	356 15	1.0 1.0		;;VB 100 kHz;Pk ;;VB 100 kHz;Pk
5727.100	121.1		_	_	ΤK	15	1.0		
Spurious E	missions	emissions ou				dBµV/m			ver measurement)
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h V	Limit	Margin	Pk/QP/Avg	degrees	meters		
11454.350 11455.380	51.6 61.9	V	54.0 74.0	-2.4 -12.1	AVG PK	171 171	1.7		/B 10 Hz;Pk /B 3 MHz;Pk
	72.8	V	91.6	-12.1	PK PK	8	1.7 1.0		;VB 100 kHz;Pk
5078 120		V	91.6	-31.5	PK	17	1.0		;;VB 100 kHz;Pk
5978.120			91.6	-27.6	PK	205	1.0		
5476.490	60.1 64.0	V	910		1 1 1	200	1.0	IND TOO KINZ	
5476.490 3386.030	64.0	V			AVG	335	1.3	RB 1 MHz:\	:;VB 100 kHz;Pk /B 10 Hz:Pk
5476.490		V V V	54.0 74.0	-10.4 -21.2	AVG PK	335 335	1.3 1.3		;;vb 100 kH2;pk /B 10 Hz;pk /B 3 MHz;pk



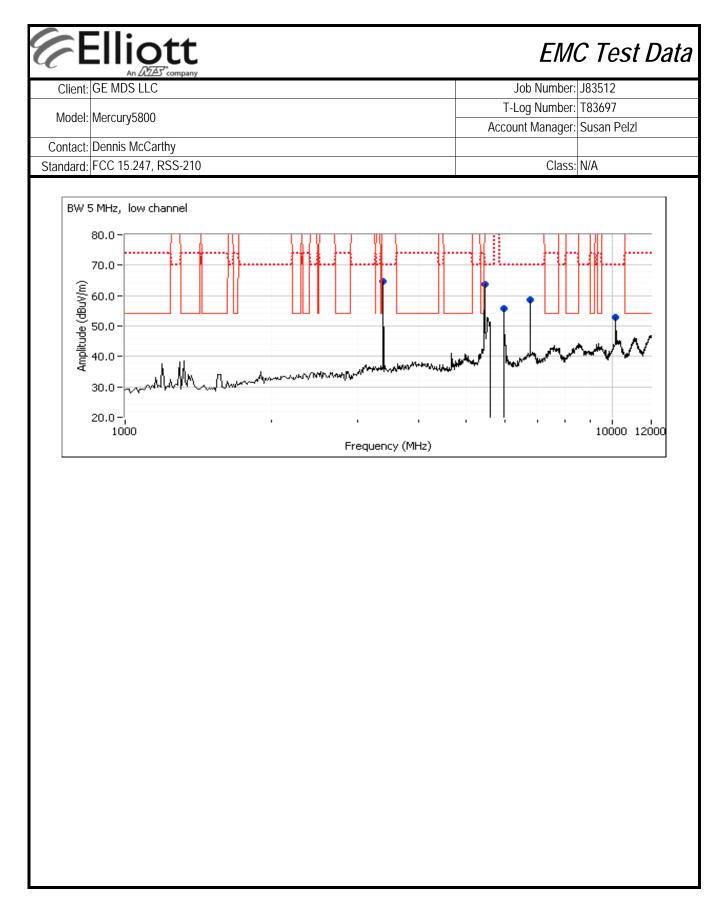
	Ellic	D tt						EM	C Test Data	
Client	GE MDS LL							Job Number:	J83512	
							T-	Log Number:	T83697	
Model	Mercury5800							unt Manager:		
	Dennis McC	-								
Standard	FCC 15.247	, RSS-210						Class:	N/A	
	Center Chani			00kHz RBW:	123.7	dBµV/m	1			
				ricted bands:	-	dBµV/m	Limit is -30dBc (UNII power measurement)			
							-	`	,	
requency		Pol		/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
4742.930	49.7	Н	54.0	-4.3	AVG	21	1.0	RB 1 MHz;\		
4743.880	58.1	Н	74.0	-15.9	PK	21	1.0		/B 3 MHz;Pk	
5505.460	67.9	V	93.7	-25.8	PK	8	1.0		;VB 100 kHz;Pk	
1576.150	47.7	V	54.0	-6.3	AVG	154	1.0	RB 1 MHz;\		
1577.630	60.5	V	74.0	-13.5	PK	154	1.0		/B 3 MHz;Pk	
3416.530	64.3	V	93.7	-29.4	PK	206	1.0	RB 100 kHz	;;VB 100 kHz;Pk	
0248.210	55.6	V	93.7	-38.1	Peak	155	1.3			
lote 2: (m//nge (dBu//m)	channel.	MMM	Lan Marine	- 4.1.4.1.1.1.4.1.1.1.1					this mode on this	
	1000				Frequenc	y (MHz)		10000	18000	

		△ company						EM	C Test Dat	
Client:	GE MDS LL	C						Job Number:	J83512	
	M	`					T-	Log Number:	T83697	
wodel:	Mercury5800	J					Ассо	unt Manager:	Susan Pelzl	
Contact:	Dennis McC	arthy								
Standard:	FCC 15.247	, RSS-210						Class:	N/A	
	igh Channel			worago valu	as masurad	in 1 MHz ar	noak valu	e measured i	n 100kHz	
Frequency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments		
5846.920	122.8	V	-	-	PK	355	1.0	RB 100 kHz	;VB 100 kHz;Pk	
5846.630	122.4	H	-	-	PK	360	1.0		;VB 100 kHz;Pk	
		-								
Fu	undamental e	mission leve	l @ 3m in 10	0kHz RBW:	122.8	dBµV/m				
	Limit for emissions outside of restricted bands: $92.8 \text{ dB}\mu\text{V/m}$						Limit is -30dBc (UNII power measurement)			
	missions									
Spurious E Frequency		Pol	15 200	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	CONTINUENTS		
11694.120	50.0	V/11	54.0	-4.0	AVG	178	1.1	RB 1 MHz;\	/B 10 Hz·Pk	
11695.340	61.8	V	74.0	-12.2	PK	178	1.1		/B 3 MHz;Pk	
5537.270	69.1	V	92.8	-23.7	PK	354	1.0		;VB 100 kHz;Pk	
4802.080	45.9	H	54.0	-8.1	AVG	334	1.0	RB 1 MHz;V		
4803.480	55.8	Н	74.0	-18.2	PK	334	1.0		/B 3 MHz;Pk	
3446.010	64.8	V	92.8	-28.0	PK	206	1.0	RB 100 kHz	;VB 100 kHz;Pk	
10351.510	56.5	Н	92.8	-36.3	Peak	239	1.3			
lote 1:	level of the fi 120.0 - 100.0 -		-						set 30dB below the	
Amplitude (dBuV/m)	40.0- vwv	whitehav	Wohnter	when the second second	and the second second	e state of	hout		and and	
Amplitude (dBuV/n		wlwhin	Wellingthemen	wheelperson .	Frequenc		hrand the second	10000	18000	

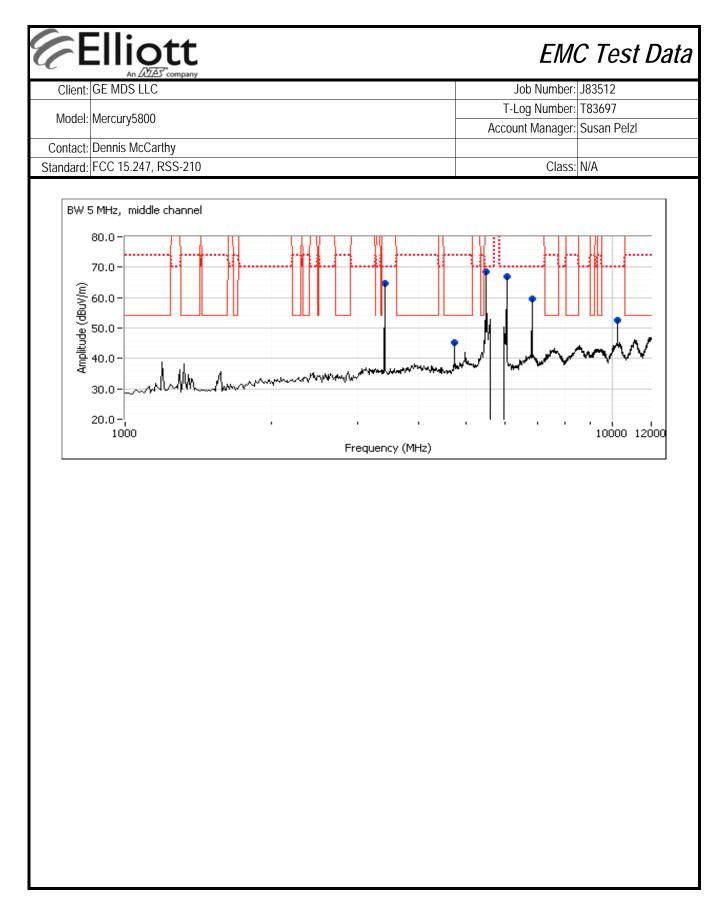


EMC Test Data

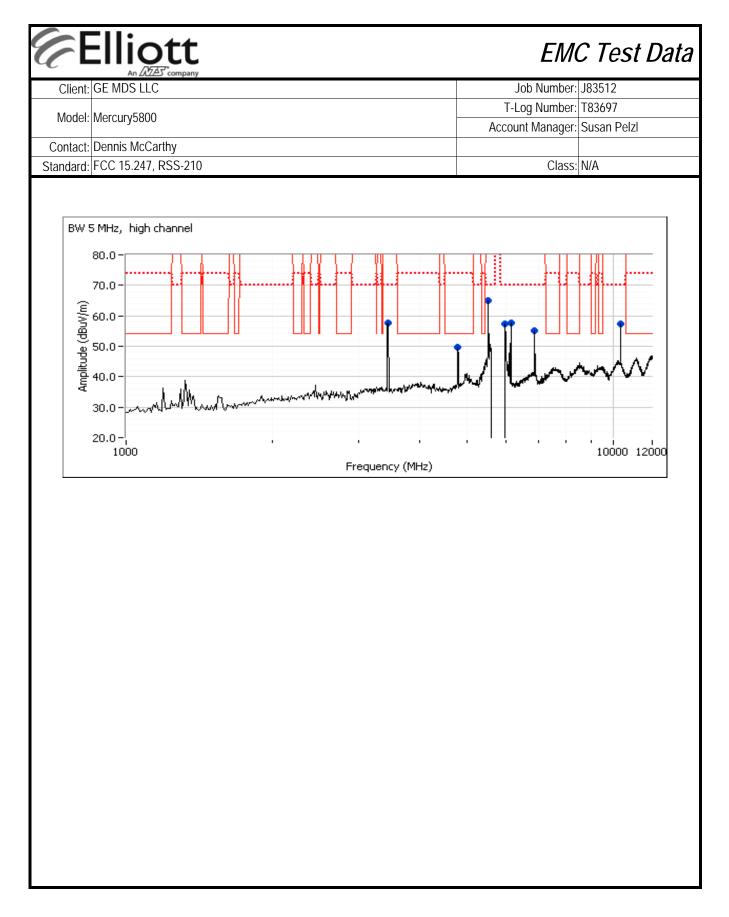
Client:	GE MDS LLC							Job Number:	J83512
Madal	Moreury E900						T-	Log Number:	T83697
	Mercury5800						Ассо	unt Manager:	Susan Pelzl
Contact:	Dennis McCa	irthy							
Standard:	FCC 15.247,	RSS-210						Class:	N/A
Run #2: Ra	adiated Spurio	ous Emissio	ons, 1000 - 4	40000 MHz.	Operating M	ode: BW 5			
r	Date of Test: 1	10/10/2011							
	est Engineer:		& lack Liu						
	est Location: F								
Run #2a: L	ow Channel	@ 5728 MHz	z						
									400111
Frequency	tal Signal Fiel Level	d Strength: Pol		iverage valu / 15.247	es measured Detector	Azimuth	id peak valu Height	Comments	n 100kHz
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	COMMENIS	
5727.280	117.8	V	-	-	Pk	84	1.0	RB = VB = 1	00kHz
5727.080	117.8	H	-	-	Pk	87	1.1	RB = VB = 1	
							_	-	
г.	ببماميت مسمامين	امتنا متعامي	@ 2m in 10		117.0				
Fl	undamental er	nission ievei	Sum II		: 117.8	dBµV/m			
Fl		mission level missions out				dBµV/m dBµV/m	Limit is -30	dBc (UNII pov	ver measurement)
	Limit for e						Limit is -30	dBc (UNII pov	ver measurement)
Spurious E	Limit for ei missions	missions out	tside of restr	icted bands:	87.8	dBµV/m		· ·	ver measurement)
Spurious E Frequency	Limit for en missions Level	missions out Pol	tside of restr 15.209	icted bands: / 15.247	87.8 Detector	dBµV/m Azimuth	Height	dBc (UNII pov	ver measurement)
Spurious E Frequency MHz	Limit for er missions Level dBµV/m	missions out Pol v/h	tside of restr 15.209 Limit	icted bands: / 15.247 Margin	87.8 Detector Pk/QP/Avg	dBµV/m Azimuth degrees	Height meters	Comments	
Spurious E Frequency MHz 5456.620	Limit for en missions Level dBµV/m 47.5	Pol V/h H	15.209 Limit 54.0	icted bands: / 15.247 Margin -6.5	87.8 Detector Pk/QP/Avg AVG	dBµV/m Azimuth degrees 88	Height meters 1.0	Comments Signal exter	ided into restricted ban
Spurious E Frequency MHz 5456.620 5452.430	Limit for en missions Level dBµV/m 47.5 56.8	Pol V/h H H	15.209 15.209 Limit 54.0 74.0	icted bands: / 15.247 Margin -6.5 -17.2	87.8 Detector Pk/QP/Avg AVG PK	dBµV/m Azimuth degrees 88 88	Height meters 1.0 1.0	Comments Signal exter	ided into restricted ban
Spurious E Frequency MHz 5456.620 5452.430 3383.330	Limit for en missions Level dBµV/m 47.5 56.8 64.8	Pol V/h H H V	15.209 15.209 Limit 54.0 74.0 87.8	icted bands: / 15.247 Margin -6.5 -17.2 -23.0	87.8 Detector Pk/QP/Avg AVG PK Peak	dBµV/m Azimuth degrees 88 88 183	Height meters 1.0	Comments Signal exter	ided into restricted ban
Spurious E Frequency MHz 5456.620 5452.430	Limit for en missions Level dBµV/m 47.5 56.8	Pol V/h H H	15.209 15.209 Limit 54.0 74.0	icted bands: / 15.247 Margin -6.5 -17.2	87.8 Detector Pk/QP/Avg AVG PK	dBµV/m Azimuth degrees 88 88	Height meters 1.0 1.0 <i>1.0</i>	Comments Signal exter	ided into restricted ban
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Spurious E Frequency MHz 5456.620 5452.430 3383.330 5473.330 6775.000 5977.500	Limit for en missions Level dBµV/m 47.5 56.8 64.8 63.8 58.7 55.7 55.7 52.9	Pol V/h H H V H H H V V V V	15.209 Limit 54.0 74.0 87.8 87.8 87.8 87.8 87.8 87.8 87.8 87	icted bands: / 15.247 Margin -6.5 -17.2 -23.0 -24.0 -29.1 -32.1 -34.9	87.8 Detector Pk/QP/Avg AVG PK Peak Peak Peak Peak Peak	dBμV/m Azimuth degrees 88 88 183 86 78 84 177	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Comments Signal exter Signal exter	ided into restricted band
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Spurious E Frequency MHz 5456.620 5452.430 3383.330 5473.330 6775.000 5977.500 10157.500 Note 1:	Limit for en missions Level dBµV/m 47.5 56.8 64.8 63.8 58.7 55.7 52.9 For emissions level of the fu Since the sca	Pol V/h H H V H H V V V s in restricted indamental a	15.209 Limit 54.0 74.0 <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i>	icted bands: / 15.247 Margin -6.5 -17.2 -23.0 -24.0 -29.1 -32.1 -32.1 -34.9 Himit of 15.2 ed in 100kHz	87.8 Detector Pk/QP/Avg AVG PK Peak Peak Peak Peak Peak 209 was used.	dBμV/m Azimuth degrees 88 88 183 86 78 86 78 84 177 For all othe	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 r emissions	Comments Signal exter Signal exter	ided into restricted banded into restricted banded into restricted banded into restricted banded bande
Spurious E Frequency MHz 5456.620 5452.430 3383.330 5473.330 6775.000 5977.500 10157.500 Note 1:	Limit for en missions Level dBµV/m 47.5 56.8 64.8 63.8 58.7 55.7 52.9 For emissions level of the fu Since the sca	Pol V/h H H V H H V V V s in restricted indamental a	15.209 Limit 54.0 74.0 <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i>	icted bands: / 15.247 Margin -6.5 -17.2 -23.0 -24.0 -29.1 -32.1 -32.1 -34.9 Himit of 15.2 ed in 100kHz	87.8 Detector Pk/QP/Avg AVG PK Peak Peak Peak Peak Peak 209 was used.	dBμV/m Azimuth degrees 88 88 183 86 78 86 78 84 177 For all othe	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 r emissions	Comments Signal exter Signal exter	ided into restricted ban ided into restricted ban ided into restricted ban set 30dB below the
Spurious E Frequency MHz 5456.620 5452.430 3383.330 5473.330 6775.000 5977.500 10157.500 Note 1:	Limit for en missions Level dBµV/m 47.5 56.8 64.8 63.8 58.7 55.7 52.9 For emissions level of the fu Since the sca	Pol V/h H H V H H V V V s in restricted indamental a	15.209 Limit 54.0 74.0 <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i>	icted bands: / 15.247 Margin -6.5 -17.2 -23.0 -24.0 -29.1 -32.1 -32.1 -34.9 Himit of 15.2 ed in 100kHz	87.8 Detector Pk/QP/Avg AVG PK Peak Peak Peak Peak Peak 209 was used.	dBμV/m Azimuth degrees 88 88 183 86 78 86 78 84 177 For all othe	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 r emissions	Comments Signal exter Signal exter	ided into restricted bar ided into restricted bar set 30dB below the
Spurious E Frequency MHz 5456.620 5452.430 3383.330 5473.330 6775.000 5977.500 10157.500 Note 1:	Limit for en missions Level dBµV/m 47.5 56.8 64.8 63.8 58.7 55.7 52.9 For emissions level of the fu Since the sca	Pol V/h H H V H H V V V s in restricted indamental a	15.209 Limit 54.0 74.0 <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i> <i>87.8</i>	icted bands: / 15.247 Margin -6.5 -17.2 -23.0 -24.0 -29.1 -32.1 -32.1 -34.9 Himit of 15.2 ed in 100kHz	87.8 Detector Pk/QP/Avg AVG PK Peak Peak Peak Peak Peak 209 was used.	dBμV/m Azimuth degrees 88 88 183 86 78 86 78 84 177 For all othe	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 r emissions	Comments Signal exter Signal exter	ided into restricted bar ided into restricted bar set 30dB below the



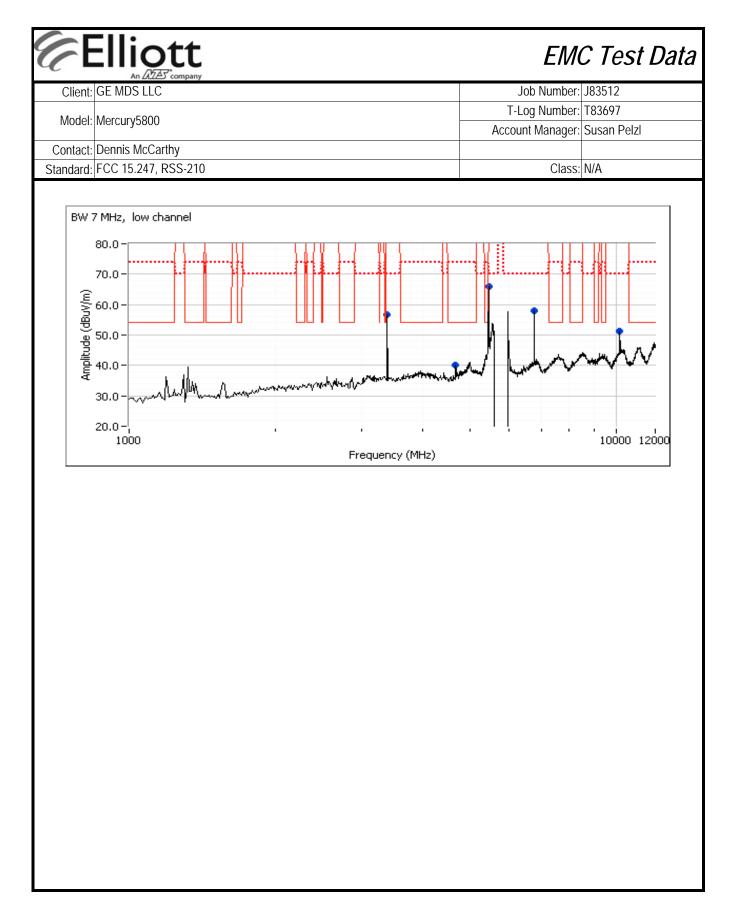
Model: M Contact: E	GE MDS LL(-						Job Number:	J83512
Contact: [Mercury5800							Log Number:	
	vici cui yooot)						unt Manager:	
	Dennis McCa	arthy							
	FCC 15.247,	5						Class:	N/A
Run #2b: Ce Fundamenta				e measured i	n 100kHz				
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5786.950	118.9	V	-	-	Pk	92	1.09	RB = VB = 1	
5789.880	118.0	Н	-	-	Pk	91	1.00	RB = VB = 1	100kHz
Г	adamontal	miccion	1@ 2m in 10		110.0	dD\//~~	1		
Fur		mission leve emissions ou				dBµV/m dBµV/m	Limitic 200		vor moscuromont)
		aniissiuns uu	เวเนซ ปี 1821	ICIEU DALIUS:	ŏŏ.Ÿ	υσμν/ΙΙΙ		יסר (סואון אסע	ver measurement)
Spurious Em	nissions								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4740.000	45.2	Н	54.0	-8.8	Peak	114	1.3		
4743.170	43.5	Н	54.0	-10.5	AVG	105	1.3		
5500.830	68.6	V	88.9	-20.3	Peak	74	1.0		
4741.570	52.4	H	74.0	-21.6	PK	105	1.3		
6060.000	67.0	V	88.9	-21.9	Peak	88	1.0		
3410.830 6839.170	64.8 59.7	V V	88.9 88.9	-24.1 -29.2	Peak Peak	213 195	1.0 1.0		
10249.170	59.7 52.6	V	88.9 88.9	-29.2 -36.3	Peak	195	1.0		
10249.170	<i>32.0</i>	V	88.9	-30.3	Peak	199	1.0		
F	For emission	ns in restricte	d bands, the	limit of 15.2	09 was used.	For all othe	er emissions.	the limit was	set 30dB below the
		undamental a	-						
(GHz, that s	scan was not	t repeated for	this mode on this
	channel.								



		A company						Job Number:	183513
Client		0							
Model:	Mercury5800)						Log Number: unt Manager:	
Contact:	Dennis McC	arthy					7,000	unt manager.	
	FCC 15.247							Class:	N/A
undament	igh Channel tal Signal Fie	d Strength	: Peak and a						n 100kHz
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5848.650	118.7	V	-	-	Pk	90	1.00	RB = VB = 1	
5847.580	118.3	Н	-	-	Pk	90	1.00	$RB = VB = \hat{A}$	100kHz
	undamental e	mission lovo	1@2min 10		110 7	dDu\//m	1		
FL			tside of restr			dBµV/m dBµV/m	limitic 204		ver measurement)
Spurious E					00.7	<u></u>			
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	501111011(5	
4795.000	49.7	V	54.0	-4.3	Peak	66	1.0		
4802.130	47.7	V	54.0	-6.3	AVG	70	1.03		
4802.900	57.2	V	74.0	-16.8	PK	70	1.03		
5528.330	65.0	V	88.7	-23.7	Peak	85	1.0		
6151.670	57.8	V	88.7	-30.9	Peak	88	1.3		
3447.500	57.6	V	88.7	-31.1	Peak	250	1.3		
5995.830	57.3	V	88.7	-31.4	Peak	92	1.0		
10331.670	57.2	V	88.7	-31.5	Peak	231	1.3		
6894.170	55.0	V	88.7	-33.7	Peak	199	1.6		
		-							
loto 1.	For emission	ns in restricte	ed bands, the	limit of 15.2	09 was used.	For all othe	er emissions	, the limit was	set 30dB below the
Vote 1:	level of the f	undamental	and measure	ed in 100kHz					
	Since the sc	ans in runs 1	a & 1c show	ed no emiss	ions above 18	3 GHz, that s	scan was no	t repeated for	this mode on this
Note 2:	channel.								



		ott						EM	C Test Dat
Client	<u>An 242</u> GE MDS LL	C company						Job Number:	J83512
							T-	Log Number:	T83697
Model	Mercury580	0					Ассо	unt Manager:	Susan Pelzl
	Dennis McC	3							
Standard	FCC 15.247	, RSS-210						Class:	N/A
Te T	adiated Spur Date of Test: est Engineer: est Location: _ow Channel	10/19/2011 John Caizzi FT4	& Jack Liu	40000 MHz.	Operating M	ode: BW 7			
				average valu	es measured	in 1 MHz, ar	nd peak valu	ie measured i	n 100kHz
Frequency		Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5726.750	117.9	V	-	-	Pk	81	1.1	RB = VB = 2	
5732.230	116.3	Н	-	-	Pk	87	1.0	$RB = VB = \hat{A}$	100kHz
Frequency MHz	Level dBµV/m	Pol v/h	Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
Frequency MHz <i>4675.830</i>	Level dBµV/m <i>40.1</i>	v/h V	Limit 54.0	Margin -13.9	Pk/QP/Avg Peak	degrees 67	meters 1.6	Comments	
Frequency MHz 4675.830 5464.170	Level dBµV/m <i>40.1</i> <i>66.1</i>	v/h V V	Limit 54.0 87.9	Margin -13.9 -21.8	Pk/QP/Avg <i>Peak</i> <i>Peak</i>	degrees 67 85	meters 1.6 1.0	Comments	
Frequency MHz 4675.830 5464.170 6775.000	Level dBµV/m 40.1 66.1 58.0	v/h V V H	Limit 54.0 87.9 87.9	Margin -13.9 -21.8 -29.9	Pk/QP/Avg <i>Peak</i> <i>Peak</i> <i>Peak</i>	degrees 67 85 170	meters 1.6 1.0 1.3	Comments	
MHz 4675.830 5464.170	Level dBµV/m <i>40.1</i> <i>66.1</i>	v/h V V	Limit 54.0 87.9	Margin -13.9 -21.8	Pk/QP/Avg <i>Peak</i> <i>Peak</i>	degrees 67 85	meters 1.6 1.0	Comments	



Æ		D tt						EM	C Test Dat
Client:	GE MDS LL	C						Job Number:	J83512
							T-	Log Number:	T83697
Model:	Mercury580	0					Acco	unt Manager:	Susan Pelzl
Contact:	Dennis McC	arthy							
Standard:	FCC 15.247	, RSS-210						Class:	N/A
undament		eld Strength	: Peak and a		es measured				n 100kHz
requency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5786.600	117.7	V	-	-	Pk	91	1.0	RB = VB = 1	
5787.830	117.1	Н	-	-	Pk	91	1.0	RB = VB = 2	IUUKHZ
E1	undamental e	mission law	al @ 2m in 1(117.7	dBµV/m	1		
Γl			tside of restr			dBμV/m dBμV/m	l imit is .200	Bc (HNII nov	ver measurement)
ourious Ei	missions						- 		
requency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
740.000	41.4	V	54.0	-12.6	Peak	61	1.3		
491.670	66.5	V	87.7	-21.2	Peak	94	1.0		
410.830	65.1 62.7	/ /	87.7 87.7	-22.6	Peak	213 81	1.0		
5060.000 5839.170	62.7 57.2	V	87.7 87.7	<i>-25.0</i> <i>-30.5</i>	Peak Peak	170	1.6 1.0		
0249.170	57.2 52.1	V	87.7	-30.5 -35.6	Peak	178	1.0		
0247.170	52.1	V	07.7	55.0	r cak	170	1.0		
ote 1:	For emission	ns in restricte	ed bands, the	limit of 15.2	09 was used.	For all othe	er emissions,	, the limit was	s set 30dB below the
ote 2:									this mode on this
ハԵ Ζ.	channel.								
BW 7	7 MHz, Cent	er channel							
	80.0-	15 6		1478			111		
	70.0-	. 1	····		[^{**}]				
			111						
Amplitude (dBuV/m)	60.0-								
<u>e</u>			U				┛╢╽	TUL	
de	50.0-								
blitu	40.0-							100	\sim
		alathan	Autorit	*****	my and a second second		64744 ⁷ 44		
	30.0-2~~								
	30.0				, Frequency		ļļļ		10000 12000

(CE								EM	C Test Data
Client:	GE MDS LLO	C						Job Number:	J83512
Model	Mercury5800	ົ <u></u>					T-	Log Number:	T83697
	IVIELUU YOOU	J					Acco	unt Manager:	Susan Pelzl
Contact:	Dennis McC	arthy							
Standard:	FCC 15.247	, RSS-210						Class:	N/A
	gh Channel al Signal Fie Level dBμV/m 116.8				es measured Detector Pk/QP/Avg Pk	in 1 MHz, ar Azimuth degrees 91	nd peak valu Height meters 1.0	e measured i Comments RB = VB = 2	
5847.920	115.9	H	-	-	Pk	90	1.0	RB = VB = 1	
Fu		mission leve emissions ou				dBµV/m dBµV/m	Limit is -300	dBc (UNII pov	ver measurement)
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4795.000	50.0	V	54.0	-4.0	Peak	104	2.2		
4801.430	47.4	V	54.0	-6.6	AVG	98	1.7	RB 1 MHz;\	
4804.370	58.3	V	74.0	-15.7	PK	98	1.7	RB 1 MHz;\	/B 3 MHz;Pk
3438.330	65.3	V	86.8	-21.5	Peak	217	1.0		
5528.330	63.5	V	86.8	-23.3	Peak	92	1.0		
6151.670	60.6	H	86.8	-26.2	Peak	88	1.0		
6894.170	53.6	H	86.8	-33.2	Peak	171	1.3		
10331.670	53.4	Н	86.8	-33.4	Peak	238	1.3		
Amplitude (dBuV/m)	Since the sc channel. 7 MHz, high 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 - 20.0 -	ans in runs 1							this mode on this
	1000				Frequency	/ (MHz)			10000 12000

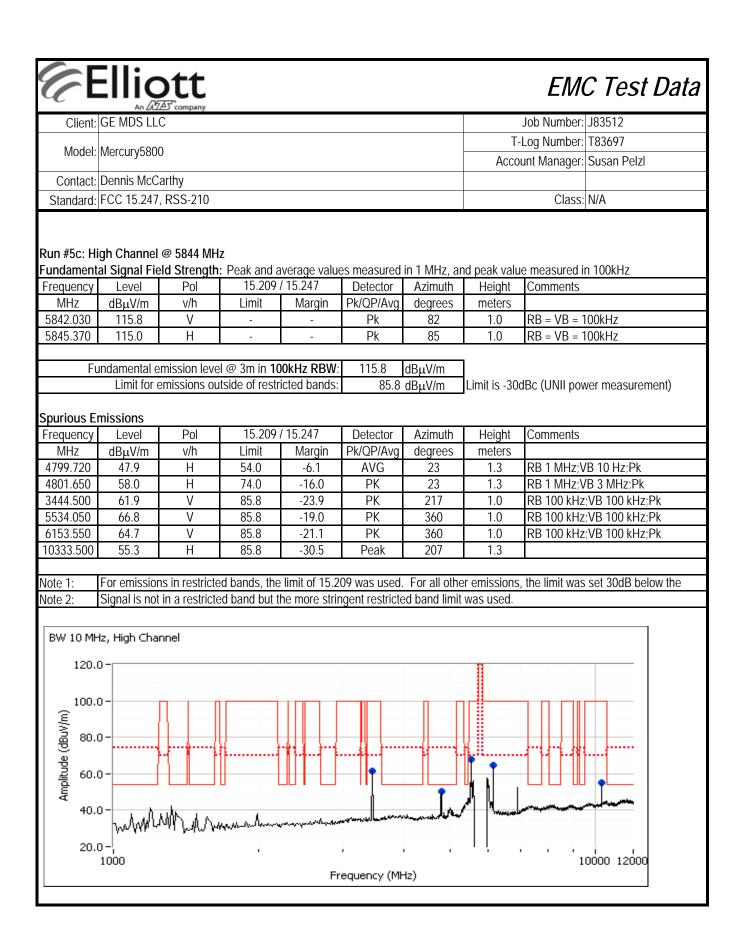
Æ		ott						EM	C Test Dat
Client:	GE MDS LLO	C						Job Number:	J83512
Model	Mercury5800)					T-	Log Number:	T83697
wouer.	IVIEI CUI YOOU	J					Acco	unt Manager:	Susan Pelzl
Contact:	Dennis McC	arthy							
Standard:	FCC 15.247,	, RSS-210						Class:	N/A
E Te Te	Date of Test: st Engineer: est Location:	10/19 & 10/2 John Caizzi FT4	21/2011 / Jack Liu /R		Operating M	ode: BW 8.	75		
	ow Channel								- 100111-
				verage value / 15.247	es measured			e measured i Comments	n iuukhz
Frequency MHz	Level dBµV/m	Pol v/h	Limit	Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
5728.730	ubμv/m 114.9	V	-	-	Pk	86	1.0	RB = VB = 1	100kHz
5730.930	115.5	H	-	-	Pk	90	1.0	RB = VB = 1	
purious E requency MHz 4685.320 4684.550 5479.040 3387.600 5982.890 6775.120	missions Level dBμV/m 42.2 52.7 61.0 59.8 57.6 58.7	Pol V/h H H H V H V V	15.209 / Limit 54.0 74.0 85.5 85.5 85.5 85.5 85.5	/ 15.247 Margin -11.8 -21.3 -24.5 -25.7 -25.7 -27.9 -26.8	Detector Pk/QP/Avg AVG PK PK Peak Peak Peak	Azimuth degrees 343 343 360 206 2 5	Height meters 1.4 1.4 1.0 1.0 1.0 1.0 1.3		/B 10 Hz;Pk /B 3 MHz;Pk ;VB 100 kHz;Pk
lote 1:	For emission	ns in restricte	d bands, the	limit of 15.2	09 was used.	For all othe	er emissions	, the limit was	set 30dB below the
					ngent restricte				
BW 8.75 M	MHz, Low Ch	annel							
120.0 100.1 (W/Mgp) 80.0 900,0 40.0 40.0			andraw horrow			un la ha			

		△ company					1		C Test Da
Client:	GE MDS LLO	0						Job Number:	
Model:	Mercury5800)						Log Number:	
	5						Acco	unt Manager:	Susan Pelzl
	Dennis McC	-						01	N1/A
	FCC 15.247,							Class:	N/A
	Center Chanr								- 1001.11-
	Level	Pol		verage value / 15.247	Detector	Azimuth	na peak valu Height	e measured i Comments	n Tuukhz
requency MHz		v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
788.300	dBµV/m 115.8	VII	LIIIII	ivial yll I	PKOPIAVy	87	1.0	RB = VB = 1	100kHz
785.100	115.8	V H	-	-	PK Pk	87	1.0	RB = VB =	
700.100	110.9	П	-	-	ΓK	07	1.0	IXD = VD =	ΙΟΟΛΠΖ
Fi	undamental e	mission leve	@ 3m in 10	0kHz RBW [.]	115.9	dBµV/m	1		
		emission leve				dBµV/m dBµV/m	l imit is -30	dBc (UNII nov	ver measurement)
	Entite for e				00.7	ασμνητι			ver meusurementy
urious E	missions								
equency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
743.620	42.9	V	54.0	-11.1	AVG	20	1.1	RB 1 MHz;\	/B 10 Hz;Pk
742.910	53.8	V	74.0	-20.2	PK	20	1.1		/B 3 MHz;Pk
416.520	61.1	V	85.9	-24.8	PK	210	1.0		;VB 100 kHz;Pk
507.090	67.4	Ĥ	85.9	-18.5	PK	5	1.0		;VB 100 kHz;Pk
069.560	67.9	V	85.9	-18.0	PK	0	1.0		;VB 100 kHz;Pk
)249.540	55.3	V	85.9	-30.6	Peak	226	1.3		,
		-				*			
te 1:	For emission	is in restricte	d bands, the	limit of 15.2	09 was used.	For all othe	er emissions	, the limit was	set 30dB below the
te 2:					ngent restricte				
		2.550.500			3				
		Change - I]
9W 8.751	MHz, Center	Channel							
120.	0						п		[
100.	o-								
	~								
Amplitude (dBuV/m) 00.	0-								
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20.	1000							1	0000 12000
20.				E.,	equency (MH	42)			
20.				FI	edneticà (tat	14)			I

Æ		Dtt Art company						EM	C Test Data
Client:	GE MDS LL	С						Job Number:	J83512
Madal	Maraum (EQQ)	0					T-	Log Number:	T83697
Model:	Mercury5800	J					Acco	unt Manager:	Susan Pelzl
	Dennis McC	5							
Standard:	FCC 15.247	, RSS-210						Class:	N/A
Run #4c: Hi	igh Channel	@ 5845 MH	Z						
			: Peak and a		es measured	in 1 MHz, ar	nd peak valu	e measured i	n 100kHz
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5844.170	114.8	V	-	-	Pk	84	1.0	RB = VB =	100kHz
5844.600	114.0	Н	-	-	Pk	88	1.0	RB = VB =	100kHz
							_		
Fu	undamental e	mission leve	l @ 3m in 10	OkHz RBW:	114.8	dBµV/m			
	Limit for e	emissions ou	tside of restri	icted bands:	84.8	dBµV/m	Limit is -300	dBc (UNII pov	ver measurement)
						•		•	
purious E	missions								
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
800.440	49.0	V	54.0	-5.0	AVG	24	1.3	RB 1 MHz;\	/B 10 Hz;Pk
1805.560	59.4	V	74.0	-14.6	PK	24	1.3	RB 1 MHz;\	/B 3 MHz;Pk
3444.990	61.9	V	84.8	-22.9	PK	216	1.0	RB 100 kHz	;VB 100 kHz;Pk
5536.790	66.3	V	84.8	-18.5	PK	360	1.0	RB 100 kHz	;VB 100 kHz;Pk
6155.120	63.9	V	84.8	-20.9	PK	360	1.0	RB 100 kHz	;VB 100 kHz;Pk
0335.090	55.0	V	84.8	-29.8	Peak	160	1.0		
lote 1:								, the limit was	set 30dB below the
ote 2:	Signal is not	in a restricte	ed band but tl	he more strir	ngent restricte	ed band limit	was used.		
BW 8.75 I	MHz, High Ch	nannel							
120.0	0						П		
100.0	0-								
Ē									
Amplitude (dBuV/m) 1.09	0-								
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20.0	0-						Ιļ .		
	1000		-					1	0000 12000
				Fr	equency (MH	łz)			

	-11.								
6		D T Company						EM	C Test Data
Client:	GE MDS LL	С						Job Number:	J83512
		2					T-	Log Number:	T83697
Model:	Mercury5800)					Acco	unt Manager:	Susan Pelzl
	Dennis McC	3							
Standard:	FCC 15.247	, RSS-210						Class:	N/A
				40000 MHz.	Operating M	lode: BW 10			
	Date of Test:			Manalaa					
	st Engineer: est Location:		/ Jack Liu /R	. varelas					
		114							
Run #5a: L	ow Channel	@ 5732 MH	Z						
Fundament	al Signal Fie	d Strength	: Peak and a	verage value	es measured	in 1 MHz, ar	nd peak valu	e measured i	n 100kHz
Frequency	Level	Pol	15.209		Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg		meters		
5733.000	114.8	V	-	-	Pk	84	1.0	RB = VB = T	
5730.300	115.0	Н	-	-	Pk	87	1.0	$RB = VB = \hat{C}$	100kHz
Eu	Indamental e	mission lovo	1@ 2m in 10		115		1		
FU			tside of restr			dBµV/m dBµV/m	Limitic 200		wer measurement)
				icieu parius.	00	υσμν/π			wei measurement)
Spurious Er	missions								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4687.310	40.9	V	54.0	-13.1	AVG	340	1.0	RB 1 MHz;\	/B 10 Hz;Pk
4687.250	51.2	V	74.0	-22.8	PK	340	1.0	RB 1 MHz;\	/B 3 MHz;Pk
5479.340	61.0	Н	85.0	-24.0	PK	11	1.0	RB 100 kHz	z;VB 100 kHz;Pk
3388.580	58.8	V	85.0	-26.2	Peak	202	1.0		
5985.820	58.4	Н	85.0	-26.6	Peak	3	1.0		
6777.090	58.2	V	85.0	-26.8	Peak	190	1.3		
Note 1:	For omission	ns in rostricto	d hands the	limit of 15.2	no was usod	For all othe	or omissions	the limit was	s set 30dB below the
				IIIIIII OF TJ.Z					
BW 10 MH	iz, Low Char	nnel							
120.0)						П		
_ 100.0)-					пг			
l (m									
j 🚡 80.0)-							+ + + + +	
			·····	11-1-17		1.		-117-1	
<u><u>, i</u> 60.0</u>)-						t. 🖌 💡		
Amplitude (dBuV/m) 9.09			- L				74 I I		
40.0	⊃- ⊾.Ո.	uth			and mean	manufacted	(with	ورجير والمرد التر	and a second
	WWW	WI WANNA	walnutwinn	/#1.4_1					
20.0							ιļ ,		
	1000			E .	equency (Mł	42)		1	0000 12000
				rr	equency (M	12)			

C	Ellic	ott						EM	C Test Data
	An 🕅 GE MDS LL	Company						Job Number:	183512
								Log Number:	
Model	Mercury580	0						unt Manager:	
Contact	Dennis McC	arthy						Ŭ	
Standard	FCC 15.247	, RSS-210						Class:	N/A
Run #5b: (Center Chani	nel @ 5788 N	ЛНz						
	tal Signal Fie								n 100kHz
Frequency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5786.270	116.1	V	-	-	Pk	84	1.0	$RB = VB = \hat{A}$	
5789.800	116.7	Н	-	-	Pk	86	1.0	$RB = VB = \hat{A}$	100kHz
			l @ 0m in 10		44/7	15.14	1		
F	undamental e					dBµV/m			1)
	Limit for e	emissions ou	tside of restr	icted bands:	86.7	dBµV/m	Limit is -300	abc (UNII bov	ver measurement)
Courious F	missions								
Spurious E		Pol	15 200	/ 15.247	Detector	Azimuth	Holaht	Comments	
Frequency MHz							Height	Comments	
	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4743.360	43.1	H	54.0	-10.9	AVG	26	1.0	RB 1 MHz;\	
4741.010	53.1	H	74.0	-20.9	PK	26	1.0		/B 3 MHz;Pk
3416.510	61.0	-	86.7	-25.7	PK	214	1.0		;VB 100 kHz;Pk
5506.130	69.6	V	86.7	-17.1	PK	4	1.0		;VB 100 kHz;Pk
6069.500	60.6 55.3	V V	86.7 86.7	-26.1 -31.4	PK	0 224	1.0 1.3	RB 100 KHZ	;VB 100 kHz;Pk
10249.540	00.3	V	80.7	-31.4	Peak	224	1.3		
Note 1:	For omission	ns in rostricto	d hands the	limit of 15.2	hazu zew 00	For all othe	or omissions	the limit was	set 30dB below the
					ngent restricte				
120. (W/\nge) 80. 60. 40.	Hz, Center C 0				equency (MH	- In the second se	was used.		0000 12000



FMC Tost Data

		t		EMO	C Test Data
Client	: GE MDS LLC	pany		Job Number:	J83512
				T-Log Number:	
Model	: Mercury5800			count Manager:	
	: Dennis McCarthy				
Standard	: FCC 15.247, RSS-	210		Class:	N/A
·	Specific Specific Specific Test Configurat		qualification testing of	f the EUT with r	
chain. All measi		ne spectrum analyzer or power meter via a su corrected to allow for the external attenuator Temperature: 20-22	rs used. °C	measurements	were made on a single
chain. All measu Ambient	urements have been	corrected to allow for the external attenuator Temperature: 20-22 Rel. Humidity: 30-40	rs used. °C	measurements	were made on a single
chain. All measu Ambient Summary	urements have been Conditions: y of Results - Po	corrected to allow for the external attenuator Temperature: 20-22 Rel. Humidity: 30-40 Dint to Multipoint Radio	rs used. °C %		
chain. All measu Ambient	urements have been	corrected to allow for the external attenuator Temperature: 20-22 Rel. Humidity: 30-40	rs used. °C	Pass / Fail	Result / Margin
chain. All measu Ambient Summary	urements have been Conditions: y of Results - Po	corrected to allow for the external attenuator Temperature: 20-22 Rel. Humidity: 30-40 Dint to Multipoint Radio	rs used. °C %		Result / Margin 3.5 MHz: 17.5 dBm 5 MHz: 17.4 dBm 7 MHz: 18.0 dBm
chain. All measu Ambient Summary Run #	urements have been Conditions: y of Results - Po	corrected to allow for the external attenuator Temperature: 20-22 Rel. Humidity: 30-40 Dint to Multipoint Radio Test Performed	rs used. °C % Limit	Pass / Fail	Result / Margin 3.5 MHz: 17.5 dBm 5 MHz: 17.4 dBm 7 MHz: 18.0 dBm 8.75 MHz: 17.4 dBm 10 MHz: 18.0 dBm 3.5 MHz: -1.0 dBm 5 MHz: -5.0 dBm 7 MHz: -7.0 dBm 8.75 MHz: -8.0 dBm
chain. All measu Ambient Summary Run #	urements have been Conditions: y of Results - Po	corrected to allow for the external attenuator Temperature: 20-22 Rel. Humidity: 30-40 Dint to Multipoint Radio Test Performed Output Power Power spectral Density (PSD)	rs used. °C % Limit 15.247(b)	Pass / Fail Pass	Result / Margin 3.5 MHz: 17.5 dBm 5 MHz: 17.4 dBm 7 MHz: 18.0 dBm 8.75 MHz: 17.4 dBm 10 MHz: 18.0 dBm 3.5 MHz: -1.0 dBm 5 MHz: -5.0 dBm 7 MHz: -7.0 dBm

Modifications Made During Testing No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

CElliott						EM	C Test	Data
Client: GE MDS LLC					J	ob Number:	J83512	
Model: Moreury E900					T-L	.og Number:	T83697	
Model: Mercury5800					Accou	nt Manager:	Susan Pelzl	
Contact: Dennis McCarthy								
Standard: FCC 15.247, RSS-210						Class:	N/A	
Date of Test: 9/19 & 9/27/ Test Engineer: John Caizzi Test Location: FT EMC Lab Run #1: Output Power	& David Bar	9	Cont	nfig. Used: ig Change: JT Voltage:	None			
	ating Mode:	3.5 MHz BV	V					
Transmitted signal on chain is			Antennas are	cross pola	rized			
5727 MHz	Chain 1	Chain 2	Chain 3		Total Across	All Chaine	Lin	oit
Power Setting ^{Note 3}	20.0	20.0			TUIAI ACTUS:		LIII	III
Output Power (dBm) Note 1	14.6	14.3			17.5 dBm	0.056 W	18.0 dBm	0.063 W
Antenna Gain (dBi) Note 2	18	18				18.0 dBi	Pa	ss
eirp (dBm) Note 2	32.6	32.3			35.5 dBm	3.518 W	14	
5788 MHz	Chain 1	Chain 2	Chain 3		1			
Power Setting ^{Note 3}	20.0	20.0		C306000 4	Total Across	s All Chains	Lin	nit
Output Power (dBm) Note 1	14.5	14.4			17.5 dBm	0.056 W	18.0 dBm	0.063 W
Antenna Gain (dBi) Note 2	18	18			THE UBIN	18.0 dBi		
eirp (dBm) Note 2	32.5	32.4			35.5 dBm	3.516 W	Pa	SS
			:		· · · · · ·			
5847 MHz	Chain 1	Chain 2	Chain 3	Chain 4	Total Across	s All Chains	Lin	nit
Power Setting ^{Note 3}	19.0	19.0						
Oulpul Power (udiii)	15.9	11.2			17.2 dBm	0.052 W	18.0 dBm	0.063 W
Antenna Gain (dBi) ^{Note 2} eirp (dBm) ^{Note 2}	18 33.9	18 29.2			35.2 dBm	18.0 dBi 3.286 W	Pa	SS
eirp (abm)	33.9	29.2			30.2 UBIII	3.280 VV		

CElliott						EM	C Test	Data
Client: GE MDS LLC						Job Number:	J83512	
M. J. J. M					T-L	og Number:	T83697	
Model: Mercury5800					Accou	int Manager:	Susan Pelzl	
Contact: Dennis McCarthy								
Standard: FCC 15.247, RSS-210						Class:	N/A	
Op 5728 MHz	erating Mode:		Chain 3		1		r	
Power Setting ^{Note 3}	Chain 1 16.0	Chain 2 16.0	Cuigura	Chain 4	Total Acros	s All Chains	Lir	nit
Output Power (dBm) ^{Note 1}	14.6	14.0			17.3 dBm	0.054 W	18.0 dBm	0.063 W
Antenna Gain (dBi) ^{Note 2}	14.0	14.0			17.5 UDIII	18.0 dBi	TO.0 UDITI	0.003 W
eirp (dBm) ^{Note 2}	32.56	32			35.3 dBm	3.388 W	Pa	SS
elih (npili)	52.00	JZ			55.5 UDIII	3.300 W		
5788 MHz	Chain 1	Chain 2	()(Chain3))	Chain 4				
Power Setting ^{Note 3}	16.0	16.0			Total Acros	s All Chains	Lir	nit
Output Power (dBm) Note 1	14.3	14.1			17.2 dBm	0.053 W	18.0 dBm	0.063 W
Antenna Gain (dBi) Note 2	18	18				18.0 dBi		
eirp (dBm) ^{Note 2}	32.3	32.1			35.2 dBm	3.320 W	Pa	SS
							L	
5847 MHz	Chain 1	Chain 2	Chain 3	Citraviti 4	Total Aaroo	c All Choine	1.5	nit
Power Setting ^{Note 3}	15.0	15.0			Total Acros	s all chains	Lir	nit
Output Power (dBm) Note 1	14.9	13.7			17.4 dBm	0.054 W	18.0 dBm	0.063 W
Antenna Gain (dBi) Note 2	18	18				18.0 dBi	De	
eirp (dBm) Note 2	32.9	31.7			35.4 dBm	3.429 W	· Pa	55
	erating Mode:				4			
5729 MHz	Chain 1	Chain 2	Chain 3	Chain 4	Total Acros	s All Chains	Lir	nit
Power Setting ^{Note 3}	17.0	17.0			10.0.15	0.0/0.11/	10.0 15	0.0/0.14/
Oulpul Power (ubili)	15.1	14.8			18.0 dBm	0.063 W	18.0 dBm	0.063 W
Antenna Gain (dBi) Note 2	18	18				18.0 dBi	Pa	SS
eirp (dBm) Note 2	33.1	32.8			36.0 dBm	3.947 W		
5788 MHz	Chain 1	Chain 2	Chain 3	Chain 4				
Power Setting ^{Note 3}	17.0	17.0	CHRITT 3	CANCON 7 4	Total Acros	s All Chains	Lir	nit
Output Power (dBm) Note 1	14.9	14.9			17.9 dBm	0.062 W	18.0 dBm	0.063 W
Antenna Gain (dBi) ^{Note 2}	18	18			TT: 7 GDIII	18.0 dBi	10.0 0.0111	0.005 W
eirp (dBm) ^{Note 2}	32.9	32.9			35.9 dBm	3.900 W	Pa	SS
	02.7	52.7				0.700 W	1	
5846 MHz	Chain 1	Chain 2	Chain 3	Chain 4	Tabala			
Power Setting ^{Note 3}	16.0	16.0			Total Acros	s All Chains	Lir	nit
Output Power (dBm) Note 1	15.2	14.2			17.7 dBm	0.059 W	18.0 dBm	0.063 W
Antenna Gain (dBi) ^{Note 2}	18	18				18.0 dBi		
eirp (dBm) ^{Note 2}	33.2	32.2			35.7 dBm	3.749 W	Pa	ISS

Client: GE MDS LLC					J	ob Number:	J83512	
					T-L	og Number:	T83697	
Model: Mercury5800							Susan Pelzl	
Contact: Dennis McCarthy								
Standard: FCC 15.247, RSS-210						Class:	N/A	
							I	
	rating Mode:		SW					
5730 MHz	Chain 1	Chain 2	Chain 3	Chain 4	Total Across	s All Chains	Lin	nit
Power Setting ^{Note 3}	16.0	16.0						
Dutput Power (dBm) Note 1	14.4	14.2			17.3 dBm	0.054 W	18.0 dBm	0.063 W
	18	18				18.0 dBi	Pas	SS
eirp (dBm) ^{Note 2}	32.4	32.2			35.3 dBm	3.397 W		
5788 MHz	Chain 1	Chain 2		Chain 4				
Power Setting ^{Note 3}	16.0	16.0	CHIGHT 3	C/06003-4	Total Across	s All Chains	Lin	nit
Dutput Power (dBm) Note 1	14.5	14.2			17.4 dBm	0.054 W	18.0 dBm	0.063 W
Antenna Gain (dBi) ^{Note 2}	14.5	14.2				18.0 dBi		
eirp (dBm) ^{Note 2}	32.5	32.2			35.4 dBm	3.438 W	Pas	SS
	02.0	02.2			oo.r ubiii	0.100 11		
5845 MHz	Chain 1	Chain 2	Chain 3	Citrain 4	Total Aaroo	All Chains	Lin	si+
Power Setting ^{Note 3}	15.0	15.0			Total Across		LIII	III
Dutput Power (dBm) Note 1	14.8	14			17.4 dBm	0.055 W	18.0 dBm	0.063 W
Antenna Gain (dBi) ^{Note 2}	18	18				18.0 dBi	Pas	20
eirp (dBm) Note 2	32.8	32			35.4 dBm	3.490 W	гa.	33

C I	Elliott						EM	C Test	' Data
Client	GE MDS LLC						ob Number:	J83512	
Model	Mercury5800					T-L	.og Number:	T83697	
						Accou	nt Manager:	Susan Pelz	
	Dennis McCarthy								
Standard:	FCC 15.247, RSS-210						Class:	N/A	
	One	rating Mode:	10 MHz BM	1					
	5732 MHz	Chain 1	Chain 2	, Chain 3	Chain 4				
Power Setti	na ^{Note 3}	17.0	17.0			Total Acros	s All Chains	Li	mit
Output Pow		14.5	14.2			17.4 dBm	0.054 W	18.0 dBm	0.063 W
Antenna Ga	in (dBi) Note 2	18	18				18.0 dBi		
eirp (dBm) [^]	Note 2	32.5	32.2			35.4 dBm	3.438 W	Pa	ISS
						4			
	5788 MHz	Chain 1	Chain 2	Chain 3	Chain 4	Total Acros	s All Chains	Li	mit
Power Setti		17.0	17.0						
Output Pow		14.6	14.6			17.6 dBm	0.058 W	18.0 dBm	0.063 W
Antenna Ga	in (dBi) Note 2	18	18				18.0 dBi	- Pa	iss
eirp (dBm) [≀]	NULE 2	32.6	32.6			35.6 dBm	3.639 W		
	5844 MHz	Chain 1	Chain 2	Chain 3	(()X144444()X())				
Power Setti	na ^{Note 3}	16.0	16.0		C44004014 47	Total Acros	s All Chains	Li	mit
Output Pow	ver (dBm) ^{Note 1}	15.3	14.6			18.0 dBm	0.063 W	18.0 dBm	0.063 W
Antenna Ga		18	18			TOTO UBIII	18.0 dBi		
eirp (dBm) ¹	Note 2	33.3	32.6			36.0 dBm	3.958 W	Pa	ISS
Note 1:	Output power measured averaging on (transmitte analyzer was only sweep KDB 558074, equivalent	d signal was ping when the to method 1	not continuc e device was of DA-02-21	bus but the an s transmitting) 138A1 for U-N	alyzer was c and power i II devices).	onfigured wit ntegration ov Spurious limi	h a gated sw er 20 MHz (t becomes -	veep such that option #2, mo 30dBc.	at the ethod 1 in
Note 2:	As there is no coherency the eirp divided by the su				sum of the in	Idividual EIRF	's and effect	ive antenna	gain equals

Client	: GE MDS LLC					Job Number:	J83512	
Model	MoreuryE900	Maroum (F000						
MODE	Mercury5800				Acco	unt Manager:	Susan Pelz	
Contact	Dennis McCarthy							
Standard	FCC 15.247, RSS-210					Class:	N/A	
Run #2: P	ower spectral Density					_		
Power	Frequency (MHz)		PSI	D (dBm/3kHz) ^{Note 1}		Limit	Result	
Setting		Chain 1	Chain 2	Chain 3 Chain 4	Total	dBm/3kHz	Result	
20	5726.2223	-4.6	-4.6		-1.6	8.0	Pass	
20	5787.7558	-4.7	-4.8		-1.7	8.0	Pass	
19	5847.1031	-2.6	-6.2		-1.0	8.0	Pass	
MHz mod	P							
Power Setting	Frequency (MHz)	Chain 1	PSI Chain 2	O (dBm/3kHz) ^{Note 1} Chain 3	Total	Limit dBm/3kHz	Result	
16	5728.4465	-7.9	-8.1		-5.0	8.0	Pass	
16	5787.4173	-8.9	-8.9		-5.9	8.0	Pass	
15	5848.0498	-8.3	-9.4		-5.8	8.0	Pass	
MHz mod								
Power			PSI	D (dBm/3kHz) Note 1	Limit			
Setting	Frequency (MHz)	Chain 1	Chain 2	Chain 3 Chain 4	Total	dBm/3kHz	Result	
17	5729.2810	-10.2	-10.1		-7.1	8.0	Pass	
17	5789.3080	-9.9	-10.1		-7.0	8.0	Pass	
16	5843.3628	-9.8	-10.6		-7.2	8.0	Pass	
.75 MHz n	node							
Power	Frequency (MHz)			D (dBm/3kHz) ^{Note 1}		Limit	Result	
Setting	5732.1442	Chain 1	Chain 2	Chain 3 Chain 4	Total	dBm/3kHz	Daca	
16		-12.2	-11.4		-8.8	8.0	Pass	
16 15	5788.3582 5843.5573	-11.2	-11.4 -11.2		-8.3 -8.0	8.0 8.0	Pass Pass	
10	0043.0073	-10.9	-11.Z		-0.0	0.0	Pass	

Œ	Elliott An DES' company	ЕМС			
Client:	GE MDS LLC	Job Number:	J83512		
Madal	Moreury E900	T-Log Number:	T83697		
would.	Mercury5800	Account Manager:	Susan Pelzl		
Contact:	Dennis McCarthy				
Standard:	FCC 15.247, RSS-210	Class:	N/A		

10 MHz mode

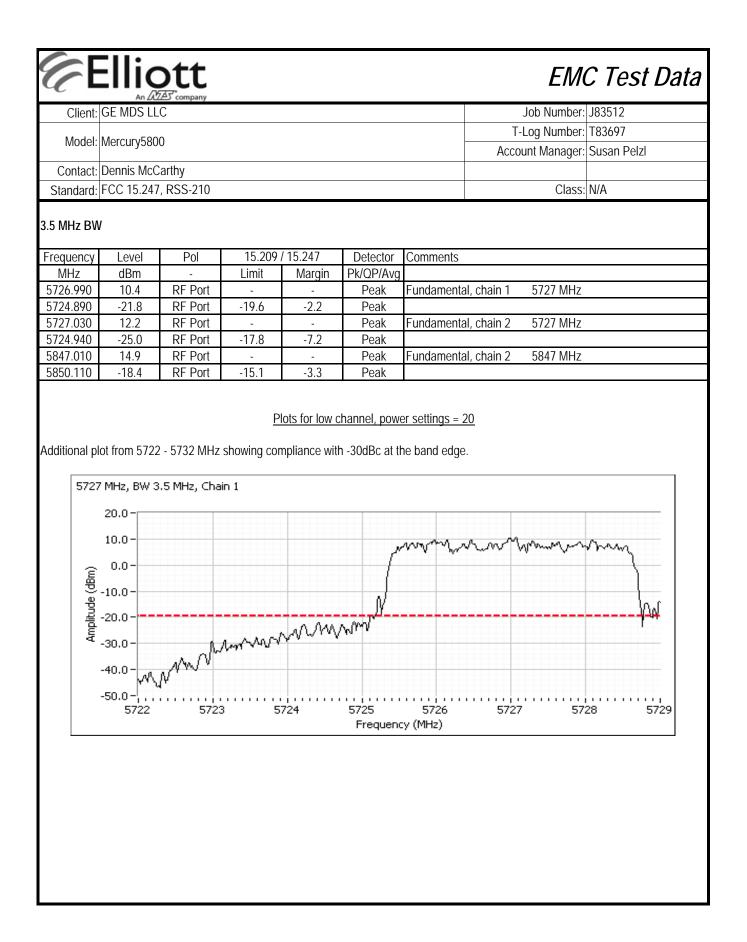
Power	Frequency (MHz)		PSI	D (dBm/3kHz) Note 1		Limit	Result]
Setting	riequency (MIRZ)	Chain 1	Chain 2	Chain 3 Chain 4	Total	dBm/3kHz	Result	
17	5732.0863	-11.0	-9.2		-7.0	9.0	Pass	
17	5788.2932	-11.2	-11.0		-8.1	8.0	Pass	
16	5841.7042	-10.4	-11.5		-7.9	8.0	Pass	
	Power spectral density m	neasured usi	ng RB=3 kH	z, VB=10kHz, analyzer with	peak dete	ctor (worst ca	se). The spa	an is set to
Note 1:	300 kHz and sweep time	set to 100 s	ec to ensure	e there is at least 1 sec at ea	ach 3 kHz d	of span. The f	frequency wi	th the
Note 1:	highest PPSD is first det	ermined usin	g a peak de	tector with the same resolut	ion and vic	leo bandwidth	settings but	t over the
	6dB bandwidth of the tra	nsmitted sigr	nal.				Ū	

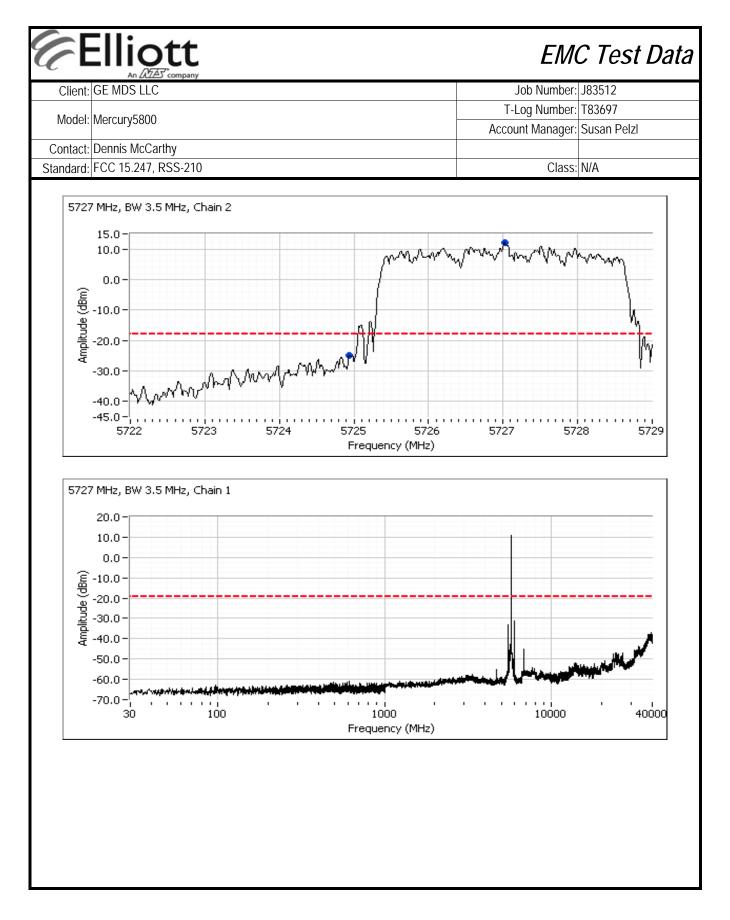
Run #3: Signal Bandwidth

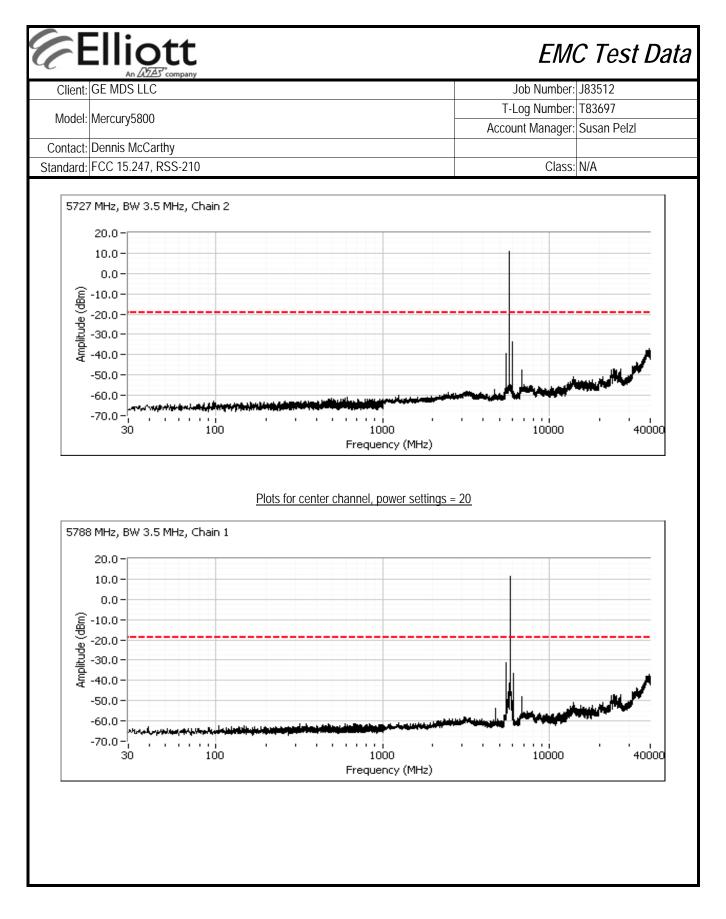
BW setting	Frequency (MHz)	Resolution	Ba	andwidth (MF	lz)
DW Setting	Frequency (MITZ)	Bandwidth	6dB	20dB	99%
3.5 MHz	5727	100 kHz	3.12	3.49	3.34
3.5 MHz	5788	100 kHz	3.22		3.34
3.5 MHz	5847	100 kHz	3.19	3.49	3.94
5 MHz	5728	100 kHz	4.43	4.85	4.46
5 MHz	5788	100 kHz	4.43		4.51
5 MHz	5847	100 kHz	4.58	4.88	4.61
7 MHz	5729	300 kHz	6.55	6.68	6.56
7 MHz	5788	300 kHz	6.40		6.47
7 MHz	5846	300 kHz	6.47	6.83	6.51
8.75 MHz	5730	300 kHz	7.85	8.68	8.19
8.75 MHz	5788	300 kHz	7.65		8.29
8.75 MHz	5845	300 kHz	7.63	8.53	8.31
10 MHz	5732	300 kHz	9.10	10.30	9.56
10 MHz	5788	300 kHz	9.00		9.19
10 MHz	5844	300 kHz	9.03	9.70	9.25

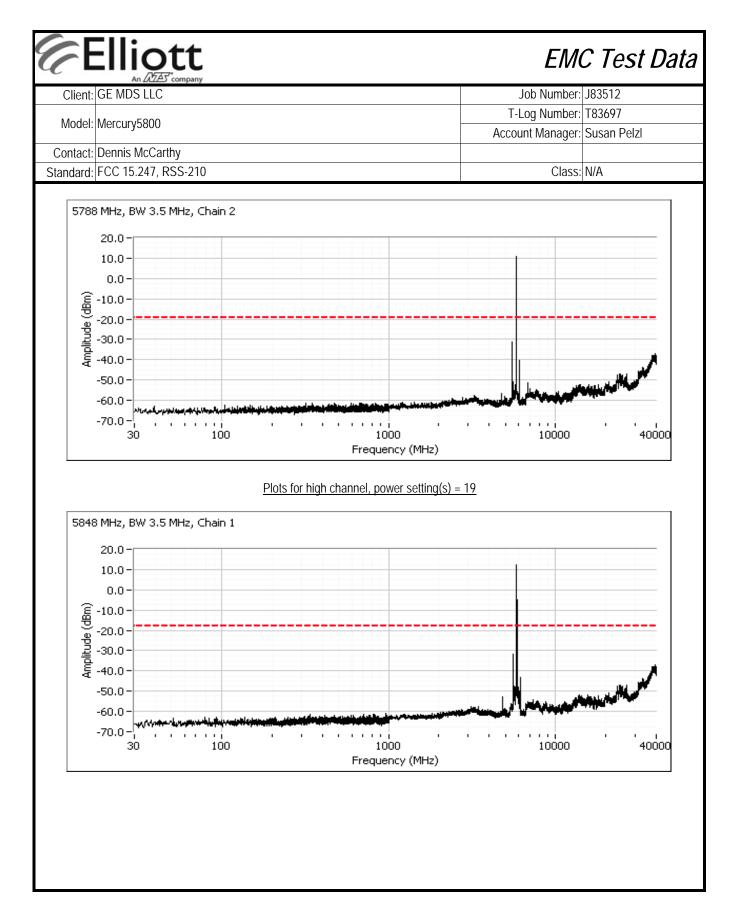
Note 1: Measured on a single chain

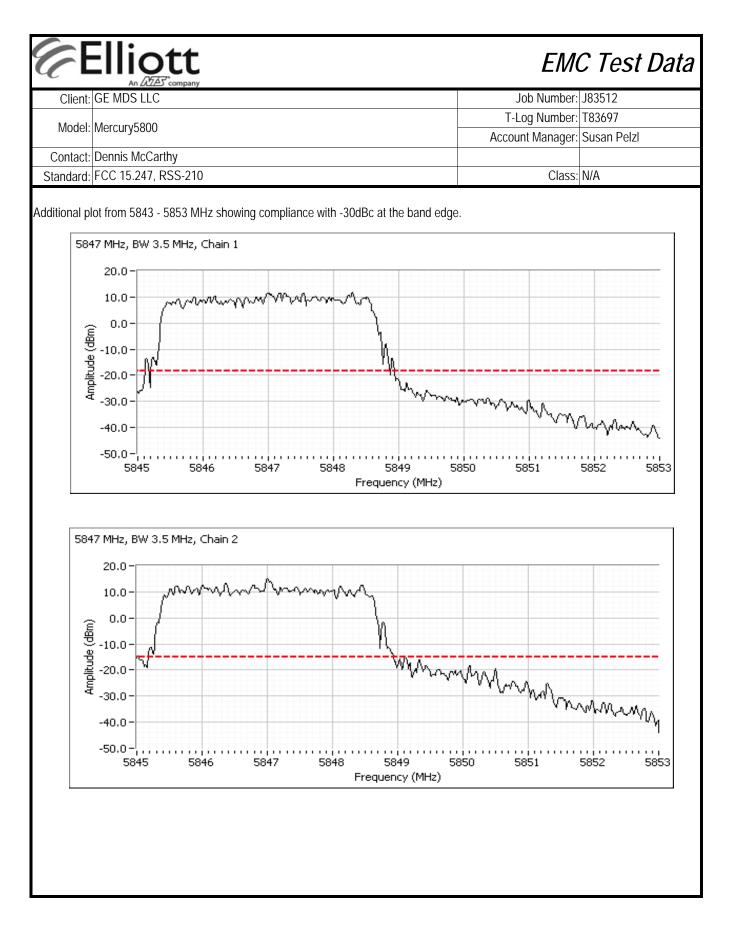
Client	: GE MDS	Ott AZAJ [*] company			Job Number:	J83512
					T-Log Number:	
Model	: Mercury58	800		A	ccount Manager:	
	: Dennis Mo	-				
Standard	: FCC 15.2	47, RSS-210			Class:	N/A
ın #4∙ ∩	ut of Rand	Spurious Emissions				
5 MHz m						
#1	Power Set #2	tting Per Chain	Frequency (MHz)	Limit	Re	sult
20	#2	#9 #4	5727		PA	SS
20	20		5788	-30 dBc		SS
19	19		5847		PA	SS
MHz moo	le					
		tting Per Chain	Frequency (MHz)	Limit	Po	sult
#1	#2	#3 #4		LIIIII		
16	16		5728			SS
16	16		5788	-30 dBc		SS
15	15		5847		PA	SS
MHz moo		tting Per Chain				
#1	#2	#3	Frequency (MHz)	Limit	Re	sult
17	17		5729		PA	SS
17	17		5788	-30 dBc	PA	SS
16	16		5846		PA	SS
75 MHz r	node					
	Power Set	tting Per Chain	Frequency (MHz)			sult
#1	#2	#3		Linill		
16	16		5730			ISS
16	16		5788	-30 dBc		ISS
15	15		5845		Pa	ISS
MHz mo	ode					
		tting Per Chain	Frequency (MHz)	Limit	Re	sult
#1	#2	#3	1 3 . ,			
17	17		5732	20 -ID -		ISS
1 /	17		5788	-30 dBc		ISS
17	16		5844		Pa	ISS
17 16						

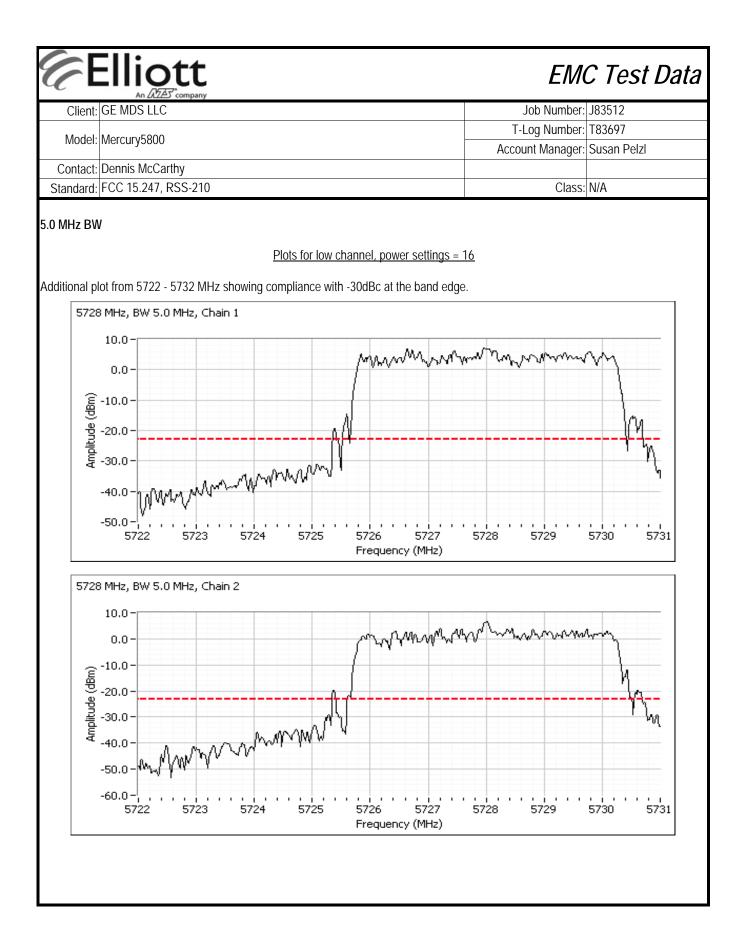


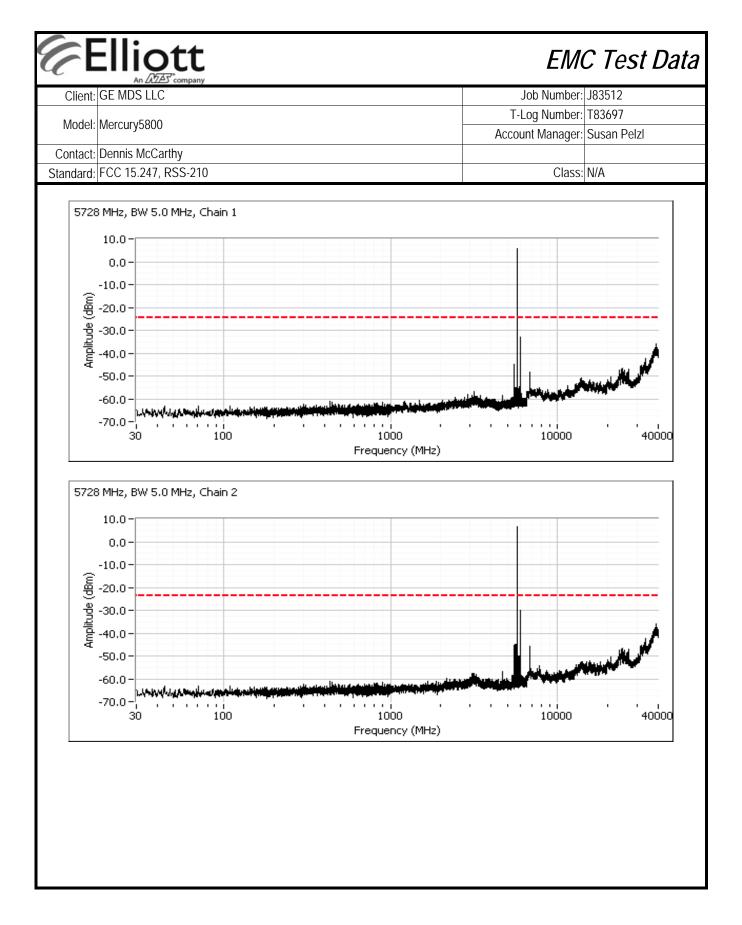


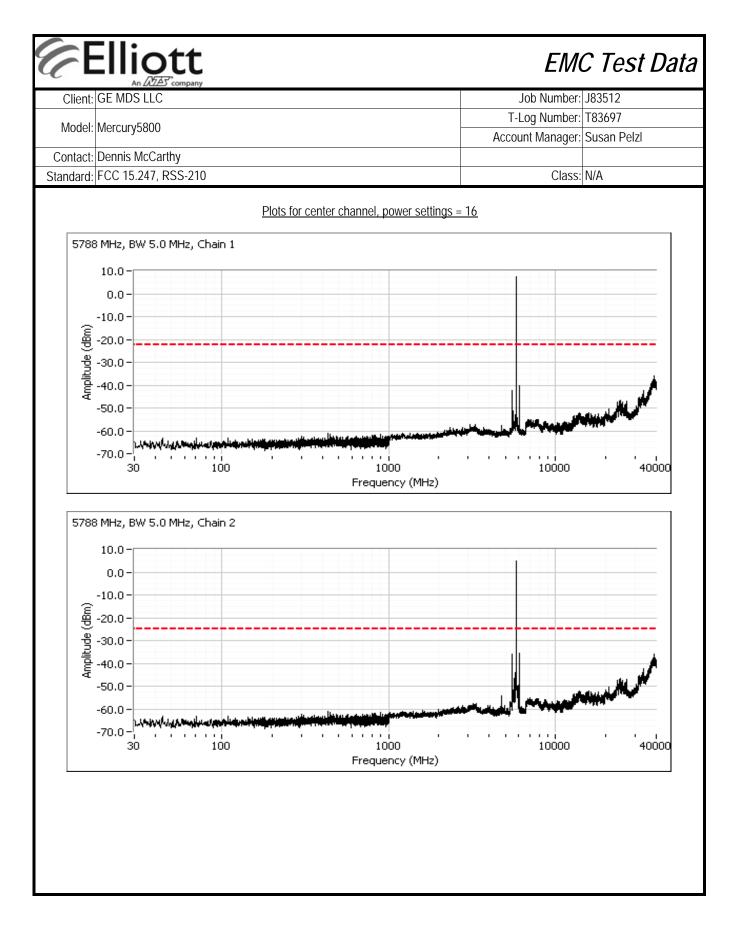


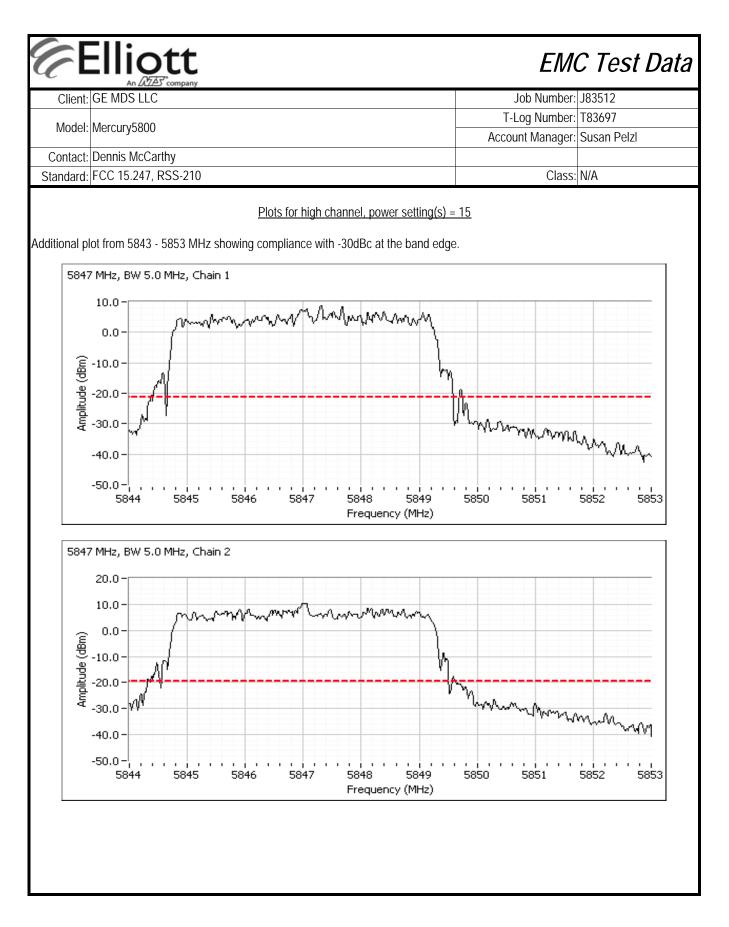


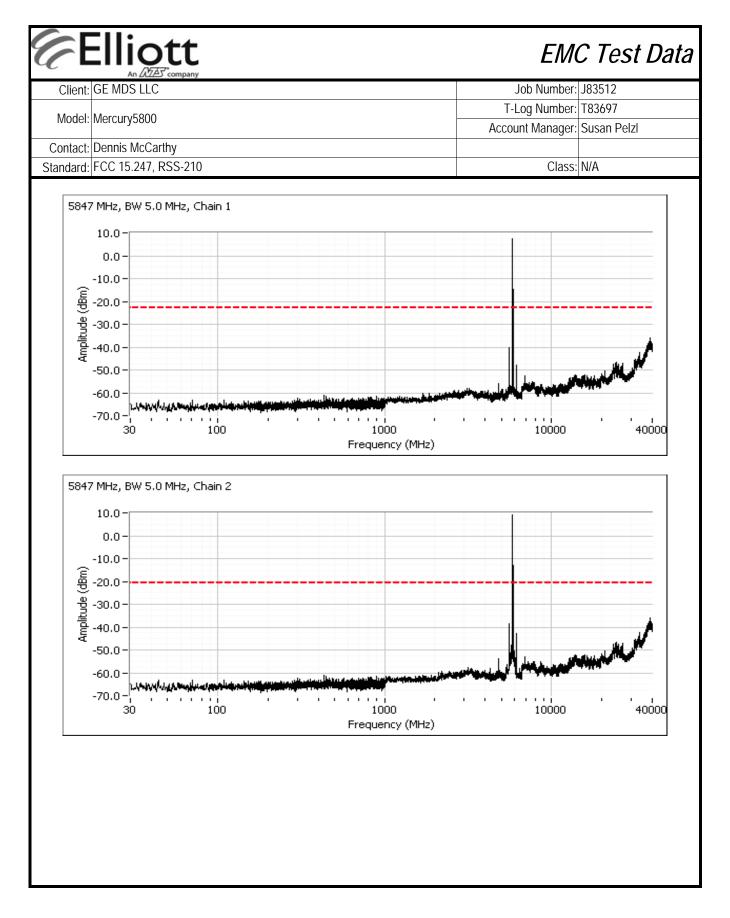


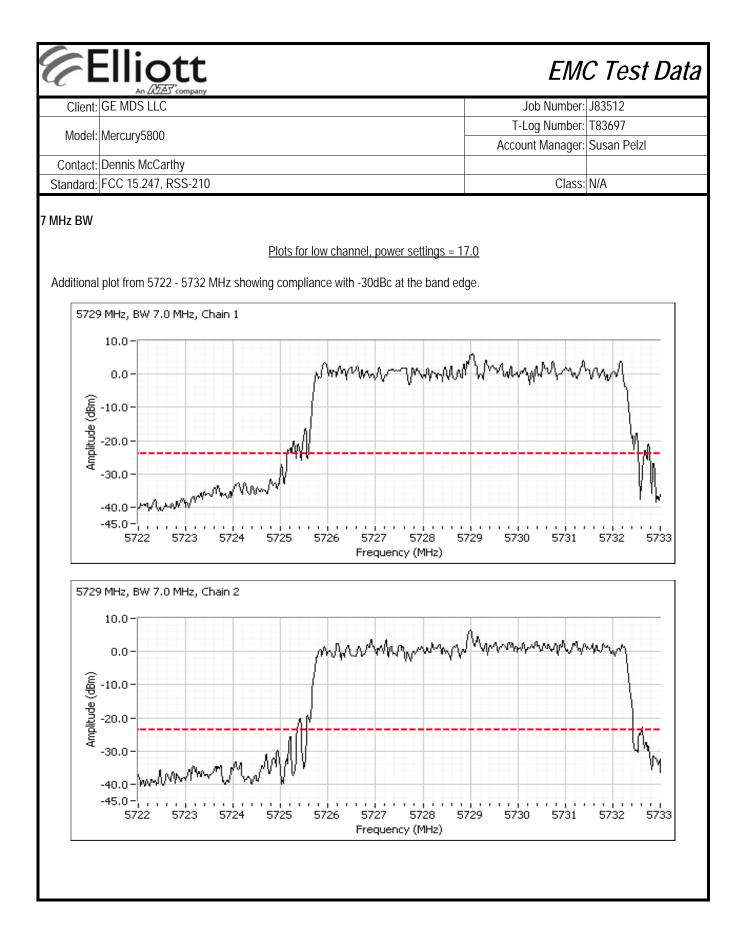


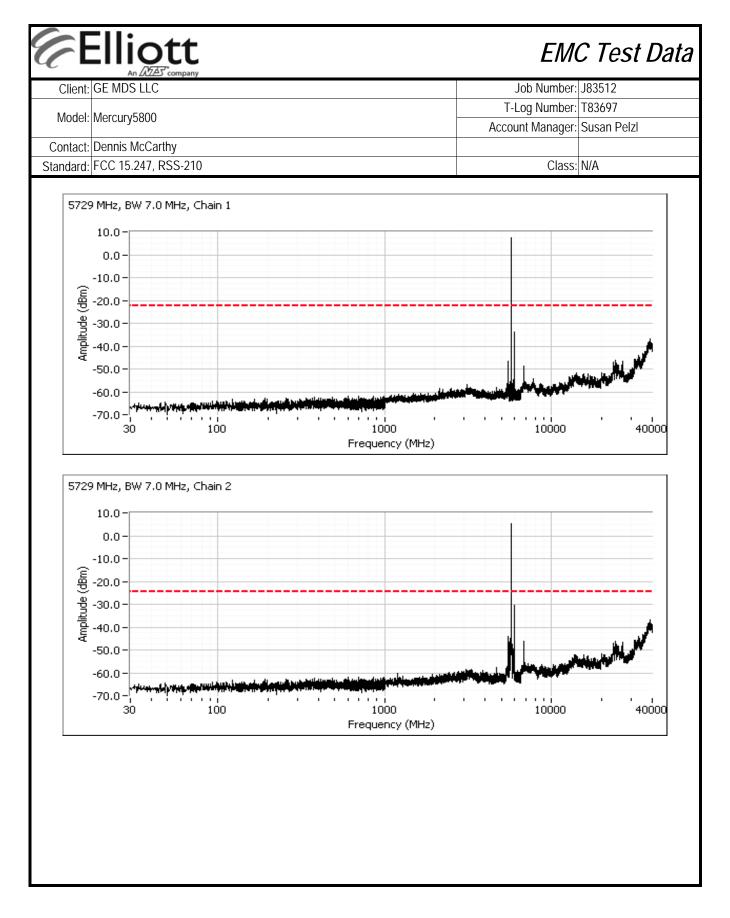


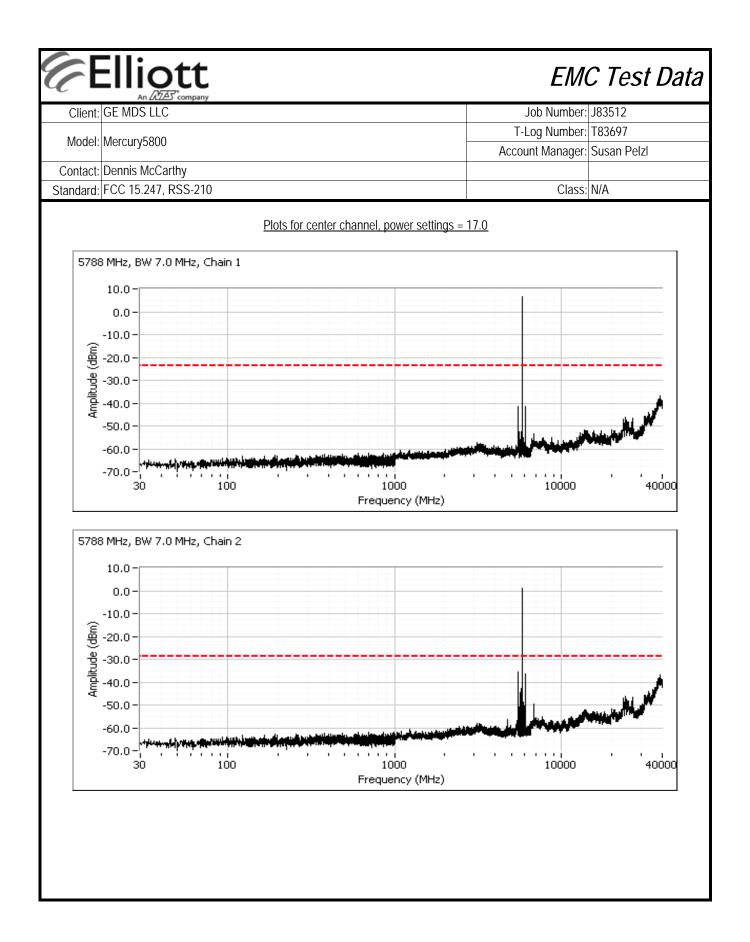


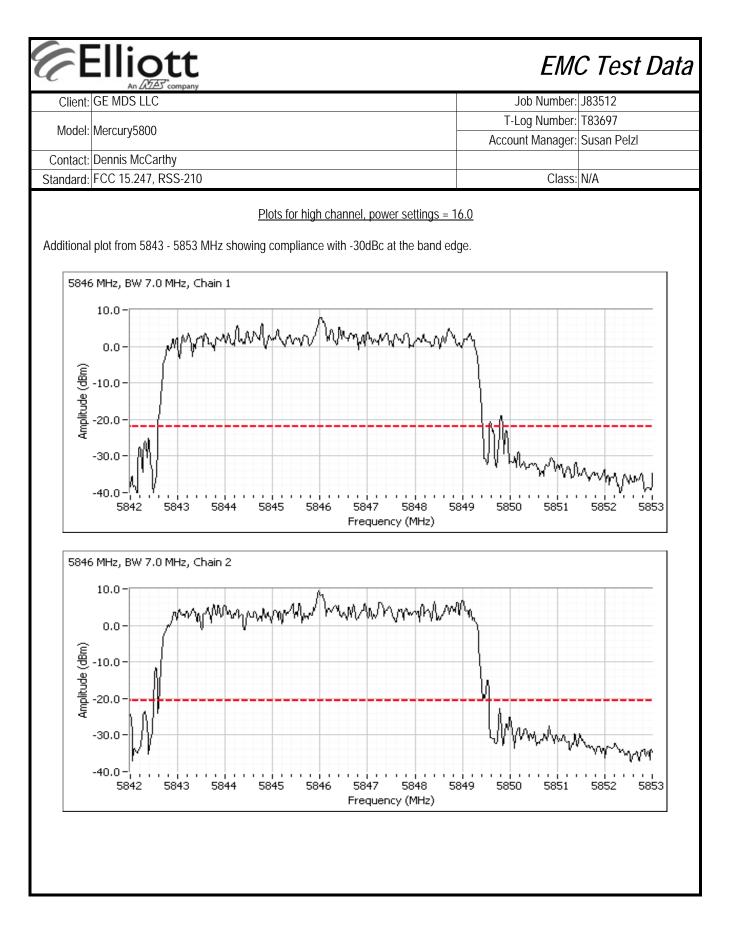


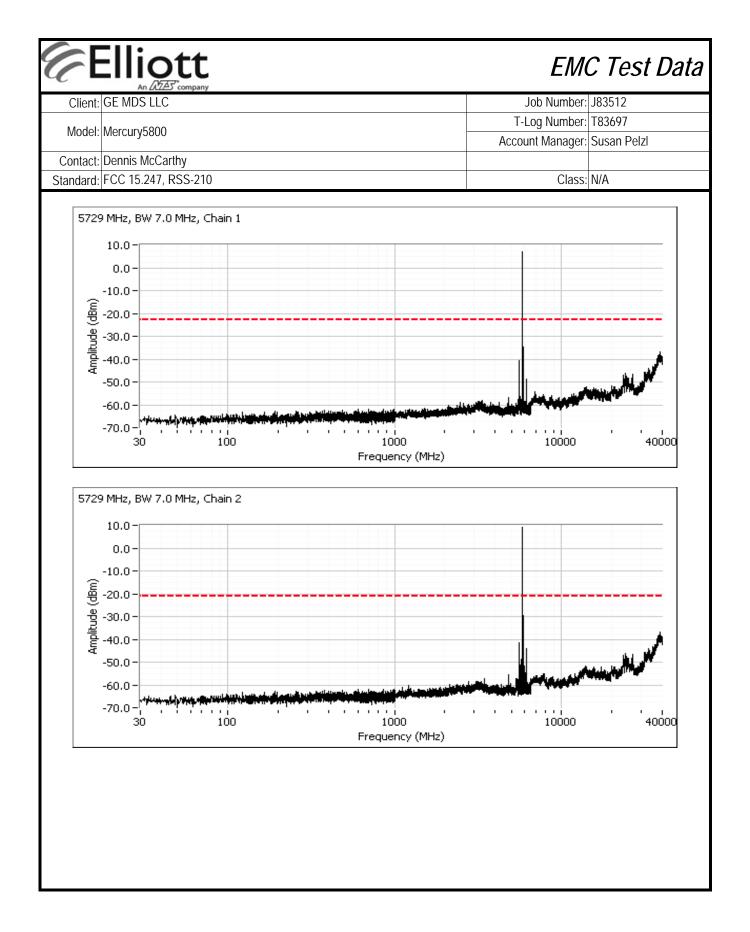


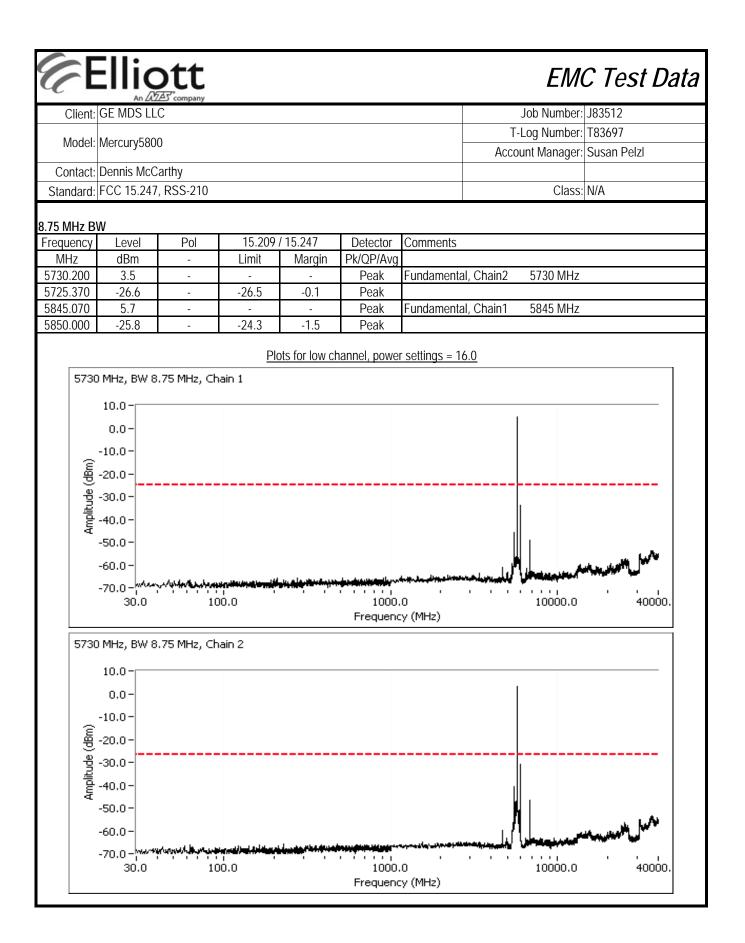


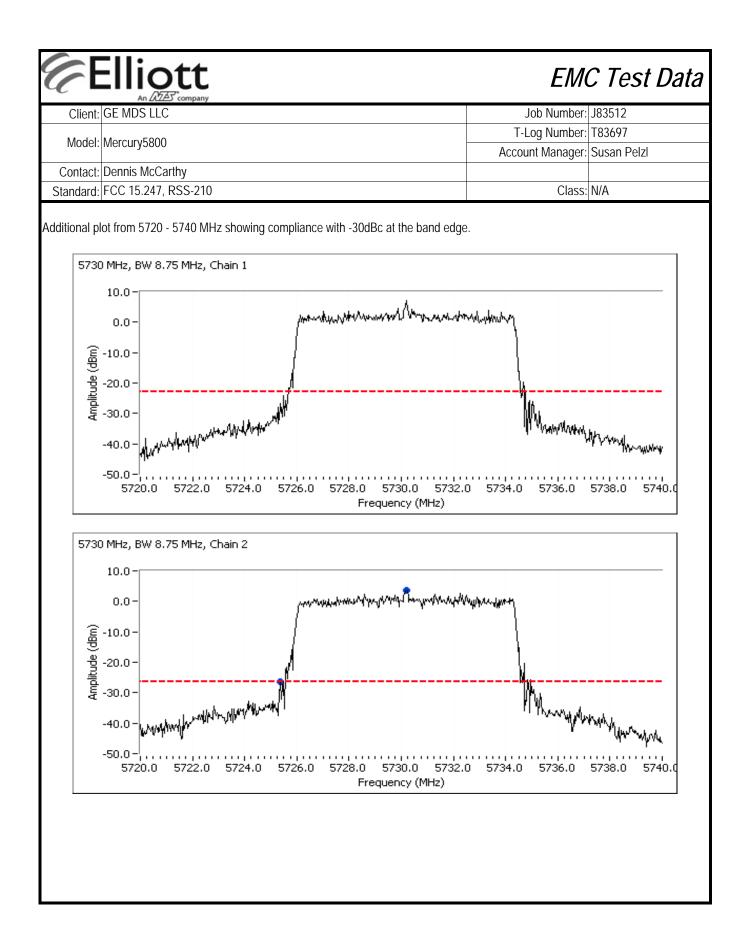


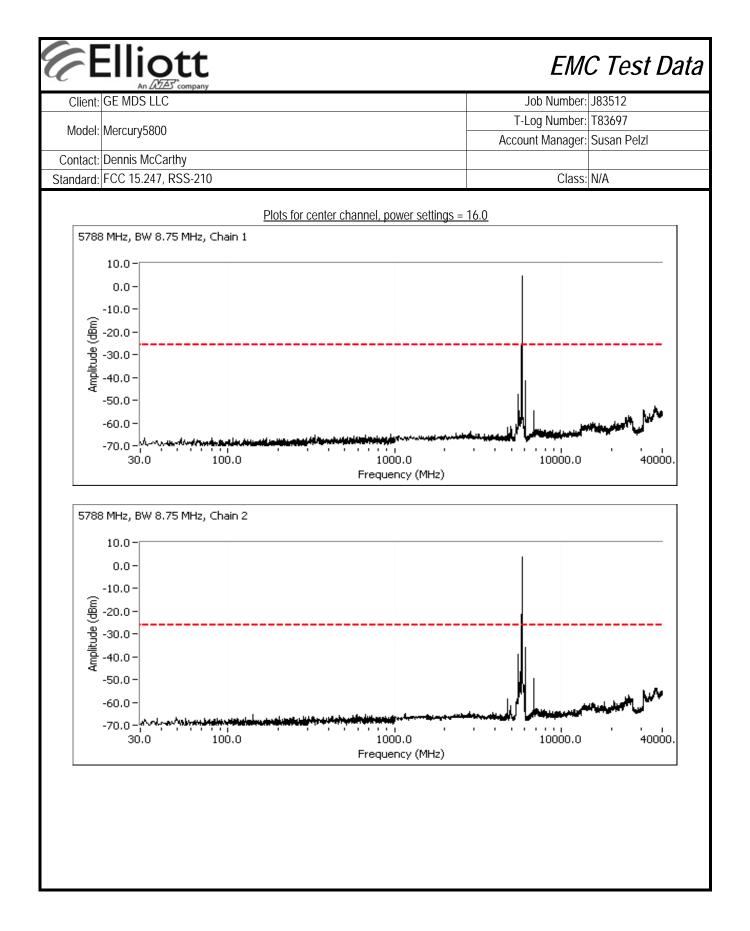


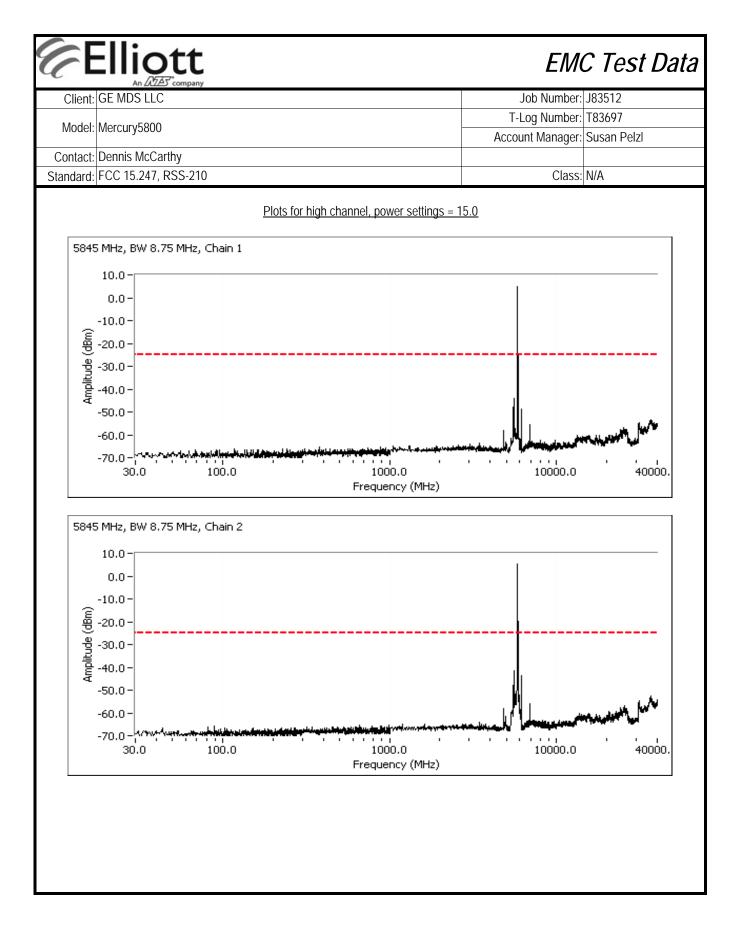


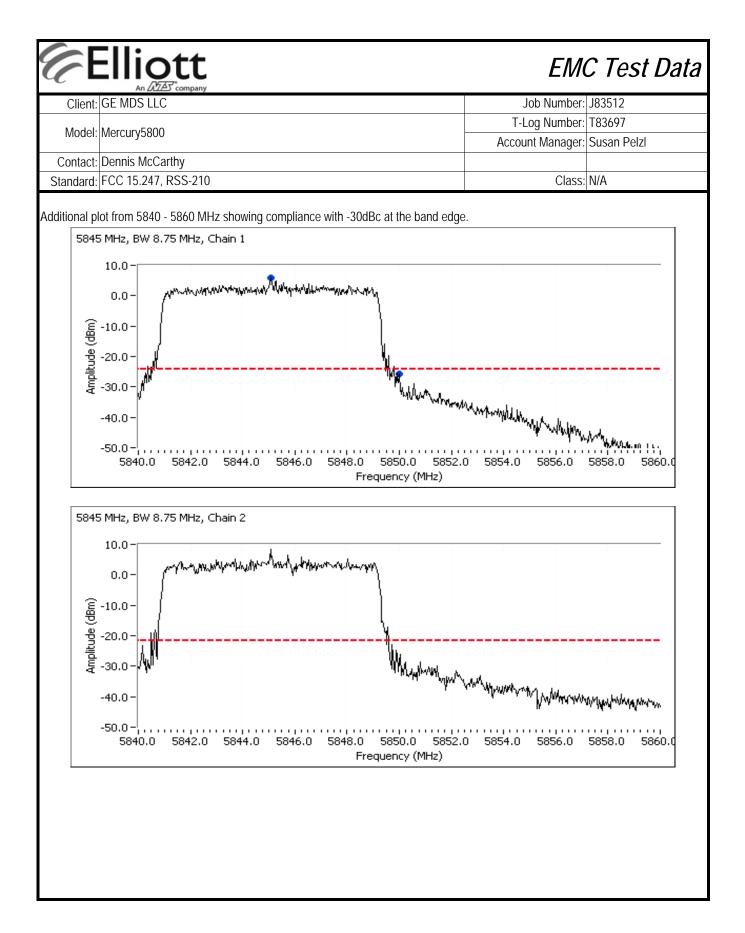


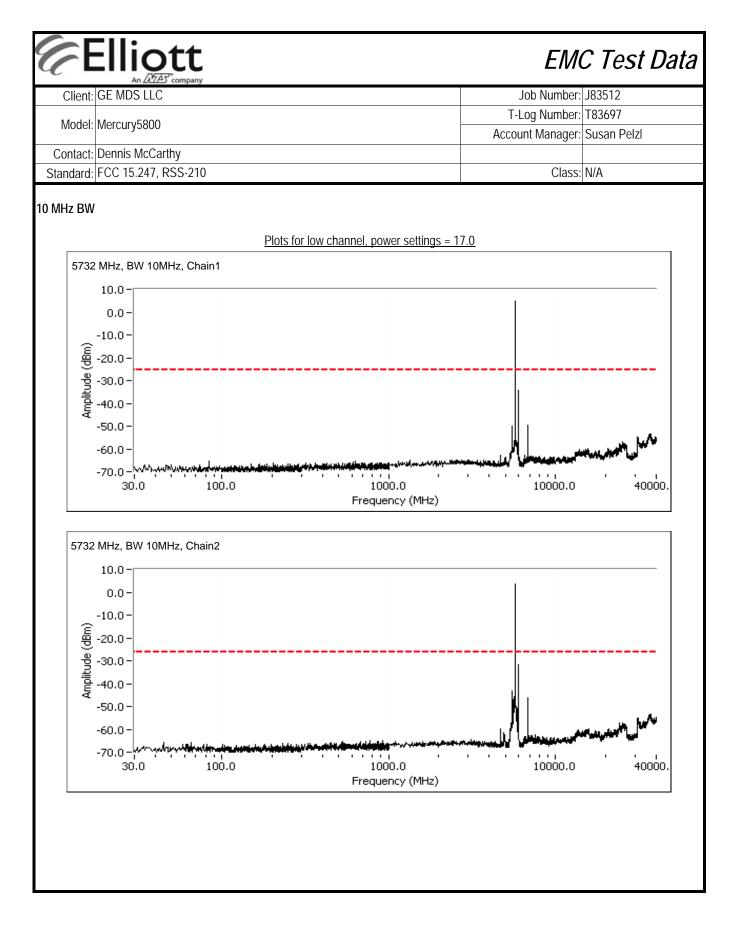


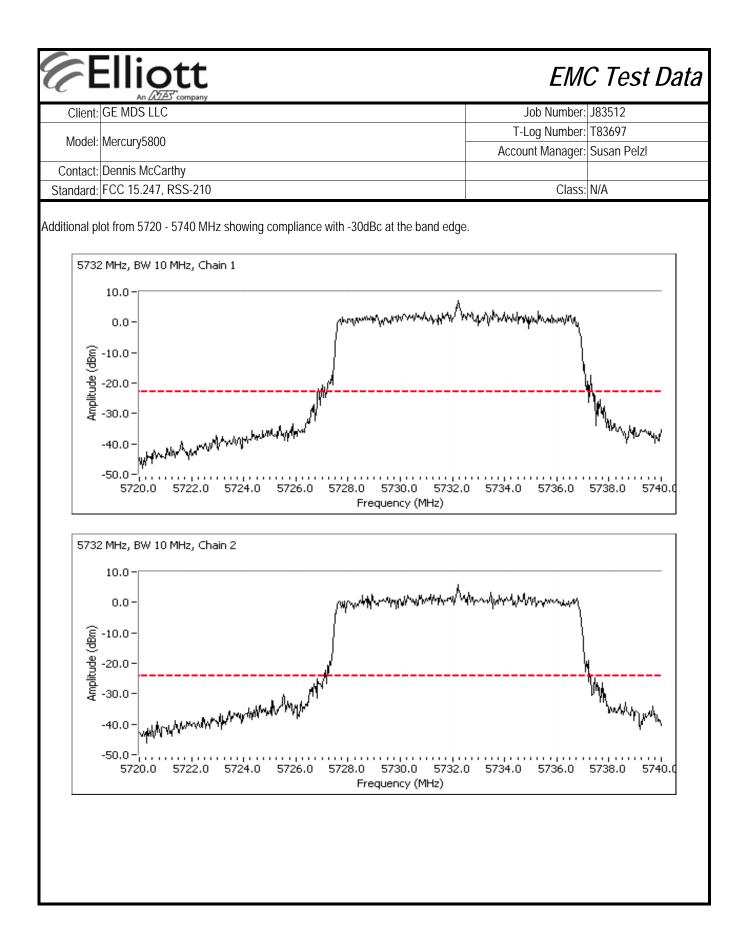


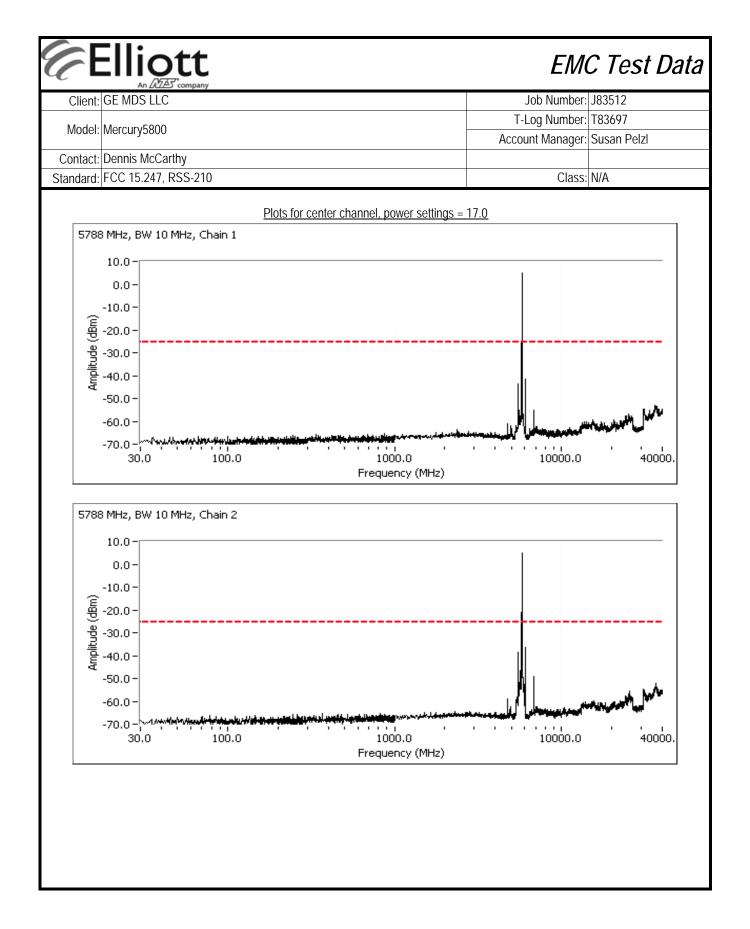


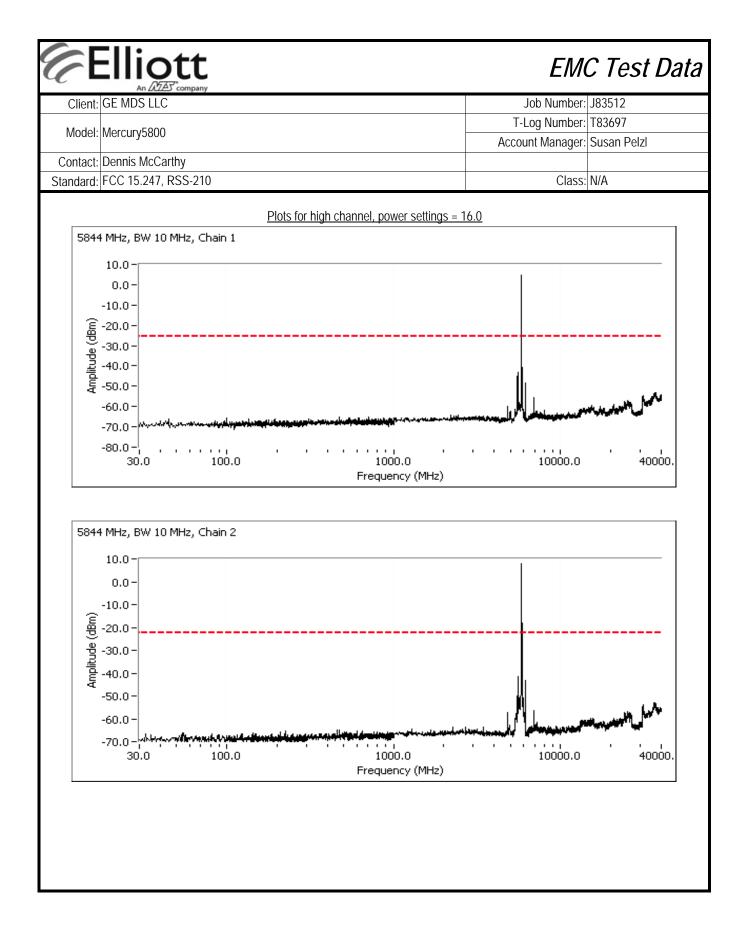


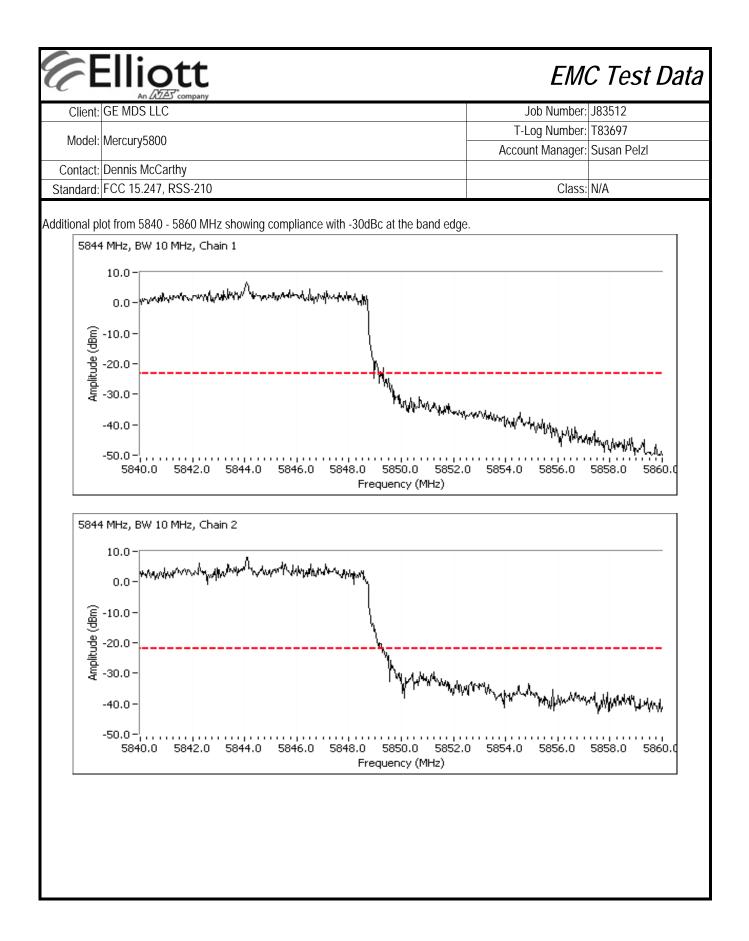




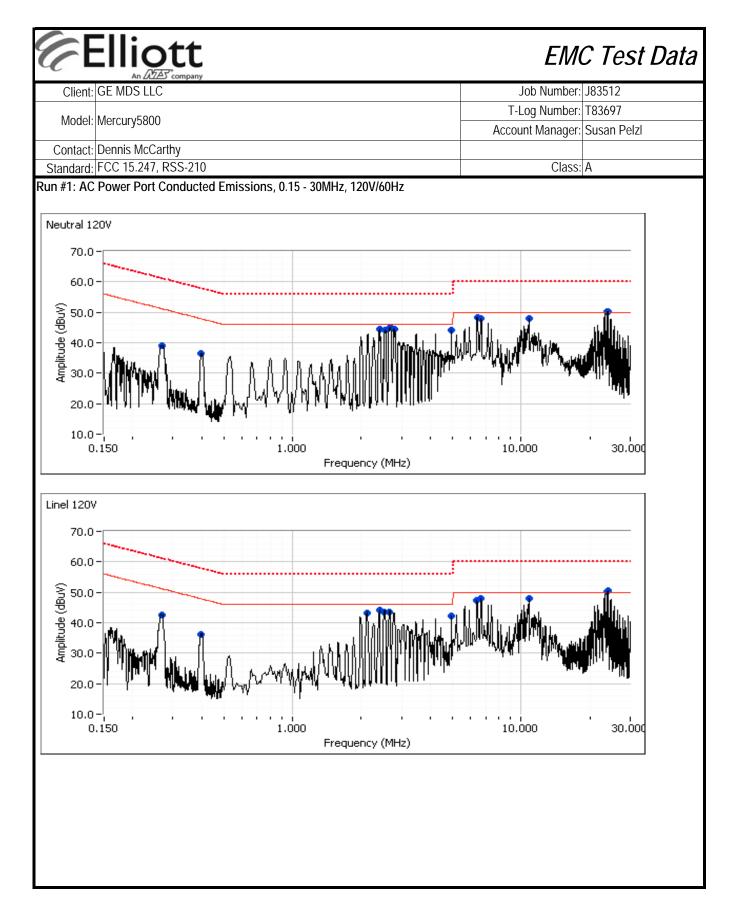








				EM	C Test Data
Client: GE MDS LI	_C			Job Number:	J83512
Model: Mercury580	00			Log Number:	
			Acco	ount Manager:	Susan Pelzl
Contact: Dennis McC Standard: FCC 15.24				Class:	A
	Conduct (Elliott Laboratories Fremo	cted Emissions		ber)	
Test Specific Detai	ls				
•	The objective of this test session is to specification listed above.	perform final qualificati	on testing of t	he EUT with r	respect to the
	6/23/2011 Joseph Cadigal Fremont Chamber #5	Config. Used Config Change EUT Voltage		:	
General Test Confi	guration				
	ber. Any cables running to remote sup clamp upon exiting the chamber. Is: Temperature: Rel. Humidity:	port equipment where r 25 °C 37 %	routed throug	h metal condu	iit and when possible
Summary of Resul	·				
	Test Performed	Limit	Result	Margin	
Run #					
Run #	CE, AC Power,120V/60Hz	Class B	Pass		



	Client:	GE MDS LL	C					Job Number:	J83512
Model: Mercurys800 Account Manager: Susan Pe Contact: Dennis McCarthy Image: Susan Pe Standard: FCC 15.247, RSS-210 Class: A Preliminary peak readings captured during pre-scan (peak readings vs. average limit) Class: A Preliminary peak readings vs. average limit) Class: A Out00 36.4 Neutral 46.0 -0.8 Peak 2.667 44.6 Neutral 46.0 -1.7 Peak 2.793 44.5 Ne			_					T-Log Number:	T83697
Contact: Dennis McCarthy Class: A Standard: FCC 15.247, RSS-210 Class: A Preliminary peak readings captured during pre-scan (peak readings vs. average limit) Class: A Frequency Level AC Class B Detector Comments MHz dBµV Line Limit Margin QP/Ave Comments 0.400 36.4 Neutral 47.9 -11.5 Peak Comments 2.667 45.2 Neutral 46.0 -0.8 Peak Comments 2.405 44.6 Neutral 46.0 -1.4 Peak Comments 2.405 44.5 Neutral 46.0 -1.7 Peak Comments 2.405 44.3 Neutral 50.0 0.2 Peak Comments 2.532 44.3 Neutral 50.0 -1.7 Peak Comments 24.030 50.2 Neutral 50.0 -1.7 Peak Comments Comments	Model:	Mercury580	0					•	
Standard: FCC 15.247, RSS-210 Class: A reliminary peak readings captured during pre-scan (peak readings vs. average limit) Trequency Level AC Class B Detector Comments MHz dBµV Line Limit Margin OP/Ave Comments 0.400 36.4 Neutral 51.2 -12.0 Peak Class Peak 2.667 45.2 Neutral 46.0 -2.0 Peak Peak 2.405 44.6 Neutral 46.0 -1.4 Peak Peak Peak Peak 2.793 44.5 Neutral 46.0 -1.7 Peak Peak </td <td>Contact:</td> <td>Dennis McC</td> <td>Carthy</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Contact:	Dennis McC	Carthy						
reliminary peak readings captured during pre-scan (peak readings vs. average limit) Frequency Level AC Class B Detector Comments MHz dBµV Line Limit Margin OP/Ave Comments 0.269 39.2 Neutral 51.2 -12.0 Peak Peak 2.667 45.2 Neutral 47.9 -11.5 Peak Peak 2.667 45.2 Neutral 46.0 -0.8 Peak Peak 2.405 44.6 Neutral 46.0 -1.4 Peak Peak 2.793 44.5 Neutral 46.0 -1.5 Peak Peak 2.3781 50.3 Neutral 50.0 0.3 Peak Peak 24.030 50.2 Neutral 50.0 0.2 Peak <								Class:	A
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				l durina pre	e-scan (peak	readings v	s, average limit		
\dot{HHz} $dB_{\mu}V$ LineLimitMarginQP/Ave0.26939.2Neutral51.2-12.0Peak0.40036.4Neutral47.9-11.5Peak2.66745.2Neutral46.0-0.8Peak4.95544.0Neutral46.0-2.0Peak2.40544.6Neutral46.0-1.4Peak2.79344.5Neutral46.0-1.5Peak2.52244.3Neutral46.0-1.7Peak23.78150.3Neutral50.00.3Peak24.03050.2Neutral50.00.2Peak10.79448.1Neutral50.0-1.7Peak6.44148.3Neutral50.0-1.7Peak6.68948.1Neutral50.0-1.7Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-2.8Peak2.52543.5Line 146.0-2.4Peak2.52543.5Line 146.0-2.4Peak2.52543.5Line 146.0-2.4Peak2.52542.3Line 146.0-3.7Peak2.52542.3Line 146.0-2.4Peak2.52542.3Line 150.00.2Peak2.64743.6									
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4.95544.0Neutral46.0-2.0Peak2.40544.6Neutral46.0-1.4Peak2.79344.5Neutral46.0-1.5Peak2.53244.3Neutral46.0-1.7Peak23.78150.3Neutral50.00.3Peak24.03050.2Neutral50.00.2Peak10.79448.1Neutral50.0-1.7Peak6.44148.3Neutral50.0-1.7Peak6.68948.1Neutral50.0-1.7Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak2.52542.3Line 146.0-2.4Peak2.64743.6Line 146.0-2.4Peak2.64743.6Line 146.0-3.7Peak2.78150.2Line 150.00.2Peak2.78150.2Line 150.00.2Peak2.78150.2Line 150.00.4Peak	0.400		Neutral	47.9	-11.5	Peak			
4.95544.0Neutral46.0-2.0Peak2.40544.6Neutral46.0-1.4Peak2.79344.5Neutral46.0-1.5Peak2.53244.3Neutral46.0-1.7Peak23.78150.3Neutral50.00.3Peak24.03050.2Neutral50.00.2Peak10.79448.1Neutral50.0-1.9Peak6.44148.3Neutral50.0-1.7Peak6.481Neutral50.0-1.7Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-2.8Peak2.11643.2Line 146.0-2.5Peak2.52543.5Line 146.0-2.5Peak2.54743.6Line 146.0-2.4Peak2.52542.3Line 146.0-2.4Peak2.54742.3Line 146.0-2.4Peak2.54742.3Line 146.0-3.7Peak2.78150.2Line 150.00.2Peak2.78150.2Line 150.00.4Peak2.78150.4Line 150.00.4Peak						1			
2.79344.5Neutral46.0-1.5Peak2.53244.3Neutral46.0-1.7Peak23.78150.3Neutral50.00.3Peak24.03050.2Neutral50.00.2Peak10.79448.1Neutral50.0-1.9Peak6.44148.3Neutral50.0-1.7Peak6.68948.1Neutral50.0-1.7Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-1.9Peak2.52543.5Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak2.78150.2Line 146.0-3.7Peak23.78150.2Line 150.00.4Peak24.02950.4Line 150.00.4Peak	4.955	44.0				1			
2.532 44.3 Neutral 46.0 -1.7 Peak 23.781 50.3 Neutral 50.0 0.3 Peak 24.030 50.2 Neutral 50.0 0.2 Peak 10.794 48.1 Neutral 50.0 -1.9 Peak 6.441 48.3 Neutral 50.0 -1.7 Peak 6.689 48.1 Neutral 50.0 -1.7 Peak 0.268 42.7 Line 1 51.2 -8.5 Peak 0.400 36.3 Line 1 47.9 -11.6 Peak 2.405 44.1 Line 1 46.0 -1.9 Peak 2.116 43.2 Line 1 46.0 -2.8 Peak 2.525 43.5 Line 1 46.0 -2.5 Peak 2.647 43.6 Line 1 46.0 -2.4 Peak 2.647 43.6 Line 1 46.0 -3.7 Peak 23.781 50.2 Line 1 50.0 0.2 Peak 23.781 <	2.405	44.6	Neutral	46.0	-1.4	Peak			
23.781 50.3 Neutral 50.0 0.3 Peak 24.030 50.2 Neutral 50.0 0.2 Peak 10.794 48.1 Neutral 50.0 -1.9 Peak 6.441 48.3 Neutral 50.0 -1.7 Peak 6.649 48.1 Neutral 50.0 -1.7 Peak 0.268 42.7 Line 1 51.2 -8.5 Peak 0.400 36.3 Line 1 47.9 -11.6 Peak 2.405 44.1 Line 1 46.0 -1.9 Peak 2.116 43.2 Line 1 46.0 -2.8 Peak 2.525 43.5 Line 1 46.0 -2.5 Peak 2.647 43.6 Line 1 46.0 -2.4 Peak 2.647 43.6 Line 1 46.0 -3.7 Peak 2.781 50.2 Line 1 50.0 0.2 Peak 23.781 50.2 Line 1 50.0 0.2 Peak 24.029 <td< td=""><td>2.793</td><td>44.5</td><td>Neutral</td><td>46.0</td><td>-1.5</td><td>Peak</td><td></td><td></td><td></td></td<>	2.793	44.5	Neutral	46.0	-1.5	Peak			
24.03050.2Neutral50.00.2Peak10.79448.1Neutral50.0-1.9Peak6.44148.3Neutral50.0-1.7Peak6.68948.1Neutral50.0-1.7Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-1.9Peak2.11643.2Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak	2.532	44.3	Neutral	46.0	-1.7	Peak			
10.79448.1Neutral50.0-1.9Peak6.44148.3Neutral50.0-1.7Peak6.68948.1Neutral50.0-1.9Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-1.9Peak2.11643.2Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak	23.781	50.3	Neutral	50.0	0.3	Peak			
6.44148.3Neutral50.0-1.7Peak6.68948.1Neutral50.0-1.9Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-1.9Peak2.11643.2Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak	24.030	50.2	Neutral	50.0	0.2	Peak			
6.68948.1Neutral50.0-1.9Peak0.26842.7Line 151.2-8.5Peak0.40036.3Line 147.9-11.6Peak2.40544.1Line 146.0-1.9Peak2.11643.2Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak	10.794	48.1	Neutral	50.0	-1.9	Peak			
0.268 42.7 Line 1 51.2 -8.5 Peak 0.400 36.3 Line 1 47.9 -11.6 Peak 2.405 44.1 Line 1 46.0 -1.9 Peak 2.116 43.2 Line 1 46.0 -2.8 Peak 2.525 43.5 Line 1 46.0 -2.5 Peak 2.647 43.6 Line 1 46.0 -2.4 Peak 2.647 43.6 Line 1 46.0 -3.7 Peak 2.3.781 50.2 Line 1 50.0 0.2 Peak 24.029 50.4 Line 1 50.0 0.4 Peak	6.441	48.3	Neutral	50.0	-1.7	Peak			
0.400 36.3 Line 1 47.9 -11.6 Peak 2.405 44.1 Line 1 46.0 -1.9 Peak 2.116 43.2 Line 1 46.0 -2.8 Peak 2.525 43.5 Line 1 46.0 -2.5 Peak 2.647 43.6 Line 1 46.0 -2.4 Peak 2.647 43.6 Line 1 46.0 -3.7 Peak 23.781 50.2 Line 1 50.0 0.2 Peak 24.029 50.4 Line 1 50.0 0.4 Peak	6.689		Neutral			Peak			
2.40544.1Line 146.0-1.9Peak2.11643.2Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak	0.268		Line 1	51.2	-8.5	Peak			
2.11643.2Line 146.0-2.8Peak2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak					-11.6				
2.52543.5Line 146.0-2.5Peak2.64743.6Line 146.0-2.4Peak4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak									
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4.95542.3Line 146.0-3.7Peak23.78150.2Line 150.00.2Peak24.02950.4Line 150.00.4Peak									
23.781 50.2 Line 1 50.0 0.2 Peak 24.029 50.4 Line 1 50.0 0.4 Peak			Line 1						
24.029 50.4 Line 1 50.0 0.4 Peak									
10/94 480 Line 1 500 -20 Peak									
	10.794	48.0	Line 1	50.0	-2.0	Peak			
6.689 48.0 Line 1 50.0 -2.0 Peak									
6.441 47.2 Line 1 50.0 -2.8 Peak	6.441	47.2	Line 1	50.0	-2.8	Peak			

Cliant	GE MDS LL	C company					Job Number:	102512
Client:	GE IVIDS LL	.C						
Model:	Mercury580	0					T-Log Number: Account Manager:	
Contact:	Dennis McC	Carthy						
	FCC 15.247						Class:	A
inal quasi-	peak and a	verage readir	ngs			1		
Frequency	Level	AC	<u> </u>	ss B	Detector	Comments		
MHz	dBµV	Line	Limit	Margin	QP/Ave			
23.781	49.9	Neutral	50.0	-0.1	AVG	AVG (0.10s)		
23.781	49.9	Line 1	50.0	-0.1	AVG	AVG (0.10s)		
24.029	49.5	Line 1	50.0	-0.5	AVG	AVG (0.10s)		
24.030	48.7	Neutral	50.0	-1.3	AVG	AVG (0.10s)		
6.689	46.9	Line 1	50.0	-3.1	AVG	AVG (0.10s)		
6.689	46.6	Neutral	50.0	-3.4	AVG	AVG (0.10s)		
10.794	46.5	Line 1	50.0	-3.5	AVG	AVG (0.10s)		
6.441	46.5	Line 1	50.0	-3.5	AVG	AVG (0.10s)		
10.794	46.4	Neutral	50.0	-3.6	AVG	AVG (0.10s)		
6.441 4.955	46.4 41.3	Neutral Line 1	50.0 46.0	-3.6 -4.7	AVG AVG	AVG (0.10s) AVG (0.10s)		
4.955	41.3	Neutral	46.0	-4.7	AVG	AVG (0.10S) AVG (0.10S)		
23.781	50.7	Neutral	60.0	-4.0	QP	QP (1.00s)		
23.781	50.7	Line 1	60.0	-9.5	QP	QP (1.003)		
24.029	50.5	Line 1	60.0	-9.5	QP	QP (1.00s)		
24.030	50.2	Neutral	60.0	-9.8	QP	QP (1.00s)		
2.667	34.8	Neutral	46.0	-11.2	AVG	AVG (0.10s)		
2.525	34.4	Line 1	46.0	-11.6	AVG	AVG (0.10s)		
6.689	47.7	Neutral	60.0	-12.3	QP	QP (1.00s)		
10.794	47.6	Neutral	60.0	-12.4	QP	QP (1.00s)		
2.647	33.5	Line 1	46.0	-12.5	AVG	AVG (0.10s)		
10.794	47.5	Line 1	60.0	-12.5	QP	QP (1.00s)		
6.689	47.5	Line 1	60.0	-12.5	QP	QP (1.00s)		
2.793	33.4	Neutral	46.0	-12.6	AVG	AVG (0.10s)		
2.667	43.2	Neutral	56.0	-12.8	QP	QP (1.00s)		
6.441	46.9	Line 1	60.0	-13.1	QP	QP (1.00s)		
6.441	46.8	Neutral	60.0	-13.2	QP	QP (1.00s)		
4.955	42.1	Neutral	56.0	-13.9	QP	QP (1.00s)		
2.793	42.0	Neutral	56.0	-14.0	QP	QP (1.00s)		
2.647	42.0	Line 1	56.0	-14.0	QP	QP (1.00s)		
4.955	41.7	Line 1	56.0	-14.3	QP	QP (1.00s)		
2.532	41.6 24 F	Neutral	56.0	-14.4	QP	QP(1.00s)		
0.269	36.5 41.2	Neutral	51.1	-14.6	AVG QP	AVG (0.10s) QP (1.00s)		
2.405 2.525	41.2	Neutral Line 1	56.0 56.0	-14.8 -14.9	QP QP	QP (1.00s) QP (1.00s)		
2.525	41.1	Line 1	56.0	-14.9 -15.8	QP QP	QP (1.00s) QP (1.00s)		
0.400	40.2 31.7	Neutral	47.9	-15.8	AVG	AVG (0.10s)		
2.532	29.4	Neutral	46.0	-16.6	AVG	AVG (0.103) AVG (0.105)		
2.405	39.4	Line 1	56.0	-16.6	QP	QP (1.00s)		

(CE		D tt	EM	C Test Data				
Client	GE MDS LL	.C					Job Number:	J83512
Madal	Manau						T-Log Number:	T83697
woder	Mercury580	10					Account Manager:	Susan Pelzl
Contact	Dennis McC	Carthy						
Standard: FCC 15.247, RSS-210							Class:	A
0.400	29.5	Line 1	47.9	-18.4	AVG	AVG (0.10s)		
2.116	27.1	Line 1	46.0	-18.9	AVG	AVG (0.10s)		
0.268	39.5	Line 1	61.2	-21.7	QP	QP (1.00s)		
0.269	38.2	Neutral	61.1	-22.9	QP	QP (1.00s)		
0.400	34.6	Line 1	57.9	-23.3	QP	QP (1.00s)		
0.400	34.5	Neutral	57.9	-23.4	QP	QP (1.00s)		
2.405	20.5	Neutral	46.0	-25.5	AVG	AVG (0.10s)		
0.268	25.4	Line 1	51.2	-25.8	AVG	AVG (0.10s)		
2.405	13.1	Line 1	46.0	-32.9	AVG	AVG (0.10s)		

End of Report

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