



## EMC Test Data

Client:	OQO	Job Number:	J62637
Model:	Model 02	Test-Log Number:	T65242
		Project Manager:	Susan Pelzl
Contact:	Bob Hymes		
Emissions Spec:	EN 300 328, 301 893	Class:	Radio
Immunity Spec:	EN 301 489-17	Environment:	Radio

## EMC Test Data

For The

**OQO**

Model

**Model 02**

Date of Last Test: 11/9/2006



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Emissions Spec:	EN 300 328, 301 893	Class:	Radio
Immunity Spec:	EN 301 489-17	Environment:	Radio

## EUT INFORMATION

The following information was collected during the test sessions(s).

### General Description

The EUT is a Handheld PC. Since the EUT would be placed on a table top during operation, the EUT was treated as table-top equipment during testing to simulate the end-user environment. The electrical rating of the EUT is -5Vdc Volts, 3.5 Amps. It can be powered from an external AC/DC adapter rated for operation from 100-240V, 50/60Hz.

### Equipment Under Test

Manufacturer	Model	Description	Serial Number	FCC ID
OQO	Model 02	Handheld PC	47 (silver)	

### Other EUT Details

The following EUT details should be noted: N/A

### EUT Antenna (Intentional Radiators Only)

The EUT antenna is an internal flex .  
The antenna is integral to the device.

### EUT Enclosure

The EUT enclosure is primarily constructed of Metal and Plastic. It measures approximately 15 cm Long by 5 cm Wide by 2 cm high.

### Modification History

Mod. #	Test	Date	Modification
1			
2			
3			

Modifications applied are assumed to be used on subsequent tests unless otherwise stated as a further modification.



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Contact:		Bob Hymes	Account Manger:
Emissions Standard(s):	EN 300 328, 301 893	Class:	Radio
Immunity Standard(s):	EN 301 489-17	Environment:	Radio

### Test Configuration #1

#### Local Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
None	-	-	-	-

#### Remote Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
None	-	-	-	-

#### Cabling and Ports

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
EUT AC Power	AC/DC Adapter	2 wire	Unshielded	1.5

#### EUT Operation During Emissions Tests

EUT was running ACHES\_with\_files\_defined software.

#### EUT Operation During Immunity Tests

TBD

#### Performance Criteria for Immunity Tests

Criterion A:

Criterion B:

Criterion C:



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Contact: Bob Hymes	
Standard: EN 300 328, 301 893	Class: N/A

## Radiated Spurious Emissions, EN 301 893 V1.2.3

### Test Specific Details

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

Date of Test: 9/5/2006 9:13  
Test Engineer: Juan Martinez  
Test Location: Chamber #2

Config. Used: 1  
Config Change: None  
EUT Voltage: 230V/50Hz

### General Test Configuration

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

The measurement antenna was located 3 meters from the EUT.

### Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Spurious Emissions Transmit Mode 30 - 26,500 MHz	EN 301 893	Eval	Refer to run
2	Spurious Emissions Receive/Stand-By Mode 30 - 26,500 MHz	EN 301 893	Eval	Refer to run

### Modifications Made During Testing:

No modifications were made to the EUT during testing

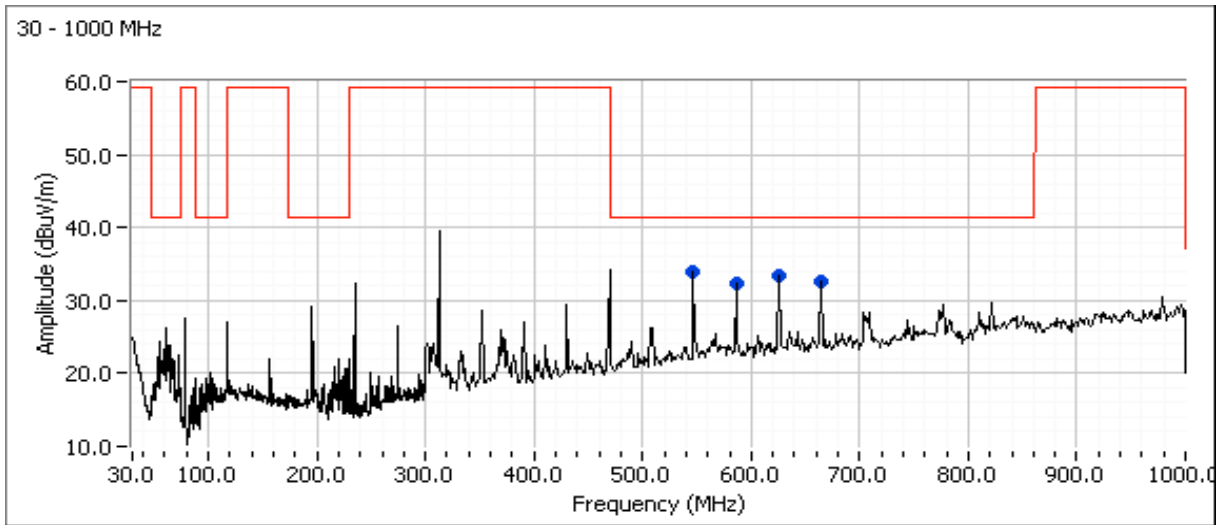
### Deviations From The Standard

No deviations were made from the requirements of the standard.

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	Account Manager: Susan Pelzl
Contact: Bob Hymes	
Standard: EN 300 328, 301 893	Class: N/A

**Run #1: Radiated Spurious Emissions, Transmit Mode, 30 - 26,500 MHz**  
**Measurements made at 3m**

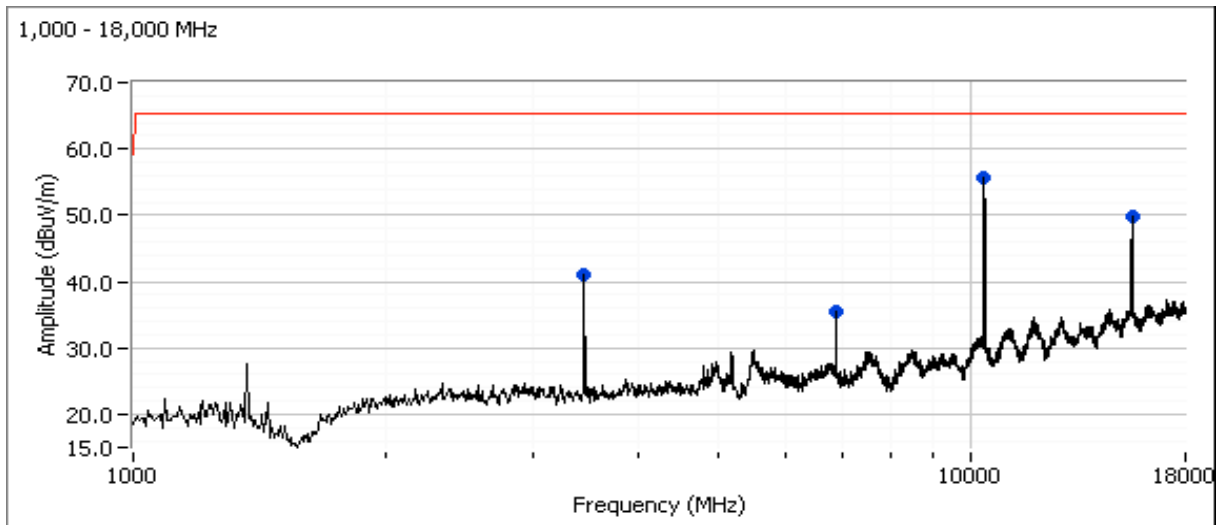
**Run #1a: EUT @ 5180 MHz**





# EMC Test Data

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Model: Model 02	T-Log Number: T65242
Contact: Bob Hymes	Account Manager: Susan Pelzl
Standard: EN 300 328, 301 893	Class: N/A

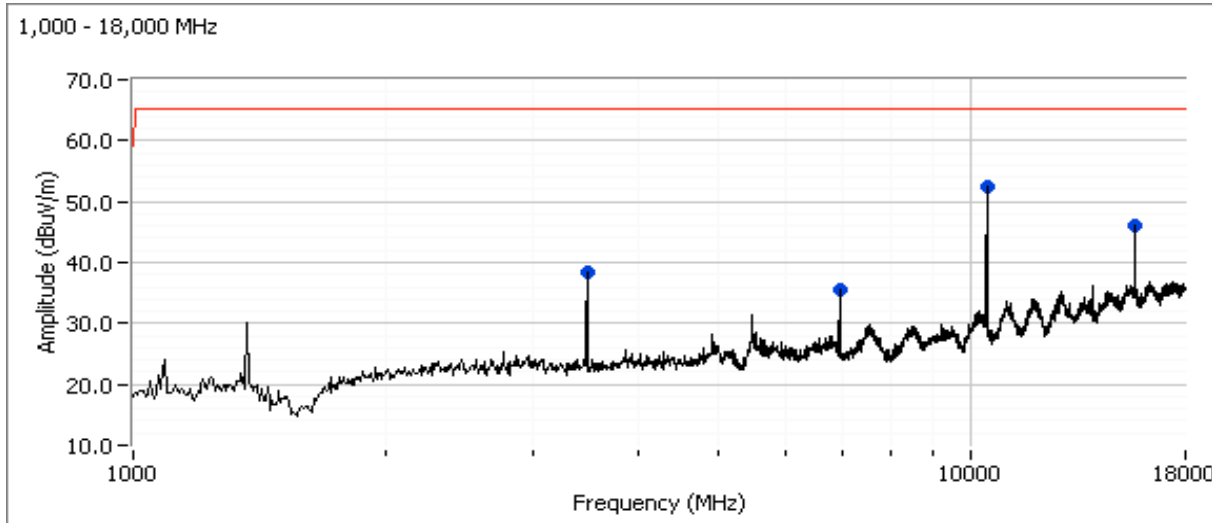


Frequency MHz	Level dBuV/m	Pol V/H	EN 301 893 <sup>Note 1</sup>		Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments
			Limit	Margin				
546.894	33.9	H	41.3	-7.4	Peak	312	1.0	
586.172	32.4	H	41.3	-8.9	Peak	309	1.0	
625.451	33.5	H	41.3	-7.8	Peak	287	1.0	
664.729	32.7	H	41.3	-8.6	Peak	342	1.0	
469.739	34.2	H	59.3	-25.1	Peak	324	1.0	
10361.350	55.6	H	65.3	-9.7	Peak	248	1.7	
15550.000	49.7	V	65.3	-15.6	Peak	272	1.7	
469.167	38.8	H	59.3	-20.5	Peak	324	1.7	
3453.400	40.9	V	65.3	-24.4	Peak	267	1.7	
6906.680	35.4	H	65.3	-29.9	Peak	224	1.7	

**Note 1:** The field strength limit in the tables above was calculated from the erp/eirp limit detailed in the standard using the free space propagation equation:  $E = \sqrt{(30PG)/d}$ . This limit is conservative - it does not consider the presence of the ground plane and, for erp limits, the dipole gain (2.2dBi) has not been included. The erp or eirp for all signals with less than 10dB of margin relative to this field strength limit is determined using substitution measurements.

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Contact: Bob Hymes	Account Manager: Susan Pelzl
Standard: EN 300 328, 301 893	Class: N/A

**Run #1b: EUT @ 5220 MHz**

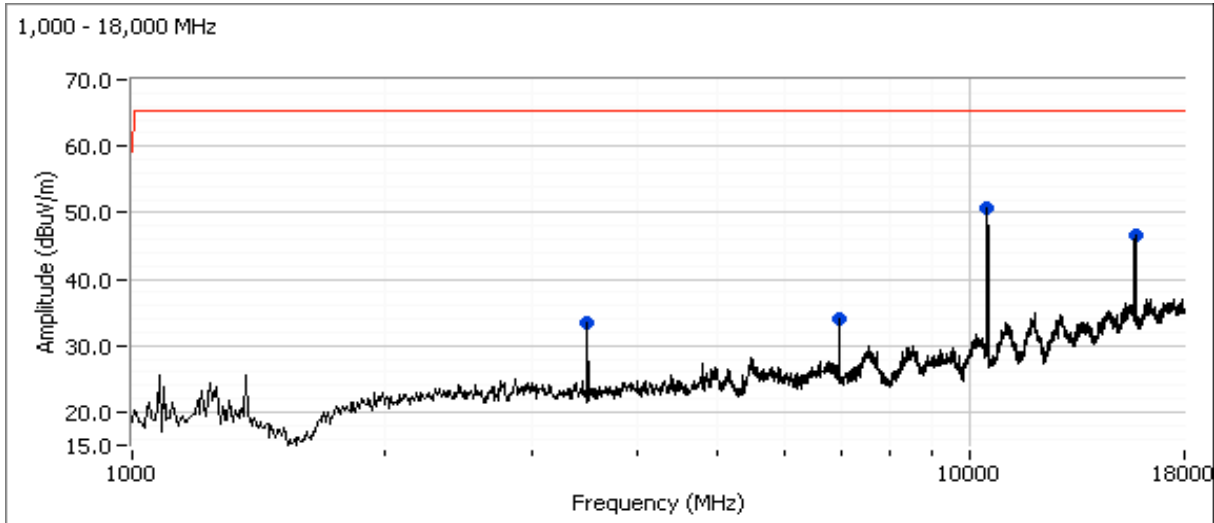


Frequency MHz	Level dBuV/m	Pol V/H	EN 301 893 <sup>Note 1</sup>		Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments
			Limit	Margin				
10439.700	52.5	H	65.3	-12.8	Peak	273	1.7	
15661.350	46.2	V	65.3	-19.1	Peak	272	1.7	
3480.070	38.5	V	65.3	-26.8	Peak	258	1.7	
6960.060	35.4	V	65.3	-29.9	Peak	310	1.7	

**Note 1:** The field strength limit in the tables above was calculated from the erp/eirp limit detailed in the standard using the free space propagation equation:  $E = \sqrt{(30PG)/d}$ . This limit is conservative - it does not consider the presence of the ground plane and, for erp limits, the dipole gain (2.2dBi) has not been included. The erp or eirp for all signals with less than 10dB of margin relative to this field strength limit is determined using substitution measurements.

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Contact: Bob Hymes	Account Manager: Susan Pelzl
Standard: EN 300 328, 301 893	Class: N/A

**Run #1c: EUT @ 5240 MHz**



Frequency	Level	Pol	EN 301 893 <sup>Note 1</sup>		Detector	Azimuth	Height	Comments
MHz	dBuV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
6986.670	34.1	V	65.3	-31.2	Peak	295	1.7	
3493.400	33.3	H	65.3	-32.0	Peak	219	1.7	
10480.670	50.8	H	65.3	-14.5	Peak	284	1.7	
15717.510	46.7	V	65.3	-18.6	Peak	285	1.7	

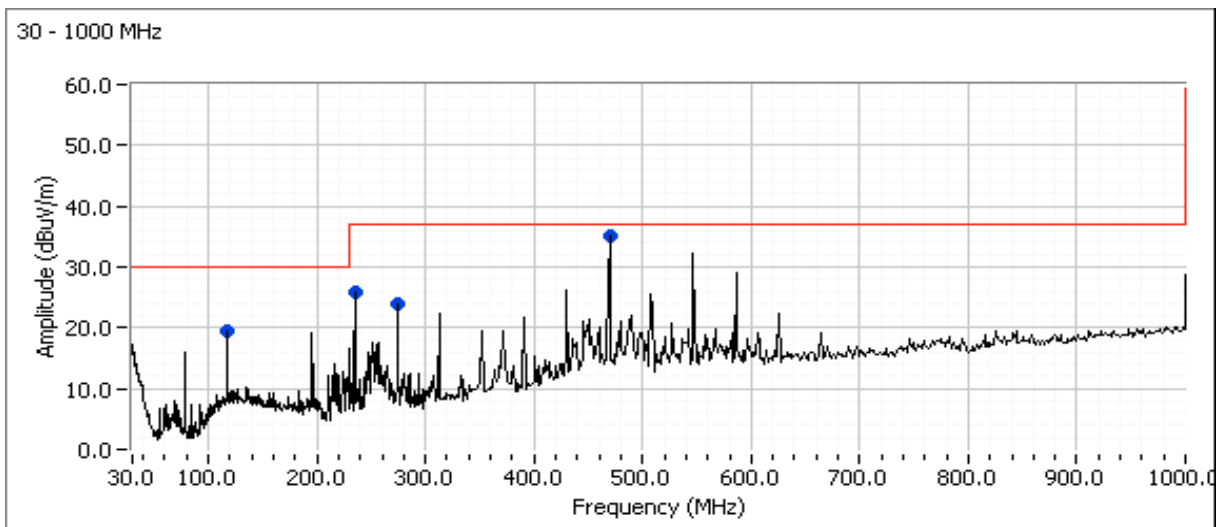
**Note 1:** The field strength limit in the tables above was calculated from the erp/eirp limit detailed in the standard using the free space propagation equation:  $E = \sqrt{(30PG)/d}$ . This limit is conservative - it does not consider the presence of the ground plane and, for erp limits, the dipole gain (2.2dBi) has not been included. The erp or eirp for all signals with less than 10dB of margin relative to this field strength limit is determined using substitution measurements.



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Standard: EN 300 328, 301 893	Class: N/A

**Run #3: Radiated Spurious Emissions, Receive Mode, 30 - 26,500 MHz**  
**Measurements made at 3m**

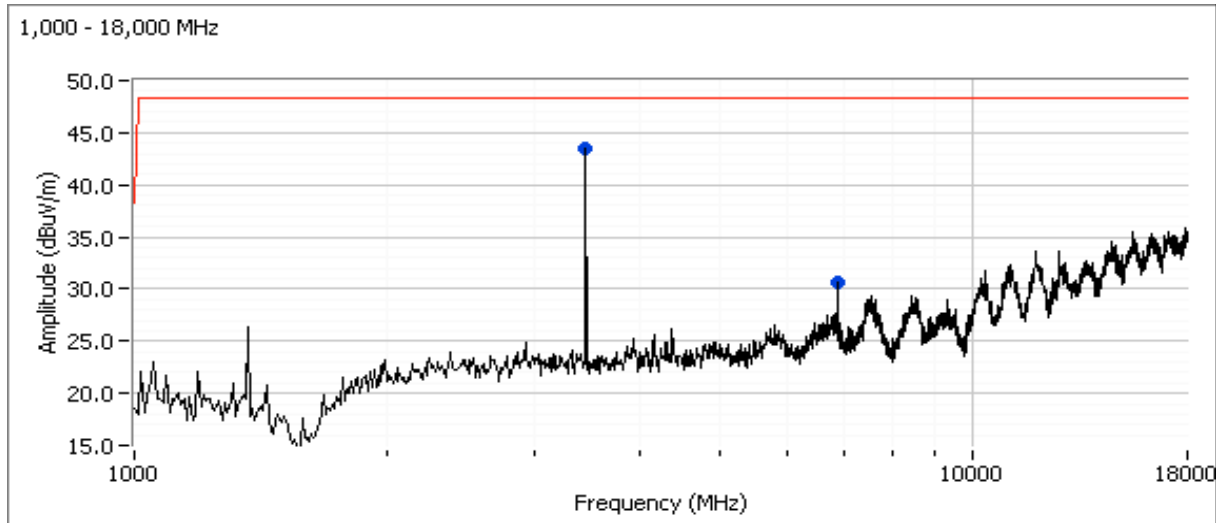
**Run #3a: EUT @ 5180 MHz**





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Contact: Bob Hymes	Account Manager: Susan Pelzl
Standard: EN 300 328, 301 893	Class: N/A

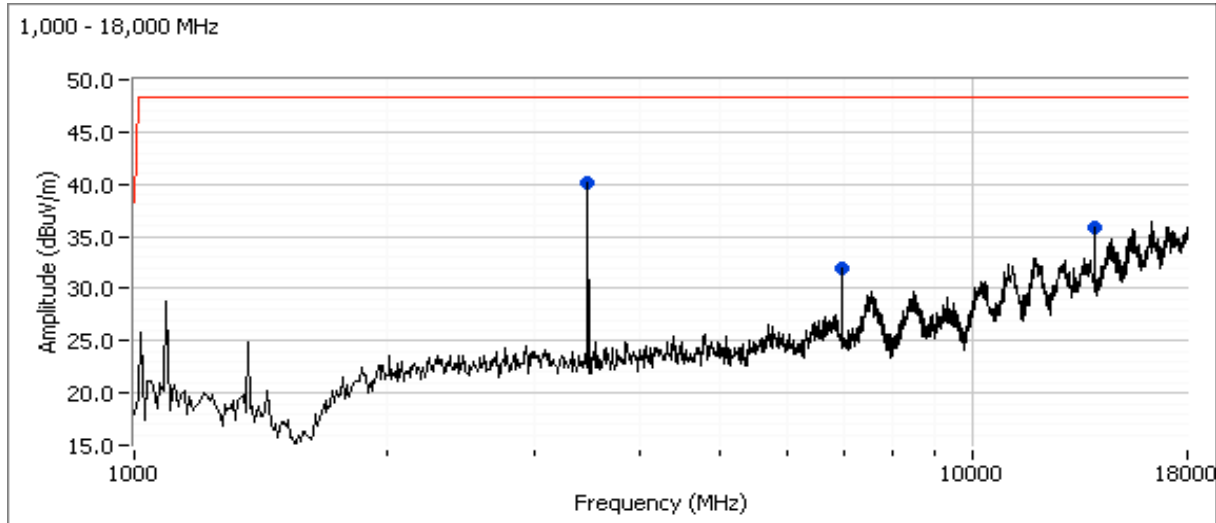


Frequency MHz	Level dBµV/m	Pol V/H	EN 301 893 <sup>Note 1</sup>		Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments
			Limit	Margin				
469.739	35.1	H	37.0	-1.9	Peak	1	1.0	
235.070	25.9	H	37.0	-11.1	Peak	263	1.0	
274.028	23.9	H	37.0	-13.1	Peak	69	1.0	
117.114	19.4	H	30.0	-10.6	Peak	101	1.0	
3453.390	43.4	V	48.3	-4.9	Peak	271	1.7	
469.167	30.5	V	37.0	-6.5	Peak	68	1.7	Radio Off
6906.680	30.7	V	48.3	-17.6	Peak	235	1.7	

**Note 1:** The field strength limit in the tables above was calculated from the erp/eirp limit detailed in the standard using the free space propagation equation:  $E = \sqrt{(30PG)/d}$ . This limit is conservative - it does not consider the presence of the ground plane and, for erp limits, the dipole gain (2.2dBi) has not been included. The erp or eirp for all signals with less than 10dB of margin relative to this field strength limit is determined using substitution measurements.

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**Run #3b: EUT @ 5220 MHz**

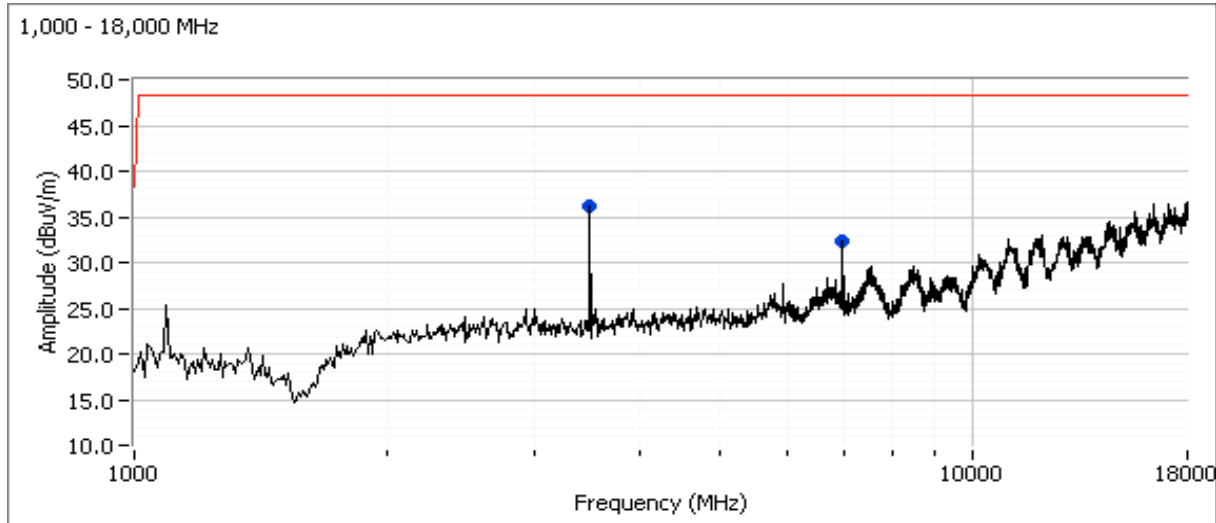


Frequency MHz	Level dBuV/m	Pol V/H	EN 301 893 <sup>Note 1</sup>		Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments
			Limit	Margin				
3480.090	40.1	V	48.3	-8.2	Peak	263	1.7	
13920.020	35.8	V	48.3	-12.5	Peak	285	1.7	
6960.010	32.0	V	48.3	-16.3	Peak	302	1.7	

**Note 1:** The field strength limit in the tables above was calculated from the erp/eirp limit detailed in the standard using the free space propagation equation:  $E = \sqrt{(30PG)/d}$ . This limit is conservative - it does not consider the presence of the ground plane and, for erp limits, the dipole gain (2.2dBi) has not been included. The erp or eirp for all signals with less than 10dB of margin relative to this field strength limit is determined using substitution measurements.

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Standard: EN 300 328, 301 893	Class: N/A

**Run #3c: EUT @ 5240 MHz**



Frequency MHz	Level dBuV/m	Pol V/H	EN 301 893 <sup>Note 1</sup>		Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments
			Limit	Margin				
3493.430	36.1	V	48.3	-12.2	Peak	268	1.7	
6986.680	32.3	V	48.3	-16.0	Peak	288	1.7	

**Note 1:** The field strength limit in the tables above was calculated from the erp/eirp limit detailed in the standard using the free space propagation equation:  $E = \sqrt{(30PG)/d}$ . This limit is conservative - it does not consider the presence of the ground plane and, for erp limits, the dipole gain (2.2dBi) has not been included. The erp or eirp for all signals with less than 10dB of margin relative to this field strength limit is determined using substitution measurements.