FCC PART 15, SUBPART B and C TEST REPORT

for

TRIGGER TRANSMITTER

MODEL: 51806

Prepared for

CRAFCO, INC. 25527 SOUTH ARIZONA AVENUE CHANDLER, ARIZONA 85249

Prepared by:

KYLE FUJIMOTO

Approved by:

MICHAEL CHRISTENSEN

COMPATIBLE ELECTRONICS INC. 114 OLINDA DRIVE BREA, CALIFORNIA 92823 (714) 579-0500

DATE: JUNE 6, 2008

	REPORT		APPENDICES			TOTAL	
	BODY	A	В	С	D	E	
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Report Number: **B80521D1**FCC Part 15 Subpart B and FCC Section 15.231 Test Report

Trigger Transmitter
Model: 51806

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Model: 51806

GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested: Trigger Transmitter

Model: 51806 S/N: E001

Product Description: See Expository Statement

Modifications: The EUT was not modified in order to meet the specifications.

Customer: Crafco, Inc.

25527 South Arizona Avenue Chandler, Arizona 85249

Test Dates: May 21, 2008

Test Specifications: EMI requirements

CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209 and 15.231

Test Procedure: ANSI C63.4

Test Deviations: The test procedure was not deviated from during the testing.

rigger Fransmitter Model: 51806

Report Number: B80521D1

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	This test was not performed because the EUT operates on battery power only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz – 4180 MHz (Transmitter Portion)	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209, and 15.231.
3	Radiated RF Emissions, 10 kHz – 4180 MHz (Digital Portion)	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B.
4	-20 dB Bandwidth	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.231(c).



PURPOSE 1.

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Trigger Transmitter, Model: 51806. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the Class B specification limits defined by CFR Title 47, Part 15, Subpart B for the digital portion; and the limits defined in Subpart C, sections 15.205, 15.207, 15.209, and 15.231 for the transmitter portion.



2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Crafco, Inc.

Don Timme Sr. Design Engineer

Compatible Electronics, Inc.

Kyle Fujimoto Test Engineer Michael Christensen Lab Manager

2.4 Date Test Sample was Received

The test sample was received on May 21, 2008.

2.5 Disposition of the Test Sample

The sample has not been returned to Crafco, Inc. as of June 6, 2008.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF Radio Frequency

EMI Electromagnetic Interference

EUT Equipment Under Test

P/N Part Number S/N Serial Number HP Hewlett Packard

ITE Information Technology Equipment

CML Corrected Meter Limit

LISN Line Impedance Stabilization Network

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3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4 2003	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description Of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

Stand Alone Mode: The Trigger Transmitter, Model: 51806 (EUT) was tested as a stand alone unit. The EUT was placed at the center of the non-conductive table. The EUT was transmitting on a continuous basis. The EUT's antenna is a PCB style antenna and is on the PCB itself.

After the EUT is activated by pressing the button, the transmission will cease operation once the button is released.

The final radiated data was taken in the mode above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

There were no external cables connected to the EUT.



Model: 51806

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
TRIGGER TRANSMITTER (EUT)	CRAFCO, INC.	51806	E001	V9T51806

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE		
	GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS						
Computer	Hewlett Packard	4530	US91912319	N/A	N/A		
EMI Receiver	Rohde & Schwarz	ESIB40	100172	November 27, 2006	Nov. 27, 2008		
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A		
	RF RA	DIATED EMIS	SIONS TEST EQ	UIPMENT			
Preamplifier	Com-Power	PA-102	1017	January 11, 2008	Jan. 11, 2009		
Biconical Antenna	Com Power	AB-900	15226	February 28, 2008	February 28, 2009		
Log Periodic Antenna	Com-Power	AL-100	16060	July 9, 2007	July 9, 2008		
Loop Antenna	Com-Power	AL-130	17089	September 24, 2007	Sept. 24, 2008		
Double Ridge Horn Antenna	Com-Power	AH-118	10073	July 17, 2006	July 17, 2008		
Microwave Preamplifier	Com-Power	PA-122	181921	March 3, 2008	March 3, 2009		
Antenna Mast	Com-Power	AM-100	N/A	N/A	N/A		

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.

7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A transient limiter was used for the protection of the spectrum analyzer input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the Compatible Electronics software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

Test Results:

This test was not performed because the EUT operates on battery power only and cannot be plugged into the AC public mains.

Model: 51806

7.2 Radiated Emissions (Spurious and Harmonics) Test

The EMI Receiver was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com-Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, and the Com-Power Microwave Preamplifier Model: PA-122 was used for frequencies above 1 GHz. The EMI Receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer or EMI Receiver records the highest measured reading over all the sweeps.

The readings were averaged by a "duty cycle correction factor", derived from 20 log (dwell time / one pulse train with blanking interval).

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	REQUENCY RANGE EFFECTIVE MEASUREMENT BANDWIDTH	
9 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 4.18 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results. The loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.

7.3 Radiated Emissions (Spurious and Harmonics) Test (Continued)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance to obtain the final test data. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.231.

Model: 51806

7.4 Bandwidth of the Fundamental

The -20 dB bandwidth was checked to see that it was within 0.25% of the fundamental frequency for the EUT. The plot of the -20 dB bandwidth is located in Appendix E.

Test Results:

Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.231(c).

8. CONCLUSIONS

The Trigger Transmitter, Model: 51806 meets all of the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B for the digital portion; and the limits defined in Subpart C, sections 15.205, 15.207, 15.209, and 15.231 for the transmitter portion.



Report Number: B80521D1

Trigger Transmitter Model: 51806



APPENDIX A

LABORATORY RECOGNITIONS

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission

Industry Canada

Radio-Frequency Technologies (Competent Body)



APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.231 or FCC Class B specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT.



APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT



ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Trigger Transmitter Model: 51806 S/N: E001

There were no additional models covered under this report.





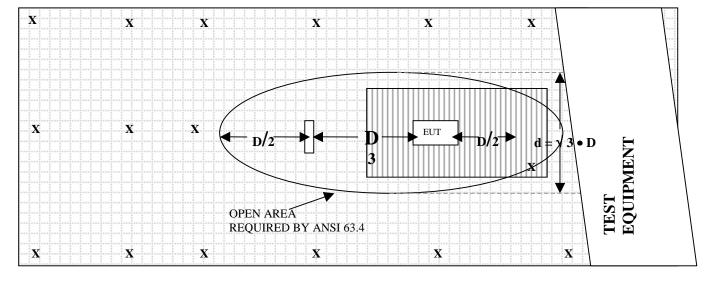
APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

OPEN LAND > 15 METERS

FIGURE 1: PLOT MAP AND LAYOUT OF 3 METER RADIATED SITE

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

X = GROUND RODS = GROUND SCREEN

D = TEST DISTANCE (meters) = WOOD COVER

Trigger Transmitter Model: 51806

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15226

CALIBRATION DATE: FEBRUARY 28, 2008

_			
FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	12.1	100	10.7
35	12.2	120	13.6
40	11.7	140	12.1
45	9.9	160	12.2
50	11.3	180	15.2
60	9.4	200	16.5
70	7.6	250	16.5
80	6.0	275	18.1
90	6.8	300	21.5

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16060

CALIBRATION DATE: JULY 9, 2007

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.5	700	20.5
400	15.8	800	21.6
500	17.0	900	21.3
600	19.2	1000	22.2

COM-POWER PA-102

PREAMPLIFIER

S/N: 1017

CALIBRATION DATE: JANUARY 11, 2008

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
(IVIIIZ)	(ub)	(IVIIIZ)	(ub)
30	38.2	300	38.0
40	38.0	350	38.3
50	38.3	400	38.0
60	38.6	450	37.5
70	38.4	500	37.9
80	38.4	550	37.9
90	38.3	600	37.8
100	38.1	650	37.5
125	38.5	700	38.0
150	38.2	750	37.7
175	38.1	800	37.1
200	38.4	850	37.1
225	38.2	900	37.1
250	38.2	950	37.0
275	38.2	1000	36.5

COM-POWER PA-122

PREAMPLIFIER

S/N: 181921

CALIBRATION DATE: MARCH 3, 2008

FREQUENCY	FACTOR	FREQUENCY	FACTOR
(GHz)	(dB)	(GHz)	(dB)
1.0	36.32	10.0	35.47
1.5	35.40	10.5	35.05
2.0	34.77	11.0	34.16
2.5	35.07	11.5	33.75
3.0	34.86	12.0	34.65
3.5	34.48	12.5	34.41
4.0	34.30	13.0	35.36
4.5	33.96	13.5	35.30
5.0	34.06	14.0	35.87
5.5	34.54	14.5	36.44
6.0	35.90	15.0	36.24
6.5	36.85	15.5	35.92
7.0	36.55	16.0	35.53
7.5	35.31	16.5	35.29
8.0	33.57	17.0	34.96
8.5	33.36	17.5	34.02
9.0	35.01	18.0	33.39
9.5	35.97	18.5	32.70



COM-POWER AH-118

HORN ANTENNA

S/N: 10073

CALIBRATION DATE: JULY 17, 2006

-			
FREQUENCY	FACTOR	FREQUENCY	FACTOR
(GHz)	(dB)	(GHz)	(dB)
1.0	25.331	10.0	42.391
1.5	27.507	10.5	39.194
2.0	31.581	11.0	38.504
2.5	30.906	11.5	40.724
3.0	30.276	12.0	41.079
3.5	30.396	12.5	41.014
4.0	30.881	13.0	41.201
4.5	32.77	13.5	42.335
5.0	34.067	14.0	43.248
5.5	33.914	14.5	45.639
6.0	34.028	15.0	43.197
6.5	35.779	15.5	41.751
7.0	38.347	16.0	42.462
7.5	39.096	16.5	41.908
8.0	39.377	17.0	40.277
8.5	38.646	17.5	48.117
9.0	37.438	18.0	54.113
9.5	38.403		

COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: SEPTEMBER 24, 2007

FREQUENCY	MAGNETIC	ELECTRIC
(MHz)	(dB/m)	(dB/m)
0.009	-41.27	10.23
0.01	-41.96	9.54
0.02	-41.73	9.77
0.05	-42.0	9.5
0.07	-41.5	10.0
0.1	-41.43	10.07
0.2	-43.9	7.9
0.3	-41.43	10.07
0.5	-41.40	10.1
0.7	-41.13	10.37
1	-40.83	10.67
2	-40.30	11.20
3	-40.60	10.90
4	-41.00	10.50
5	-40.20	11.30
10	-40.40	11.10
15	-41.67	9.83
20	-41.10	10.40
25	-42.80	8.70
30	-42.80	8.70



FRONT VIEW

CRAFCO, INC. TRIGGER TRANSMITTER MODEL: 51806

FCC SUBPART B AND C - RADIATED EMISSIONS - LAB D



REAR VIEW

CRAFCO, INC.
TRIGGER TRANSMITTER
MODEL: 51806
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB D



FRONT VIEW

CRAFCO, INC.
TRIGGER TRANSMITTER
MODEL: 51806
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB B



REAR VIEW

CRAFCO, INC.
TRIGGER TRANSMITTER
MODEL: 51806
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB B





APPENDIX E

DATA SHEETS



RADIATED EMISSIONS

DATA SHEETS

Date: 05/21/08 Crafco, Inc. Lab: B

Trigger Transmitter Model: 51806 Tested By: Kyle Fujimoto

X-Axis **Duty Cycle = 45.28%**

_					Peak /	Ant.	Table	
Freq.	Level				QP/	Height	Angle	
(MHz)	,	Pol (v/h)		Margin	Avg	(m)	(deg)	Comments
418	68.9	V	100.2	-31.3	Peak	1.5	180	
418	62.0181	V	80.2	-18.182	Avg	1.5	180	
836	43.71	V	80.2	-36.49	Peak	2	180	
836	36.8281	V	60.2	-23.372	Avg	2	180	
4054	00.00	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7.4	05.00	D I -	0.00	450	
1254	38.92	V	74	-35.08	Peak	2.23	150	
1254	32.0381	V	54	-21.962	Avg	2.23	150	
1672	53.71	V	74	-20.29	Peak	2.87	150	
1672	46.8281	V	54	-7.1719	Avg	2.87	150	
2090	43.14	V	80.2	-37.06	Peak	1.75	225	
2090	36.2581	V	60.2	-23.942	Avg	1.75	225	
2508	49.91	V	80.2	-30.29	Peak	1.77	135	
2508	43.0281	V	60.2	-17.172	Avg	1.77	135	
2926	41.35	V	80.2	-38.85	Peak	1.77	150	
2926	34.4681	V	60.2	-25.732	Avg	1.77	150	
3344	46.19	V	80.2	-34.01	Peak	2.14	135	
3344	39.3081	V	60.2	-20.892	Avg	2.14	135	
3377	33.3001	·	00.2	20.032	Avg	2.17	100	
3762	43.01	V	74	-30.99	Peak	2.14	150	
3762	36.1281	V	54	-17.872	Avg	2.14	150	
4180	41.53	V	74	-32.47	Peak	2.14	150	
4180	34.6481	V	54	-19.352	Avg	2.14	150	

Date: 05/21/08 Crafco, Inc.

Lab: B

Trigger Transmitter Model: 51806 Tested By: Kyle Fujimoto

Y-Axis **Duty Cycle = 45.28%**

					Peak /	Ant.	Table	
Freq.	Level				QP/	Height	Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
418	79.9	V	100.2	-20.3	Peak	1.5	180	
418	73.0181	V	80.2	-7.1819	Avg	1.5	180	
836	36.61	V	80.2	-43.59	Peak	2	180	
836	29.7281	V	60.2	-30.472	Avg	2	180	
1254	43.03	V	74	-30.97	Peak	1	225	
1254	36.1481	V	54	-17.852	Avg	1	225	
1672	54.35	V	74	-19.65	Peak	2.13	135	
1672	47.4681	V	54	-6.5319	Avg	2.13	135	
2090	46.94	V	80.2	-33.26	Peak	2.67	135	
2090	40.0581	V	60.2	-20.142	Avg	2.67	135	
2500	FF 47	V	00.0	25.02	Daale	0.00	405	
2508	55.17	V	80.2	-25.03	Peak	2.63	135	
2508	48.2881	V	60.2	-11.912	Avg	2.63	135	
2926	49.53	V	80.2	-30.67	Peak	2.74	135	
2926	49.53	V	60.2	-30.67	Avg	2.74	135	
2920	42.0401	V	00.2	-17.552	Avg	2.74	133	
3344	45.55	V	80.2	-34.65	Peak	1.35	150	
3344	38.6681	V	60.2	-21.532	Avg	1.35	150	
0011	00.0001		00.2	21.002	7.09	1.00	100	
3762	43.95	V	74	-30.05	Peak	2.22	150	
3762	37.0681	V	54	-16.932	Avg	2.22	150	
4180	44.48	V	74	-29.52	Peak	2.21	150	
4180	37.5981	V	54	-16.402	Avg	2.21	150	
					Ŭ			
	-			-				

Date: 05/21/08 Crafco, Inc.

Lab: B

Trigger Transmitter Model: 51806 Tested By: Kyle Fujimoto

Z-Axis Duty Cycle = 45.28%

_	l				Peak /	Ant.	Table	
Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	QP / Avg	Height (m)	Angle (deg)	Comments
418	74.9	V	100.2	-25.3	Peak	1.5	180	
418	68.0181	V	80.2	-12.182	Avg	1.5	180	
836	40.8	V	80.2	-39.4	Peak	2	180	
836	33.9181	V	60.2	-26.282	Avg	2	180	
1254	37.99	V	74	-36.01	Peak	1	225	
1254	31.1081	V	54	-22.892	Avg	1	225	
1672	48.45	V	74	-25.55	Peak	1.5	180	
1672	41.5681	V	54	-12.432	Avg	1.5	180	
2090	44.41	V	80.2	-35.79	Peak	1.75	225	
2090	37.5281	V	60.2	-22.672	Avg	1.75	225	
0500	50.07	\ \ /	00.0	00.50	D I -	0.70	405	
2508	50.67	V	80.2	-29.53	Peak	2.72	135	
2508	43.7881	V	60.2	-16.412	Avg	2.72	135	
2926	42.91	V	80.2	-37.29	Peak	1.25	135	
2926	36.0281	V	60.2	-37.29 -24.172	Avg	1.25	135	
2920	30.0201	V	00.2	-24.172	Avy	1.23	133	
3344	50.21	V	80.2	-29.99	Peak	1.35	150	
3344	43.3281	V	60.2	-16.872	Avg	1.35	150	
0011	10.0201	•	00.2	10.072	7119	1.00	100	
3762	43.88	V	74	-30.12	Peak	1.22	175	
3762	36.9981	V	54	-17.002	Avg	1.22	175	
4180	41.92	V	74	-32.08	Peak	1.25	90	
4180	35.0381	V	54	-18.962	Avg	1.25	90	
					-			

Crafco, Inc. Date: 05/21/08 Lab: B

Trigger Transmitter Model: 51806 Tested By: Kyle Fujimoto

X-Axis **Duty Cycle = 45.28%**

					Peak /	Ant.	Table	
Freq.	Level				QP/	Height	Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
418	86.1	Н	100.2	-14.1	Peak	1.5	180	
418	79.2181	Н	80.2	-0.9819	Avg	1.5	180	
836	49	Н	80.2	-31.2	Peak	2	180	
836	42.1181	Н	60.2	-18.082	Avg	2	180	
1254	41.11	Н	74	-32.89	Peak	1.96	225	
1254	34.2281	Н	54	-19.772	Avg	1.96	225	
4070	F 4 07			40.00	Б.	0.00	00	
1672	54.37	Н	74	-19.63	Peak	2.89	90	
1672	47.4881	Н	54	-6.5119	Avg	2.89	90	
2090	47.16	Н	80.2	-33.04	Peak	2.24	150	
2090	40.2781	H	60.2	-33.04		2.24	150	
2090	40.2761	П	00.2	-19.922	Avg	2.24	150	
2508	48.98	Н	80.2	-31.22	Peak	2.38	315	
2508	42.0981	Н	60.2	-18.102	Avg	2.38	315	
2000	12.0001	• • •	00.2	10.102	7.179	2.00	010	
2926	46.71	Н	80.2	-33.49	Peak	1.25	135	
2926	39.8281	Н	60.2	-20.372	Avg	1.25	135	
3344	47.11	Н	80.2	-33.09	Peak	1.35	150	
3344	40.2281	Н	60.2	-19.972	Avg	1.35	150	
3762	46.49	Н	74	-27.51	Peak	1.97	125	
3762	39.6081	Н	54	-14.392	Avg	1.97	125	
4180	43.15	Н	74	-30.85	Peak	1.25	90	
4180	36.2681	Н	54	-17.732	Avg	1.25	90	

Crafco, Inc. Date: 05/21/08 Lab: B

Trigger Transmitter Model: 51806 Tested By: Kyle Fujimoto

Y-Axis **Duty Cycle = 45.28%**

					Peak /	Ant.	Table	
Freq.	Level				QP/	Height	Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
418	66.3	Н	100.2	-33.9	Peak	1.5	180	
418	59.4181	Н	80.2	-20.782	Avg	1.5	180	
836	28.91	Н	80.2	-51.29	Peak	2	180	
836	22.0281	Н	60.2	-38.172	Avg	2	180	
1254	37.71	Н	74	-36.29	Peak	1.89	315	
1254	30.8281	Н	54	-23.172	Avg	1.89	315	
1672	40.64	- 11	74	24.20	Doole	2.22	150	
1672	49.61 42.7281	H	74 54	-24.39 -11.272	Peak Avg	2.23	150 150	
1072	42.7201	П	54	-11.272	Avg	2.23	150	
2090	43.21	Н	80.2	-36.99	Peak	2.08	135	
2090	36.3281	H	60.2	-23.872	Avg	2.08	135	
2000	00.0201	'''	00.2	20.012	7.179	2.00	100	
2508	45.69	Н	80.2	-34.51	Peak	2.34	150	
2508	38.8081	Н	60.2	-21.392	Avg	2.34	150	
2926	42.78	Н	80.2	-37.42	Peak	2.89	150	
2926	35.8981	Н	60.2	-24.302	Avg	2.89	150	
3344	44.77	Н	80.2	-35.43	Peak	1.35	150	
3344	37.8881	Н	60.2	-22.312	Avg	1.35	150	
0705	40.75			04.05		0.00	40-	
3762	42.75	Н	74	-31.25	Peak	2.62	135	
3762	35.8681	Н	54	-18.132	Avg	2.62	135	
4180	43.54	Н	74	-30.46	Peak	1.25	90	
4180	36.6581	H	54	-30.46	Avg	1.25	90	
7100	30.0301	11	J 4	17.042	۸۷y	1.20	90	
L								

Crafco, Inc. Date: 05/21/08 Lab: B

Trigger Transmitter Model: 51806 Tested By: Kyle Fujimoto

Z-Axis Duty Cycle = 45.28%

					Peak /	Ant.	Table	
Freq.	Level				QP/	Height	Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
418	85.3	H	100.2	-14.9	Peak	1.5	180	
418	78.4181	H	80.2	-1.7819	Avg	1.5	180	
- 110	70.1101	• • •	00.2	111010	7.19	1.0	100	
836	37.11	Н	80.2	-43.09	Peak	2	180	
836	30.2281	Н	60.2	-29.972	Avg	2	180	
1254	41.09	Н	74	-32.91	Peak	1	225	
1254	34.2081	Н	54	-19.792	Avg	1	225	
1672	55.87	Н	74	-18.13	Peak	1.5	180	
1672	48.9881	Н	54	-5.0119	Avg	1.5	180	
2090	48.49	Н	80.2	-31.71	Peak	1.75	225	
2090	41.6081	Н	60.2	-18.592	Avg	1.75	225	
2508	52.35	Н	80.2	-27.85	Peak	2.38	150	
2508	45.4681	Н	60.2	-14.732	Avg	2.38	150	
2926	46.66	Н	80.2	-33.54	Peak	1.25	135	
2926	39.7781	Н	60.2	-20.422	Avg	1.25	135	
3344	45.51	Н	80.2	-34.69	Peak	185	135	
3344	38.6281	Н	60.2	-21.572	Avg	1.85	135	
0700	44.00		7.4	00.00	D I	4.00	475	
3762	44.32	H	74	-29.68	Peak	1.22	175	
3762	37.4381	Н	54	-16.562	Avg	1.22	175	
4400	40.07	Н	71	-33.93	Dook	1.05	90	
4180 4180	40.07 33.1881	H	74 54	-33.93	Peak	1.25 1.25	90	
4100	33.1001	П	54	-20.012	Avg	1.25	90	

Crafco, Inc. Date: 05/21/08

Trigger Transmitter Lab: D

Model: 51806 Tested By: Kyle Fujimoto

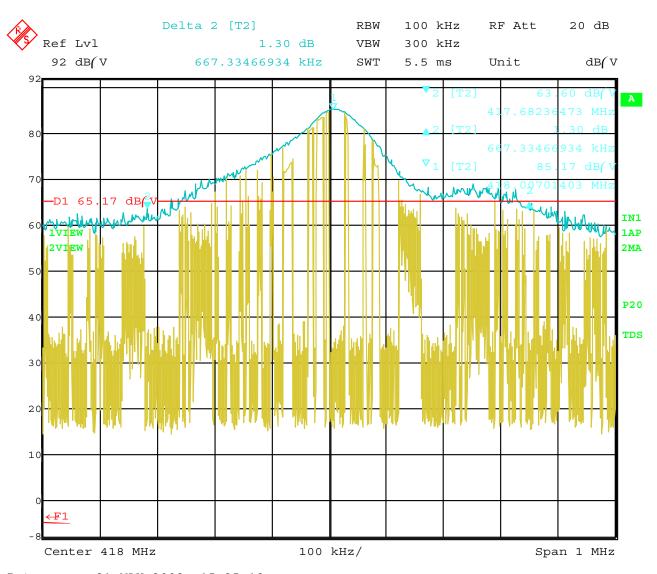
Transmit Mode
Duty Cycle = 45.28%
Digital Portion and Non-Harmonic Emissions from the Tx
10 kHz to 4180 MHz - Vertical and Horizontal Polarization

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
						` ,	(0,	
								No Emissions Detected
								from the Digital Portion
								from 10 kHz to 4180 MHz
								No Emissions Detected
								from the Non_Harmonic
								Emissions from the Tx
								from 10 kHz to 4180 MHz



-20 dB BANDWIDTH

DATA SHEET



Date: 21.MAY.2008 15:35:18

-20 Bandwidth of the Fundamental