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FCC PART 73.801 FM BROADCAST STATIONS (LPFM) TEST REPORT

APPLICANT	DB ELETTRONICA TELECOMUNICAZIONI S.P.A.	
ADDRESS	RIVIERA MAESTRI DEL LAVORO 20/1	
	PADOVA ITALY	
FCC ID	2ACBVMOZART500	
MODEL NUMBER	MOZART 500	
PRODUCT DESCRIPTION	500W FM BROADCAST TRANSMITTER	
DATE SAMPLE RECEIVED	March 12, 2014	
DATE TESTED	March 24 to 28, 2014	
REPORT ISSUE DATE	March 31, 2014	
TESTED BY	Mario de Aranzeta	
APPROVED BY	Mario de Aranzeta	
TIMCO REPORT NO.	365AUT14TestReport.docx	
TEST RESULTS		

THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.



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FCC ID: 2ACBVMOZART500



GENERAL REMARKS

The attached report shall not be reproduced except in full without the written permission of Timco Engineering Inc.

Summary

The	device under test does:
\boxtimes	fulfill the general approval requirements as identified in this test report
	not fulfill the general approval requirements as identified in this test report

Attestations

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025: 2005 requirements.

I attest that the necessary measurements were made, under my supervision, at:

Timco Engineering Inc. 849 NW State Road 45 Newberry, Fl 32669

Authorized Signatory Name:



FCC ID:

Mario de Aranzeta Engineering Project Manager

Date: March 31, 2014

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GENERAL INFORMATION

DUT Specification

DUT Description	500W FM BROADCAST TRANSMITTER
FCC ID	2ACBVMOZART500
Model Number	MOZART 500
Operating Frequency	88 TO 108 MHz
Type of Emission	180KF3E, 180KF8E
Modulation	FM
Output power	500 Watts (high) 10 Watts (low) The transmitter is capable of continuously variable power from 10W to 500W.
DUT Power Source	☐ DC Power 12V
	☐ Battery Operated Exclusively
	☐ Prototype
Test Item	☐ Pre-Production
	□ Production
	⊠ Fixed
Type of Equipment	☐ Mobile
	☐ Portable
Test Conditions	The temperature was 26°C Relative humidity of 50%.
Modification to the DUT	None
Test Exercise	The DUT was placed in continuous transmit mode.
Applicable Standards	ANSI/TIA 603-D: 2010, FCC CFR 47 Part 73
Test Facility	Timco Engineering Inc. 849 NW State Road 45 Newberry, FL 32669 USA.

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TEST PROCEDURE

Bandwidth 20 dB: The measurements were made with the spectrum analyzer's resolution bandwidth (RBW) = 1 MHz and the video bandwidth (VBW) = 3 MHz and the span set as shown on plot.

Power Output: The RF power output was measured at the antenna feed point using a spectrum analyzer.

Antenna Conducted Emissions: The RBW = 100 kHz, VBW = 300 kHz and the span set to 10.0 MHz and the spectrum was scanned from 30 MHz to the 10^{th} harmonic of the fundamental. Above 1 GHz the resolution bandwidth was 1 MHz and the VBW = 3 MHz and the span to 50 MHz.

Radiation Interference: The test procedure used was ANSI/TIA 603-D: 2010, using an Agilent spectrum receiver with pre-selector. The bandwidth (RBW) of the spectrum receiver was 100 kHz up to 1 GHz and 1 MHz above 1 GHz with an appropriate sweep speed. The VBW above 1 GHz was 3 MHz. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

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RF POWER OUTPUT

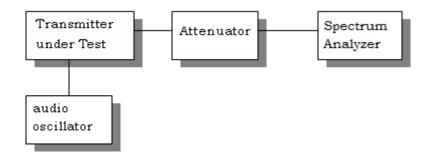
Rule Part No.: Part 2.1046, Part 73.267 (b)(2)

Test Requirements:

Method of Measurement: RF power was measured by using a spectrum analyzer.

ANSI/TIA 603-D: 2010

Test Setup Diagram:



Test Data:

OUTPUT POWER: HIGH - 500.0 Watts

LOW - 10.0 Watts

Part 2.1033 (C)(8) DC Input into the final amplifier

FOR HIGH POWER SETTING INPUT POWER 39 V at 15 A = 585 W FOR LOW POWER SETTING INPUT POWER: 13.6 V at 4.4 A = 60 W

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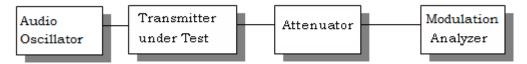
FCC ID: 2ACBVMOZART500



MODULATION CHARACTERISTICS

Rule Part No.: Part 2.1047(a)(b)

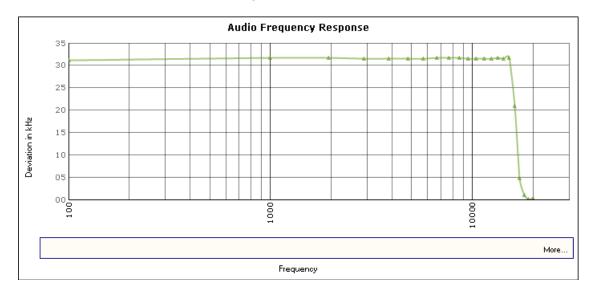
Method of Measurement:



Audio frequency response

The audio frequency response was measured in accordance with ANSI/TIA 603-D: 2010. The audio frequency response curve is shown below.

AUDIO FREQUENCY RESPONSE PLOT



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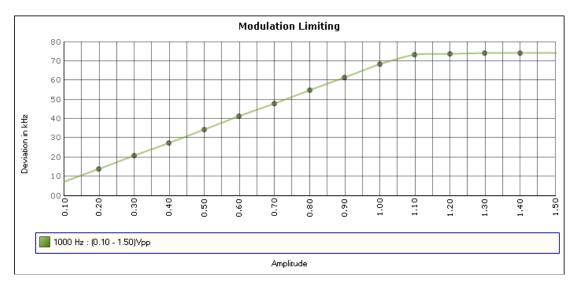
AUDIO INPUT VERSUS MODULATION

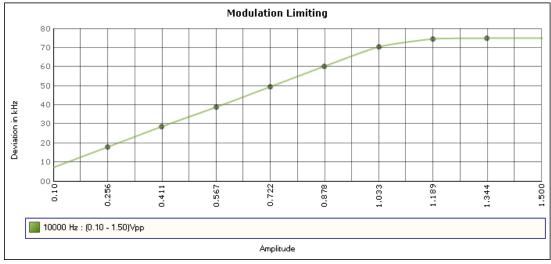
Rule Part No.: Part 2.1047(b)

Method of Measurement:

Modulation shall not exceed 100%, The audio input level needed for a particular percentage of modulation was measured in accordance with ANSI/TIA 603-D: 2010. The audio input curves versus modulation are shown below. Curves are provided for audio input frequencies of 1000, and 10,000 Hz.

Test data:





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OTHER MODULATION CHARACTERISTICS

Part 2.1033(c) (4) Type of Emission: 180KF3E, 180KF8E

> Bn = 2M + 2DKM = 15000D = 75 kHz (Peak Deviation)

Bn = 2(15K) + 2(75K)(1) = 180K

ALLOWED AUTHORIZED BANDWIDTH = 200 kHz.

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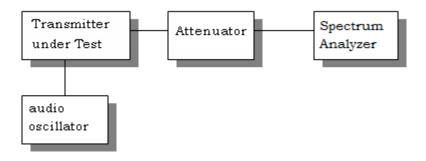


OCCUPIED BANDWIDTH

Any emission appearing on the frequency removed from the carrier between 120 kHz and 240 kHz inclusive must be attenuated at least 25 dB below the level of the un-modulated carrier. Compliance with this requirement will be deemed to show occupied bandwidth to be 240 kHz or less. Any emission appearing on the frequency removed from the carrier by more than 240 kHz and up to and including 600 kHz must be attenuated at least 35 dB below the level of the un-modulated carrier. Any emission appearing on the frequency removed from the carrier by more than 600 kHz must be attenuated at least 43 + 10 Log(P) dB below the level of the un-modulated carrier, or 80 dB, whichever is the lesser attenuation.

Method of Measurement: ANSI/TIA 603-D: 2010

Test Setup Diagram:



REQUIREMENT: PART 73: 200 kHz EMISSION BANDWIDTH.

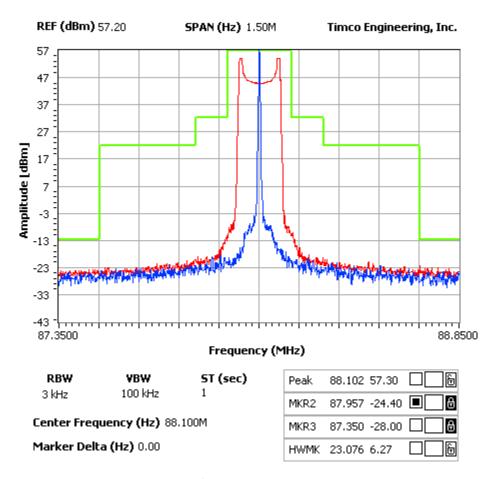
Test Data: See the plots below

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OCCUPIED BANDWIDTH PLOT



High Power 88.1 MHz

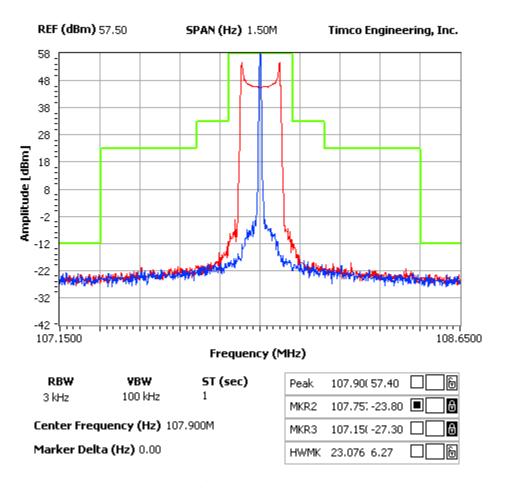
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High Power 107.9 MHz

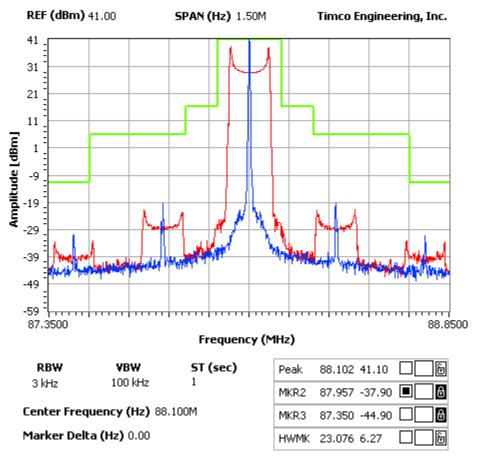
Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA

FCC ID: 2ACBVMOZART500

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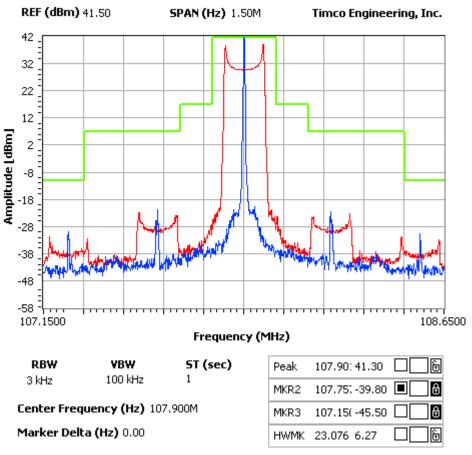
Low Power 88.1 MHz

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Low Power 107.9 MHz

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SPURIOUS EMISSIONS AT ANTENNA TERMINALS (CONDUCTED)

Rule Part No.: Part 2.1051(a)

Data on the following page shows the level of conducted spurious responses. The carrier was modulated 100% using 2500Hz tone. The spectrum was scanned from 9 kHz or the lowest frequency generated to at least the 10th harmonic of the fundamental. The measurements were made in accordance with standard ANSI/TIA-603-D-2010.

REQUIREMENTS: Emissions must be 43 + 10log(Po) dB below the mean power output of the transmitter.

Limits:

 $43 + 10\log(500) = 70 dB$

Low power $43 + 10\log(10) = 53 \text{ dB}$

TF HIGH POWER	EF	dB below carrier	TF LOW POWER	EF	dB below carrier
88.1			88.1		
	176.2	79.7		176.2	70.5
	264.3	87.8		264.3	78*
	352.4	93*		352.4	78*
	440.5	93*		440.5	78*
	528.6	93*		528.6	78*
	616.7	93*		616.7	
	704.8			704.8	
	792.9			792.9	
	881			881	
				118	85
				128	70.5

TF HIGH POWER	EF	dB below carrier	TF LOW POWER	EF	dB below carrier
97.9			97.9		
	195.8	84.7		195.8	75.7
	293.7	87		293.7	78*
	391.6	93*		391.6	78*
	489.5	93*		489.5	78*
	587.4	93*		587.4	78*
	685.3	93*		685.3	
	783.2			783.2	
	881.1			881.1	
	979			979	
				118	69.7

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TF HIGH POWER	EF	dB below carrier	TF LOW POWER	EF	dB below carrier
107.9			107.9		
	215.8	93*		215.8	84*
	323.7	86.4		323.7	84*
	431.6	93*		431.6	84*
	539.5	93*		539.5	84*
	647.4	93*		647.4	84*
	755.3	93*		755.3	
	863.2			863.2	
	971.1			971.1	
	1079			1079	
				144	75.4

^{*}Is Noise Floor

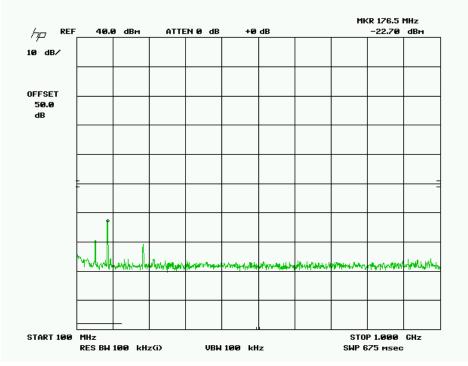
Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

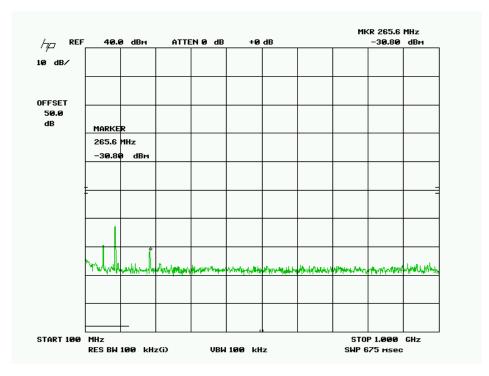
FCC ID: 2ACBVMOZART500



Test Data:

88.1 MHz High Power





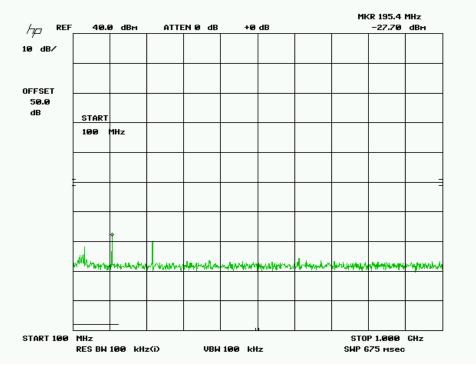
Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA

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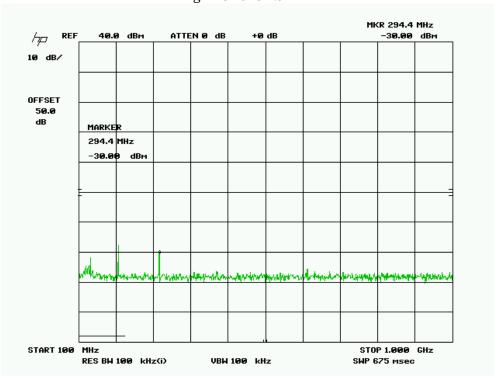
FCC ID: 2ACBVMOZART500



97.9 MHz



High Power 97.9 MHz

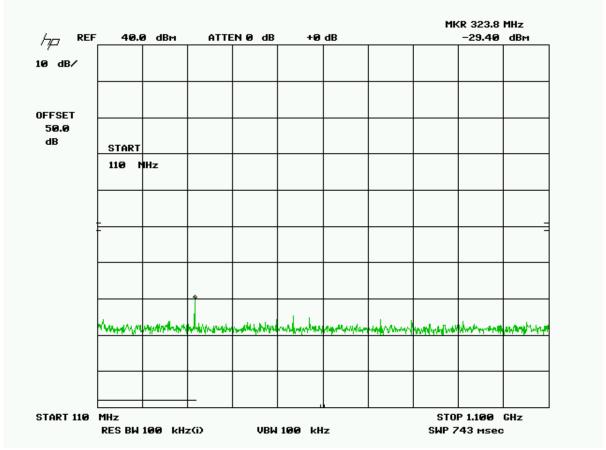


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107.9 MHz



High Power 107.9 MHz

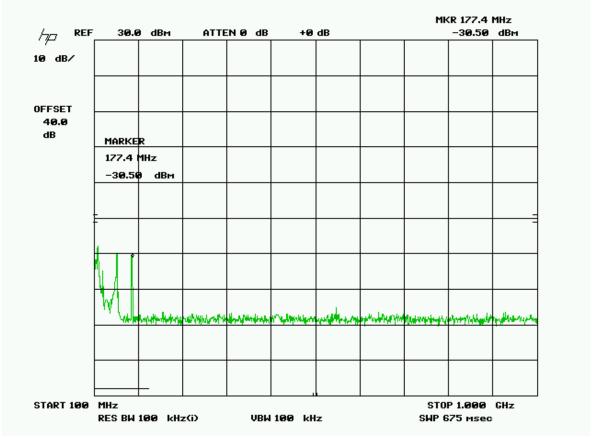
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88.1 MHz Low Power



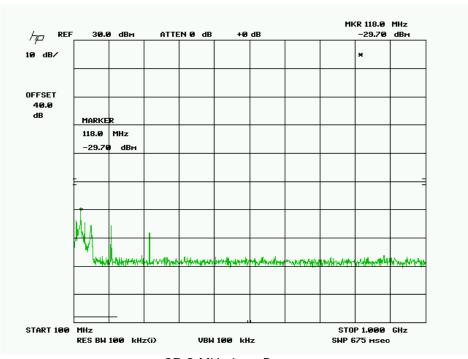
88.1 MHz Low Power

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA

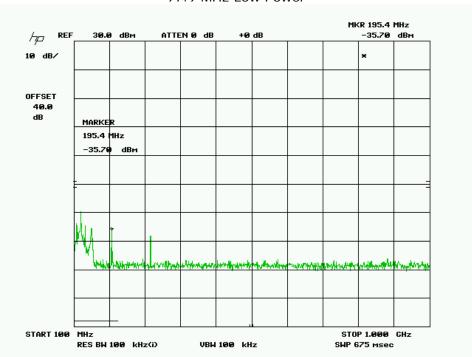
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97.9 MHz Low Power



97.9 MHz low Power

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FCC ID: 2ACBVMOZART500





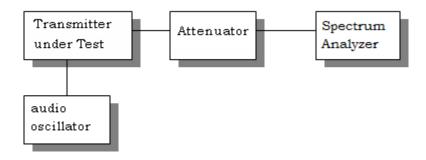
107.9 MHz Low Power

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Method of Measuring Conducted Spurious Emissions



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FIELD STRENGTH OF SPURIOUS EMISSIONS

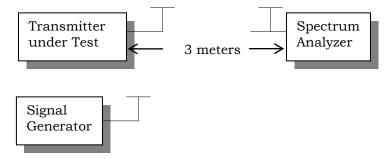
Rule Parts. No.: Part 2.1053

Requirements: Any emission appearing on a frequency removed from the carrier by more than 600 kHz must be attenuated at least 43 + 10log(P) dB below the level of the unmodulated carrier, or 80 dB, whichever is the lesser attenuation.

$$43 + 10\log(500) = 70 \text{ dB}$$

 $43 + 10\log(10) = 53 \text{ dB}$





Test Data:

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Limits:

 $43 + 10\log(500) = 70 dB$

 $43 + 10\log(10) = 53 \, dB$ Low power

88.1 MHz

Hiah 500 W

night 500 W				
Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)		
88.10				
176.20	Н	114.8		
264.30	Н	106.0		
352.40	V	104.8		
440.50	V	96.9		
528.60	V	115*		
616.70	V	115*		
704.80	Н	115*		
792.90	Н	115*		
881.00	Н	98.3		

Low 10 W

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
88.10		
176.20	Н	107.3
264.30	Н	97.9
352.40	V	102.3
440.50	Н	89.2
528.60	V	103.3*
616.70	V	103.1*
704.80	V	102.1*
792.90	V	98.3*
881.00	V	95.9*

97.9 MHz High 500 W

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
97.90		
195.80	Н	109.1
293.70	Н	84.9
391.60	Н	97.2
489.50	Н	108.5
587.40	Н	119.4*
685.30	Н	118.3*
783.20	Н	116.1*
881.10	Н	94.0
979.00	V	115.2*

Low 10 W

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
97.90		
195.80	Н	101.3
293.70	Н	90.9
391.60	Н	122.5*
489.50	V	100.6
587.40	V	102.4*
685.30	V	101.3*
783.20	V	99.1*
881.10	V	95.8
979.00	V	98.2*

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^{*}is noise floor



107.9 MHz High 500 W

High 500 W				
Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)		
107.90				
215.80	Н	121.6*		
323.70	Н	90.4		
431.60	Н	96.1		
539.50	Н	93.5		
647.40	Н	109.7		
755.30	Н	104.5		
863.20	Н	114.1*		
971.10	V	100.5		
1079.00	V	91.3		

Low	10	W

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
107.90		
215.80	Н	95.9
323.70	Н	94.8
431.60	Н	104.5*
539.50	V	100.2
647.40	V	103.3*
755.30	V	98.1*
863.20	Н	91.0
971.10	V	112.4*
1079.00	Н	83.4

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^{*}is noise floor



88.1 MHz High Power



RADIATED SPURIOUS EMISSIONS

27.Mar 14 21:08

Antenna Polarity Horizontal

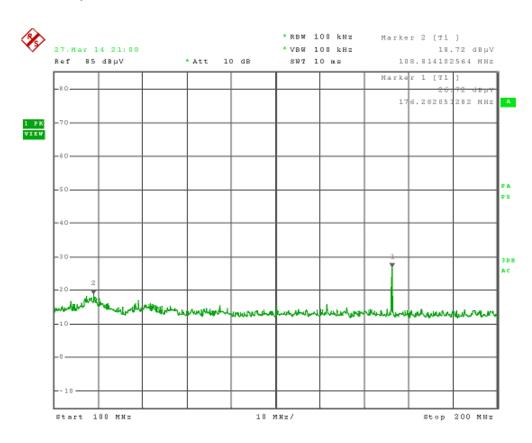
Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



Below 200 MHz

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27.Mar 14 18:27

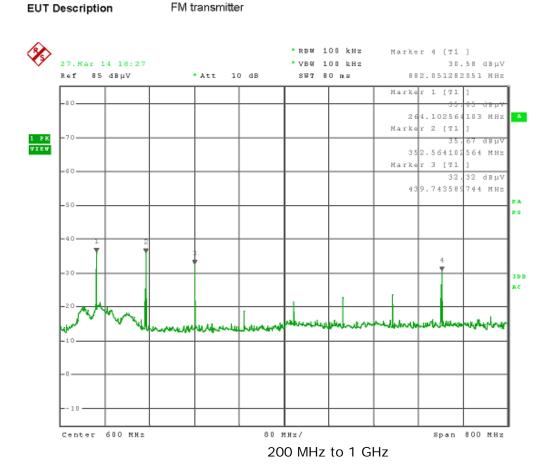
Antenna Polarity Horizontal

Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta



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FCC ID: 2ACBVMOZART500





27.Mar 14 20:57

Antenna Polarity Vertical

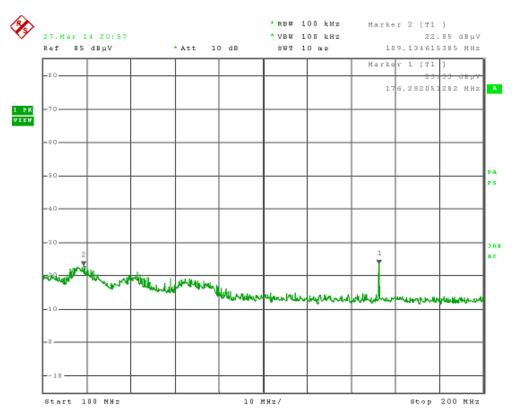
Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



Below 200 MHz

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27.Mar 14 18:32

Antenna Polarity Vertical

Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter

* RBW 100 kHz Marker 4 [71] 27. Mar 14 18:32 * VBW 100 kHz 27.33 dBpV Ref B5 dBµV * Att 10 dB SW7 80 ms 882.051282051 MHz Marker 1 [71] 264.102564103 MHz Marker 2 [71 AIEA J BK 36 352.564102564 MHz Marker 3 [71] 35,62 dBpV 439.743589744 MHz АC

80 MHz/

200 MHz to 1 GHz

Span 800 MHz

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Center 600 MHz

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97.9 High Power



RADIATED SPURIOUS EMISSIONS

27.Mar 14 21:17

Antenna Polarity Horizontal

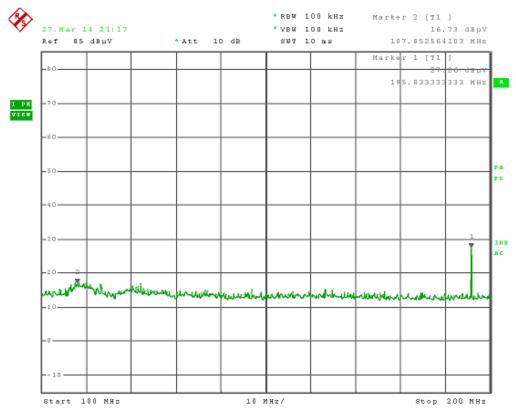
Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



Below 200 MHz

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27.Mar 14 18:44

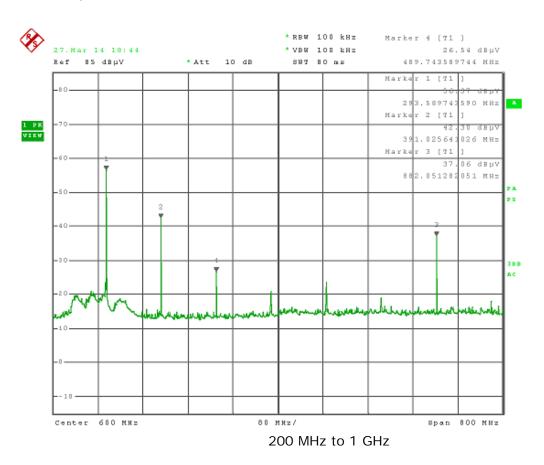
Antenna Polarity Horizontal

Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta
EUT Description FM transmitter



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27.Mar 14 21:19

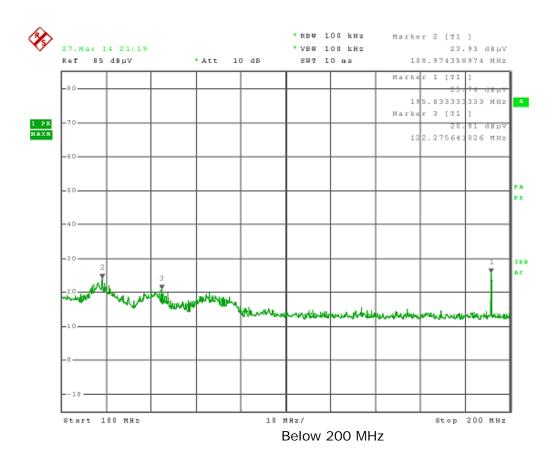
Antenna Polarity Vertical

Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta
EUT Description FM transmitter



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Antenna Polarity Vertical

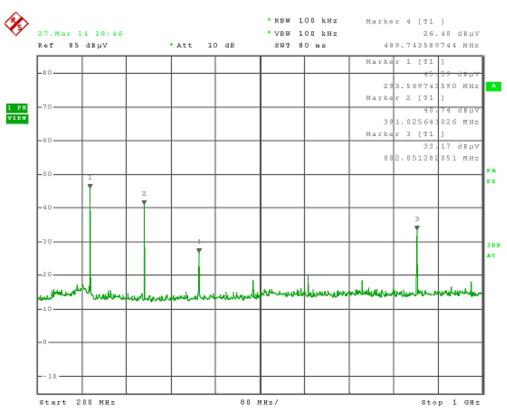
Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



200 MHz to 1 GHz

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107.9 High Power



EUT Description

RADIATED SPURIOUS EMISSIONS

FM transmitter

27.Mar 14 19:03

Antenna Polarity Horizontal

Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta

RBW 100 kHz Marker 4 [71] VBW 100 kHz 26.61 dBpV Ref B5 dBµV Att 10 dB 647.435897436 MHz Marker 1 [71 539.743589 Marker 2 [71 323.07692 Marker 3 [71 41 430.769230769 MHz Start 200 MHz Stop 1 GHz

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200 MHz to 1 GHz

FCC ID: 2ACBVMOZART500





27.Mar 14 19:27

Antenna Polarity Horizontal

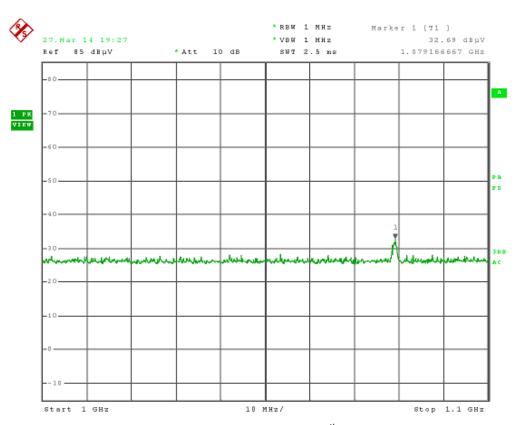
Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



Above 1 GHz (10th Harmonic)

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA

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FCC ID: 2ACBVMOZART500





27.Mar 14 18:58

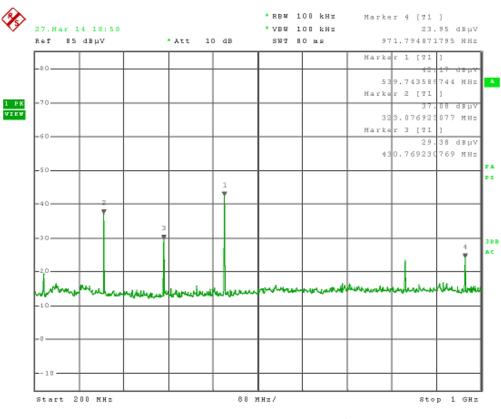
Antenna Polarity Vertical

Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta
EUT Description FM transmitter



200 MHz to 1 GHz

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

FCC ID: 2ACBVMOZART500





27.Mar 14 19:30

Antenna Polarity Vertical

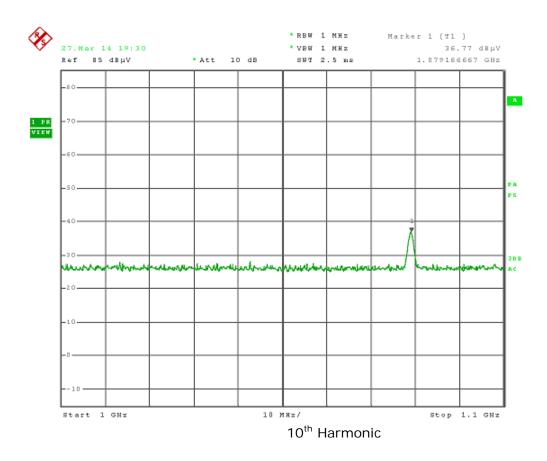
Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

2ACBVMOZART500

FCC ID:



88.1 MHz Low Power



EUT Description

RADIATED SPURIOUS EMISSIONS

FM transmitter

27.Mar 14 21:10

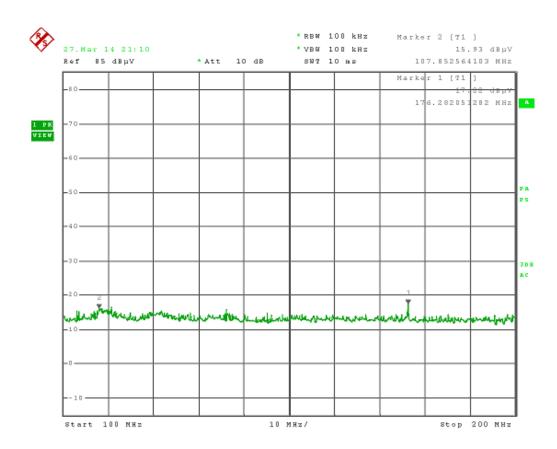
Antenna Polarity Horizontal

Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta



Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

FCC ID: 2ACBVMOZART500





27.Mar 14 18:37

Antenna Polarity Horizontal

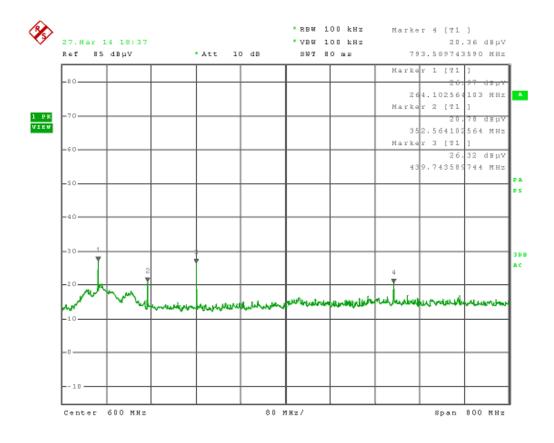
Detectors Used Peak

EUT Mode Transmit

Job # 364AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



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FCC ID: 2ACBVMOZART500





27.Mar 14 20:55

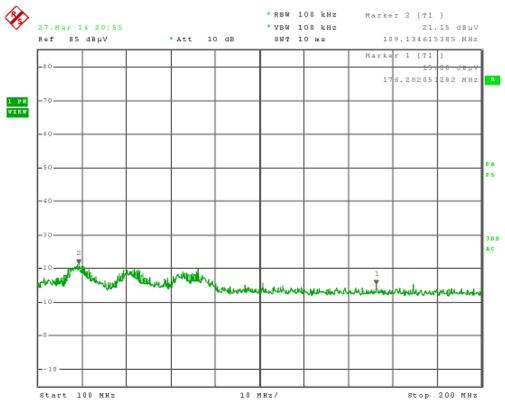
Antenna Polarity Vertical

Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta
EUT Description FM transmitter



Below 200 MHz

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

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27.Mar 14 18:35

Antenna Polarity Vertical

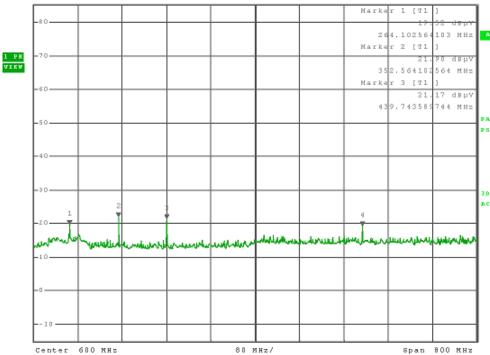
Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



200 MHz to 1 GHz

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

FCC ID: 2ACBVMOZART500



97.9 MHz Low Power



RADIATED SPURIOUS EMISSIONS

27.Mar 14 21:14

Antenna Polarity Horizontal

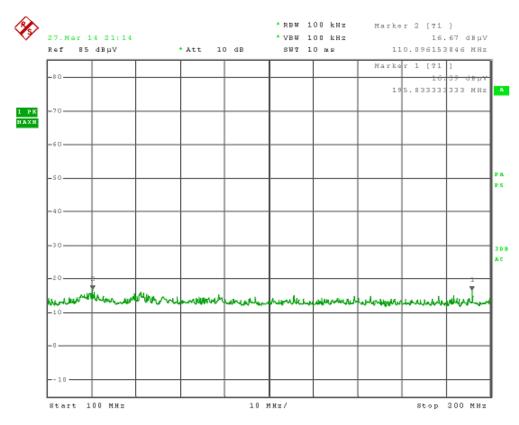
Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



Below 200 MHz

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FCC ID: 2ACBVMOZART500





27.Mar 14 18:40

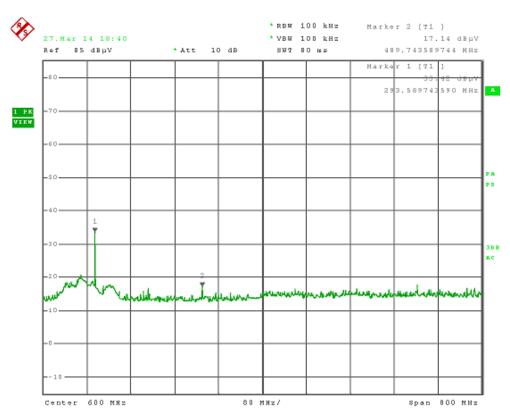
Antenna Polarity Horizontal

Detectors Used Peak

EUT Mode Transmit

Job# 364AUT14

Operator Mario de Aranzeta
EUT Description FM transmitter



200 MHz to 1 GHz

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

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27.Mar 14 21:22

Antenna Polarity Vertical

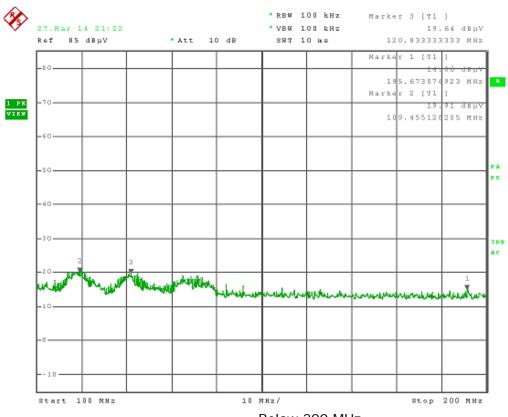
Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Ara

Operator Mario de Aranzeta
EUT Description FM transmitter



Below 200 MHz

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

FCC ID: 2ACBVMOZART500





27.Mar 14 18:50

Antenna Polarity Vertical

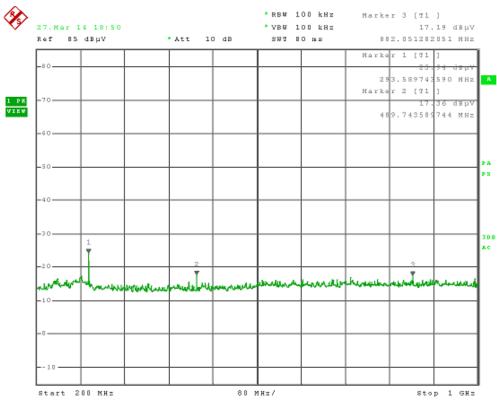
Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



200 MHz to 1 GHz

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA

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FCC ID: 2ACBVMOZART500



107.9 MHz Low Power



RADIATED SPURIOUS EMISSIONS

27.Mar 14 19:17

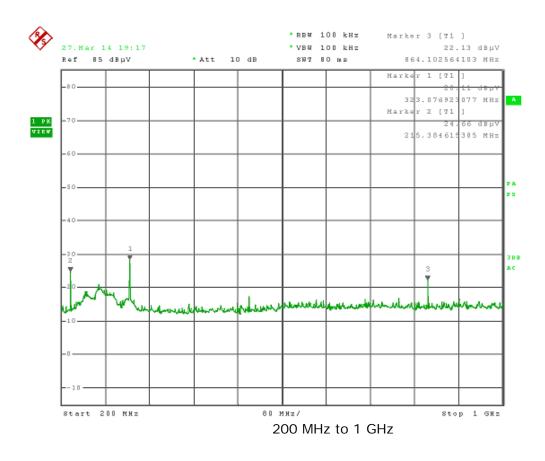
Antenna Polarity Horizontal

Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta
EUT Description FM transmitter



Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

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27.Mar 14 19:25

Antenna Polarity Horizontal

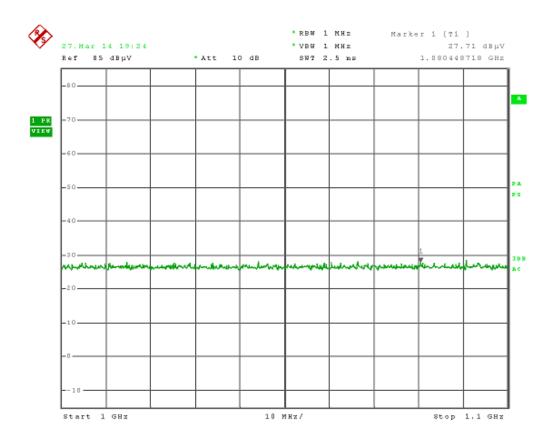
Detectors Used Peak

EUT Mode Transmit

Job # 365AUT14

Operator Mario de Aranzeta

EUT Description FM transmitter



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27.Mar 14 18:55

Vertical Antenna Polarity **Detectors Used** Peak **EUT Mode** Transmit 365AUT14 Job#

Operator Mario de Aranzeta **EUT Description** FM transmitter

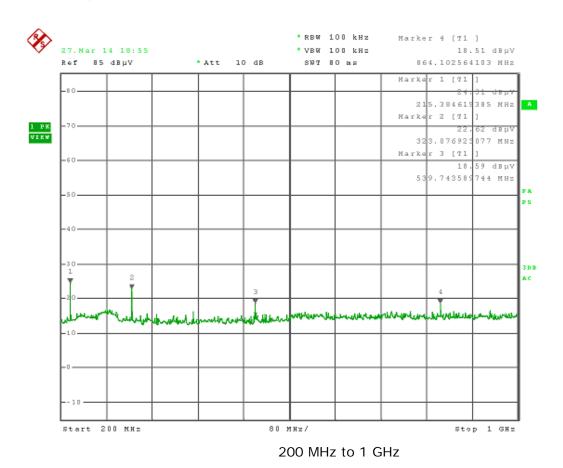


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Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA





27.Mar 14 19:36

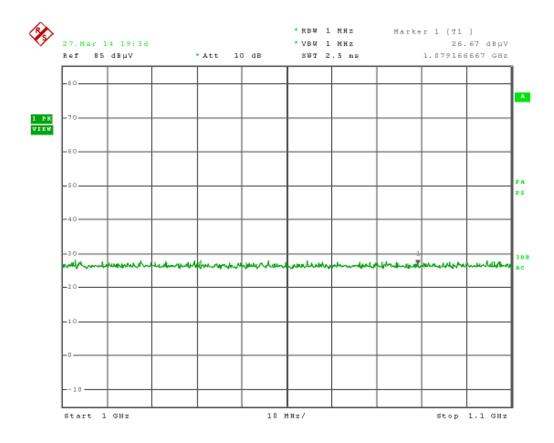
Antenna Polarity Vertical

Detectors Used Peak

EUT Mode Transmit

Job# 365AUT14

Operator Mario de Aranzeta
EUT Description FM transmitter



Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

FCC ID: 2ACBVMOZART500



FREQUENCY STABILITY

again

Rule Parts. No.: Part 2.1055, Part 73.1545

Requirements: Temperature and voltage tests were performed to verify that the frequency

remains within the 2000Hz, specification limit.

The test was conducted as follows: The transmitter was placed in the temperature chamber at 25° C and allowed to stabilize for one hour. The temperature was then reduced to -30° C after which the transmitter was

allowed to stabilize for one hour. The transmitter was ON continuously because

that is how it is used and frequency readings were noted at 15-second intervals.

The worst-case number was recorded for temperature plotting. This procedure

was repeated in 10 degree increments up to + 50° C.

Method of Measurements: ANSI/TIA 603-D: 2010.

Test Data:

Assigned Frequency (Ref. Frequency) (MHz)		98.500230	
Temperature (°C)	Frequency (MHz)	Frequency Stability (PPM)	
-30	98.500144	-0.87	
-20	98.500190	-0.41	
-10	98.500200	-0.30	
0	98.500230	0.00	
+10	98.500238	0.08	
+20	98.500233	0.03	
+30	98.500226	-0.04	
+40	98.500226	-0.04	
+50	98.500226	-0.04	

Assigned Frequer (MHz)	ncy (Ref. Frequency)	
AC mains %	Frequency (MHz)	Frequency Stability (PPM)
-15%	98.500230	0.0
0	98.500230	0.0
+15%	98.500230	0.0

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA <u>TABLE OF CONTENTS</u>

FCC ID: 2ACBVMOZART500



EQUIPMENT LIST

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3-Meter Semi- Anechoic Chamber	Panashield	N/A	N/A	12/31/13	12/31/15
Antenna: Active Loop	ETS-Lindgren	6502	00062529	10/09/13	10/09/15
Antenna: Biconnical	Eaton	94455-1	1057	06/14/13	06/14/15
Antenna: Biconnical	Eaton	94455-1	1096	05/10/13	05/10/15
Antenna: Biconnical	Electro-Metrics	BIA-25	1171	06/13/12	06/13/14
Antenna: Double- Ridged Horn/ETS Horn 2	ETS-Lindgren	3117	00041534	10/05/12	10/05/14
Antenna: Log-Periodic	Eaton	96005	1243	05/31/13	05/31/15
Antenna: Log-Periodic	Electro-Metrics	LPA-25	1122	05/09/13	05/09/15
Audio Generator	B&K Precision	3010	8739686	09/11/12	09/11/14
Broadband Preamplifier	A.H. Systems Inc.	PAM-0126	128	05/17/13	05/17/15
Coaxial Cable - Chamber 3 cable set	Semiflex	Unknown	Chamber 3 cable set	01/26/14	01/26/16
Coaxial Cable #174	Semiflex	Unknown	30288-0332	06/25/13	06/25/15
Coaxial Cable #175	Semiflex	Unknown	102280-0333	06/24/13	06/24/15
Digital Multimeter	Fluke	FLUKE-77-3	79510405	06/20/13	06/20/15
Frequency Counter	HP	5385A	2730A03025	08/22/13	08/22/15
Frequency Counter	HP	5385A	3242A07460	06/16/13	06/16/15
Function Generator	SRS	DS340	25200	08/29/13	08/29/15
Function Generator	SRS	DS345/12	38435	06/19/13	06/19/15
High Pass Filter	Microlab	HA-10N		05/17/13	05/17/15
High Pass	Microlab	HA-20N		05/17/13	05/17/15

Applicant: DB ELETTRONICA TELECOMUNICAZIONI SPA

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Filter					
High Power					
Attenuator	Bird	8329-300	4980	02/26/13	02/26/15
Hygro-					
Thermometer	Extech	445703	0602	06/20/13	06/20/15
Measuring	Kraftixx	7.5M PROFI		05/20/13	05/20/15
Tape-7.5M Modulation					
	HP	8901A	3050A05856	09/26/12	09/26/14
Analyzer	L o Cross	1.727.4	00414	00/22/12	00/22/15
Oscilloscope	LeCroy	LT364	00414	08/22/13	08/22/15
Power Meter	Bird	4421-107 &	0166 & 0218	12/18/13	12/18/15
and Sensor		4022			
RF Power	Boonton	4531		01/19/13	01/19/15
Meter		510701	0.1.1.7	04/40/40	04/40/45
Sensor	Boonton	51072A	34647	01/19/13	01/19/15
Signal	HP	8648C	3847A04696	09/18/13	09/18/15
Generator					
Temperature	Tenney	TTRC	11717-7	07/03/12	07/03/14
Chamber	Engineering	1110	117177	07700712	07700711
Waverunner	Lecroy	LT364L	00543	06/22/13	06/22/15
Digital Scope	_	LISOTE	00040	00/22/10	00/22/10
EMI Test	Rhode &	ESU 40	100320	03/21/13	03/21/15
Receiver	Schwarz	L30 40	100320	03/21/13	03/21/13
Software:					
Field	Timco	N/A	Version 4.0	NA	NA
Strength	TITICO	IN/A	Version 4.0	IVA	IVA
Program					
Hygro-	Evtoob	445702	0602	04/20/12	04/20/15
Thermometer	Extech	445703	0602	06/20/13	06/20/15
Analyzer					
Silver Tower	HP	85650A	2811A01175	06/05/13	06/05/15
Quasi-Peak	HP	8565UA	2811AU1175	06/05/13	06/05/15
Adapter					
Analyzer					
Silver Tower	LID	05/054	202/40202	07.705.74.0	07.705.745
RF	HP	85685A	2926A00983	06/05/13	06/05/15
Preselector					
Analyzer					
Silver Tower	1.15	8566B Opt	3552A22064	07/05/10	07/05/45
Spectrum	HP	462	3638A08608	06/05/13	06/05/15
Analyzer					
7.1.1313/201		1	ı		

Manufacturer	Model	Receiver Firmware	BIOS Ver
Rohde & Schwarz	ESU40	4.43 SP3	V5.1-24-3
Rohde & Schwarz	ESIB40	4.34.3	3.3

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