

ELECTROMAGNETIC COMPATIBILITY TEST REPORT

for the Fluke 568 EX IR and contact thermometer



The Fluke 568 was tested to the following standards
at the EMC laboratories of Fluke Corporation.
6920 Seaway Blvd Everett WA 98203

**IEC 61326-1:2012, IEC 61326-2-2:2012, CISPR 11:2004
Class A Emissions and Immunity**

The Fluke 568 passes test requirements for equipment used for:

<input type="checkbox"/> Industrial Locations	<input type="checkbox"/> Controlled EM Environments	<input checked="" type="checkbox"/> Portable Equipment
<input checked="" type="checkbox"/> Non-Domestic Use (Class A)		<input type="checkbox"/> Domestic Use (Class B)


Class A equipment is equipment suitable for use in all establishments other than domestic and those directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.

Prepared by:

John Morton 
Sr. Specialist Technician

Date: 5/15/2013

Approved by:

Michael Meisner 
Test Engineer

Date: 5/15/2013

**Fluke 568 IR and contact thermometer
ELECTROMAGNETIC TEST HISTORY**

Initial Report

February 13, 2013

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

EMC TEST REPORT		FLUKE CORPORATION	
Fluke 568 EX	2013May17-0730	ii	

TABLE OF CONTENTS

- I. Scope iv
- II. Purpose iv
- III. Definition of Performance Criteria iv
- IV. Test Results v
- V. Test Plan vi
- VI. Simplified Block Diagramvii
- VII. Tolerance Calculations..... viii
- VIII. Certified Equipment List viii
- IX. Procedure Document viii
- Section 1 - IEC 61326 Emissions Testing Section 1.1
 - 1.1 CISPR 11:2010 – Radiated Emissions FAR Prescan Section 1.2
 - 1.2 CISPR 11:2010 – Radiated Emissions OATS..... Section 1.5
 - 1.3 Additional Emissions Testing Section 1.6
- Section 2 - IEC 61326 Immunity Testing Section 2.1
 - 2.1 IEC 61000-4-2:2008 - Electrostatic Discharge Immunity Section 2.2
 - 2.2 IEC 61000-4-3:2010 - Radiated Radio Frequency Electromagnetic Field Immunity Section 2.5
 - 2.3 IEC 61000-4-8:2009 - Power Frequency Magnetic Field Immunity Section 2.7
 - 2.4 Additional Immunity Testing Section 2.8

I. Scope

This Test Report documents the results of the electromagnetic compatibility (EMC) testing performed by the EMC laboratories of Fluke Corporation. This report records the performance of the Fluke 568 IR and contact thermometer sample, as submitted for testing, described in section V. Details and results of testing are contained within.

II. Purpose

Testing was performed to evaluate the electromagnetic compatibility (EMC) performance of the EUT. This report is intended to document compliance with the following standards, specifications, and directives.

EMC Directive: 2004/108/EEC

IEC 61326-1 :2012: Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements

IEC 61326-2-2:2012 Electrical equipment for measurement, control and laboratory use – EMC Requirements – Part 2-2: Particular requirements – Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems

CISPR 11: Industrial, scientific and medical (ISM) radio-frequency equipment – Electromagnetic disturbance characteristics – Limits and methods of measurement

III. Definition of Performance Criteria

1. **General (IEC 61326-1 cl6.4)**
 - a. **Performance criterion A:** The equipment shall continue to operate as intended during and after the test.
 - b. **Performance criterion B:** The equipment shall continue to operate as intended after the test. No change of actual operating state or stored data is allowed.
 - c. **Performance criterion C:** During testing, temporary degradation, or loss of function or performance which requires operator intervention or system reset occurs.
2. **Portable Test, Measuring and Monitoring Equipment in LVDS (IEC 61326-2-2.6.4.1.101)**
 - a. **Performance criterion A:** During testing, normal performance within the specification limits. This includes that variations are allowed outside the maximum intrinsic error documented in the technical data of the user's manual. The variations shall be limited to five times the intrinsic error but not more than $\pm 20\%$ of the measured value when measured at between 50 % and 100 % of full scale.
3. **Possible Case Verdicts (unless otherwise indicated):**
 - a. **Pass:** (P) or (Pass)
 - b. **Fail:** (F) or (Fail)
 - c. **Not Applicable:** (N/A) or (NA)
 - d. **Unused Field or Data Not Required:** (--) two or more dashes.

EMC TEST REPORT		FLUKE CORPORATION	
Fluke 568 EX		2013May17-0730	iv

IV. Test Results

The Fluke 568 IR and contact thermometer was tested to the following Electromagnetic Compatibility [EMC] requirements:

Adapted from CISPR 11 Table 2a
Emissions Limits for Class A Equipment

Port	Frequency MHz	Limits	Standard	Pass/Fail
Enclosure	30 to 230	40dB (uV/m) quasi peak, measured at 10 meters.	CISPR 11	Pass
	230 to 1000	47dB (uV/m) quasi peak, measured at 10 meters.		Pass
AC mains	0.15 to 0.5	79dB (uV/m) quasi peak, 66dB (uV/m) average.		N/A
	0.5 to 5.0	73dB (uV/m) quasi peak, 60dB (uV/m) average.		N/A
	5 to 30	73dB (uV/m) quasi peak, 60dB (uV/m) average.		N/A

Adapted from EN 61326-1:2012 Table A.1
Immunity test requirements for portable test and measurement equipment

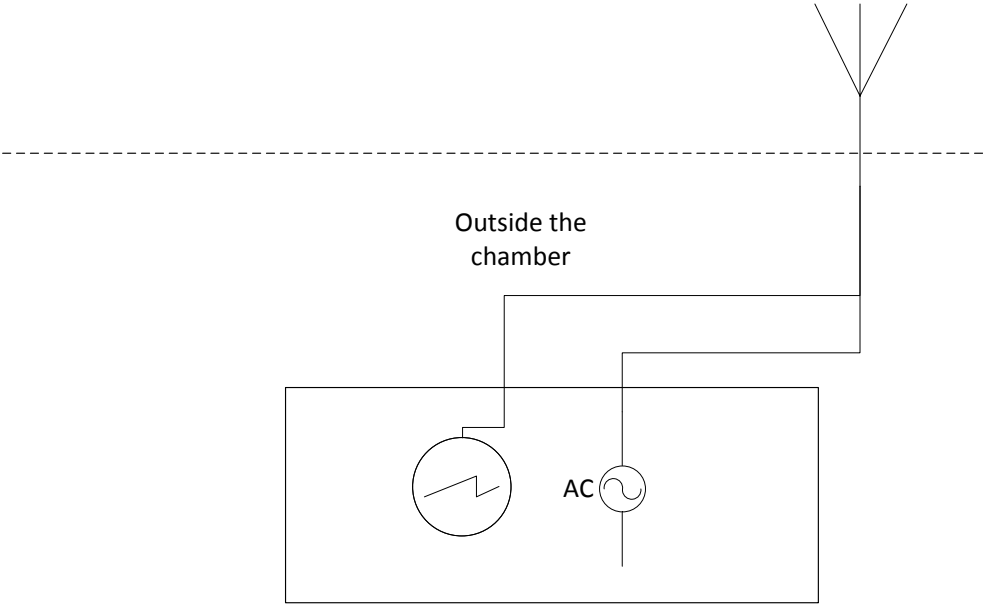
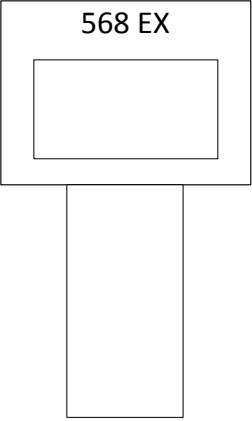
Port	Phenomenon	Basic standard	Test value	Criteria	Pass/Fail
Enclosure	ESD	EN 61000-4-2	4 kV/8 kV contact/air	B	Pass
	EM Field	EN 61000-4-3	3 V/m (80 MHz to 1 GHz)	A	Pass
	EM Field	EN 61000-4-3	3 V/m (1,4 GHz to 2 GHz)	A	Pass
	EM Field	EN 61000-4-3	1 V/m (2,0 GHz to 2,7 GHz)	A	Pass
	Magnetic Field	EN 61000-4-8	3 A/m	A	Pass

V. Test Plan

1. Configuration of EUT during testing:
 - a. General
 - i. Manufacturer / Model: Fluke 568 EX
 - ii. Equipment Life Cycle: Pre-Production
 - iii. Equipment Power Supply: Battery Only
 - iv. Serial Number(s) of EUT tested: PE 1304002
 - v. Clocks / Oscillators (including synthesized clocks): 32.768KHz, 4.9 MHz
 - b. Composition of EUT: Only one version of the Fluke568 EX
 - c. Assembly of EUT: There is only one configuration of the Fluke568 EX
 - d. EUT I/O Ports: A K-Type thermocouple bead probe is provided with the Fluke568 EX.
 - e. Auxiliary Equipment: No auxiliary equipment
2. Operation conditions of EUT during testing:
 - a. Operation Modes: EUT was tested measuring both thermocouple and IR measurement modes.
 - b. Environmental Conditions: All testing was carried out within the Fluke 568's Environmental operating range, and within the rated ranges of supply voltage and frequency (IEC 61326-1 Cl 5.3.2.)
 - c. EUT Software / Revision during test: Version 1.31
3. Verification Test Procedure: The Fluke 568 will be considered to be operating within manufacturers specifications when unit operates within the upper and lower display limits identified in Tolerance Calculations page viii per the Acceptance Criteria of the applicable test.

EMC TEST REPORT	FLUKE CORPORATION	
Fluke 568 EX	2013May17-0730	vi

VI. Simplified Block Diagram of EUT as Tested



Notes:
For Radiated Immunity Testing, as above
For Radiated Emissions Testing, the standard thermocouple is installed.

VII. Tolerance Calculations

The tolerance calculations in the table below determine the pass / fail status of all tolerance dependent testing. If the instrument displays a reading outside of these limits, it will fail the test.

	Temp C				
Nominal	23				
Range					
Resolution					
% Accuracy					
+ Counts	1				
Portable 5x Spec	Y				
+/- Tolerance	5				
+ Upper Limit	28				
- Lower Limit	18				

VIII. Certified Equipment List

R&S ESCI3 (Receiver)	13371	10/12/2012	10/12/2013
R&S NPR-Z91 (Power meter #100555)	13370	9/27/2012	9/27/2013
R&S NPR-Z91 (Power meter #101999)	15840	2/11/2013	2/11/2014
R&S SMC100A (Signal Generator)	13998	9/8/2011	9/8/2014
ETS HI-6113 (Field Probe, for chamber cal)	13372	6/12/2012	6/12/2013
Thermo MiniZap (ESD)	8652	2/22/2013	2/22/2014
Dewk Sensor Temperture/Humidiy(ESD)	13368	3/15/2013	3/15/2014
Bell 4180 Gauss meter (Magnetic Immunity)	14652	2/26/2013	2/26/2014

IX. Procedure Document

In conjunction with relevant standards, **Fluke EMC Laboratory Test Procedures.docx** is used to perform EMC testing.

Section 1 - IEC 61326 Emissions Testing

Emissions of the Fluke 568 IR and contact thermometer was tested to the following Electromagnetic Compatibility [EMC] requirements:

Adapted from CISPR 11 Table 2a
Emissions Limits for Class A Equipment

Port	Frequency MHz	Limits	Standard	Pass/Fail
Enclosure	30 to 230	40dB (uV/m) quasi peak, measured at 10 meters.	CISPR 11	Pass
	230 to 1000	47dB (uV/m) quasi peak, measured at 10 meters.		Pass
AC mains	0.15 to 0.5	79dB (uV/m) quasi peak, 66dB (uV/m) average.		N/A
	0.5 to 5.0	73dB (uV/m) quasi peak, 60dB (uV/m) average.		N/A
	5 to 30	73dB (uV/m) quasi peak, 60dB (uV/m) average.		N/A

1.1 **CISPR 11:2010 – Radiated Emissions FAR Prescan**
Fluke 568 IR and contact thermometer

Port	Frequency Range MHz	Limits	Standard	Test Result
Enclosure	30-230	ClassA: 40dB at 10m ClassB: 30dB at 10m	CISPR 11	PASS
	230-1000	ClassA: 47dB at 10m ClassB: 37dB at 10m		PASS

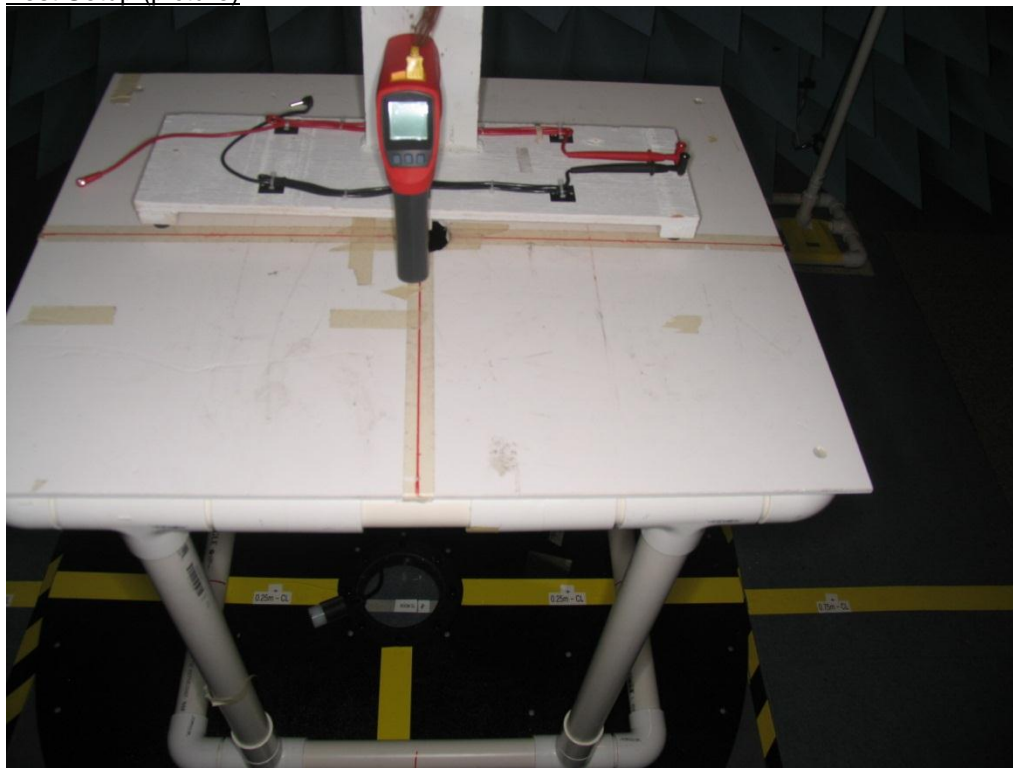
1. Common Information:

Date of Scan: 4/09/2013
 Environmental Conditions: 22C, 42%rh, 1008mb
 Operator Name: John Morton
 Test Description: Scanning IR and TC. Laser on
 Test Setup: EUT pointed at standard Meter stand. Trigger is pulled continuously. TC input has standard bead K-type TC. IR measuring

2. EUT Information:

Description:
 EUT Name: 568
 Manufacturer: Fluke
 Serial Number: PE 1304002
 Hardware Rev:
 Software Rev:
 Comment: Product provided by Sam Feng

- 3. TestNotes:
- 4. Test Setup (picture):



EMC TEST REPORT	FLUKE CORPORATION	
Fluke 568 EX	2013May17-0730	Section 1.2

5. Test Results:

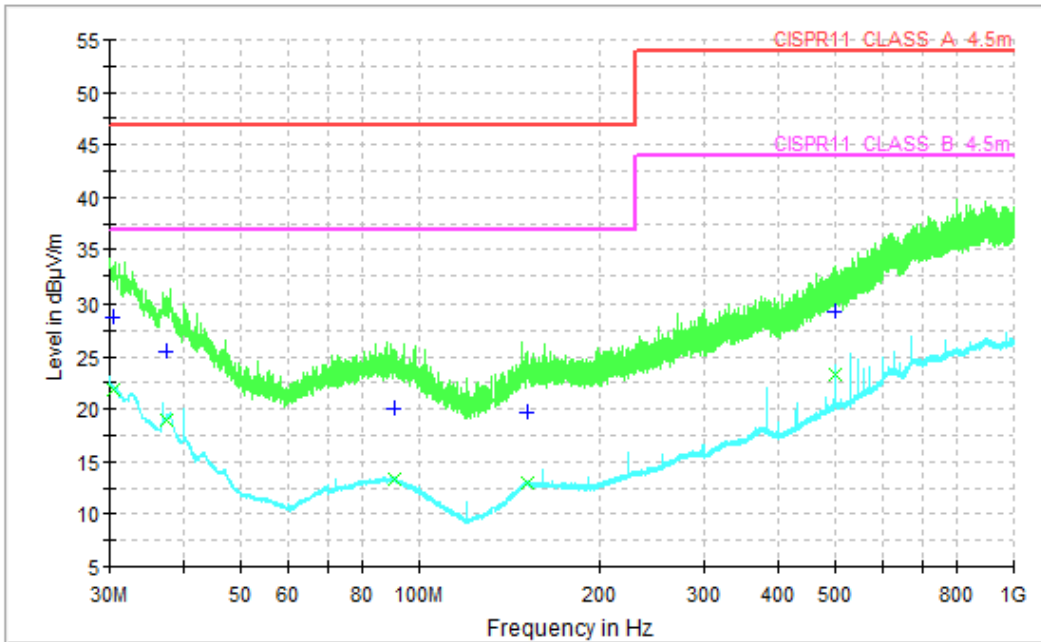
Frequency Mhz	Height cm	H / V Pol.	Azimuth degrees	QP Actual dbuV	Correction Factor (db)	Correction Ant D(db)	QP Meas dbuV	Limit A dbuV	Limit B dbuV	Margin dbuV	Result
36.88	120.00	V	0.00	-0.97	17.20	6.94	23.16	40.00	30.00	6.84	Pass B
30.28	120.00	V	90.00	-5.87	21.80	6.94	22.86	40.00	30.00	7.14	Pass B
30.28	120.00	V	270.00	-5.97	21.80	6.94	22.76	40.00	30.00	7.24	Pass B
36.88	120.00	V	180.00	-1.47	17.20	6.94	22.66	40.00	30.00	7.34	Pass B
36.88	120.00	V	180.00	-1.47	17.20	6.94	22.66	40.00	30.00	7.34	Pass B
36.84	120.00	V	90.00	-1.67	17.20	6.94	22.46	40.00	30.00	7.54	Pass B
30.52	120.00	H	90.00	-6.67	21.60	6.94	21.86	40.00	30.00	8.14	Pass B
30.48	120.00	H	0.00	-6.77	21.60	6.94	21.76	40.00	30.00	8.24	Pass B
30.48	120.00	H	270.00	-6.87	21.60	6.94	21.66	40.00	30.00	8.34	Pass B
32.64	120.00	H	90.00	-5.87	20.10	6.94	21.16	40.00	30.00	8.84	Pass B
32.72	120.00	H	180.00	-5.87	20.00	6.94	21.06	40.00	30.00	8.94	Pass B
33.16	120.00	V	180.00	-5.67	19.70	6.94	20.96	40.00	30.00	9.04	Pass B

Common Information

Date of Scan: 4/09/2013
 Environmental Conditions: 22C, 42%rh, 1008mb
 Operator Name: John Morton
 Test Description: Scanning IR and TC. Laser on
 Test Setup: EUT pointed at standard Meter stand. Trigger is pulled continuously. TC input has standard bead K-type TC. IR measuring

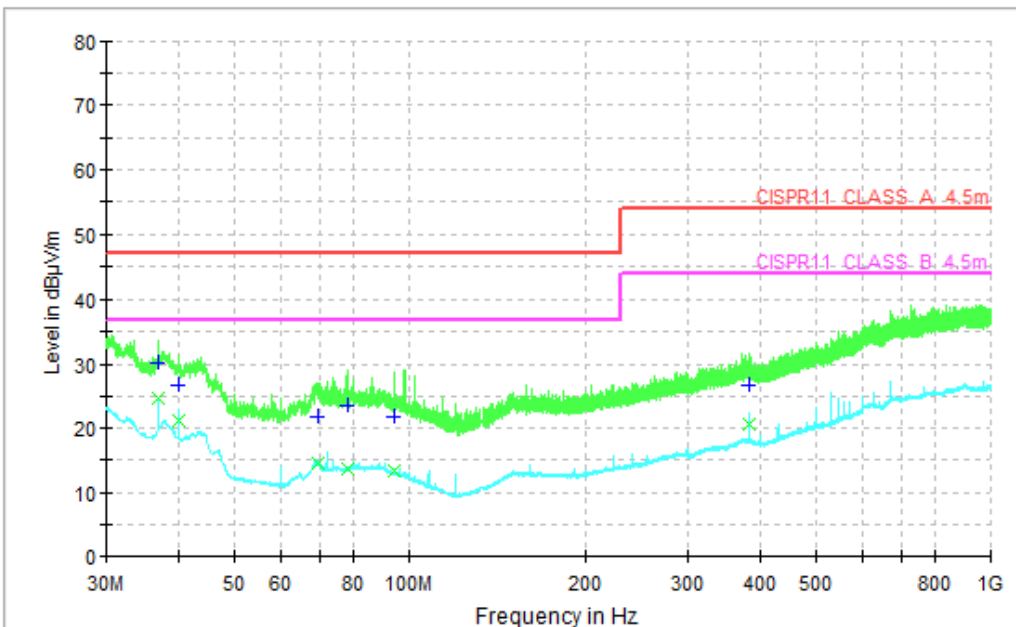
EMI_PreScan(anechoic chamber)

Horizontal – 30MHz -1GHz



EMI_PreScan(anechoic chamber)

Vertical – 30MHz -1GHz



EMC TEST REPORT		FLUKE CORPORATION	
Fluke 568 EX		2013May17-0730	Section 1.4

Scan Setup: EMI_PreScan(anechoic chamber) [EMI radiated]

Hardware Setup:	Radiated_Emissions			
Level Unit:	dBµV/m			
Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak; Average	120 kHz	0.02 s	Rcvr [ESCI 3]

Hardware Setup: EMI radiated\Radiated_Emissions - [EMI radiated]

Subrange 1

Frequency Range:	30 MHz - 2 GHz
Receiver:	Rcvr [ESCI 3] @ GPIB0 (ADR 20), SN 100733/003, FW 4.42
Signal Path:	Rcvr-Antenna FW 1.0 Correction Table: Rack-AntennaCable
Antenna:	EMCO_3141_26M-2G_SN1093 SN 1093 Correction Table (vertical): ETS3141_SN1093_3m_H_28Nov12 Correction Table (horizontal): ETS3141_SN1093_3m_H_28Nov12
Antenna Tower:	Manual [---]
Turntable:	ETS EMCO 2090 [EMCO Turntable] @ GPIB0 (ADR 8), FW REV 3.21

1.2 CISPR 11:2010 – Radiated Emissions OATS
CISPR 11:2010}, CISPR16-2-3.7.2.1,2 (Open Area Test Site – OATS measurements)
Fluke 568 IR and contact thermometer

-
1. Test Notes: FAR emissions data is far enough below the limit that an OATS sweep was deemed unnecessary.

1.3 Additional Emissions Testing

No additional emissions testing was performed on the Fluke 568 IR and contact thermometer as of 13-Feb-13.

EMC TEST REPORT	FLUKE CORPORATION	
Fluke 568 EX	2013May17-0730	Section 1.6

Section 2 - IEC 61326 Immunity Testing

Immunity of the Fluke 568 IR and contact thermometer was tested to the following Electromagnetic Compatibility [EMC] requirements:

Adapted from EN 61326-1:2012 Table A.1

Immunity test requirements for portable test and measurement equipment

Port	Phenomenon	Basic standard	Test value	Criteria	Pass/Fail
Enclosure	ESD	EN 61000-4-2	4 kV/8 kV contact/air	B	Pass
	EM Field	EN 61000-4-3	3 V/m (80 MHz to 1 GHz)	A	Pass
	EM Field	EN 61000-4-3	3 V/m (1,4 GHz to 2 GHz)	A	Pass
	EM Field	EN 61000-4-3	1 V/m (2,0 GHz to 2,7 GHz)	A	Pass
	Magnetic Field	EN 61000-4-8	3 A/m	A	Pass

**2.1 IEC 61000-4-2:2008 - Electrostatic Discharge Immunity
Fluke 568 IR and contact thermometer**

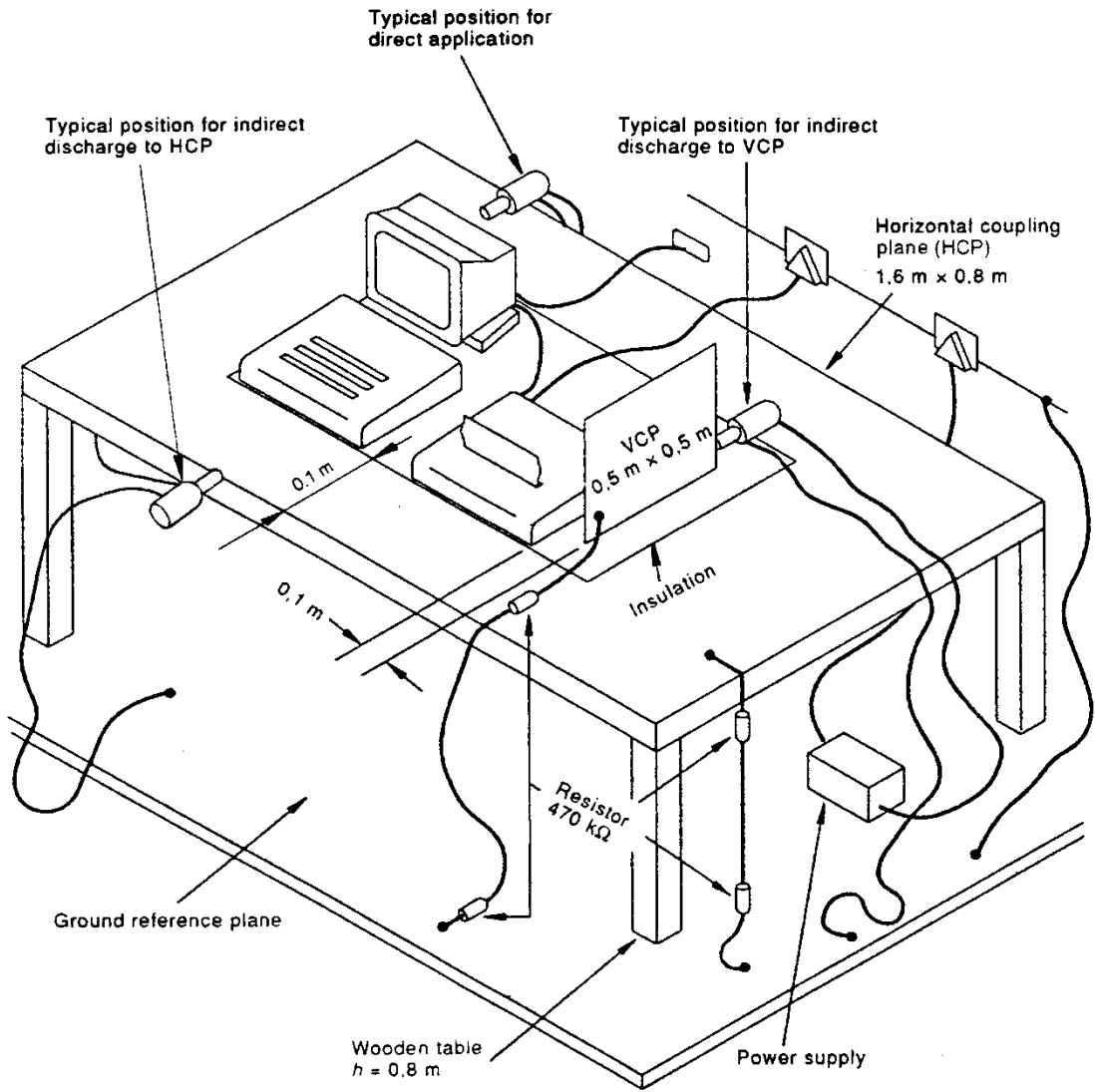
Port	Phenomenon	Standard	Test Value Air/Contact	Pass Criteria	Result Criteria
Enclosure	Electrostatic Discharge	IEC 61000-4-2	±4/8kV	B	B

1. Date/Performed By:
 - a. Test Date: 04APR13
 - b. Tested By: John Morton
2. Lab Testing Conditions:
 - a. Temperature: 21.3C
 - b. Humidity: 38.9%
 - c. Pressure:1019mb
3. EUT Information:
 - a. Model: 568 EX
 - b. Serial Number: PE 1304002
 - c. Operating Modes: IR and Thermocouple measurement
4. Test Notes: None
5. Test Setup (Picture):



EMC TEST REPORT		FLUKE CORPORATION	
Fluke 568 EX		2013May17-0730	Section 2.2

6. Test Setup (Diagram):



Dimensions in metres

7. Test Results:

Table #1 - Performance Criteria for required tests

		+2kV	-2kV	+4kV	-4kV	+8kV	-8kV	
Contact Discharges	HCP - Back	A	A	A	A			
	VCP	Top	A	A	A	A		
		Bottom	A	A	A	A		
		Left	A	A	A	A		
		Right	A	A	A	A		
	UUT	Location 1						
		Location 2	B	B	B	B		
		Location 3						
		Location 4						
		Location 5						
		Location 6						
		Location 7						
		Location X						
Air Discharges	UUT	Location 1	ND	ND	ND	ND	B ¹	B ¹
		Location 2						
		Location 3						
		Location 4						
		Location 5						
		Location 6						
		Location 7						
		Location X						

N/A – not accessible
ND-No Discharge

Note 1: Air discharge to TC connector.

Table #2 - UUT Test Locations

Location	Location Description
1	Enclosure
2	Thermocouple tip

**2.2 IEC 61000-4-3:2010 - Radiated Radio Frequency Electromagnetic Field Immunity
Fluke 568 IR and contact thermometer**

Port	Phenomenon	Standard	Condition	Pass Criteria	Result Criteria
Enclosure	EM Field	IEC 61000-4-3	3V/m (80MHz to 1MHz)	A	A
	EM Field	IEC 61000-4-3	3V/m (1,4 GHz to 2 GHz)	A	A
	EM Field	IEC 61000-4-3	1 V/m (2,0 GHz to 2,7 GHz)	A	A

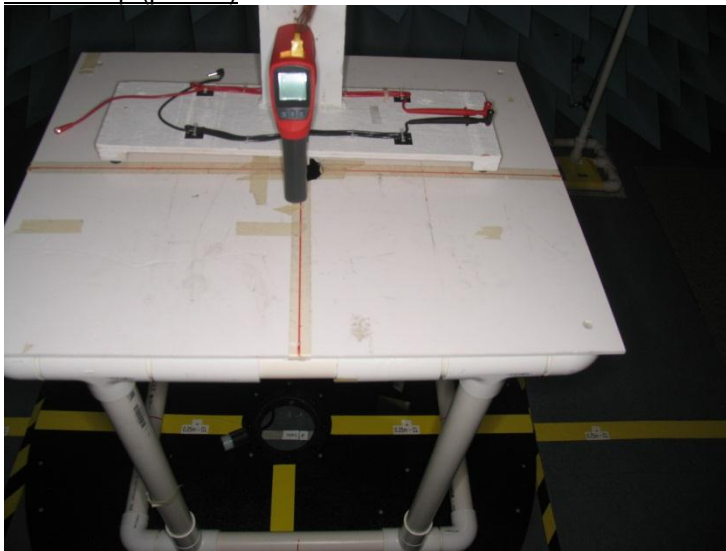
1. EUT Information:

Description:

EUT Name: 568
 Manufacturer: Fluke
 Serial Number: PE 1304002
 Hardware Rev:
 Software Rev:
 Comment: Product provided by Sam Feng

2. Test Notes: Test data collected via EMC32 testing equipment.

3. Test Setup (picture):

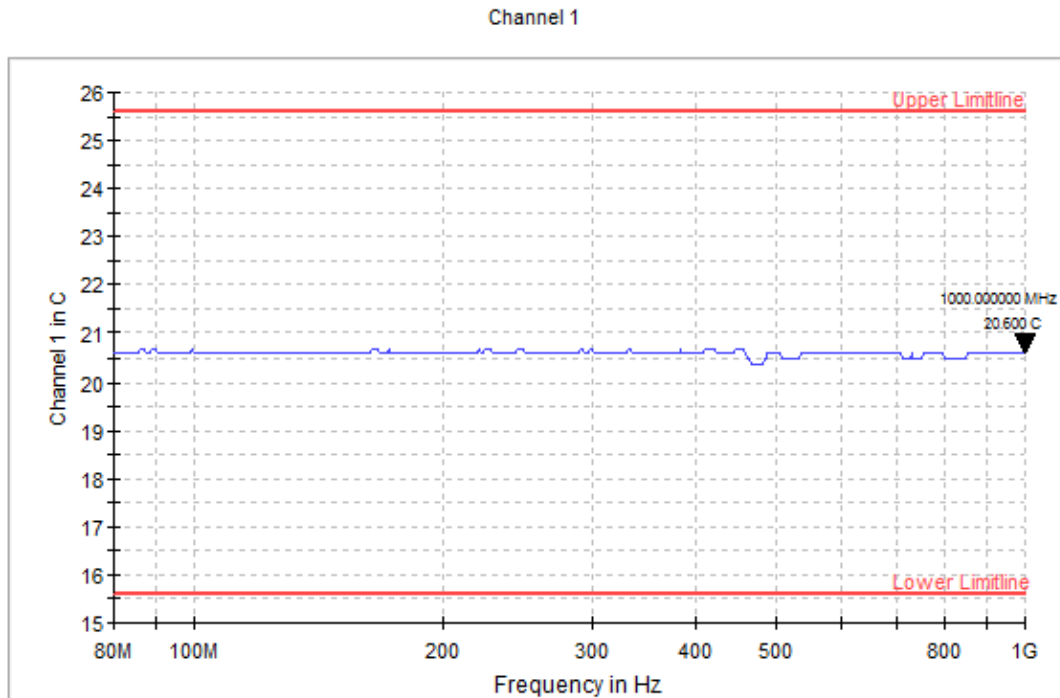


4. Test Results:

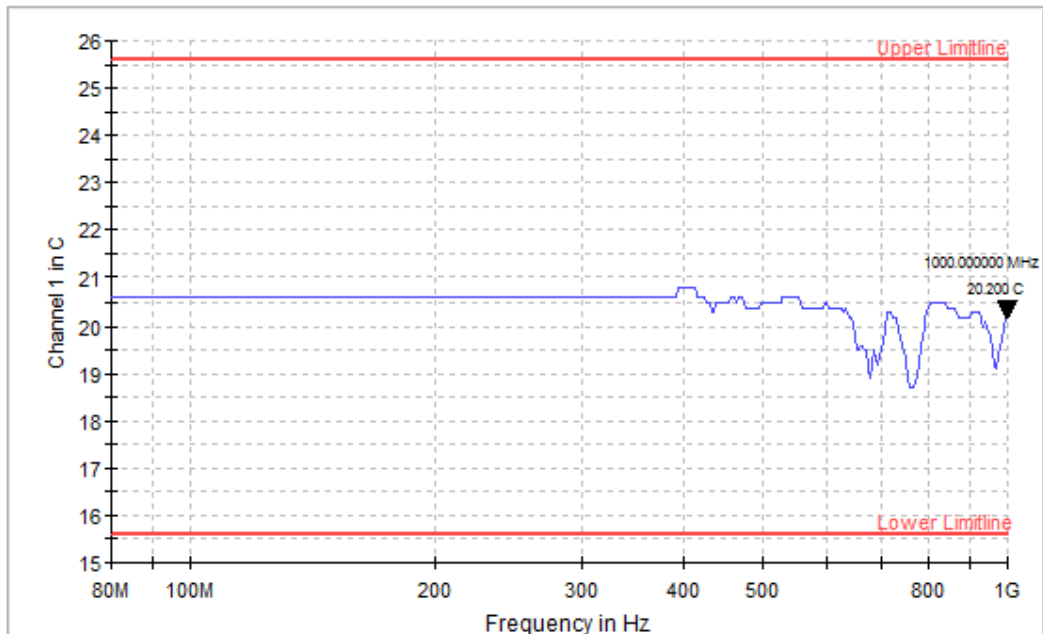
Common Information

Date of Scan: 4/10/2013
 Environmental Conditions: 22C, 42%rh, 1014mb
 Operator Name: John Morton
 Test Description: Scanning IR, ambient room temperature, monitored manually via Video camera.
 Tolerance: 1 degree C * 5 portable = 5 Degrees

Horizontal – 80MHz -1GHz

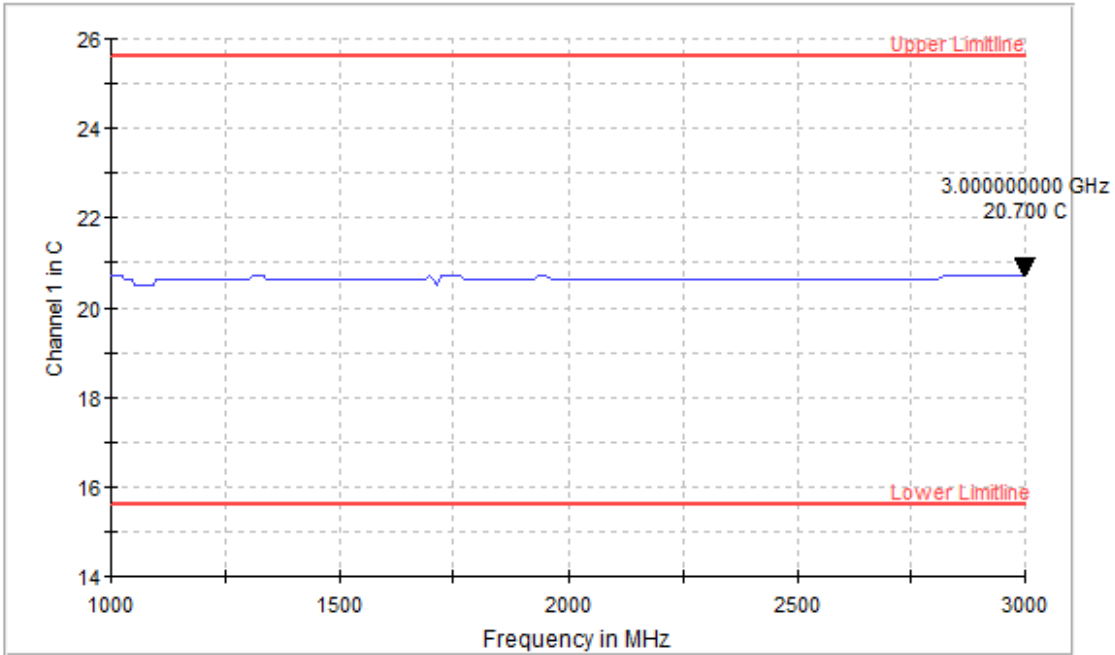


Vertical – 80MHz -1GHz



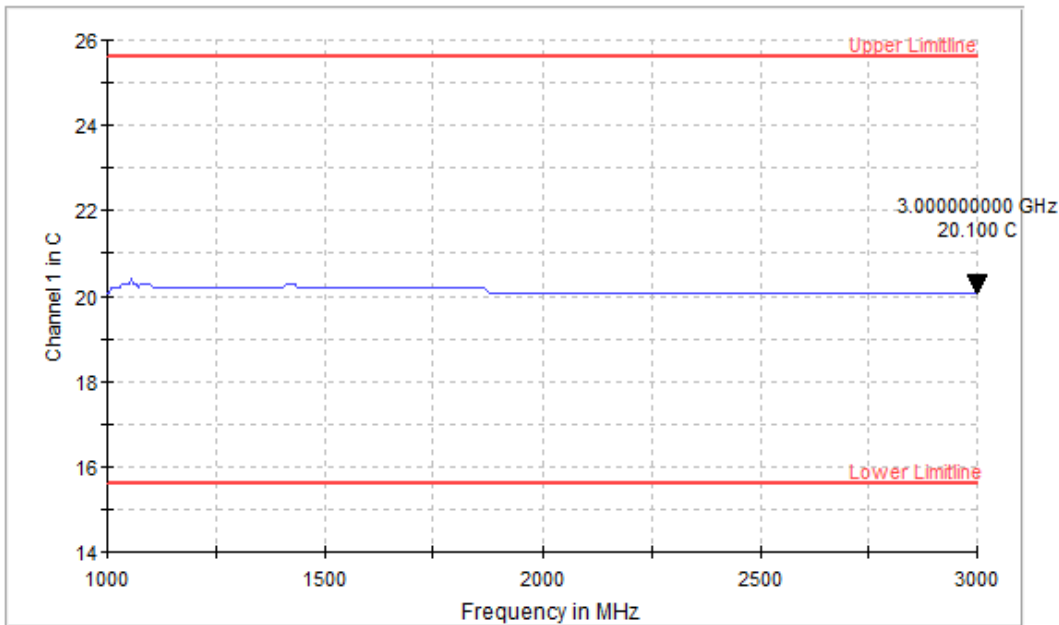
Channel 1

Horizontal - 1.4GHz -2.7GHz



Channel 1

Vertical - 1.4GHz -2.7GHz



Hardware Setup: EMS radiated\Radiated_Immunity - [EMS radiated]

Subrange 1

Frequency Range: 80 MHz - 1 GHz

Generator: Sig Gen_R&S_SMC100A [SMC100A]
@ USB (ADR 28), SN 101254, FW Rev 2.05.02, 12/2008, CVI 8.1

Signal Path: SigGen-PA2
FW 1.0

Amplifier: PA2_(MB)_80MHz-1GHz [Generic Amplifier]
Signal Path: PA2-Antenna
FW 1.0
Correction Table: Rack-AntennaCable
Correction Table: Rack PA2-Coupler Input - Rack X11

Antenna: EMCO_3141_26M-2G_SN1093
SN 1093
Correction Table (vertical): ETS3141_SN1093_3m_H_28Nov12
Correction Table (horizontal): ETS3141_SN1093_3m_H_28Nov12

FwdPwrMtr: RS NRP-Z91 (sn100555) [NRP-Zxx (USB)]
@ USB (ADR 0), SN 100555, FW Rev 01.80, 12/2008
Signal Path: PA2-PwrMtr(FWD)
FW 1.0
Correction Table: Rack PA2-Coupler Input-Fwd-IMS X11

RevPwrMtr: RS NRP-Z91 (sn100555) [NRP-Zxx (USB)]
@ USB (ADR 0), SN 100555, FW Rev 01.80, 12/2008
Signal Path: PA2-PwrMtr(REV)
FW 1.0
Correction Table: Rack PA2-Coupler Input-Fwd-IMS X11

Sensor: FieldProbe [HI 6105]
@ COM4 (ADR 4), SN 00099028, FW HI-6105, CalDate:24-May-2012

Subrange 2

Frequency Range: 1 GHz - 3 GHz

Generator: Sig Gen_R&S_SMC100A [SMC100A]
@ USB (ADR 28), SN 101254, FW Rev 2.05.02, 12/2008, CVI 8.1

Signal Path: SigGen-PA3
FW 1.0

Amplifier: PA3_(HB)_1-3GHz [Generic Amplifier]
Signal Path: PA3-Antenna
FW 1.0
Correction Table: Rack PA3-Coupler Input - Rack X11
Correction Table: Rack-AntennaCable

Antenna: Schwartzbeck_9149_1-6G
Correction Table (vertical): STLP9149_3m-H
Correction Table (horizontal): STLP9149_3m-H

FwdPwrMtr: RS NRP-Z91 (sn100555) [NRP-Zxx (USB)]
@ USB (ADR 0), SN 100555, FW Rev 01.80, 12/2008
Signal Path: PA3-PwrMtr(FWD)
FW 1.0
Correction Table: Rack PA3-Coupler Input-Fwd-IMS X11

RevPwrMtr: RS NRP-Z91 (sn100555) [NRP-Zxx (USB)]
@ USB (ADR 0), SN 100555, FW Rev 01.80, 12/2008
Signal Path: PA3-PwrMtr(REV)
FW 1.0
Correction Table: Rack PA3-Coupler Input-Fwd-IMS X11

EMC TEST REPORT		FLUKE CORPORATION	
Fluke 568 EX		2013May17-0730	Section 2.3

Sensor: FieldProbe [HI 6105]
 @ COM4 (ADR 4), SN 00099028, FW HI-6105, CalDate:24-May-2012

EMS Scan Template: EMS Scan 80-1000MHz am [EMS Radiated]

Hardware Setup: EMS radiated\Radiated_Immunity
 Level On: Substitution Method: RC 80M-1GHz 20130117\RC 80M-1GHz 20130117_EN61ED3

Subrange	Step Width	Level	Modulation	Dwell Time
80MHz - 1GHz	0.5% LOG	3V/m	AM: 80.0%; 1.0kHz	250ms

EMS Scan Template: EMS Scan 1-3GHz am [EMS Radiated]

Hardware Setup: EMS radiated\Radiated_Immunity
 Level On: Substitution Method: RC 1-3 GHz 20130115\RC 1-3 GHz 20130115_EN61ED3

Subrange	Step Width	Level	Modulation	Dwell Time
1GHz - 2GHz	0.5% LOG	3V/m	AM: 80.0%; 1.0kHz	250ms
2GHz - 3GHz	0.5% LOG	1V/m	AM: 80.0%; 1.0kHz	250ms

Anechoic Chamber Homogenous Field Calibration

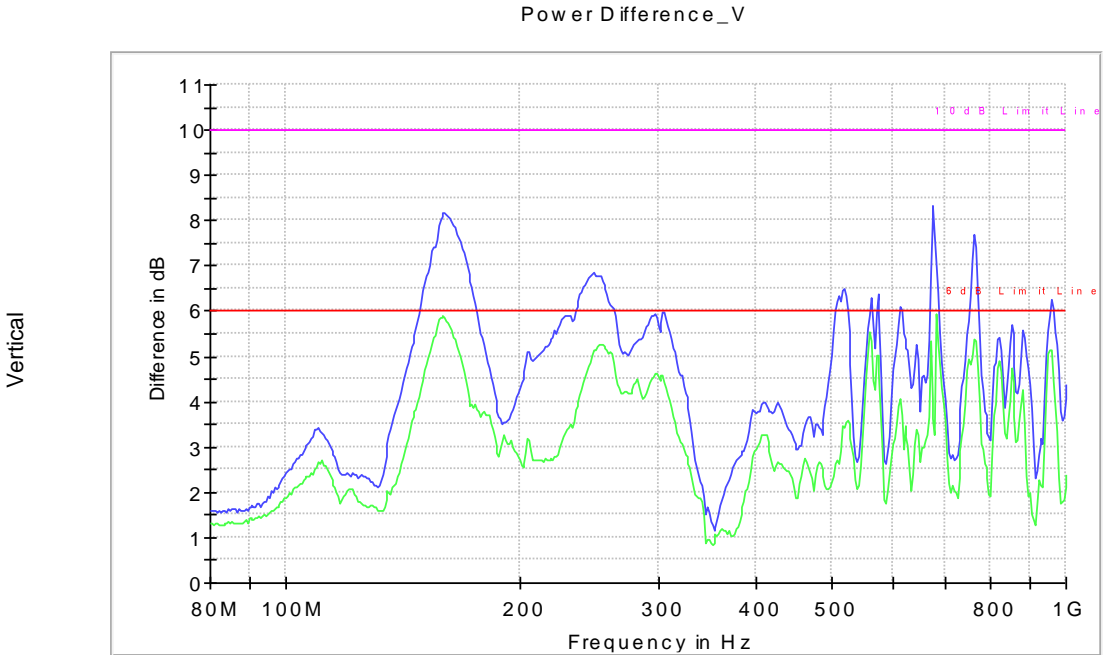
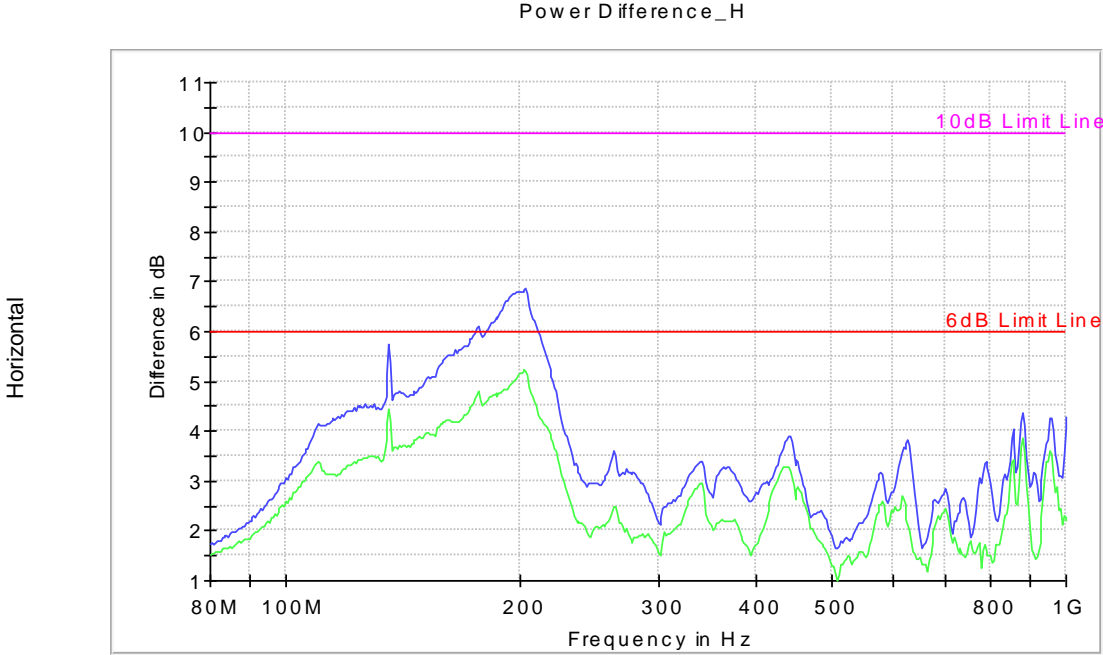
Common Information

Reference Calibration Table (*_01):

RC 80M-1GHz 20130117\RC 80M-1GHz 20130117_01

Evaluation Result:

Polarization: H and V
 100.0% of frequency points are inside of the 0 - 6 dB tolerance range
 0.0% of frequency points less than or equal 1 GHz are inside of the 6 - 10 dB tolerance range (max. 3%)
 0.0% of frequency points are outside of the 10 dB tolerance range (max. 0%)



Anechoic Chamber Homogenous Field Calibration

Common Information

Reference Calibration Table

RC 1-3 GHz 20130115\RC 1-3 GHz 20130115_01

(*_01):

Evaluation Result:

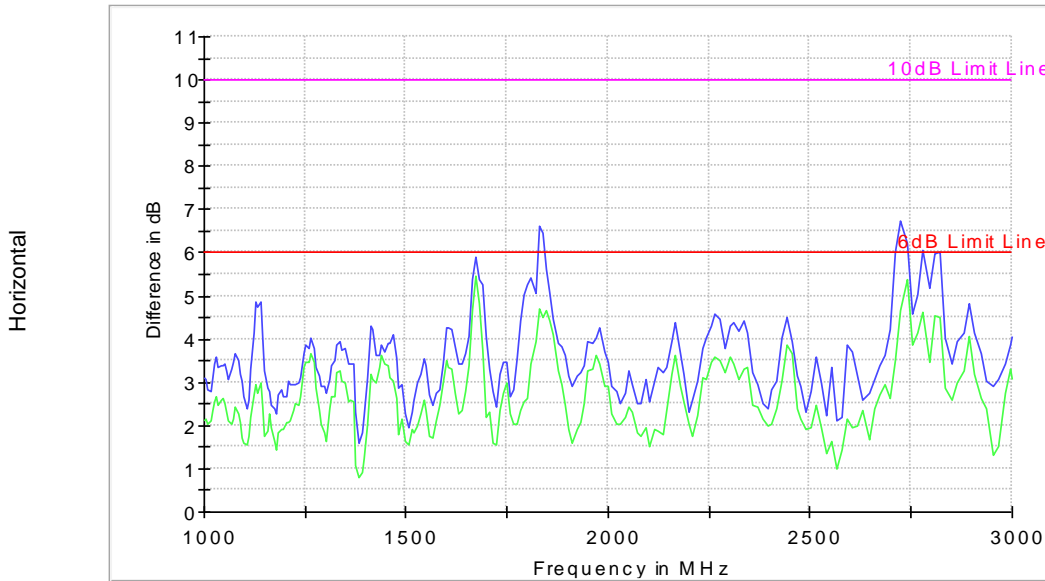
Polarization: H

100.0% of frequency points are inside of the 0 - 6 dB tolerance range

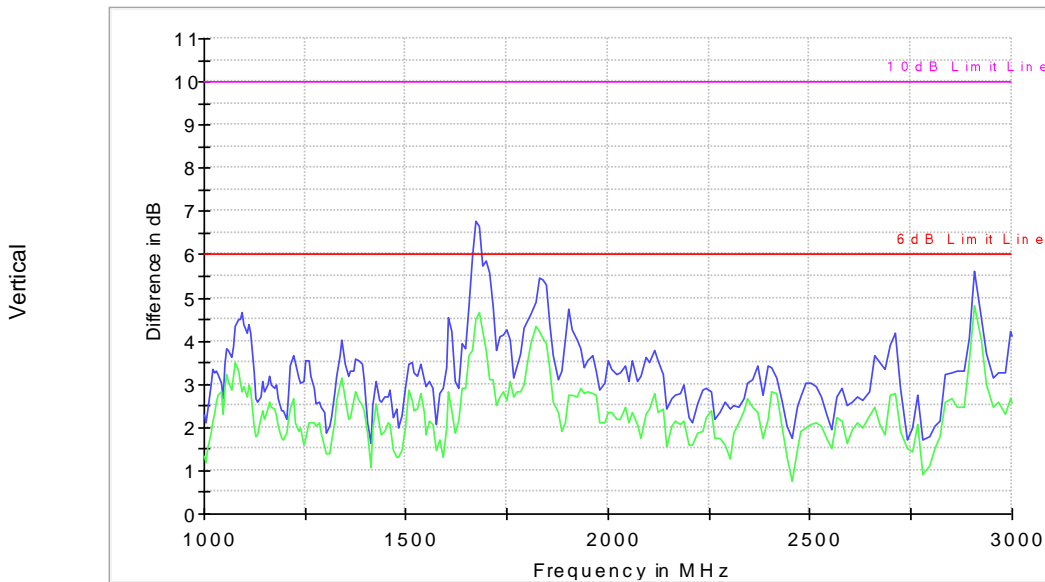
0.0% of frequency points greater than 1 GHz are inside of the 6 - 10 dB tolerance range (max. 0%)

0.0% of frequency points are outside of the 10 dB tolerance range (max. 0%)

Power Difference_H



Power Difference_V



EMC TEST REPORT	FLUKE CORPORATION	
Fluke 568 EX	2013May17-0730	Section 2.6

2.3 IEC 61000-4-8:2009 - Power Frequency Magnetic Field Immunity
Fluke 568 IR and contact thermometer

Port	Phenomenon	Standard	Test Value	Pass Criteria	Result Criteria
Enclosure	Magnetic Field	IEC 61000-4-8	3 A/m	A	A

1. Date/Performed By:
 - a. Test Date: 07FEB13
 - b. Tested By: John Morton
2. Lab Testing Conditions:
 - a. Temperature: 23C
 - b. Humidity: 25%
 - c. Pressure:1017mb
3. EUT Information:
 - a. Model: 568 EX
 - b. Serial Number: PE 1304002
 - c. Operating Modes: Measuring IR and Thermocouple..
4. Test Notes:

Helmholtz coil equation

$$H = \frac{8N}{5\sqrt{5}} \cdot \frac{I}{r} \text{ A/m where}$$

N = number of turns per coil (50 turn)

I = current

r = radius of coil (0.4m)

H = 90 * I (A/m)

Note: 3 A/m= 0.033A (37mG); 30A/m = 0.34A (376mG); 100A/m = 1.11A (1257mG)

5. Test Setup (picture):
6. Test Results:

Axis Tested	Criteria
X	A
Y	A
Z	A

2.4 Additional Immunity Testing

No additional immunity testing was performed on the Fluke 568 IR and contact thermometer as of 13 February 2013

EMC TEST REPORT	FLUKE CORPORATION	
Fluke 568 EX	2013May17-0730	Section 2.8