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**Test laboratory accredited according to ISO 17025 by the Swiss Accreditation Service SAS**
**Laboratoire d'essai accrédité selon ISO 17025 par le Service d'accréditation suisse SAS**
**Prüflabor akkreditiert nach ISO 17025 durch die Schweizerische Akkreditierungsstelle SAS**

Registration number
Numéro d'accréditation
Akkreditierungsnummer **STS 024**

Schweizerischer Prüfstellendienst
Service suisse d'essai
Swiss testing service

| | | | |
|---|---|---|---|
| Report:<br>Rapport:<br>Bericht: | *Electromagnetic compatibility* | Report no:<br>Rapport no:<br>Bericht Nr: | *Draft14'781* |
| Product name:<br>Nom du produit:<br>Produktname | *EL-Skyport Universal Receiver*<br>*EL-Skyport Transmitter* | Mandate no:<br>Mandat no:<br>Auftrag Nr: | *20067171* |
| Serial no:<br>No de série:<br>Seriennummer: | *Universal Rx: U00200*<br>*Tx: T00200* | Model number:<br>Numéro de modèle:<br>Modellnummer: | *Universal Rx: SPUNI-V1.3*<br>*Tx: SPTX-V1.1* |
| Customer:<br>Client:<br>Kunde: | *Elinca SA*<br>*Av. de Longemalle 11*<br>*CH-1020 Renens* | Date of test:<br>Date de l'essai:<br>Prüfdatum: | *November 27 to 28, 2006*<br>*December 4, 2006* |

| Standards / Normes / Normen | Result<br>Résultat<br>Ergebnis |
|---|---|
| **CFR 47, Part 15, Subpart C, Intentional radiator, Paragraph 15.249** | *Pass* |
| **CFR 47, Part 15, Subpart C, Intentional radiator, Paragraph 15.207** | *Pass* |

Test performed by
Essai effectué par :
Prüfer

*Mr Erich Staub*
*Mr Christophe Perrenoud*

Test report prepared by
Rapport d'essai préparé par :
Berichterstatter

*Mr Erich Staub*

Test report controlled and approved by
Rapport d'essai contrôlé et approuvé par :
Prüfbericht kontrolliert und genehmigt durch

*Mr François Trotti*

*Rossens, January 18, 2007* (Issue Date / Date d'édition / Ausstelldatum) V2006Oct23

Main language / Langue principale / Hauptsprache : *english* / *français* / *deutsch*

The present document results from tests on a specimen and does not prejudge to the conformity of all the manufactured products. - Le présent document résulte d'essais sur un spécimen. Il ne préjuge pas de la conformité de l'ensemble des produits fabriqués à l'objet essayé. - Dieser Bericht beinhaltet die Prüfergebnisse eines Mustergerätes. Es kann daraus nicht auf die Übereinstimmung der Seriegeräte mit dem Mustergerät geschlossen werden.

*q:\mandats\20067171_rauch_funkauslöser\elinca sa_14781_skyport.doc*


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# Contents / Table des matières / Inhaltsverzeichnis

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## 1. Summary of test results / Résumé des résultats d'essais / Zusammenfassung der Prüfergebnisse

✓ Pass / Réussi / Bestanden
✖ Fail / Echoué / Nicht bestanden
∅ Not applicable to this product / Pas applicable à ce produit / Nicht anwendbar für dieses Produkt
— Not tested / Pas testé / Nicht geprüft
No requirements / Pas d'exigence / Keine Anforderung

| § | Test Type / Type d'essai / Art der Prüfung | | Result / Résultat / Ergebnis |
|---|---|---|---|
| ***6*** | ***Emission / Emission / Störaussendung*** | | |
| 6.1 | Conducted emission<br>Émission par conduction<br>Geleitete Emission | CFR 47 § 15.207 | ✓ |
| 6.2 | Radiated emission – Carrier<br>Émission par rayonnement – Porteuse<br>Gestrahlte Emission – Träger | CFR 47 § 15.249 | ✓ |
| 6.3<br>6.4<br>6.5 | Radiated emission – EM-field<br>Émission par rayonnement – Champ EM<br>Gestrahlte Emission – EM-Feld | CFR 47 § 15.209<br>CFR 47 § 15.249 | ✓ |

## 2. Applied standards / Normes appliquées / Verwendete Normen

| | |
|---|---|
| 47 CFR Part 15 Subpart C | Code of Federal Regulations - Telecommunication, FCC Part 15, Subpart C: "Intentional Radiators" |

## 3. Client / Client / Kunde

| | |
|---|---|
| Client name and address<br>Nom et adresse du client<br>Name und Adresse des Kunden | *Elinca SA*<br>*Av. de Longemalle 11*<br>*CH-1020 Renens* |
| Contact Person / Responsable / Kontaktperson | *Mr Dieter Rauch / Mr Dominique Aglier* |
| Telephone / Téléphone / Telefon | *+41 (0)21 637 2677* |
| Fax / Télécopieur / Telefax | *+41 (0)21 637 2681* |
| E-mail / Courrier électronique / E-mail | *elinca@elinca.ch* |
| Mandate no / No. de mandat / Auftragsnr. | *20067171* |

# 4. Equipment under test / Equipement à l'essai / Prüfling

## 4.1 Identification / Identification / Identifikation

| | |
|---|---|
| Manufacturer name and address<br>Nom et adresse du fabricant<br>Name und Adresse des Herstellers | *Elinca SA*<br>*Av. de Longemalle 11*<br>*CH-1020 Renens* |
| Production country / Pays de fabrication / Ursprungsland | *Switzerland* |
| Brand name / nom de marque / Verkaufsmarke | *elinchrom* |
| Product name / Nom du produit / Produktname | *EL-Skyport Universal Receiver*<br>*EL-Skyport Transmitter* |
| Product description / Description du produit / Produktbeschreibung | *EL-Skyport wireless flash triggering system with wireless remote data communication* |
| Model number / Numéro de modèle / Modellnummer | *Universal Rx: SPUNI-V1.3*<br>*Tx: SPTX-V1.1* |
| Serial no / No. de série / Seriennummer | *Universal Rx: U00200*<br>*Tx: T00200* |
| Software version / Version du logiciel / Softwareversion | *Universal Rx: V1.3*<br>*Tx: V1.1* |
| Highest frequency / Fréquence la plus élevée / Höchste Frequenz | *2.475 GHz (transmitter channel 8)* |
| Supply / Alimentation / Speisung | *Universal Rx: Powered by external supply 5V/500mA; input = 100 – 240VAC / 47 – 63 Hz*<br>*Tx: Powered by internal 3VDC lithium battery* |
| Technical documentation<br>Documentation technique<br>Technische Dokumentation | *None. The equipment is completely identified by its serial no. according to ISO 9001.* |

## 4.2 Pictures of the EUT / Photos de l'EST / Fotos des Prüflings

| | |
|---|---|
|  | *EL-Skyport Universal Receiver with synchron cable and external AC/DC power supply* |

| | |
|---|---|
|  | *EL-Skyport Universal Receiver* |
|  | *Marking plate of AC/DC power supply* |
|  | *EL-Skyport Transmitter* |

| | |
|---|---|
|  | *EL-Skyport Transmitter* |

### 4.3 Classification / Classification / Klassierung

- *Carrier between 2.448 GHz to 2.475 GHz*
- *Carrier power conducted max = 1 mW (0 dBm)*

### 4.4 Ports / Accès / Anschlüsse

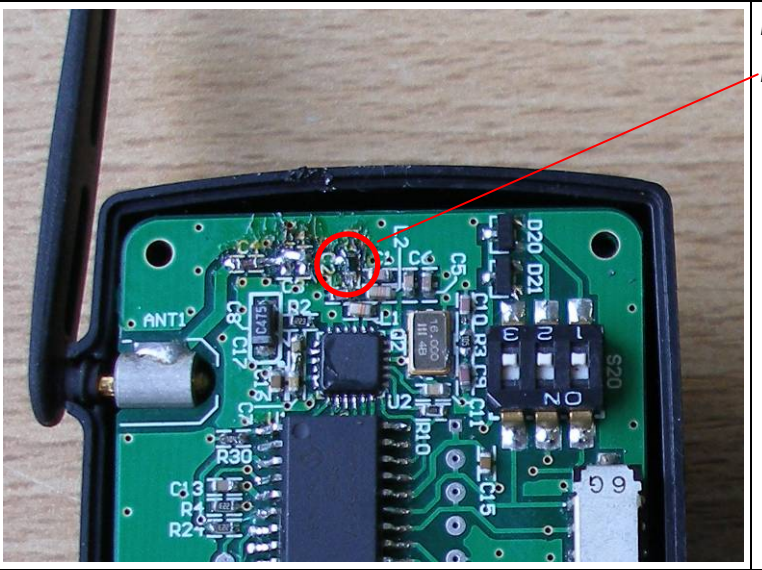
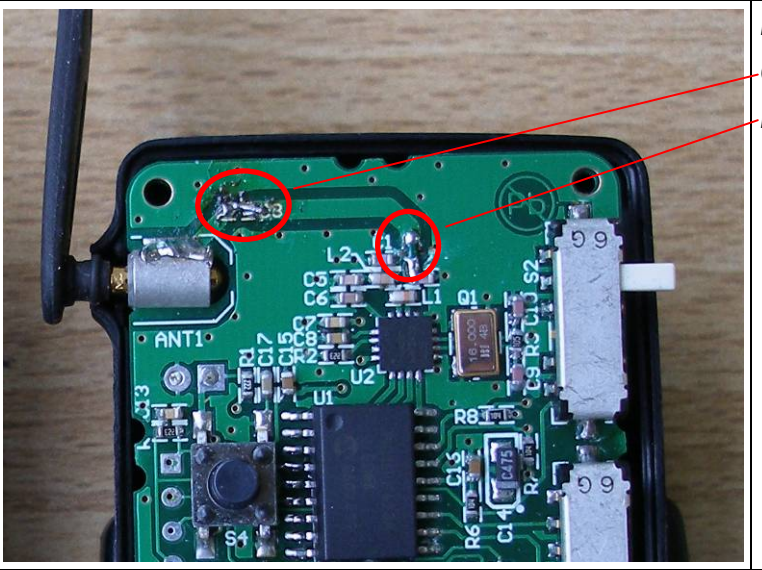
*EL-Skyport Universal Receiver*

| **Port / Accès / Anschluss** | **Cable / Câble / Kabel** | | | **Remark / Remarque / Bemerkung** |
|---|---|---|---|---|
| | **Max. length / Longueur max. / Max. Länge** | **Type / Type / Typ** | **Screen / Blindage / Schirm** | |
| *5VDC IN* | *1.8m* | *L, N, PE* | *none* | *Connected to external power supply for charging the battery* |
| *Synchron cable* | *30cm* | *Phone jack* | *Yes* | *- - -* |

*EL-Skyport Transmitter*

| **Port / Accès / Anschluss** | **Cable / Câble / Kabel** | | | **Remark / Remarque / Bemerkung** |
|---|---|---|---|---|
| | **Max. length / Longueur max. / Max. Länge** | **Type / Type / Typ** | **Screen / Blindage / Schirm** | |
| *Synchron cable* | *30cm* | *Phone jack* | *Yes* | *- - -* |

### 4.5 Modifications / Modifications / Angebrachte Änderungen

| | |
|---|---|
|  | *EL-Skyport Universal Receiver:*<br>*L3 = 1.8 nH* |
|  | *EL-Skyport Transmitter:*<br>*C3 replaced with bridge*<br>*L3 = 1.8 nH placed close to amplifier* |

## 5. Test conditions / Conditions d'essai / Testbedingungen

### 5.1 Climatic conditions / conditions climatiques / klimatische Bedingungen

| | | |
|---|---|---|
| Temperature / Température / Temperatur: | *21 - 23* | *°C* |
| Pressure / Pression / Druck: | *960 - 970* | *hPa* |
| Relative humidity / Humidité relative / Relative Luftfeuchtigkeit: | *31 - 35* | *%* |

### 5.2 Location and Date / Lieu et date / Ort und Datum

| | |
|---|---|
| Test period / Date des essais / Datum der Prüfungen: | *November 27 to 28, 2006*<br>*December 4, 2006* |
| Location / Lieu / Ort: | *montena emc sa*<br>*route de Montena 75*<br>*CH-1728 Rossens* |

### 5.3 Test facility and Methodology

*The alternate test site (ferrite chamber) is accepted by FCC (Reg. No. 0009508433).*

*Conducted and radiated measurements are performed according to the ANSI C63.4 (2003) procedure.*

### 5.4 Persons present / Personnes présentes / Anwesende Personen

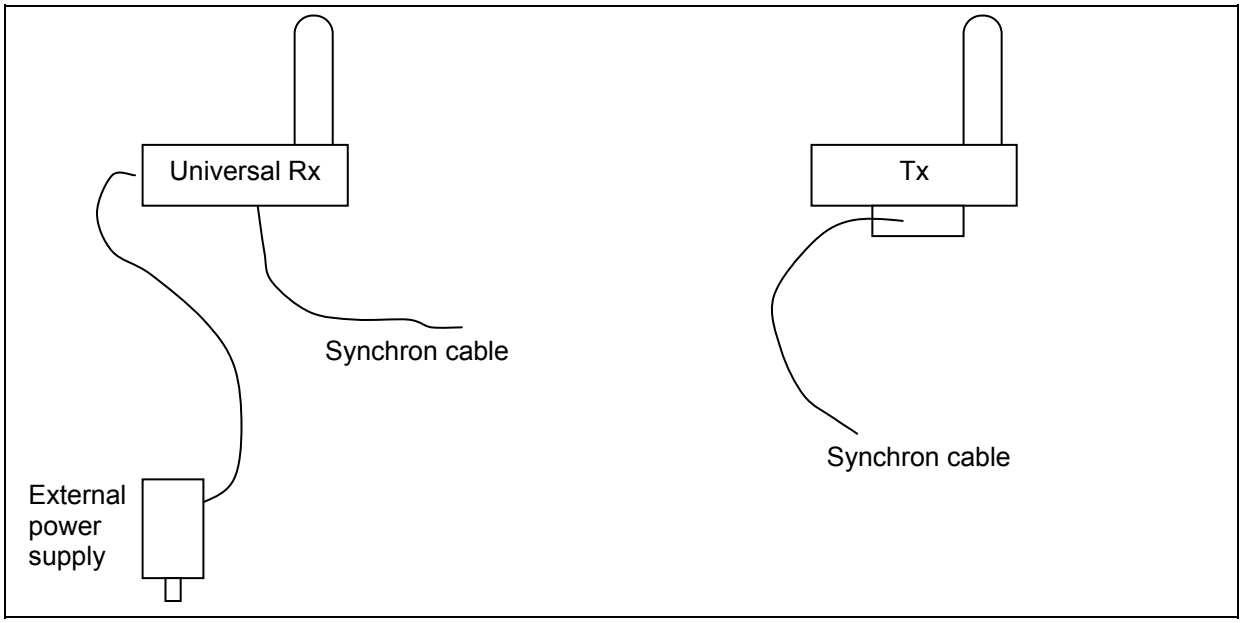
**Test Engineer(s) / Ingénieur(s) d'essai / Prüfingenieur(e) :**

*Mr Erich Staub*
*Mr Christophe Perrenoud*

**Other(s) / Autre(s) / Andere :**

| Name / Nom / Name | Company / Société / Firma |
|---|---|
| *Mr Dieter Rauch* | *Rauch Elektronik* |

### 5.5 Test configuration / Configuration d'essai / Prüfkonfiguration




### 5.6 Operating conditions / Conditions de fonctionnement / Betriebszustand

- *Continuous transmitting every 5ms burst mode*

### 5.7 Auxiliary equipment / Matériel auxiliaire / Zusatzgeräte

The following pieces of equipment are used for the monitoring of the EUT or are necessary for the EUT but they are not tested with the EUT / Les équipements suivants servent à la surveillance de l'EST ou sont indispensables au fonctionnement de celui-ci mais ne font pas partie de l'essai / Folgende Geräte werden für die Überwachung des Prüflings gebraucht oder sind notwendig für die korrekte Funktion. Sie gehören jedoch nicht zum Prüfling.

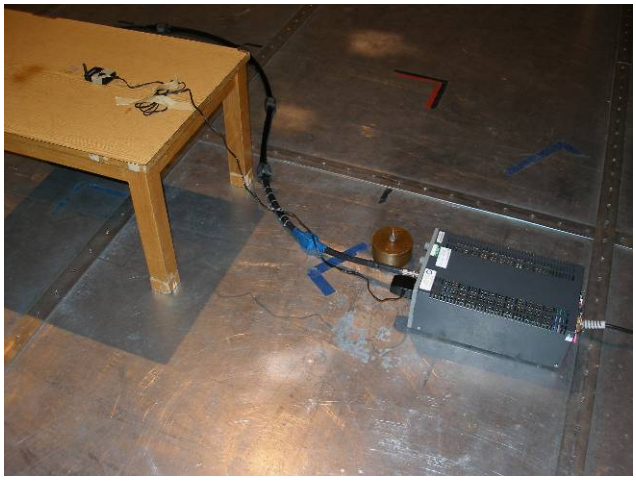
*None*

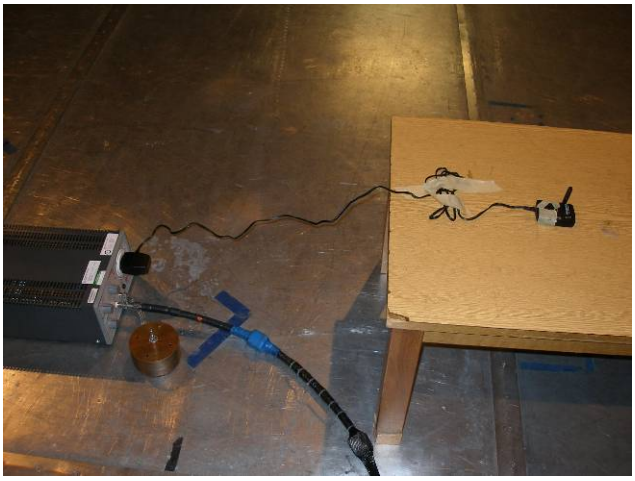
# 6. Emission tests

### 6.1 Conducted emission - Interference voltage

| | | |
|---|---|---|
| Test site: | ☒ anechoic chamber (foam) | ☐ shielded room |
| | ☐ anechoic chamber (ferrites) | ☐ laboratory |
| | ☐ open test site | ☐ ..... |
| Meas. uncertainty: | +/- 1.6 dB | |
| Measuring method: | The conducted disturbance is measured using a spectrum analyser and a line impedance substitution network (LISN). The measurement of the voltage against the earth is carried out successively. The peak values are recorded continuously on the graph. The values that exceed the limit are remeasured with a measuring receiver. | |

Test set-up:





| Remarks: | - - - |
|---|---|

Test equipment:

| | | | | | | |
|---|---|---|---|---|---|---|
| Spectrum analyser | ☐ 88-14 | ☐ 90-26 | ☒ 94-24 | ☐ 02-06 | ☐ 03-45 | ☐ 03-57 |
| Receiver | ☐ 85-12 | ☒ 90-11 | ☐ 94-34 | ☐ 04-28 | | |
| LISN | ☐ 85-13<br>☐ 04-04 | ☐ 90-08<br>☐ 04-05 | ☐ 94-36<br>☐ ..... | ☒ 94-40 | ☐ 95-12 | ☐ 00-43 |
| Protection 10 dB | ☐ 91-45<br>☐ 96-38 | ☐ 91-44<br>☒ included in LISN | ☐ 95-30 | ☐ 95-33 | ☐ 95-35 | ☐ 95-36 |
| Protection 20 dB | ☐ 91-46 | ☐ 95-33 | ☐ 95-38 | ☐ included in LISN | | |
| ..... | ..... | | | | | |

| **Result:** | **☒ pass** | **☐ fail** | **☐ not applicable** | **☐ not tested** |
|---|---|---|---|---|

| | |
|---|---|
| **Measurement Type :** | Voltage Interference |
| **Supply :** | Line 1 |
| **Other :** | |

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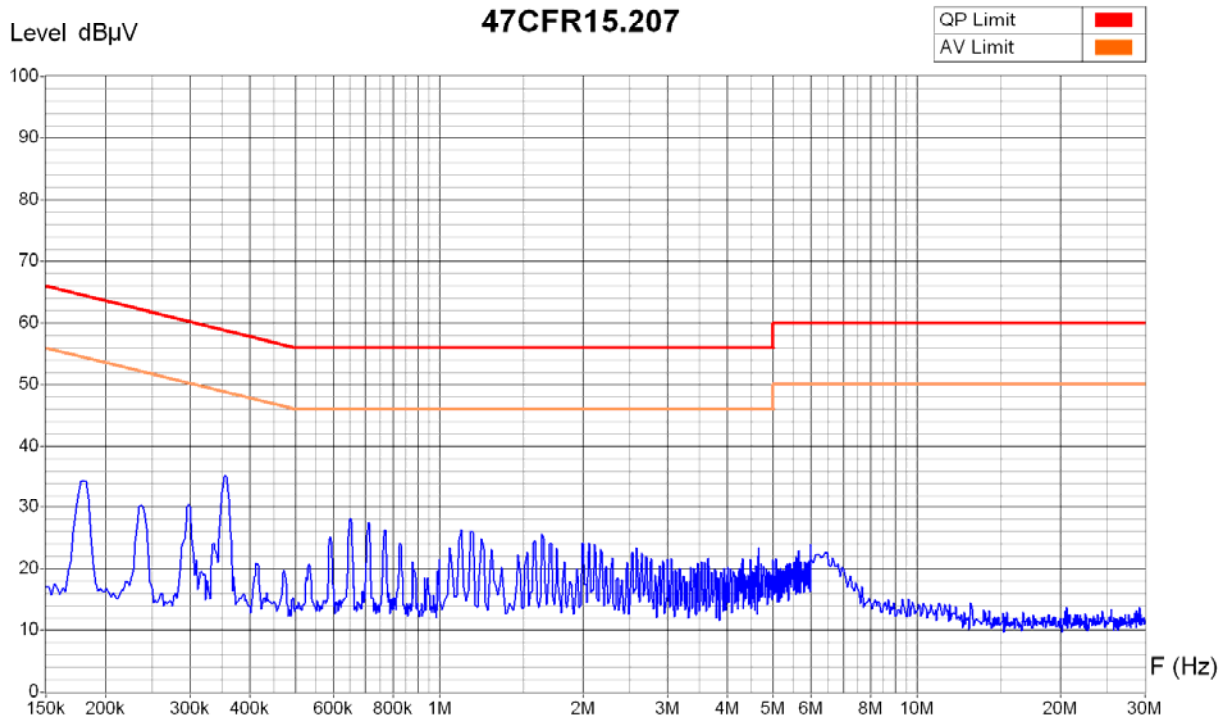
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | Helmsman power supply 5V/500mA |
| **Operating Conditions :** | Continous transmitting every 5 ms burst mode, channel 1 (=2448 MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH<br>100VAC / 60Hz |




| Zone | 150 KHz - 1 MHz | 1 MHz - 6 MHz | 6 MHz - 30 MHz |
|---|---|---|---|
| Video Bandwidth | 10 KHz | 10 KHz | 10 KHz |
| Resol Bandwidth | 9 KHz | 9 KHz | 9 KHz |

Operator: E. Staub
Date/Time: 04.12.06 16:15
Filename:
20067171_UR_ec_004_L1.png/
.txt

| | |
|---|---|
| **Measurement Type :** | Voltage Interference |
| **Supply :** | Line 2 |
| **Other :** | |

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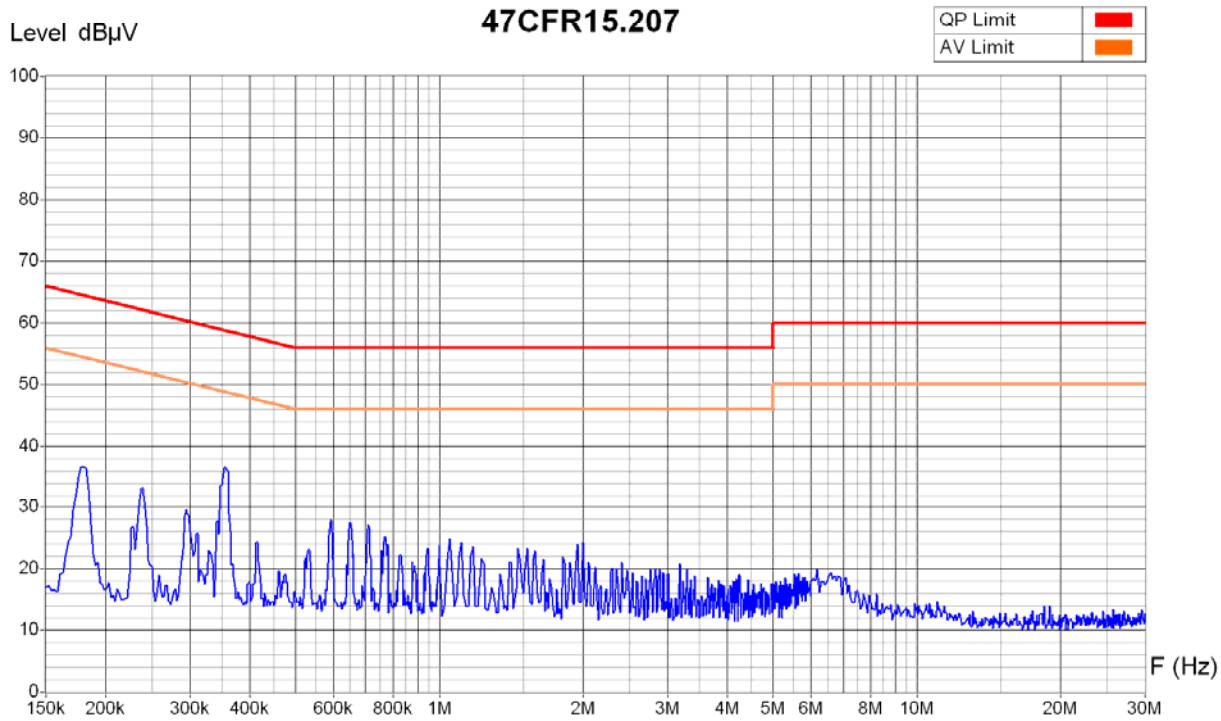
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | Helmsman power supply 5V/500mA |
| **Operating Conditions :** | Continous transmitting every 5 ms burst mode, channel 1 (=2448 MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH<br>100VAC / 60Hz |




| Zone | 150 KHz - 1 MHz | 1 MHz - 6 MHz | 6 MHz - 30 MHz |
|---|---|---|---|
| Video Bandwidth | 10 KHz | 10 KHz | 10 KHz |
| Resol Bandwidth | 9 KHz | 9 KHz | 9 KHz |

Operator: E. Staub
Date/Time: 04.12.06 16:10
Filename:
20067171_UR_ec_004_L2.png/
.txt

### 6.2 Radiated emission - Electromagnetic field (carrier)

| | | | | |
|---|---|---|---|---|
| Test site: | ☒ anechoic chamber (foam) | | ☐ open test site | |
| | ☐ anechoic chamber (ferrites) | | ☐ ..... | |
| Distance: | ☐ 30 m | ☐ 10 m | ☐ 3 m | ☒ 1 m |

Position of EUT: *0.8 m* (height of the equipment under test above floor)

Meas. uncertainty: ± 6 dB (30 - 300 MHz) / ± 5.4 dB (300 - 1000 MHz)

Test method: The electromagnetic disturbance radiated by the equipment is measured using a spectrum analyser and a wide band antenna. The antenna is placed at the same hight as the EUT successively with horizontal and vertical polarisations. The turning table is operated through 360° during the measurements. The recordings are carried out taking into account the maximum value of all the disturbances appearing while the apparatus is under test. The peak values are recorded continuously on the graph. The values exceeding a limit are remeasured manually using a receiver.

Test set-up:

*Universal Receiver: laying*

*Transmitter: standing*

Remarks: *Limit values expressed in dBµV/m and transformed to a measuring distance of 1m (factor used = 20 dB/decade) if necessary:*
*e.g.: for f = 2.45GHz the limit is 50mV/m at 3m;*
*20 $\log_{10}$ (50mV/m) + 20 $\log_{10}$ (3m/1m) = 103.5 dBµV/m at 1m*

Test equipment:

| | | | | | | |
|---|---|---|---|---|---|---|
| Spectrum analyser | ☐ 88-14 | ☐ 90-26 | ☐ 94-24 | ☒ 02-06 | ☐ 03-45 | ☐ 03-57 |
| Receiver | ☐ 85-04 | ☒ 90-43 | ☐ 94-35 | | | |
| Preamplifier | ☐ 90-01 | ☐ 95-86 | ☐ 05-56 | ☐ 05-59 | ☒ 05-87 | ☐ „Turgi“ |
| Antenna (horn) | ☒ 90-24 | ☐ 90-29 | ☐ 98-12 | ☐ 98-13 | ☐ ..... | |
| ..... | ..... | | | | | |

**Result:** ☒ **pass** ☐ **fail** ☐ **not applicable** ☐ **not tested**

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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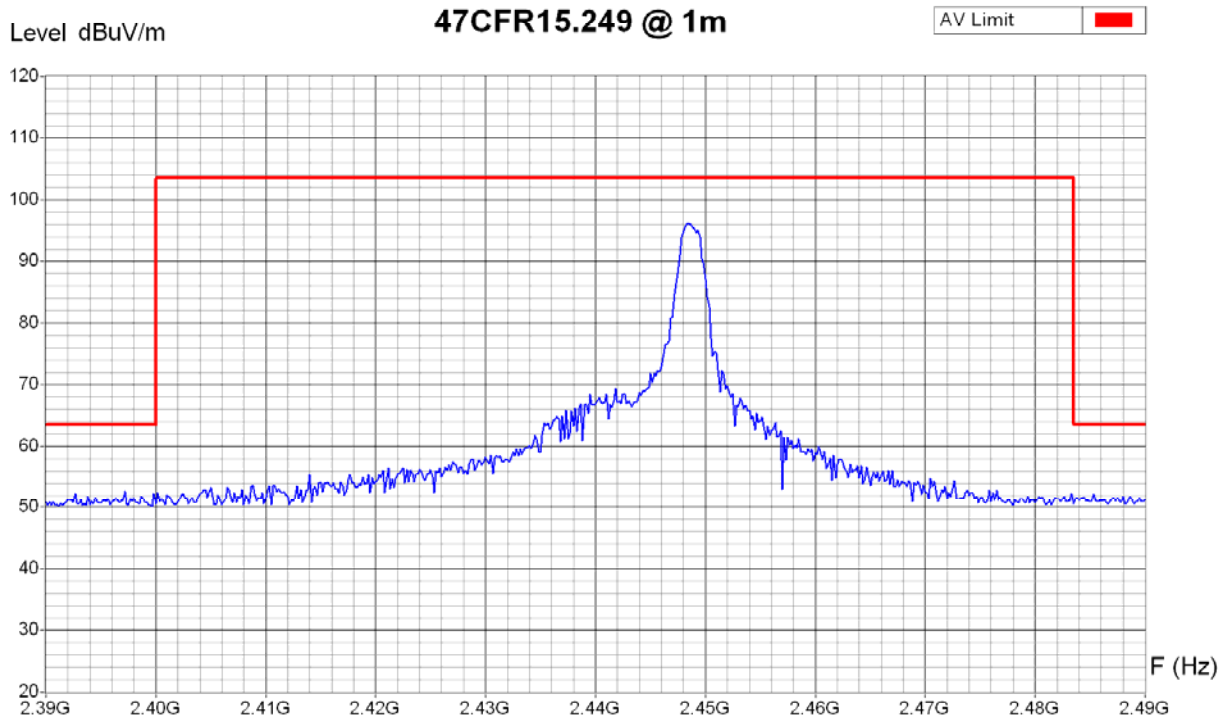
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 10:50
Filename: 20067171_UR_er_laying_000h.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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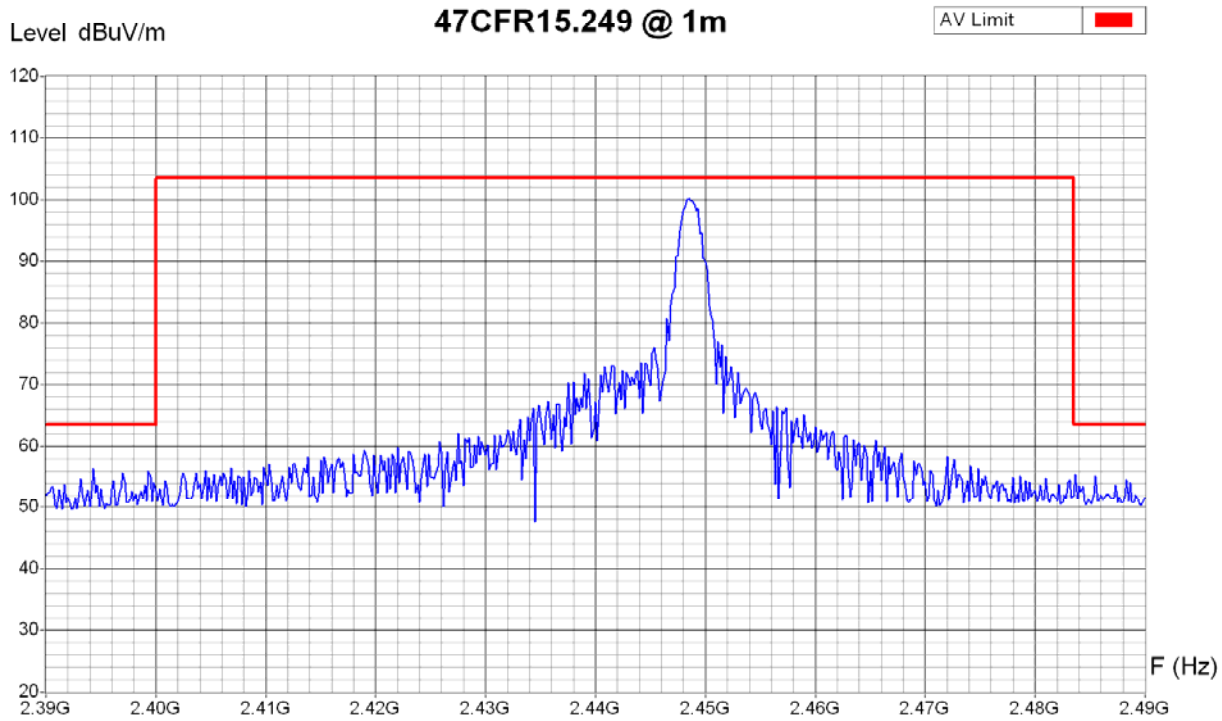
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 11:21
Filename:
20067171_UR_er_standing_003h.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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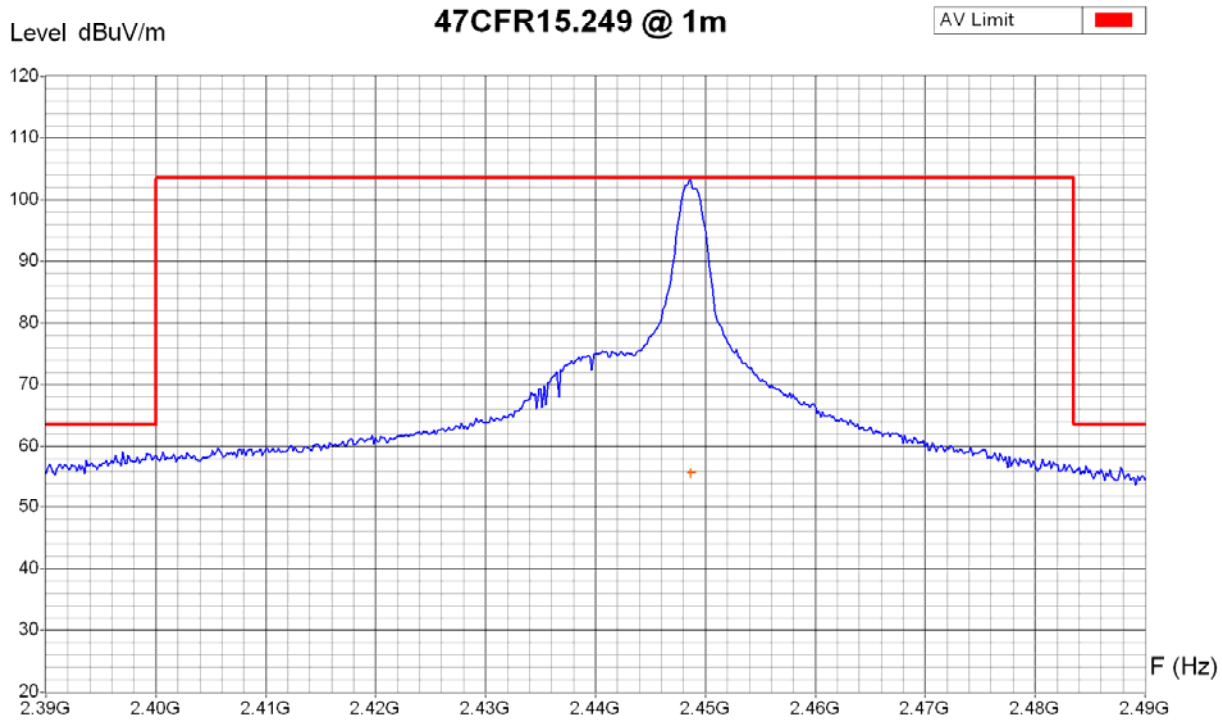
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 2.45 GHz | 103.1 dBuV/m | NaN dBuV/m | 55.7 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 10:42
Filename:
20067171_UR_er_000v_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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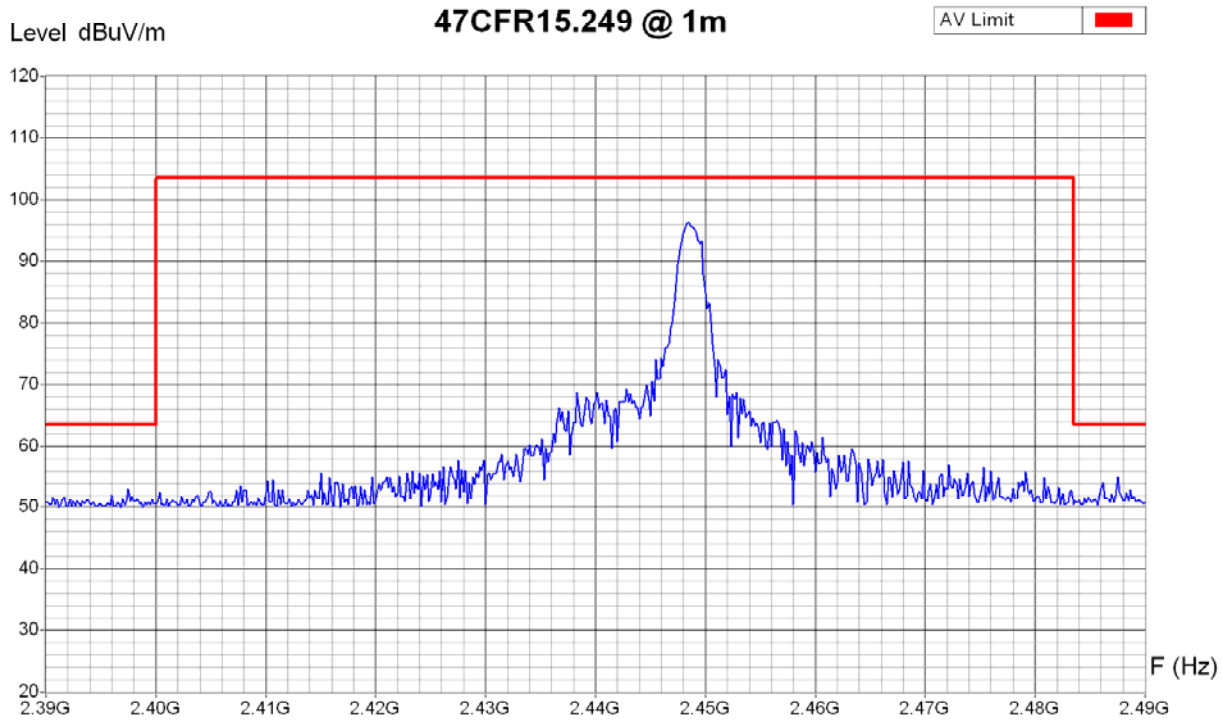
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 11:24
Filename: 20067171_UR_er_standing_003v.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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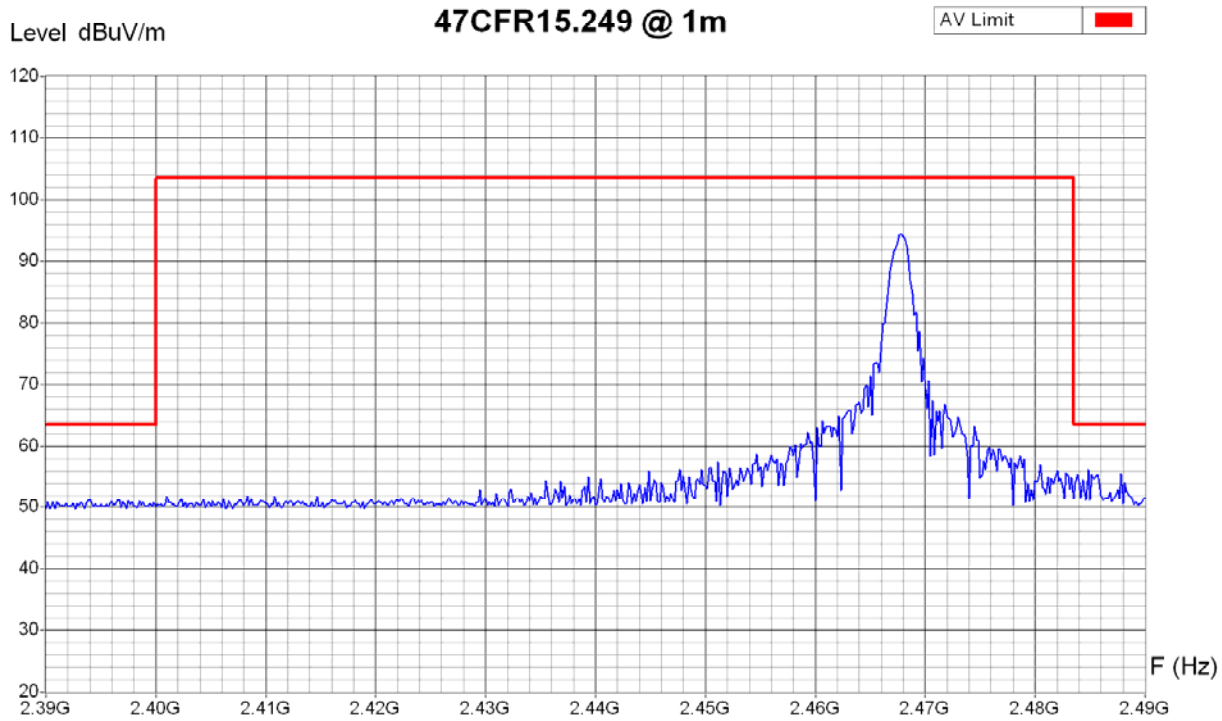
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2467MHz) |
| **Remarks :** | laying with antenna vertical |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 11:13
Filename: 20067171_UR_er_laying_001h.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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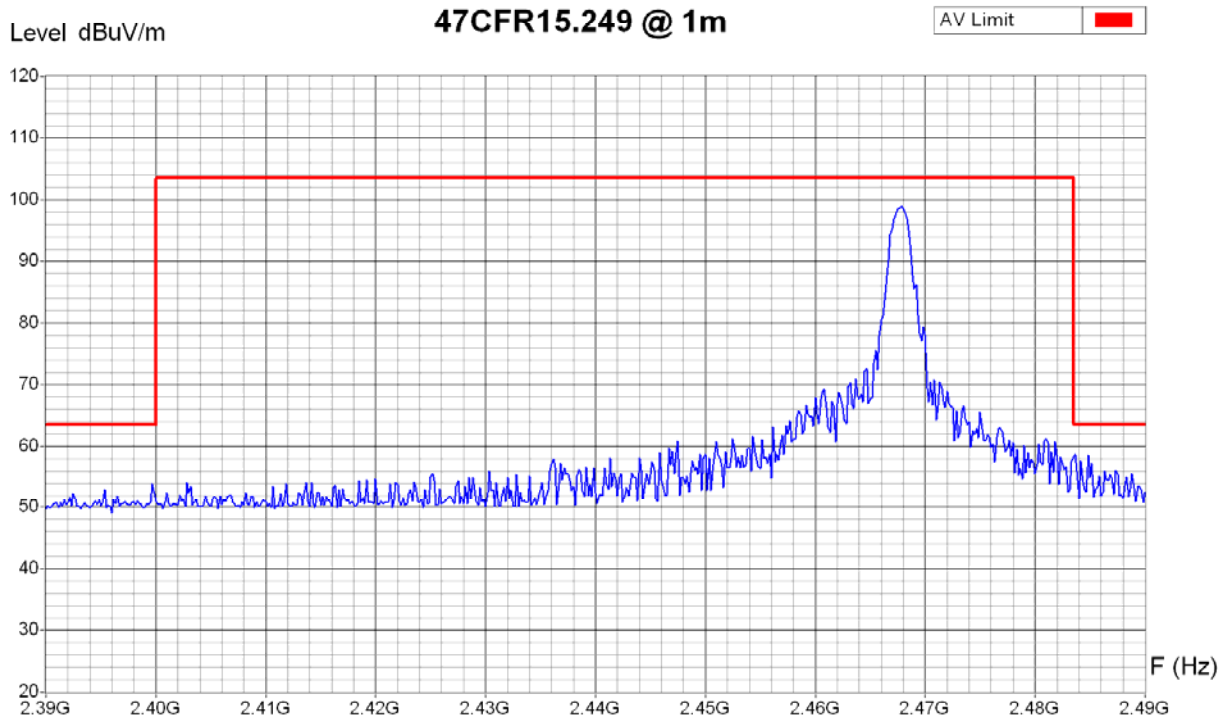
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2467MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 11:01
Filename: 20067171_UR_er_standing_002h.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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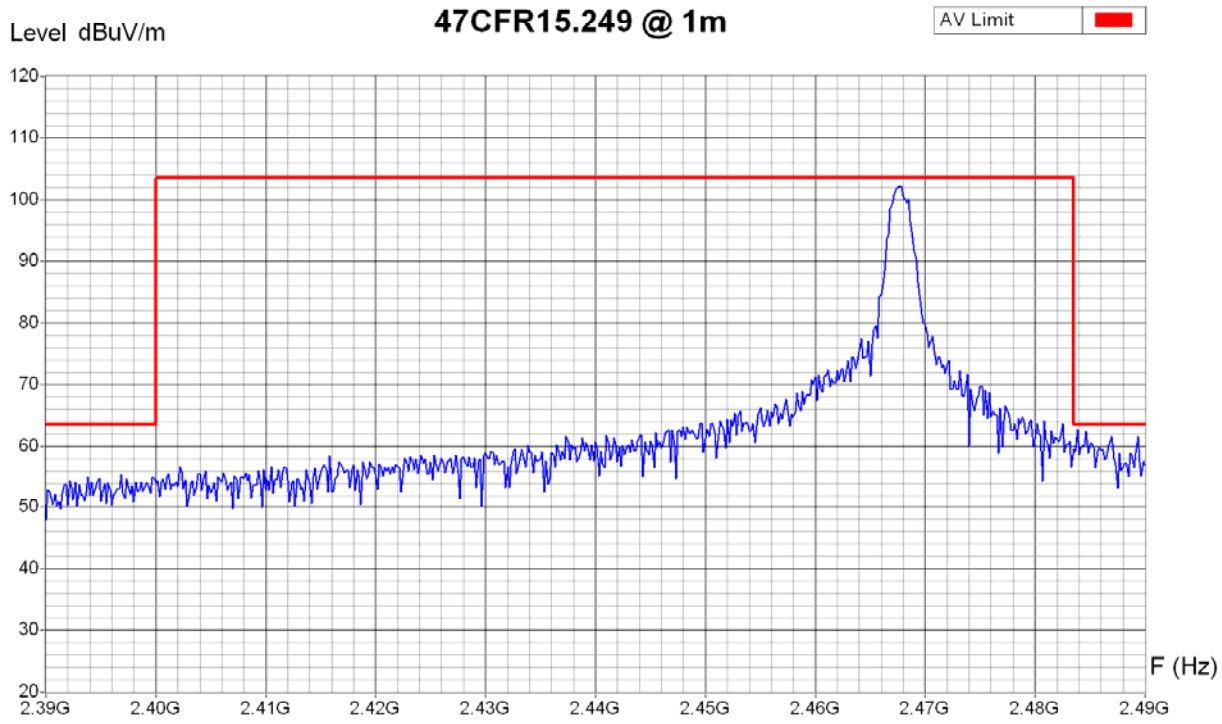
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2467MHz) |
| **Remarks :** | laying with antenna vertical |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 11:09
Filename: 20067171_UR_er_laying_001v.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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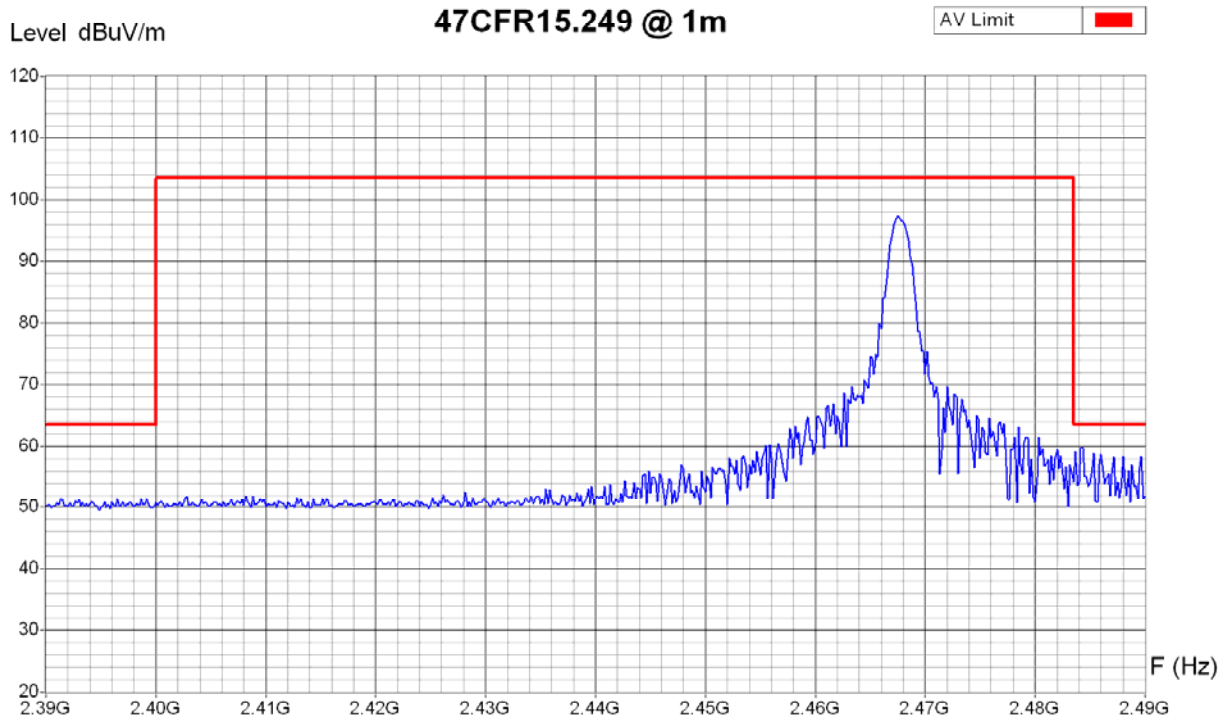
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2467MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 11:07
Filename: 20067171_UR_er_standing_002v.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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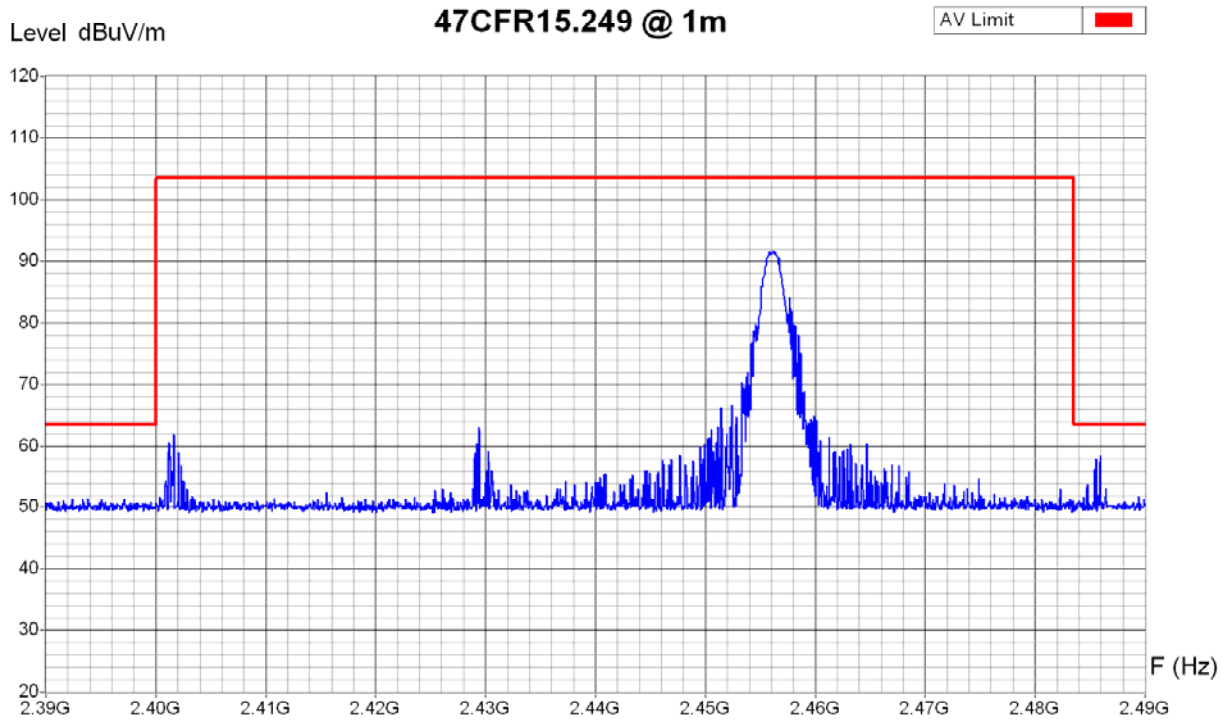
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |



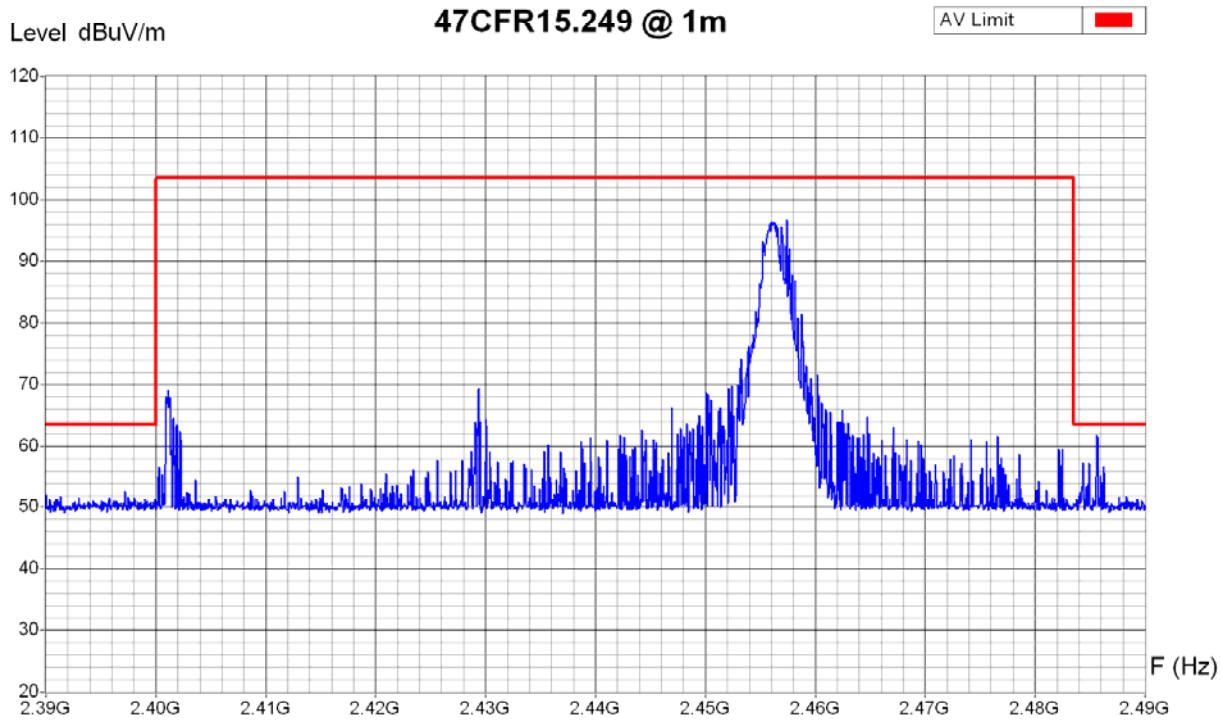

| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 13:47
Filename: 20067171_Tx_er_000h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

montena
montena emc sa

| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 13:50
Filename: 20067171_Tx_er_000h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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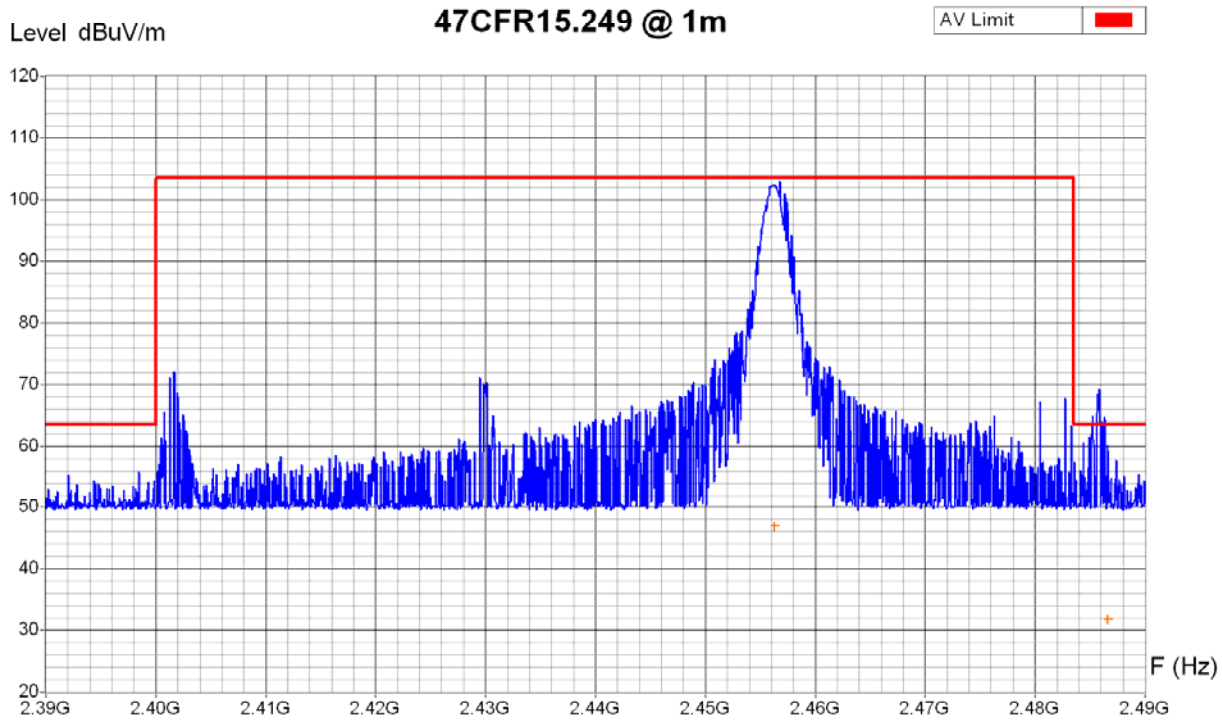
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 2.456 GHz | 102.5 dBuV/m | 46.9 dBuV/m |
| 2.487 GHz | 60.1 dBuV/m | 31.8 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 12:30
Filename:
20067171_Tx_er_000v_laying.png
/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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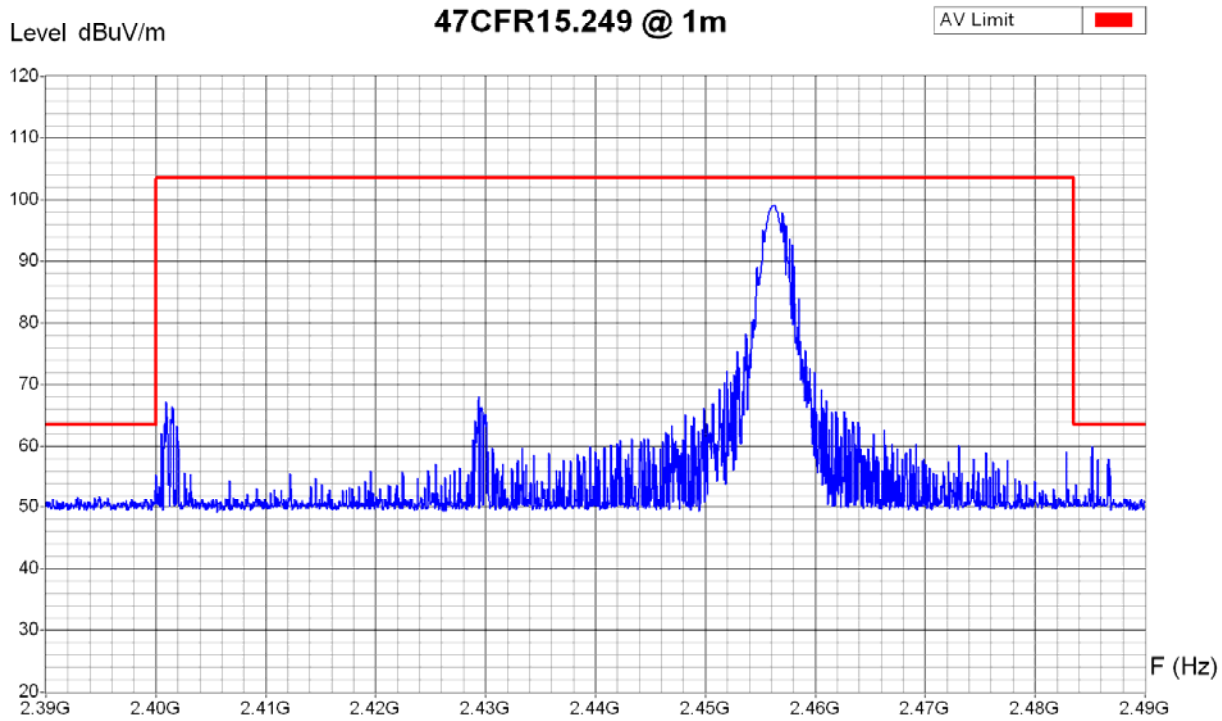
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 13:53
Filename: 20067171_Tx_er_000v_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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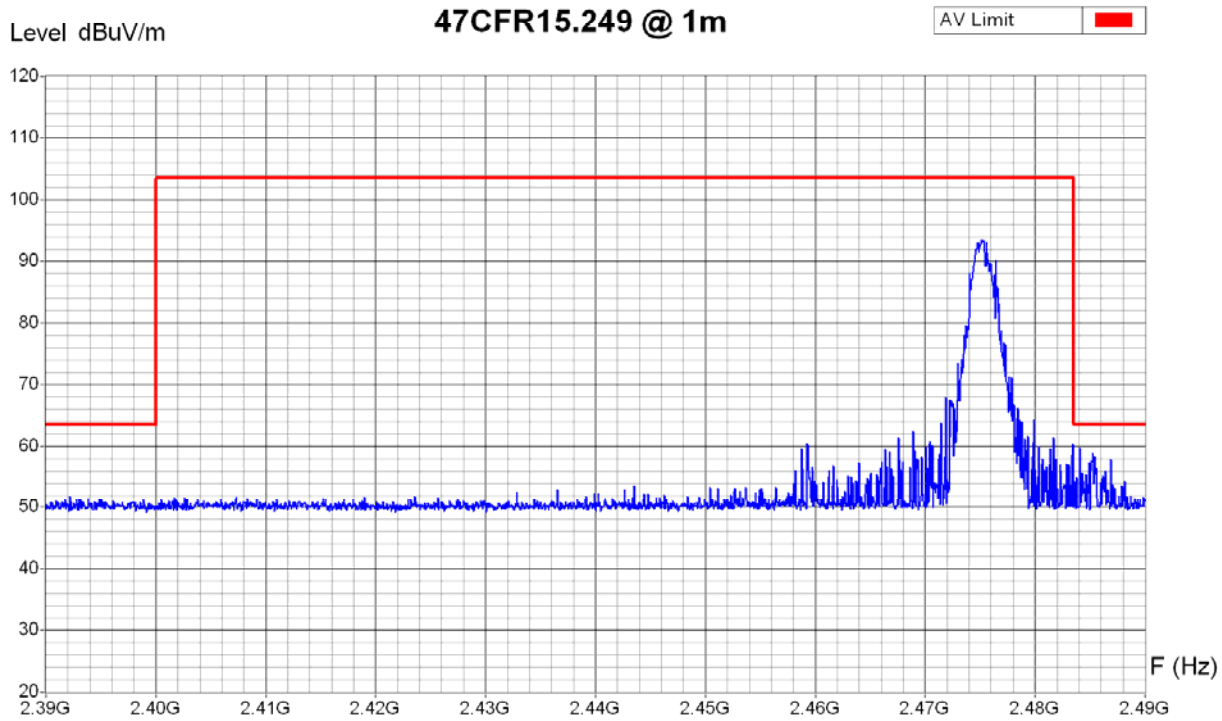
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2475MHz) |
| **Remarks :** | laying with antenna vertical |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 14:03
Filename: 20067171_Tx_er_001h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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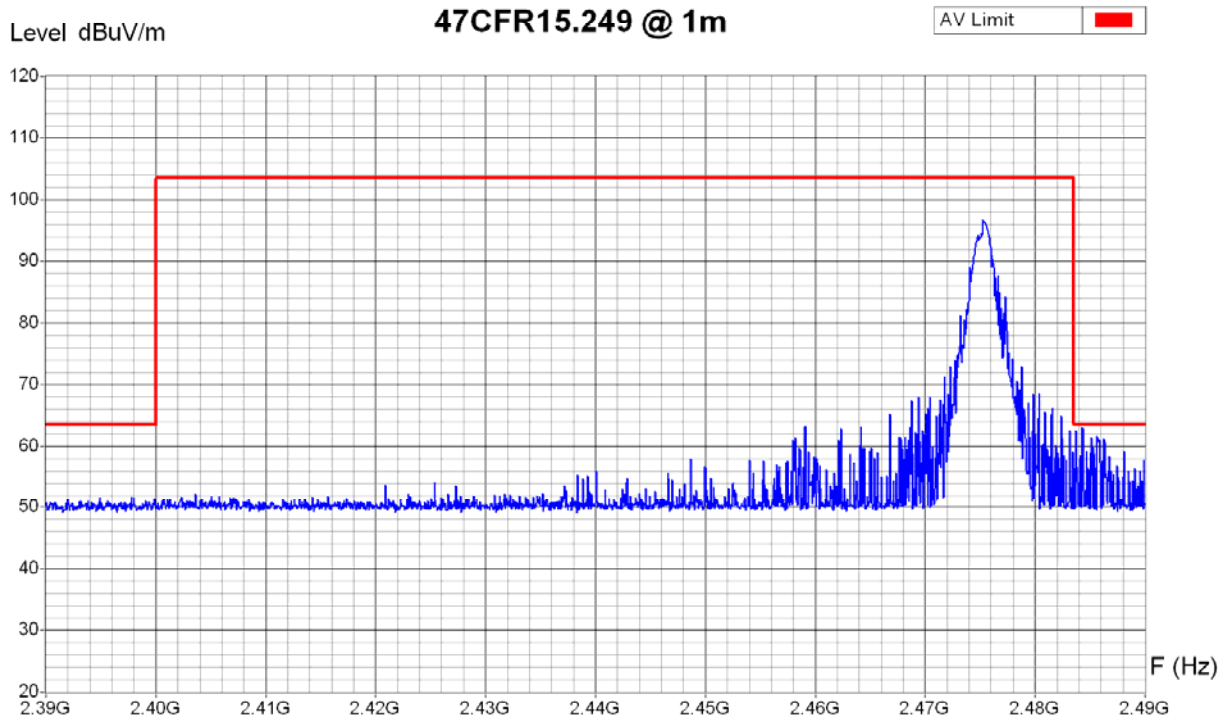
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2475MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 14:00
Filename: 20067171_Tx_er_001h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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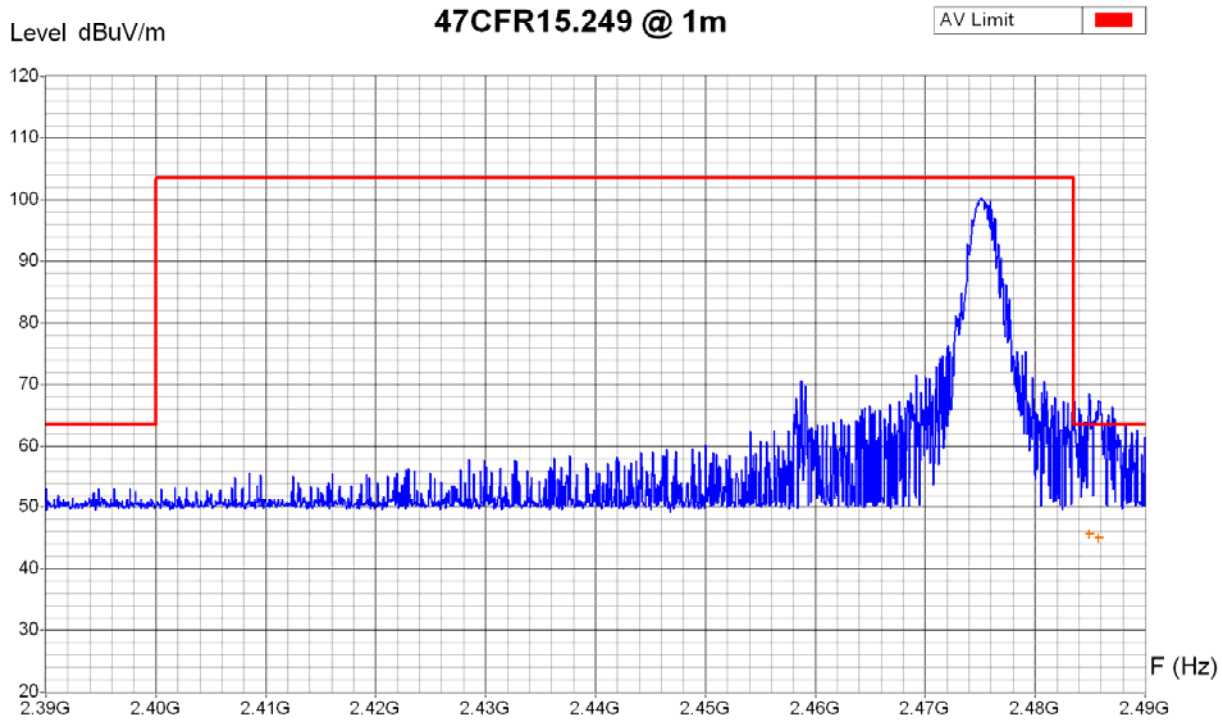
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2475MHz) |
| **Remarks :** | laying with antenna vertical |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 2.485 GHz | 68.5 dBuV/m | 45.6 dBuV/m |
| 2.486 GHz | 67.4 dBuV/m | 45.0 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 14:05
Filename:
20067171_Tx_er_001v_laying.png
/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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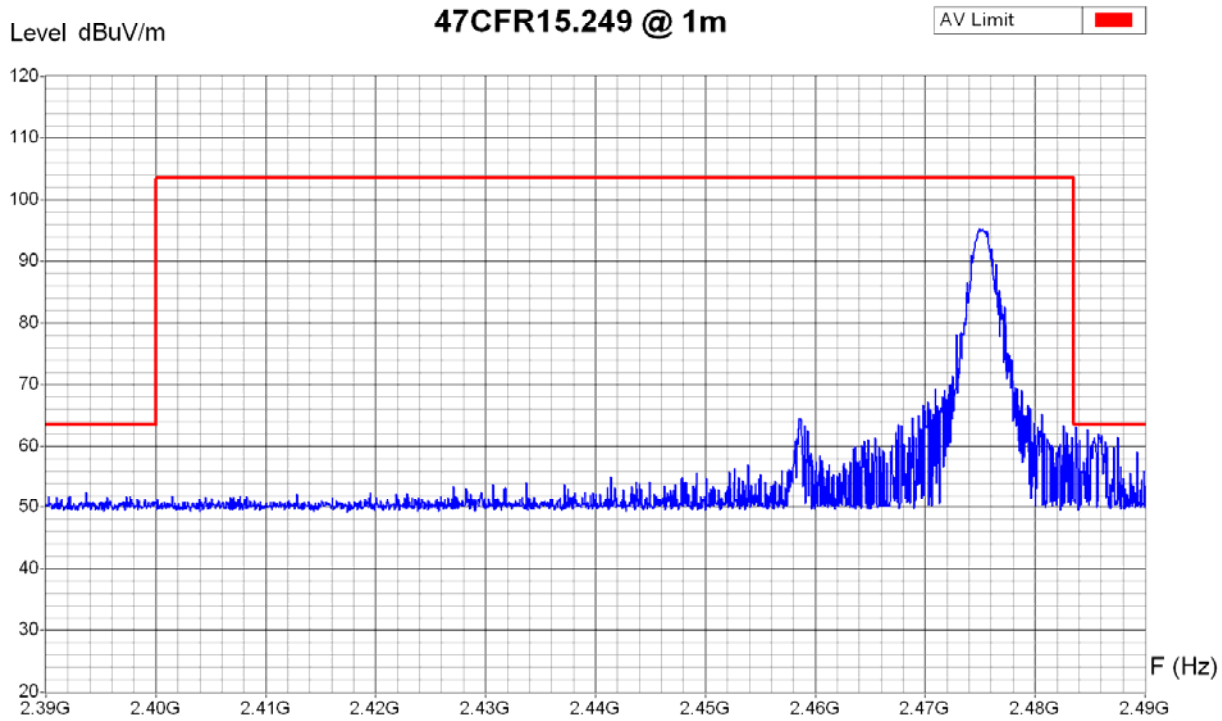
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 8 (=2475MHz) |
| **Remarks :** | standing with antenna horizontal |




| | |
|---|---|
| Zone | 2.39 GHz - 2.49 |
| Video Bandwidth | 1 MHz |
| Resol Bandwidth | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 13:57
Filename: 20067171_Tx_er_001v_standing.png/.txt

### 6.3 Radiated emission - Electromagnetic field (f ≤ 1 GHz)

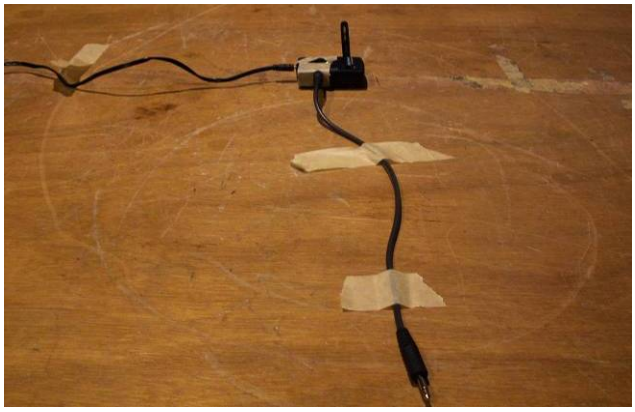
| | | | | |
|---|---|---|---|---|
| Test site: | ☐ anechoic chamber (foam) | | ☐ open test site | |
| | ☒ anechoic chamber (ferrites) | | ☐ ..... | |
| Distance: | ☐ 30 m | ☒ 10 m | ☐ 3 m | ☐ ..... |

Position of EUT: *0.8 m* (height of the equipment under test above floor)

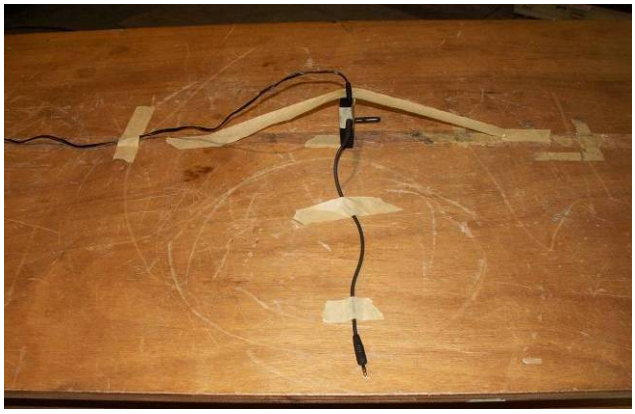
Meas. uncertainty: ± 6 dB (30 - 300 MHz) / ± 5.4 dB (300 - 1000 MHz)

Test method: The electromagnetic disturbance radiated by the equipment is measured using a spectrum analyser and a wide band antenna. The antenna is moved from 1 to 4 m in height successively with horizontal and vertical polarisations. The turning table is operated through 360° during the measurements. The recordings are carried out taking into account the maximum value of all the disturbances appearing while the apparatus is under test. The peak values are recorded continuously on the graph. The values exceeding a limit are remeasured manually using a receiver.

Test set-up:

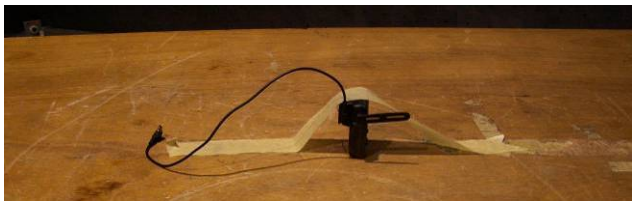


*Universal Receiver laying*



*Universal Receiver standing*

*Transmitter laying*



*Transmitter standing*

Remarks: *Limit values expressed in dBµV/m and transformed to a measuring distance of 10m (factor used = 20 dB/decade) if necessary:*
*e.g.: for f = 40MHz the limit is 100µV/m at 3m;*
*20 $\log_{10}$ (100µV/m) + 20 $\log_{10}$ (3m/10m) = 30 dBµV/m at 10m*

Test equipment:

| | | | | | | |
|---|---|---|---|---|---|---|
| Spectrum analyser | ☐ 88-14 | ☐ 90-26 | ☐ 94-24 | ☐ 02-06 | ☒ 03-45 | ☐ 03-57 |
| Receiver | ☐ 85-04 | ☐ 90-43 | ☒ 94-35 | | | |
| Preamplifier | ☐ 90-01 | ☐ 95-86 | ☐ 05-56 | ☒ 05-59 | ☐ 05-62 | |
| Antenna (bilog) | ☒ 94-03 | ☐ 05-38 | ☐ ..... | | | |
| ..... | ..... | | | | | |

**Result:** ☒ **pass** ☐ **fail** ☐ **not applicable** ☐ **not tested**

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

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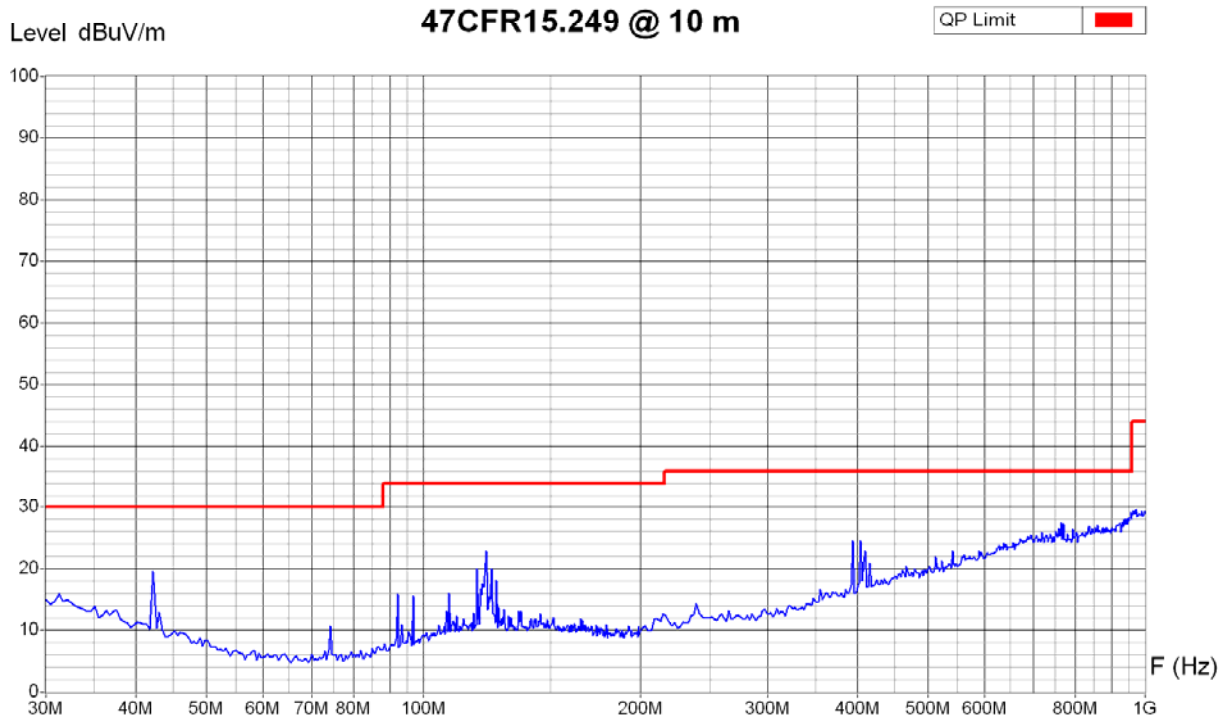
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 15:28
Filename:
20067171_UR_er_010h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

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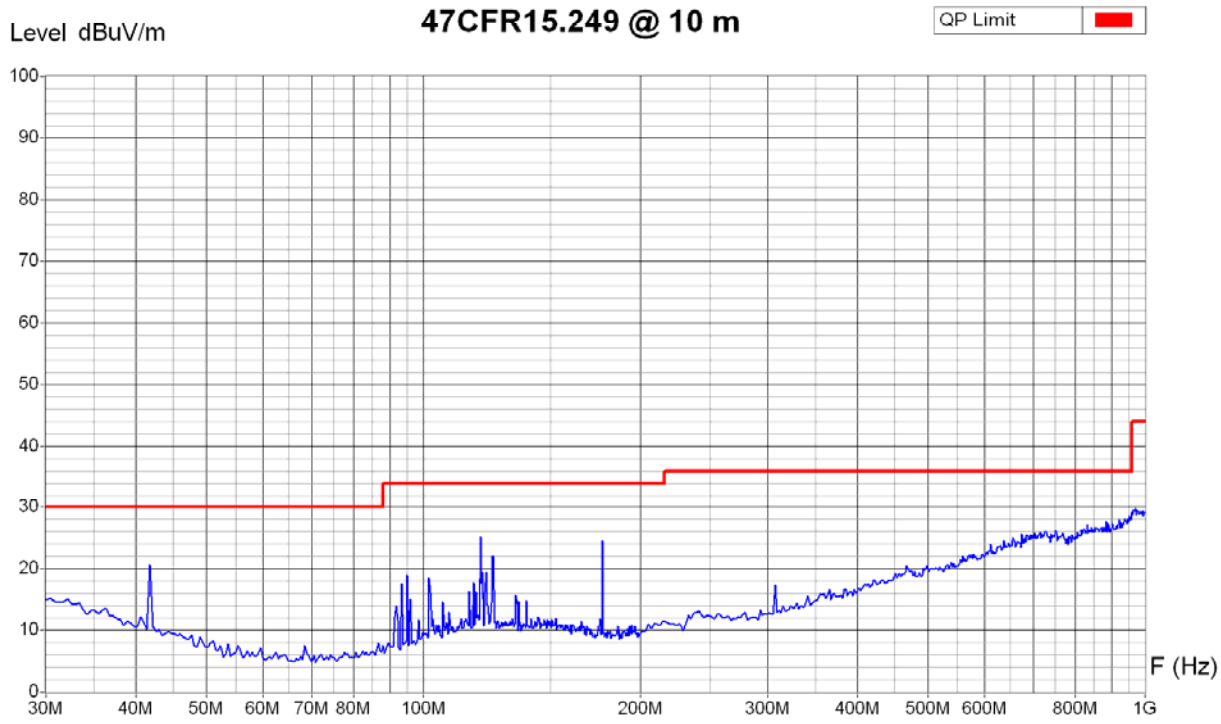
montena emc sa

| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | Standing with antenna horizontal<br>L3 = 1.8 nH |




| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 15:50
Filename: 20067171_UR_er_010h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

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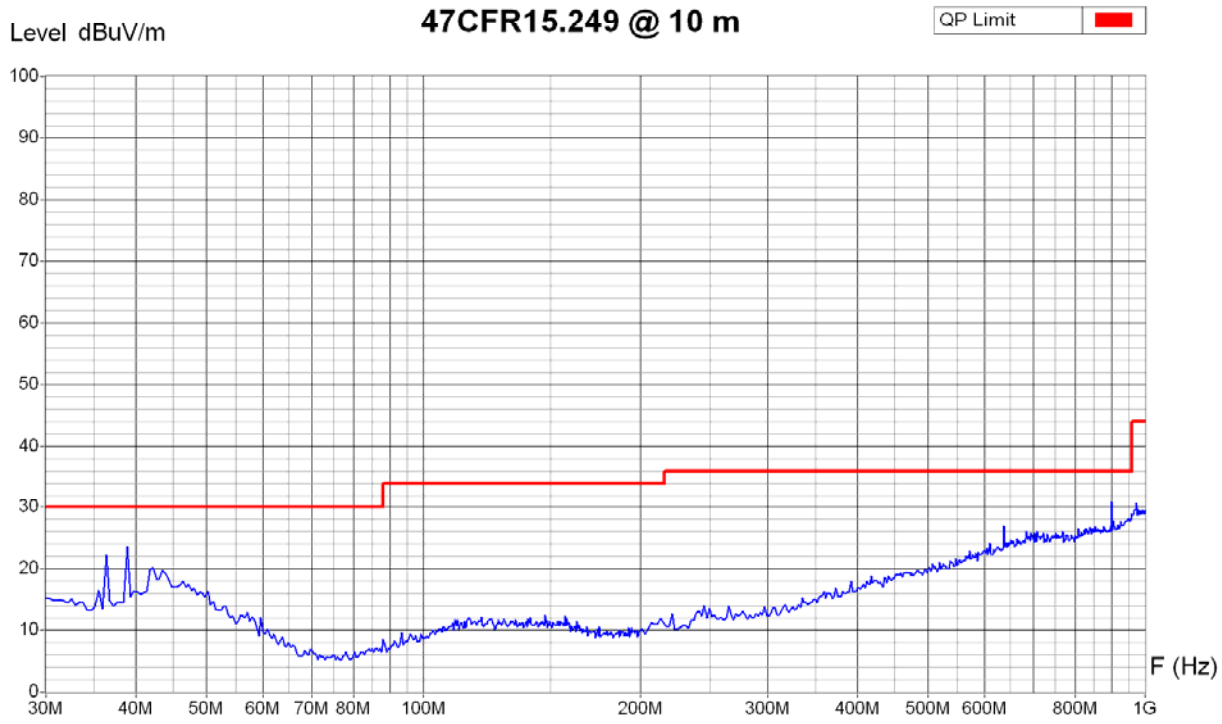
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 15:12
Filename:
20067171_UR_er_010v_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

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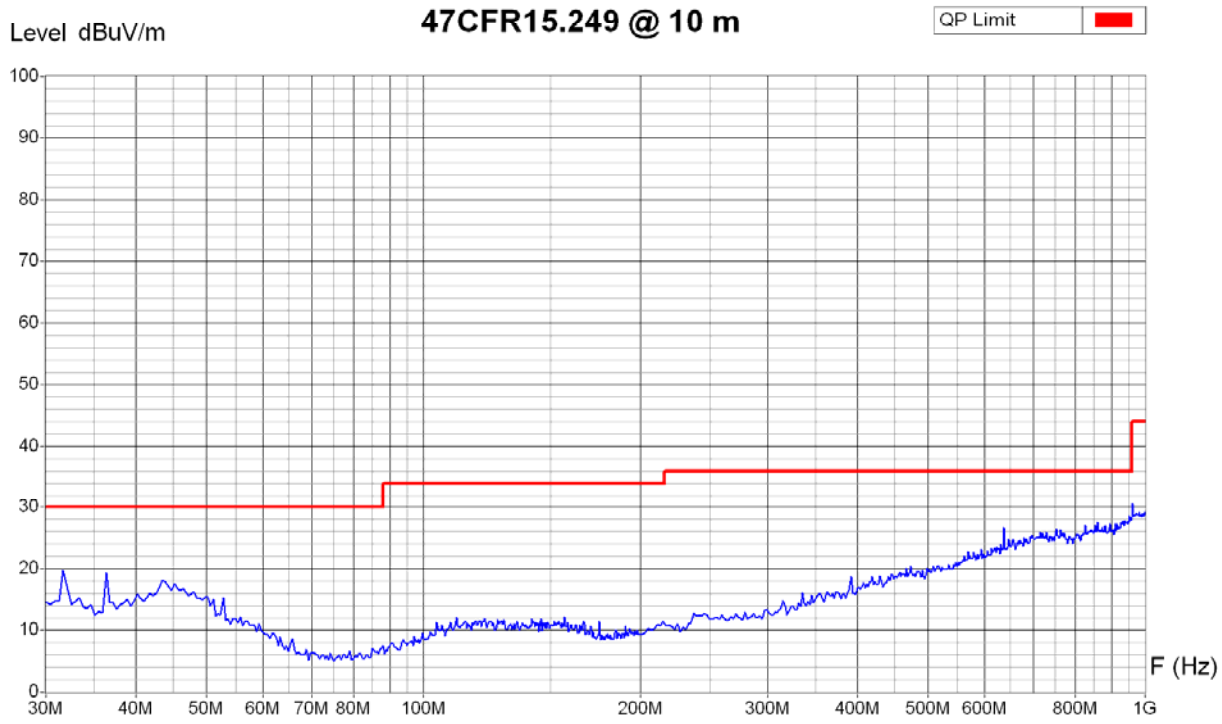
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | Standing with antenna horizontal<br>L3 = 1.8 nH |




| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 15:39
Filename:
20067171_UR_er_010v_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

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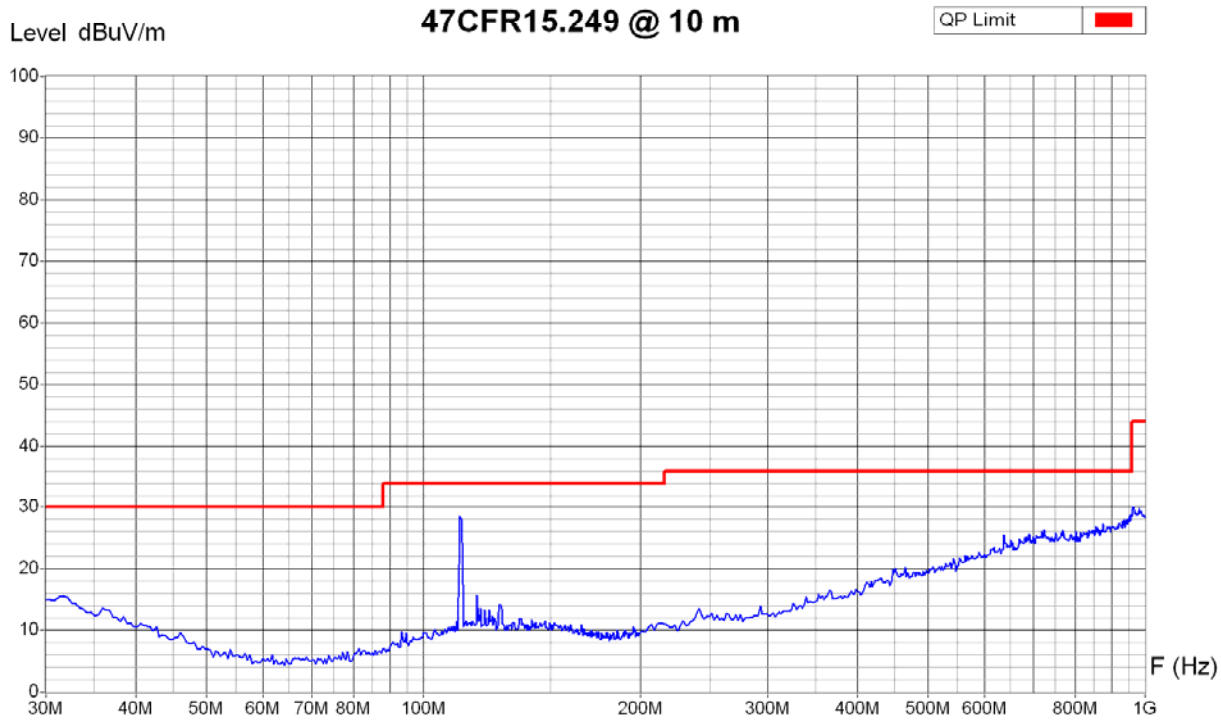
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | Laying with antenna vertical<br>C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 16:26
Filename:
20067171_Tx_er_015h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

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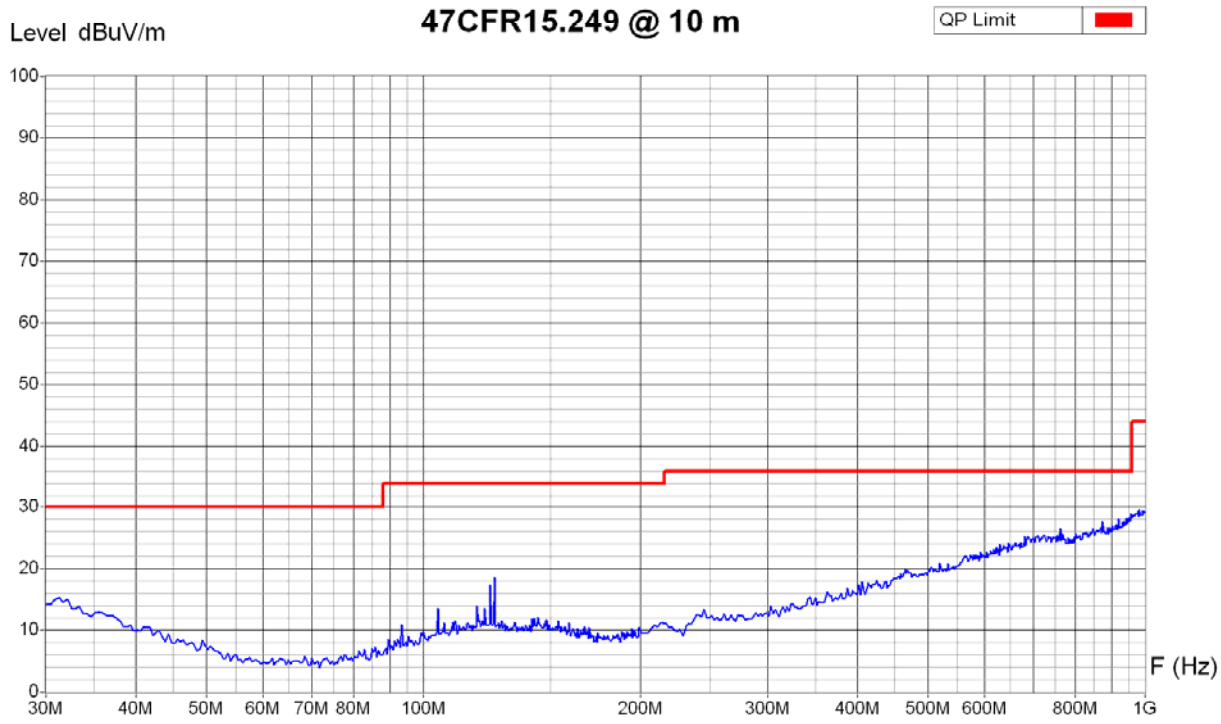
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | Standing with antenna horizontal<br>C3 replaced with bridge; L3 = 1.8 nH close to amplifier |



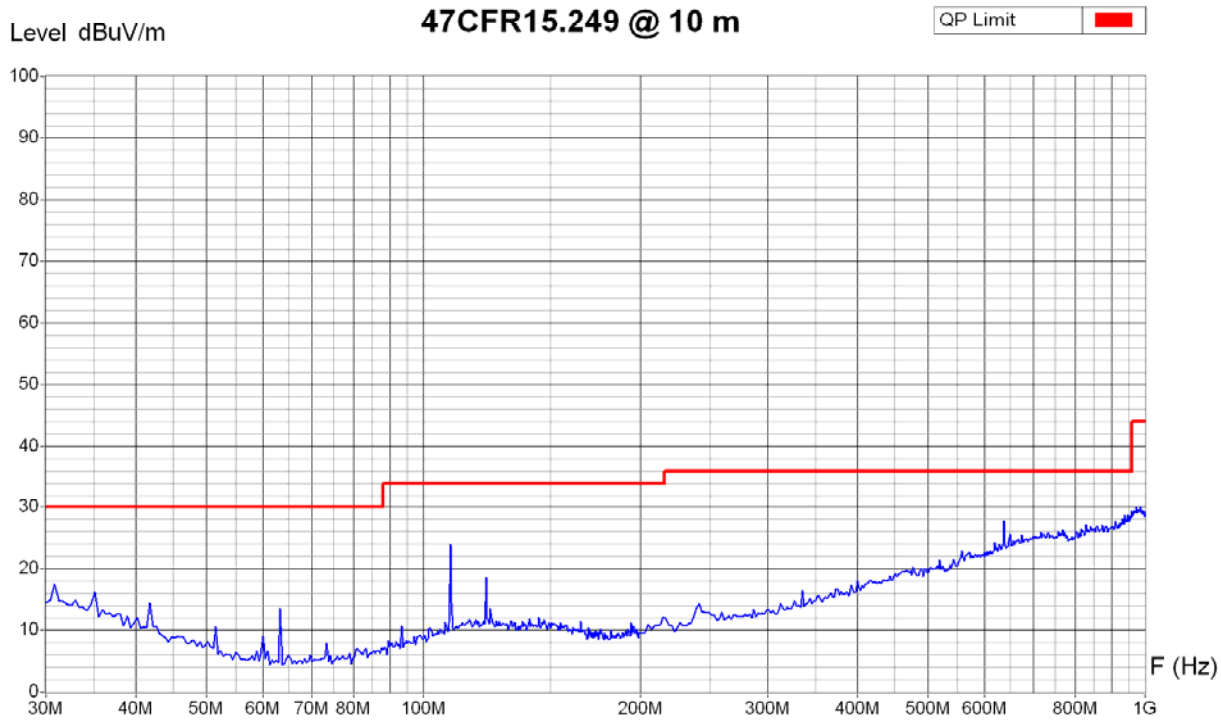

| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 16:43
Filename:
20067171_Tx_er_015h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

montena
montena emc sa

| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | Laying with antenna vertical<br>C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 16:04
Filename:
20067171_Tx_er_015v_laying.png
/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 1 - 4 m |

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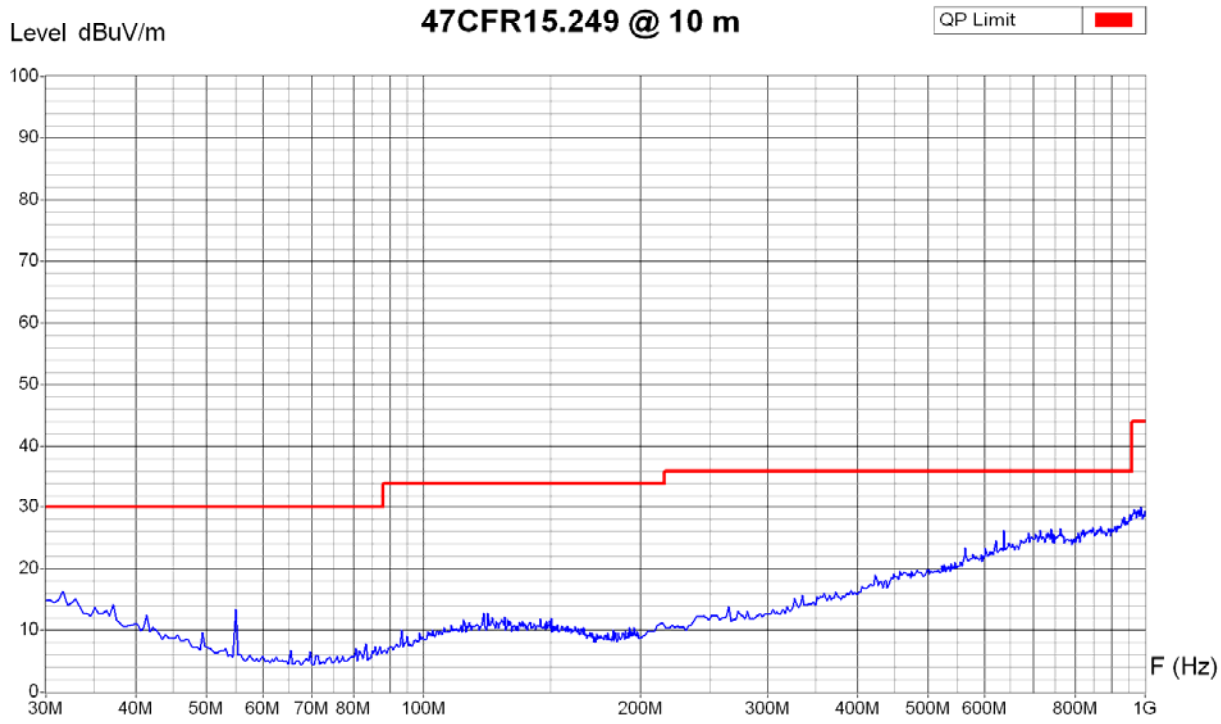
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | Standing with antenna horizontal<br>C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 30 MHz - 199 MHz | 199 MHz - 1 GHz |
|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz |

Operator: C. Perrenoud
Date/Time: 28.11.06 16:36
Filename:
20067171_Tx_er_015v_standing.png/.txt

### 6.4 Radiated emission - Electromagnetic field (1 GHz < f < 18 GHz)

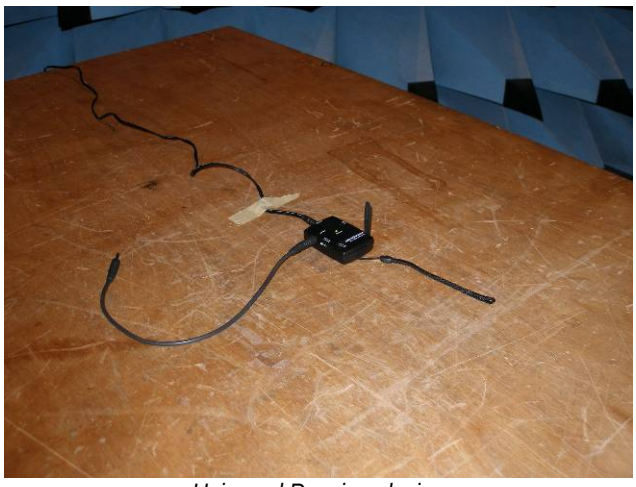
| | | | | |
|---|---|---|---|---|
| Test site: | ☒ anechoic chamber (foam) | | ☐ open test site | |
| | ☐ anechoic chamber (ferrites) | | ☐ ..... | |
| Distance: | ☐ 30 m | ☐ 10 m | ☐ 3 m | ☒ 1 m |

Position of EUT: *0.8 m* (height of the equipment under test above floor)

Meas. uncertainty: ± 5.4 dB

Test method: The electromagnetic disturbance radiated by the equipment is measured using a spectrum analyser and a wide band antenna. The antenna is placed at the same hight as the EUT successively with horizontal and vertical polarisations. The turning table is operated through 360° during the measurements. The recordings are carried out taking into account the maximum value of all the disturbances appearing while the apparatus is under test. The peak values are recorded continuously on the graph. The values exceeding a limit are remeasured manually using a receiver.

Test set-up:



*Universal Receiver: laying*

*Transmitter: standing*

Remarks:

- *Limit values expressed in dBµV/m and transformed to a measuring distance of 1m (factor used = 20 dB/decade) if necessary:*
  *e.g.: for f = 2GHz the limit is 500µV/m at 3m;*
  *20 $\log_{10}$ (500µV/m) + 20 $\log_{10}$ (3m/1m)= 63.5 dBµV/m at 1m*
- *These limits do not apply to the carrier frequency at 2.4 GHz*

Test equipment:

| | | | | | | |
|---|---|---|---|---|---|---|
| Spectrum analyser | ☐ 88-14 | ☐ 90-26 | ☐ 94-24 | ☒ 02-06 | ☐ 03-45 | ☐ 03-57 |
| Receiver | ☐ 85-04 | ☒ 90-43 | ☐ 94-35 | | | |
| Preamplifier | ☐ 90-01 | ☐ 95-86 | ☒ 05-56 | ☐ 05-59 | ☐ 05-62 | ☒ 05-87 |
| Antenna (horn) | ☒ 90-24 | ☐ 90-29 | ☐ 98-12 | ☐ 98-13 | ☐ ..... | |
| Filters | ☒ High pass | | | | | |

| | | | | |
|---|---|---|---|---|
| **Result:** | **☒ pass** | **☐ fail** | **☐ not applicable** | **☐ not tested** |

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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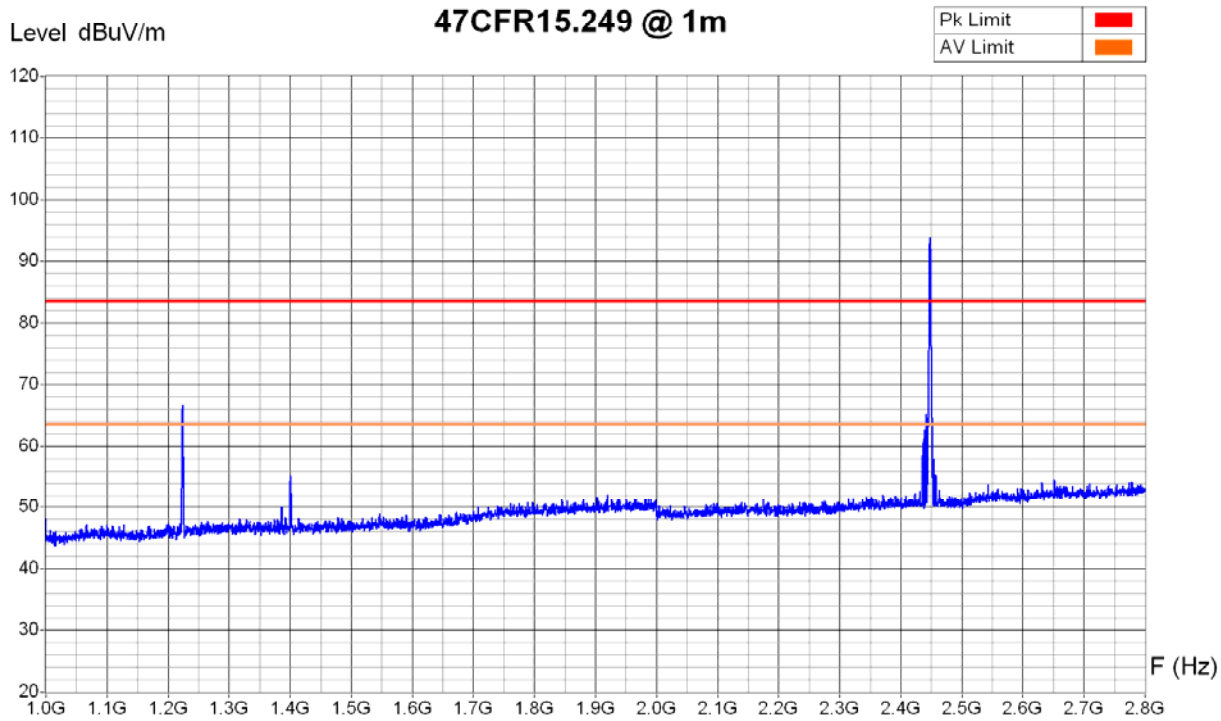
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 1.22 GHz | 68.7 dBuV/m | NaN dBuV/m | 19.1 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 14:38
Filename: 20067171_UR_er_002h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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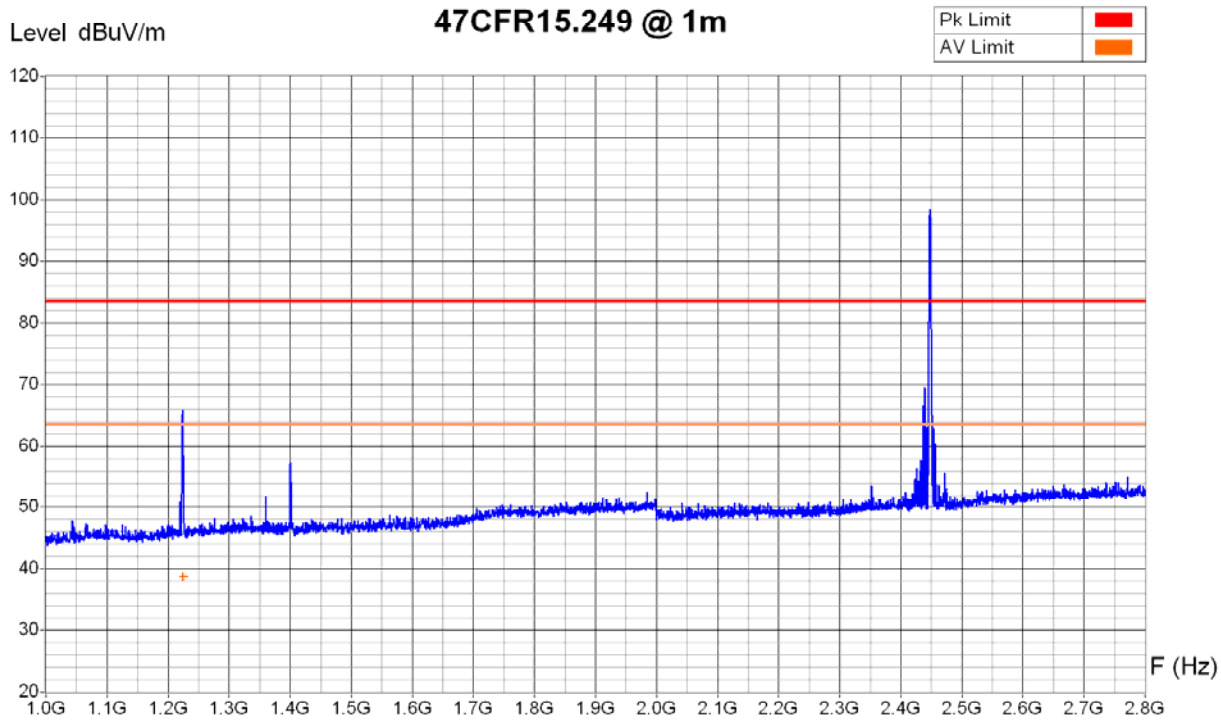
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 1.22 GHz | 65.9 dBuV/m | NaN dBuV/m | 38.8 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 15:03
Filename: 20067171_UR_er_002h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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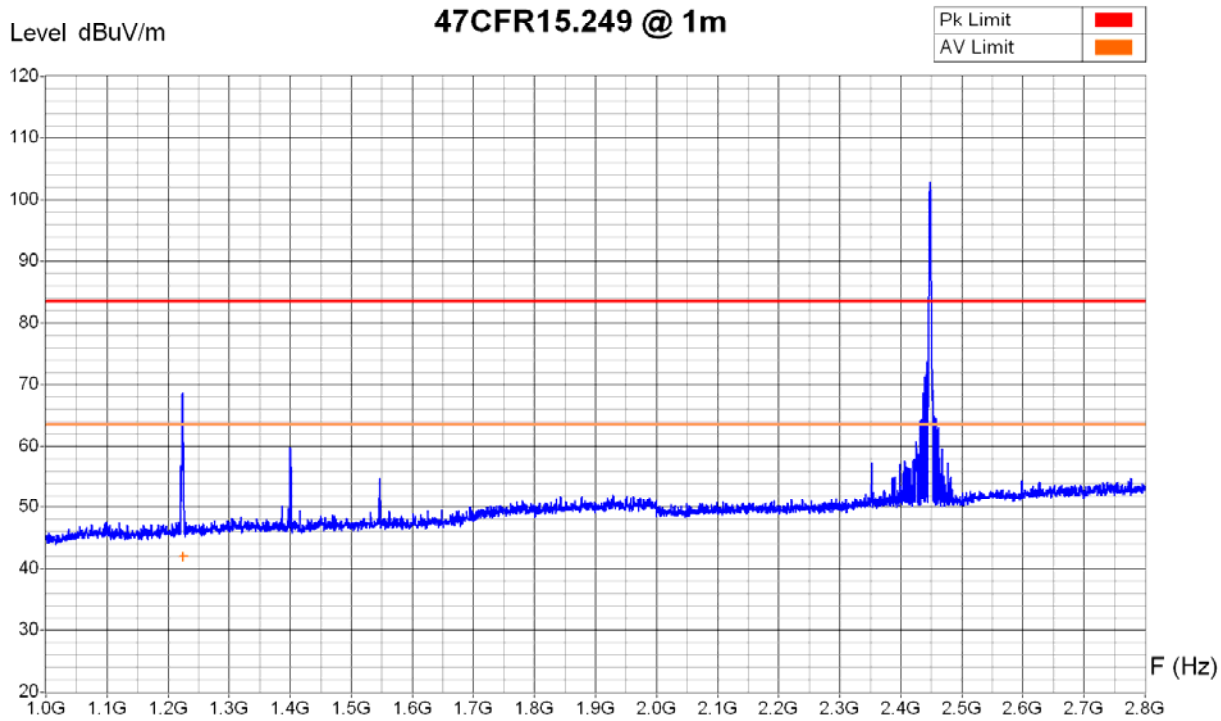
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 1.22 GHz | 68.7 dBuV/m | NaN dBuV/m | 42.0 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 14:27
Filename: 20067171_UR_er_002v_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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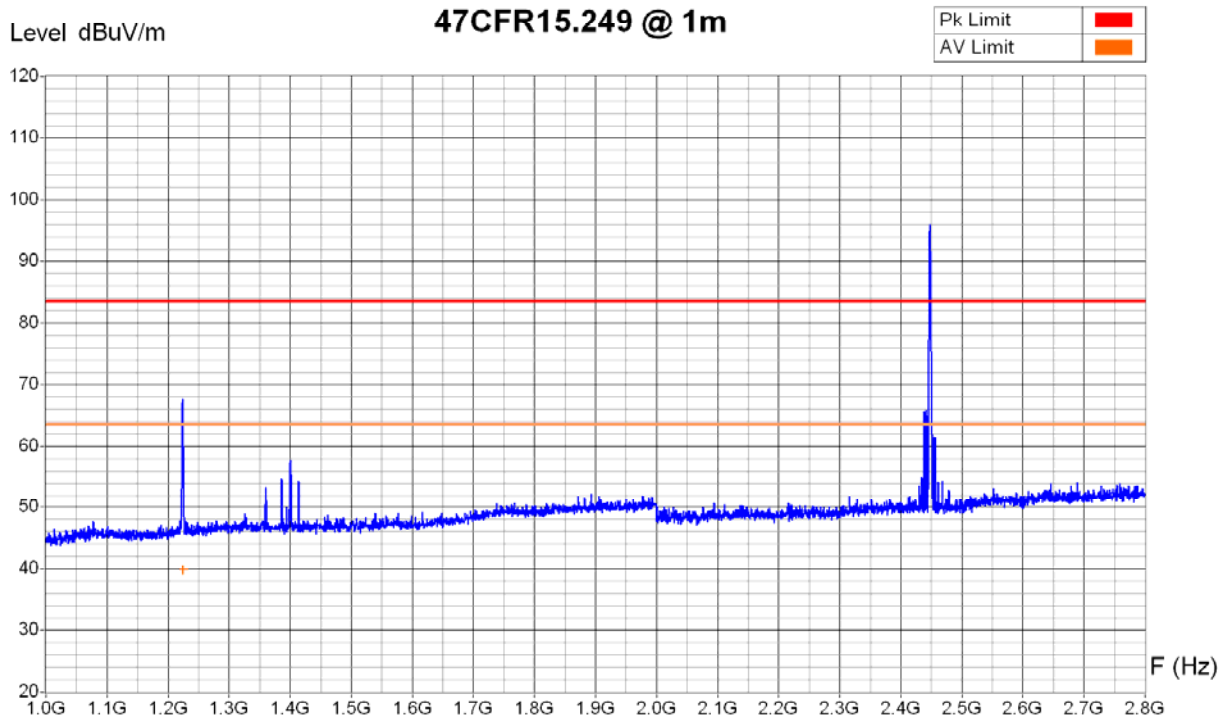
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 1.22 GHz | 67.7 dBuV/m | NaN dBuV/m | 39.9 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 14:54
Filename: 20067171_UR_er_002v_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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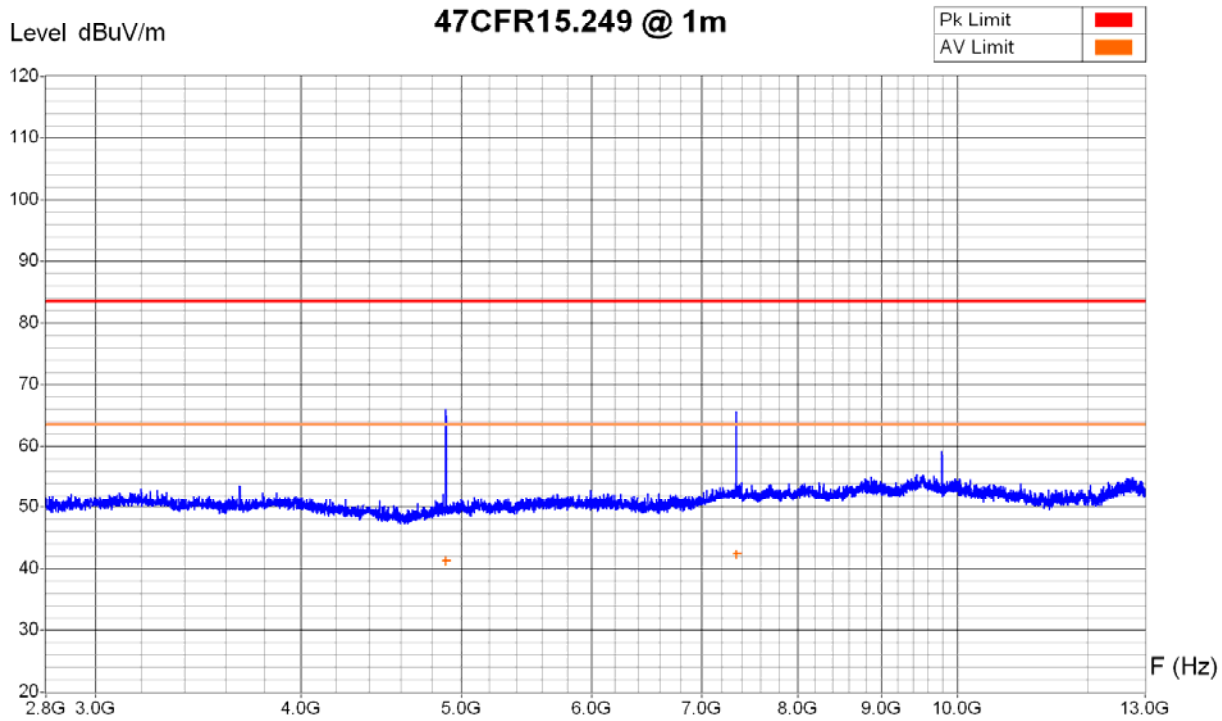
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 4.90 GHz | 66.0 dBuV/m | 41.2 dBuV/m |
| 7.34 GHz | 65.6 dBuV/m | 42.4 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 13:28
Filename:
20067171_UR_er_008h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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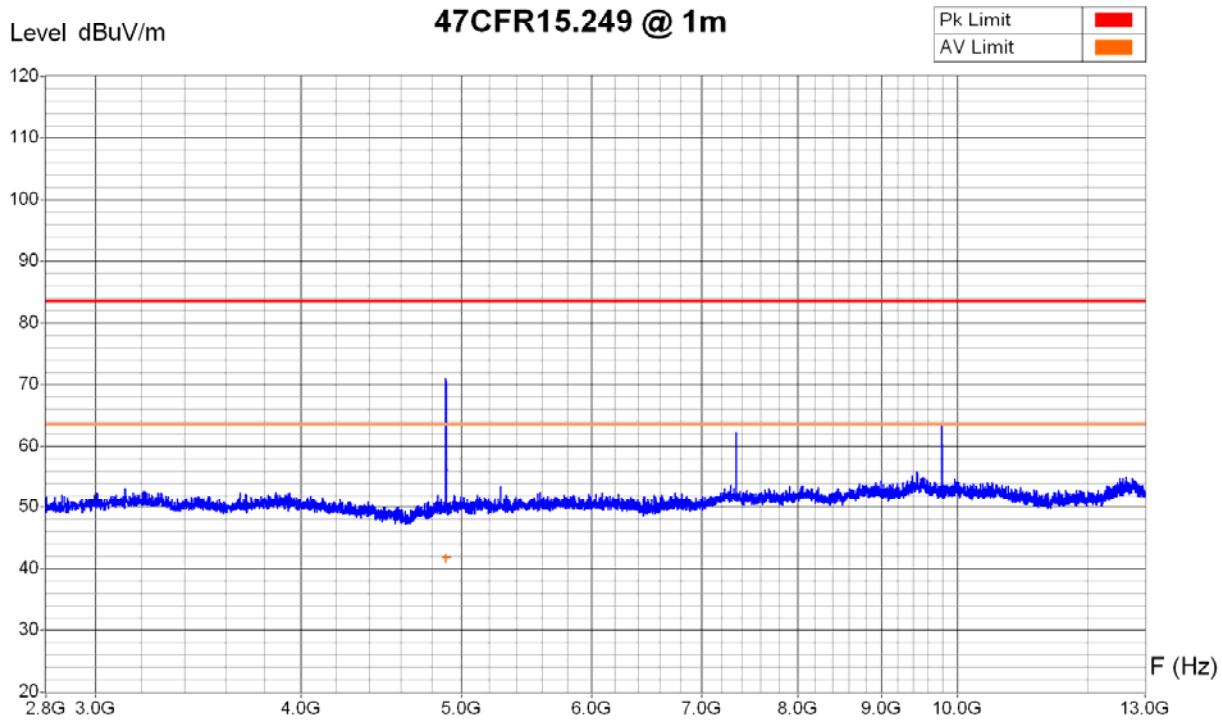
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal |
| | L3 = 1.8 nH |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 4.90 GHz | 71.1 dBuV/m | NaN dBuV/m | 41.7 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 12:54
Filename: 20067171_UR_er_008h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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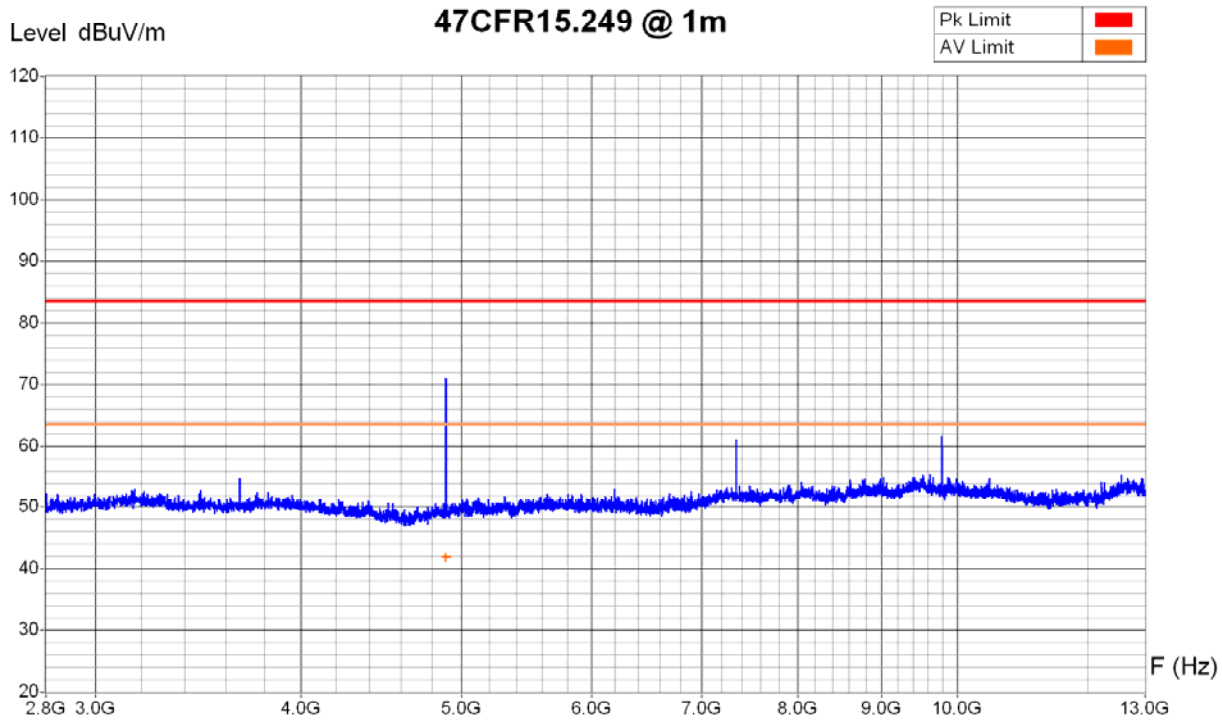
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 4.90 GHz | 71.0 dBuV/m | NaN dBuV/m | 41.9 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 13:33
Filename:
20067171_UR_er_008v_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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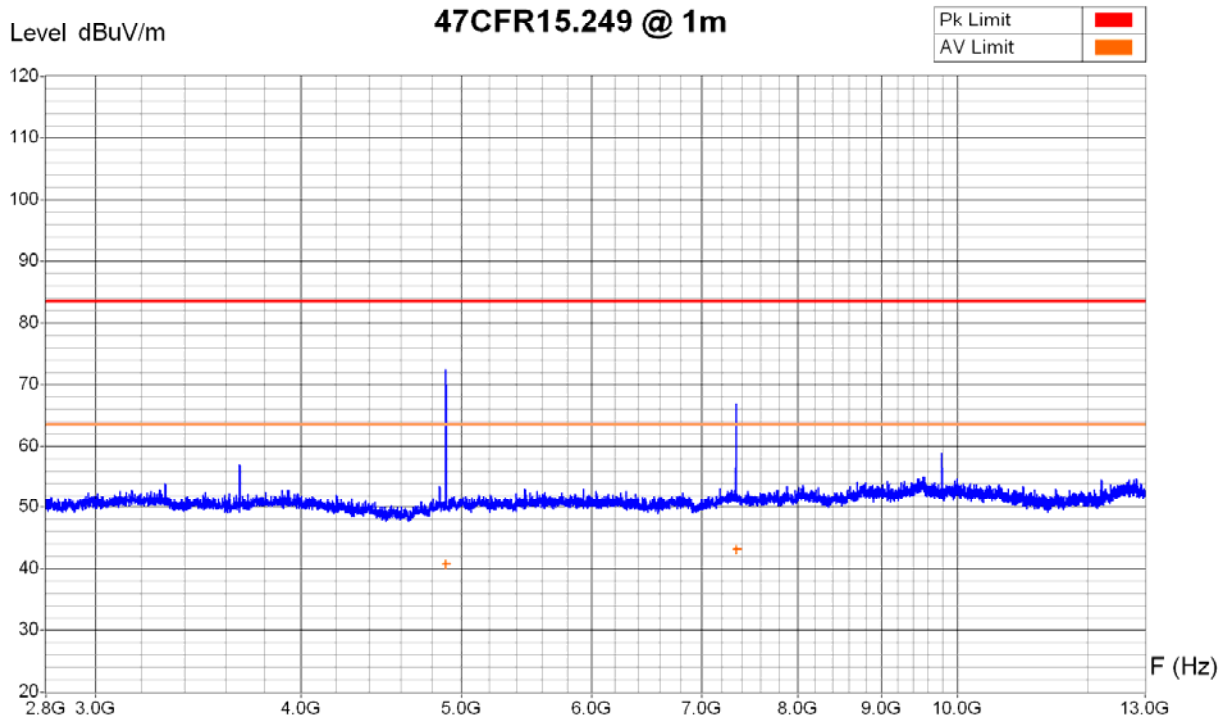
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal<br>L3 = 1.8 nH |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 4.90 GHz | 72.5 dBuV/m | 40.7 dBuV/m |
| 7.34 GHz | 66.9 dBuV/m | 43.1 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 12:46
Filename:
20067171_UR_er_008v_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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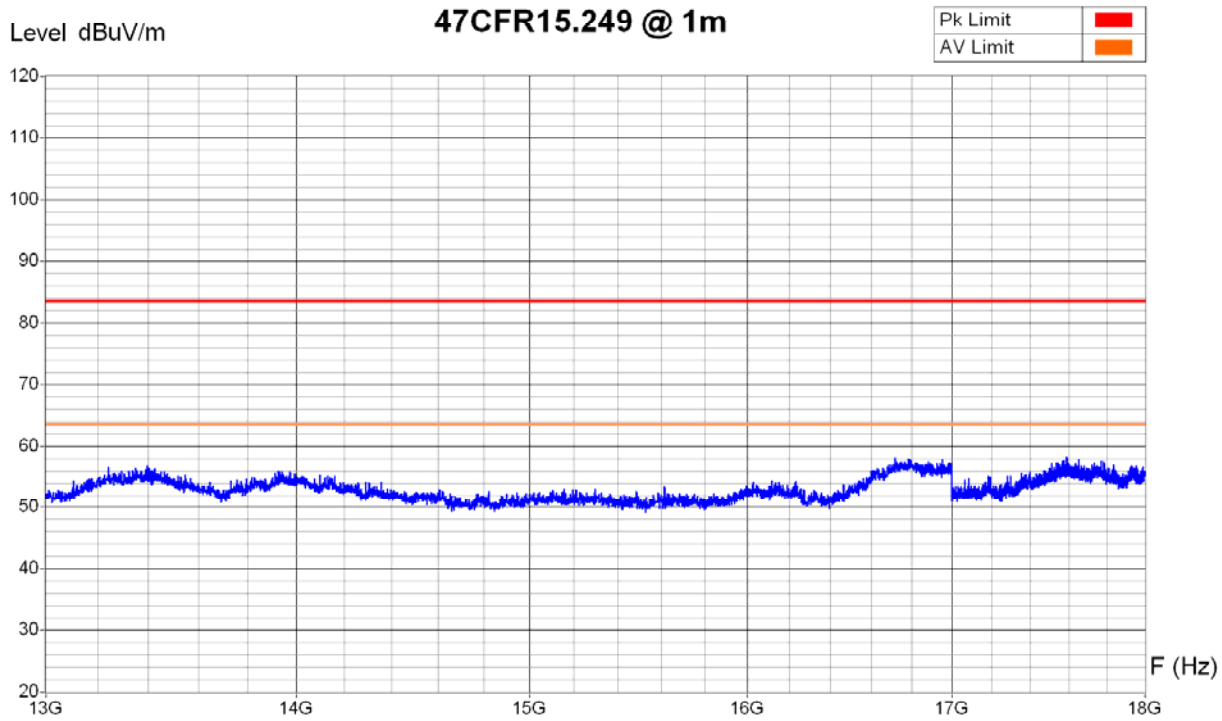
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:19
Filename:
20067171_UR_er_009h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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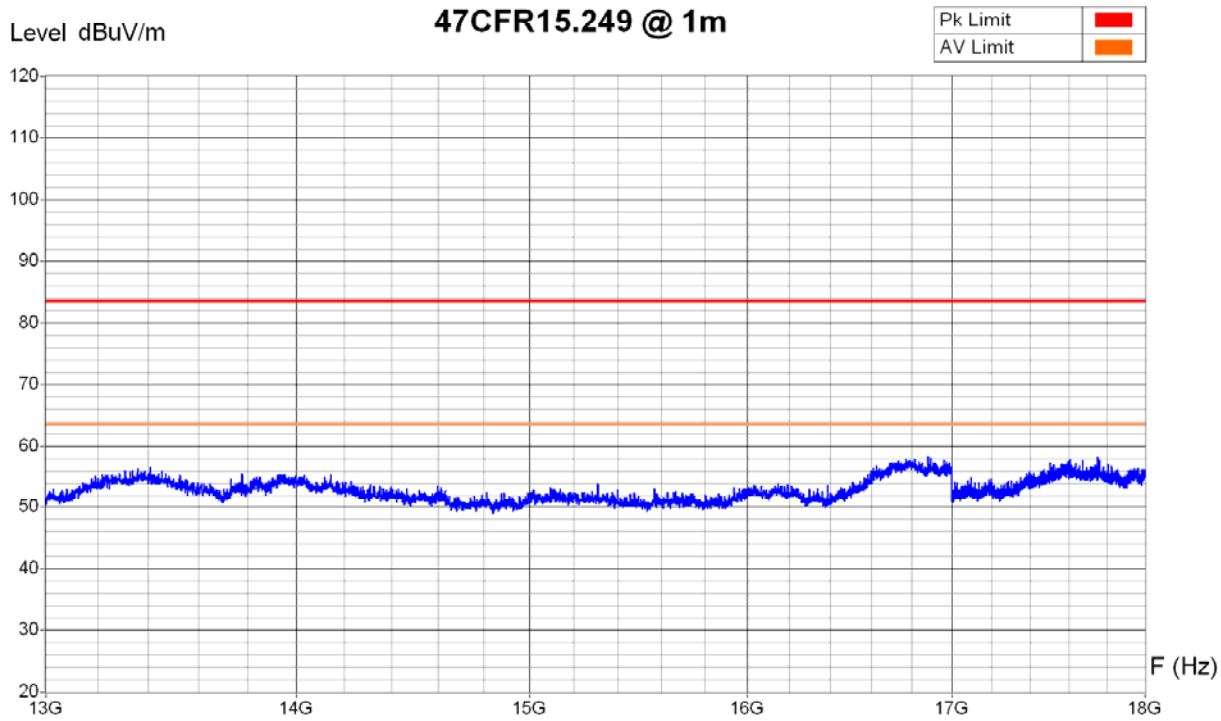
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal<br>L3 = 1.8 nH |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:16
Filename: 20067171_UR_er_009h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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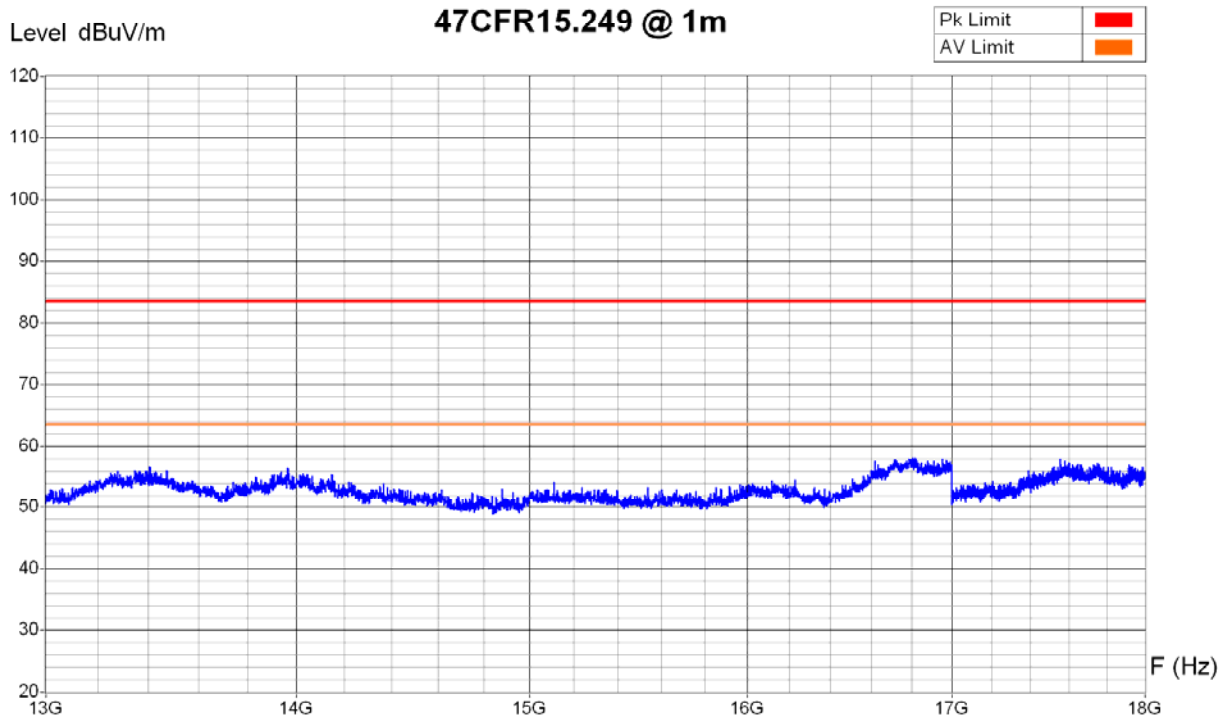
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:21
Filename:
20067171_UR_er_009v_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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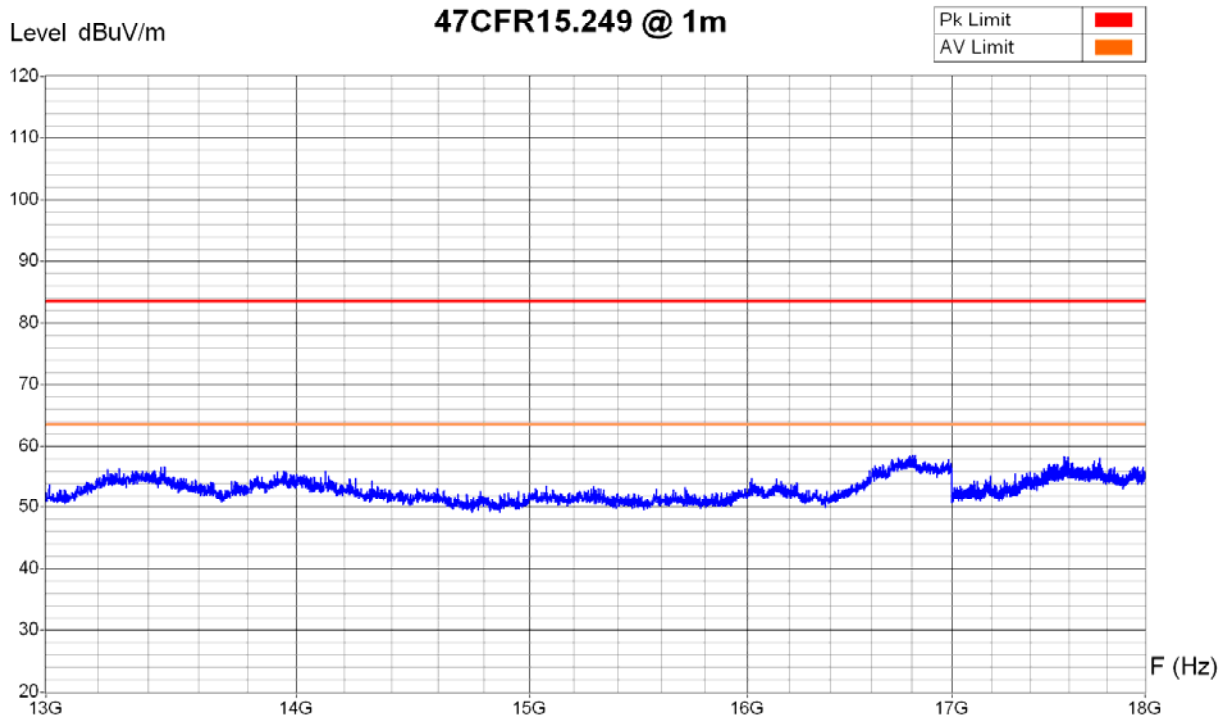
montena emc sa

| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal<br>L3 = 1.8 nH |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:13
Filename: 20067171_UR_er_009v_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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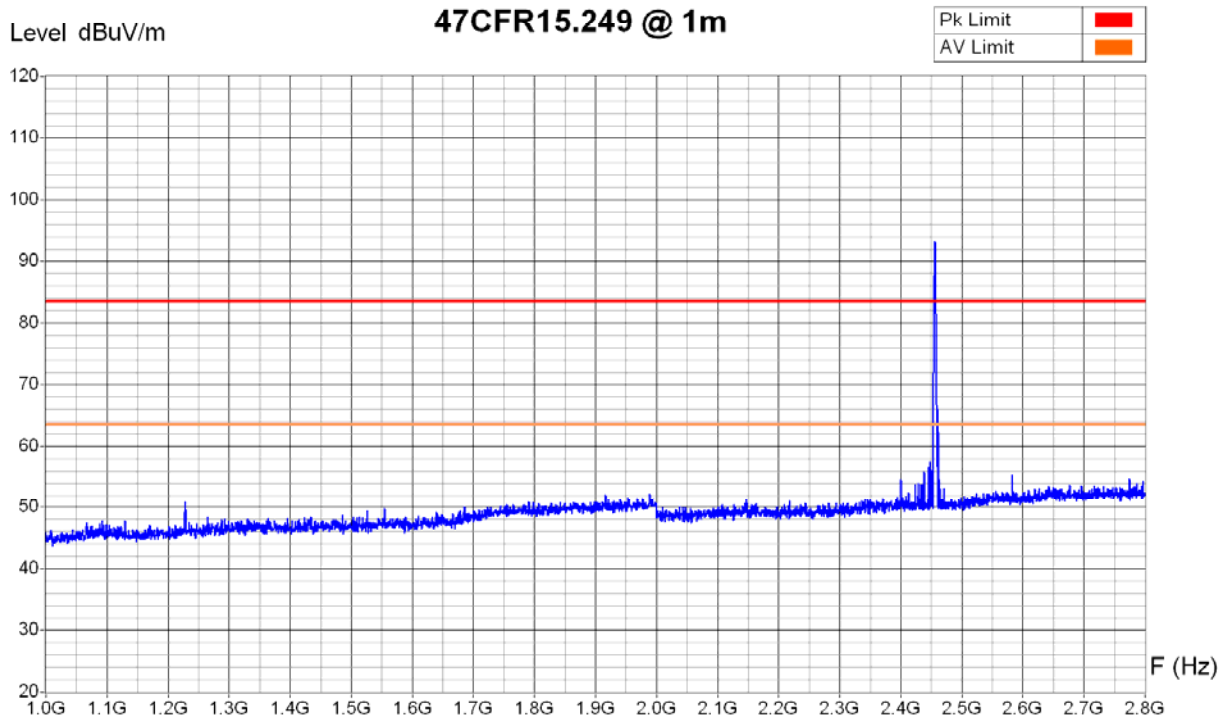
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 15:13
Filename:
20067171_Tx_er_002h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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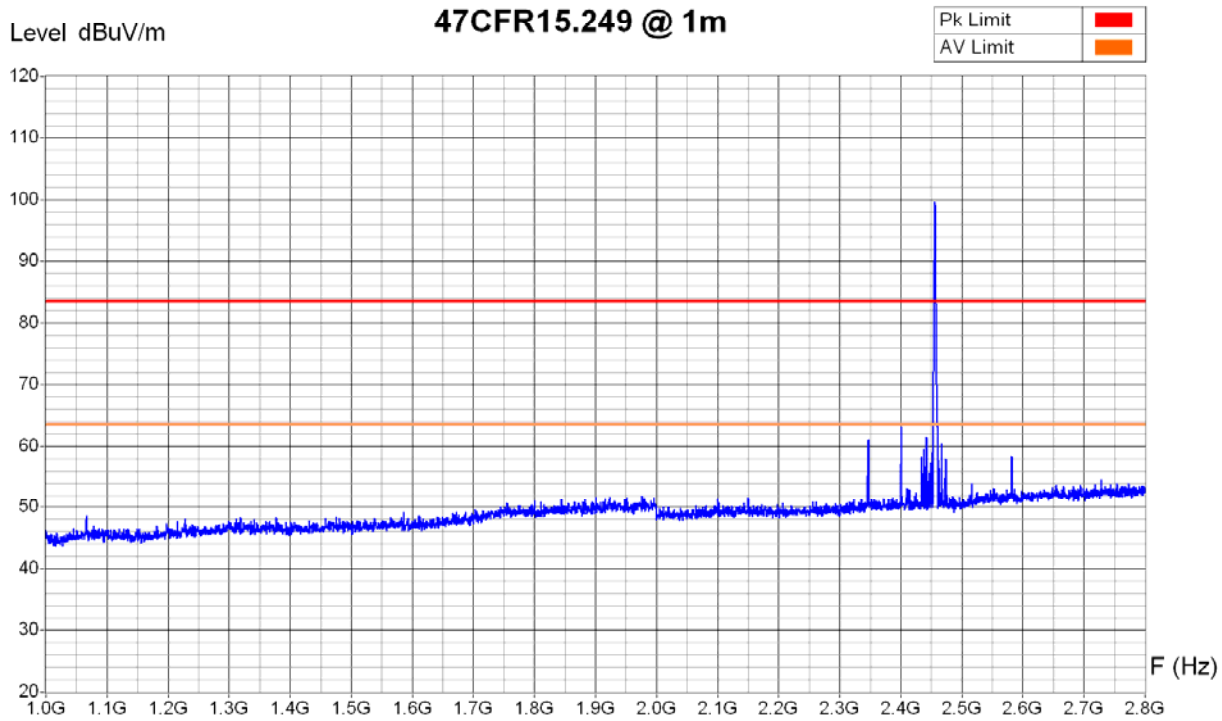
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Operator: E. Staub
Date/Time: 27.11.2006 16:05
Filename:
20067171_Tx_er_002h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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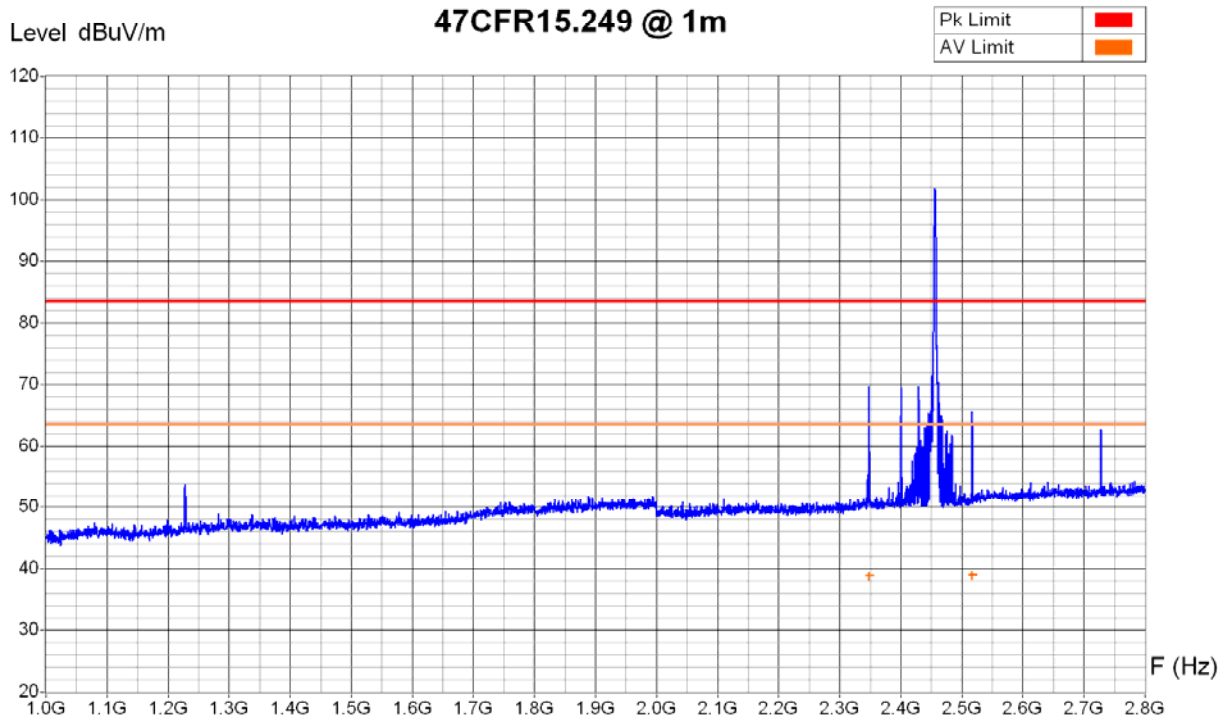
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 2.35 GHz | 69.6 dBuV/m | 38.8 dBuV/m |
| 2.52 GHz | 65.7 dBuV/m | 39.1 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 15:16
Filename:
20067171_Tx_er_002v_laying.png
/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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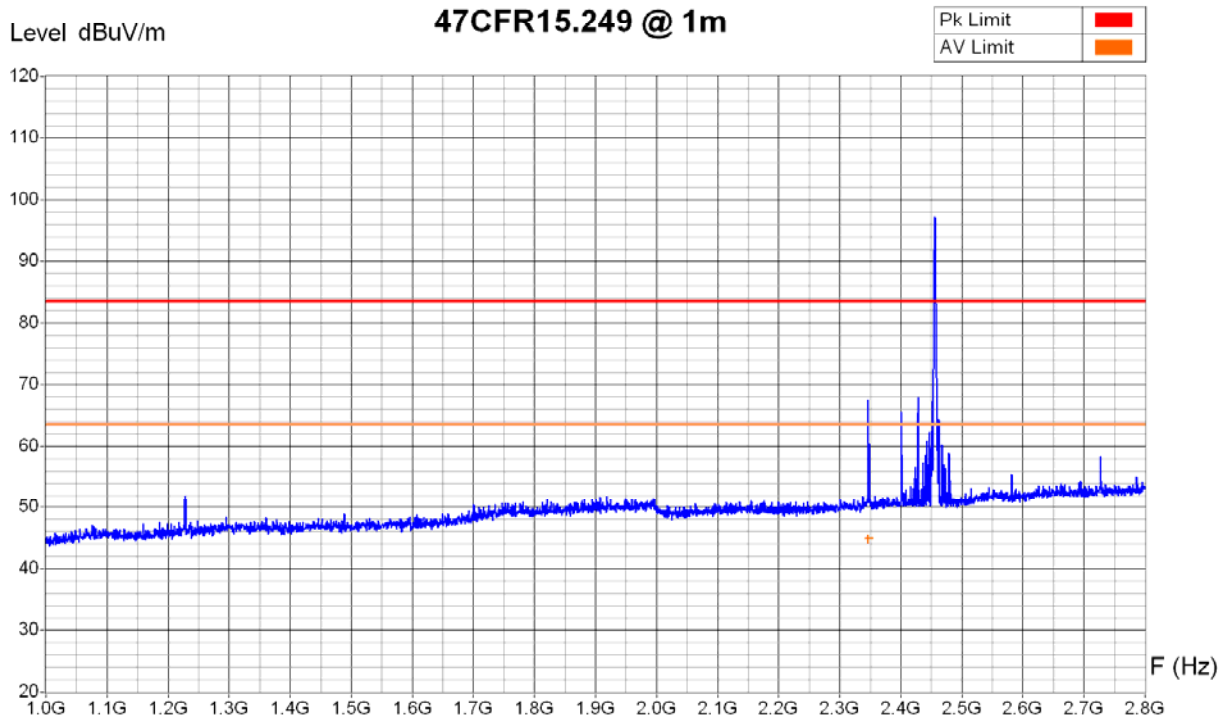
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |




| Zone | 1 GHz - 2 GHz | 2 GHz - 2.80 GHz |
|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | QuasiPeak (x) | Average (+) |
|---|---|---|---|
| 2.35 GHz | 67.5 dBuV/m | NaN dBuV/m | 44.9 dBuV/m |

Operator: E. Staub
Date/Time: 27.11.2006 15:54
Filename:
20067171_Tx_er_002v_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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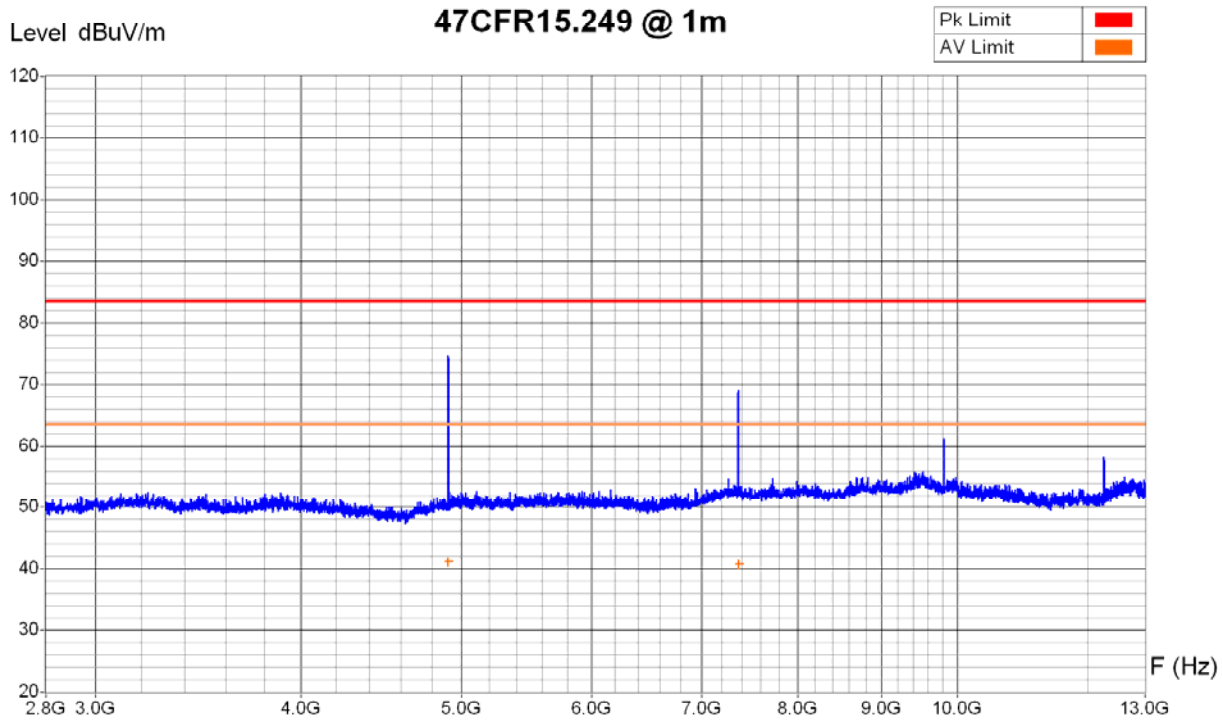
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna verticalemarks |
| | C3 replaced with brigde; L3 = 1.8 nH close to amplifier |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 4.91 GHz | 74.8 dBuV/m | 41.2 dBuV/m |
| 7.37 GHz | 69.0 dBuV/m | 40.8 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 12:15
Filename:
20067171_Tx_er_012h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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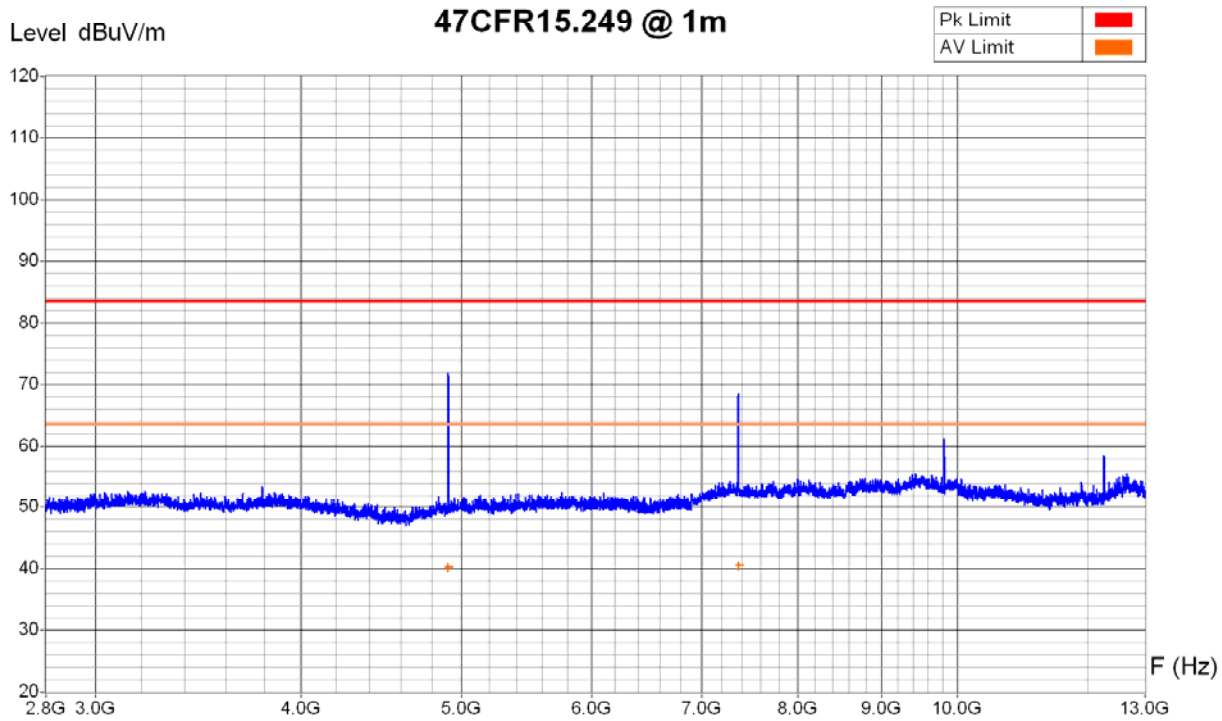
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 4.91 GHz | 71.8 dBuV/m | 40.2 dBuV/m |
| 7.37 GHz | 68.6 dBuV/m | 40.5 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 11:23
Filename: 20067171_Tx_er_012h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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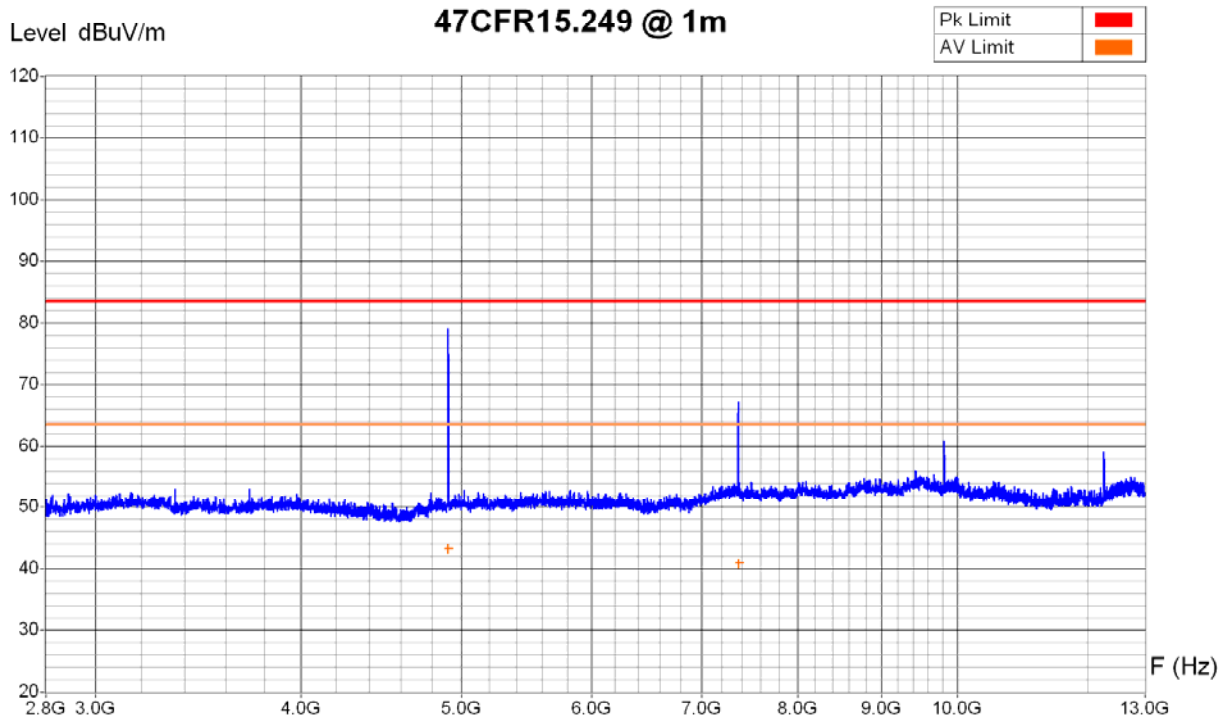
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 4.91 GHz | 79.1 dBuV/m | 43.2 dBuV/m |
| 7.37 GHz | 67.2 dBuV/m | 40.9 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 12:14
Filename:
20067171_Tx_er_012v_laying.png
/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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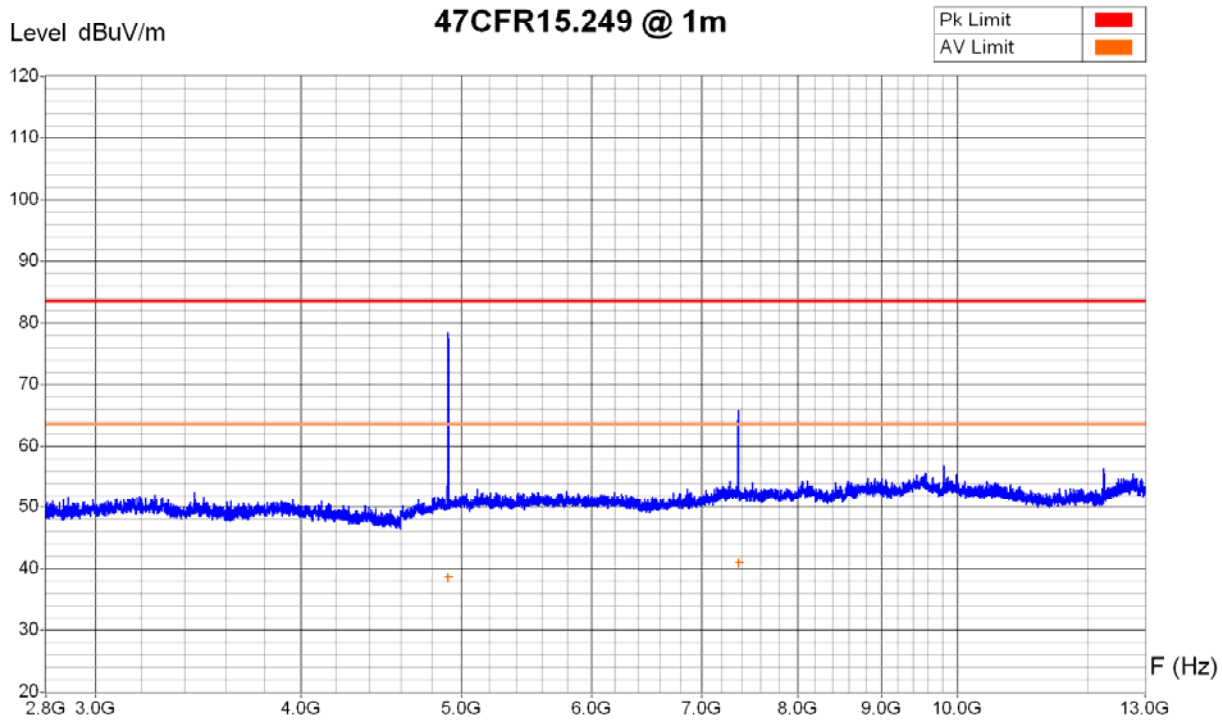
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 2.80 GHz - 4.60 | 4.60 GHz - 6.90 | 6.90 GHz - 10 GHz | 10 GHz - 13 GHz |
|---|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 1 MHz | 1 MHz |

Receiver Measures

| Frequency | Peak | Average (+) |
|---|---|---|
| 4.91 GHz | 78.5 dBuV/m | 38.6 dBuV/m |
| 7.37 GHz | 65.9 dBuV/m | 41.0 dBuV/m |

Operator: E. Staub
Date/Time: 28.11.2006 11:41
Filename: 20067171_Tx_er_012v_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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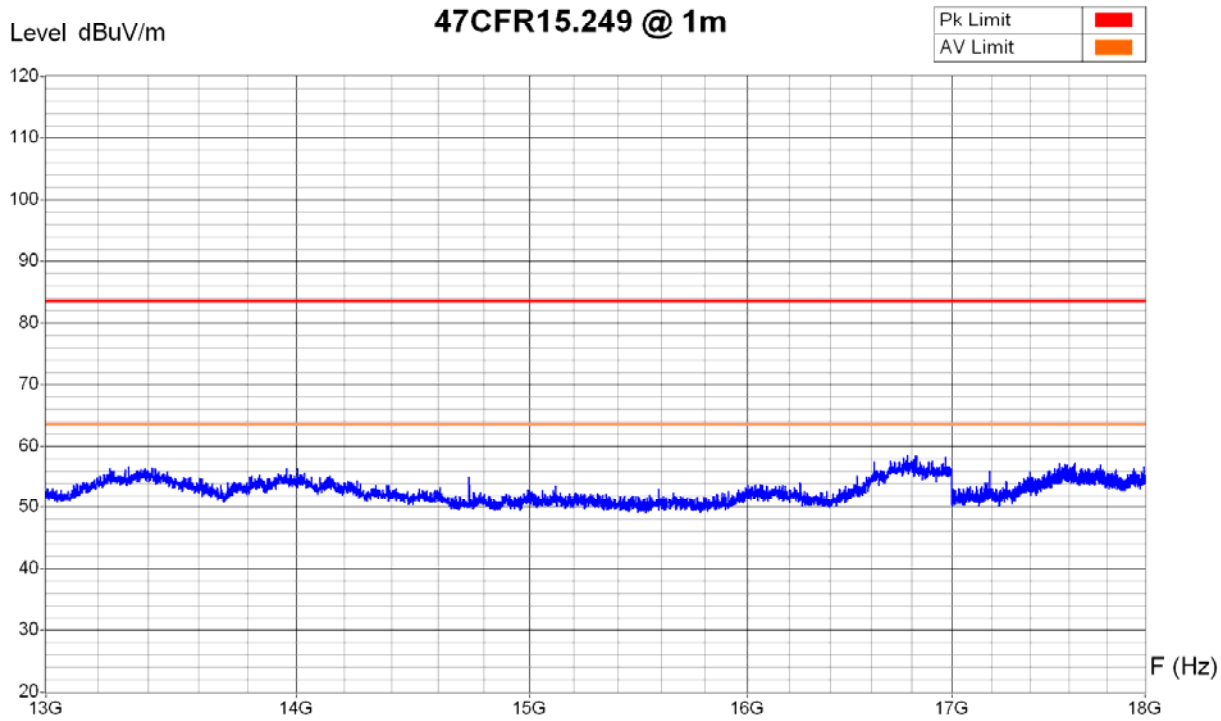
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:44
Filename:
20067171_Tx_er_013h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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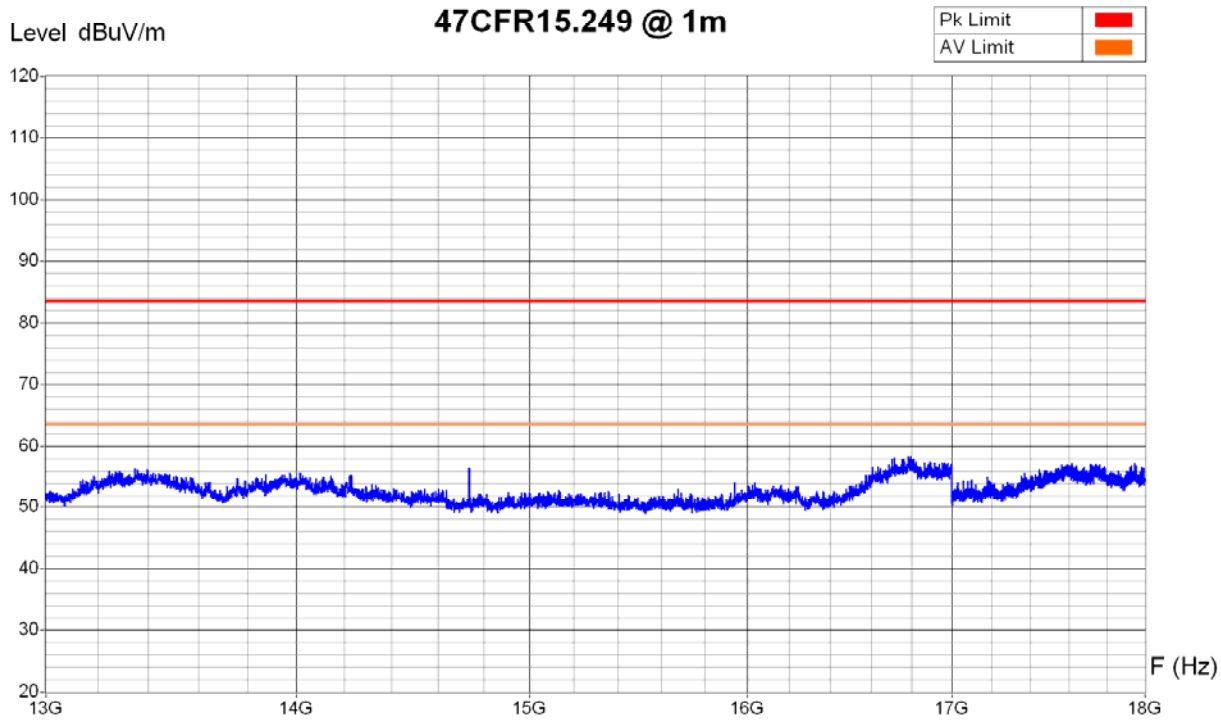
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:42
Filename: 20067171_Tx_er_013h_standing.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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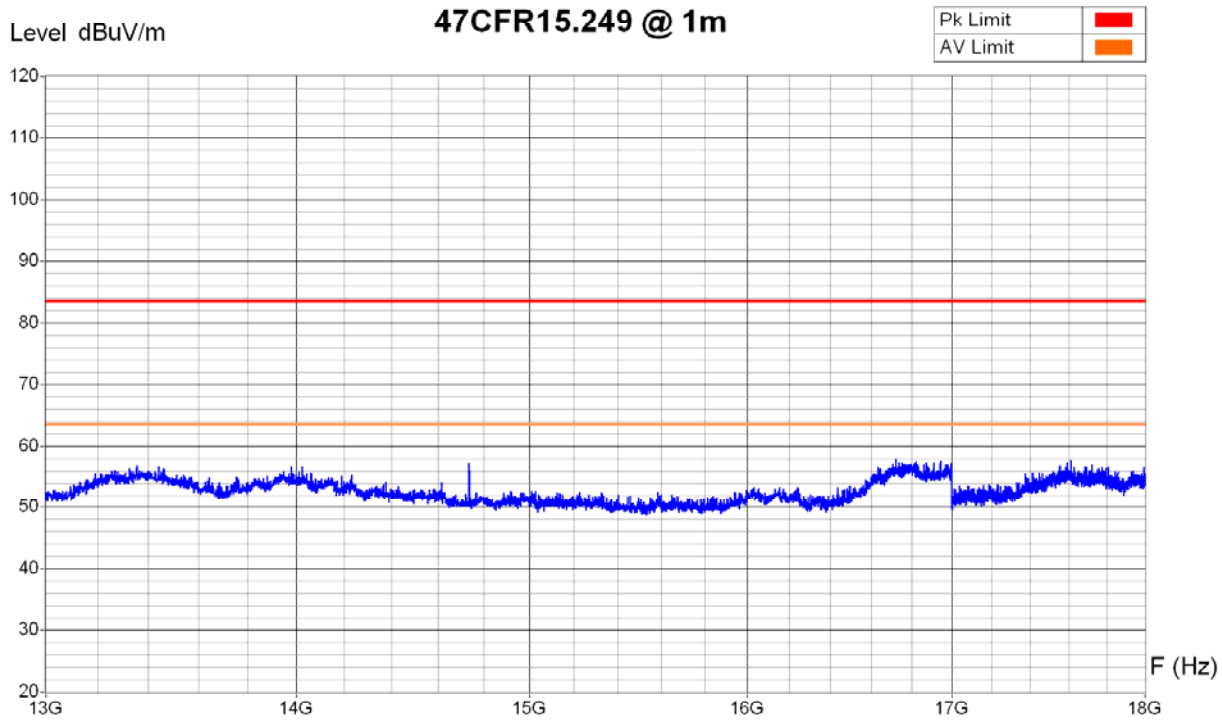
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:47
Filename:
20067171_Tx_er_013v_laying.png
/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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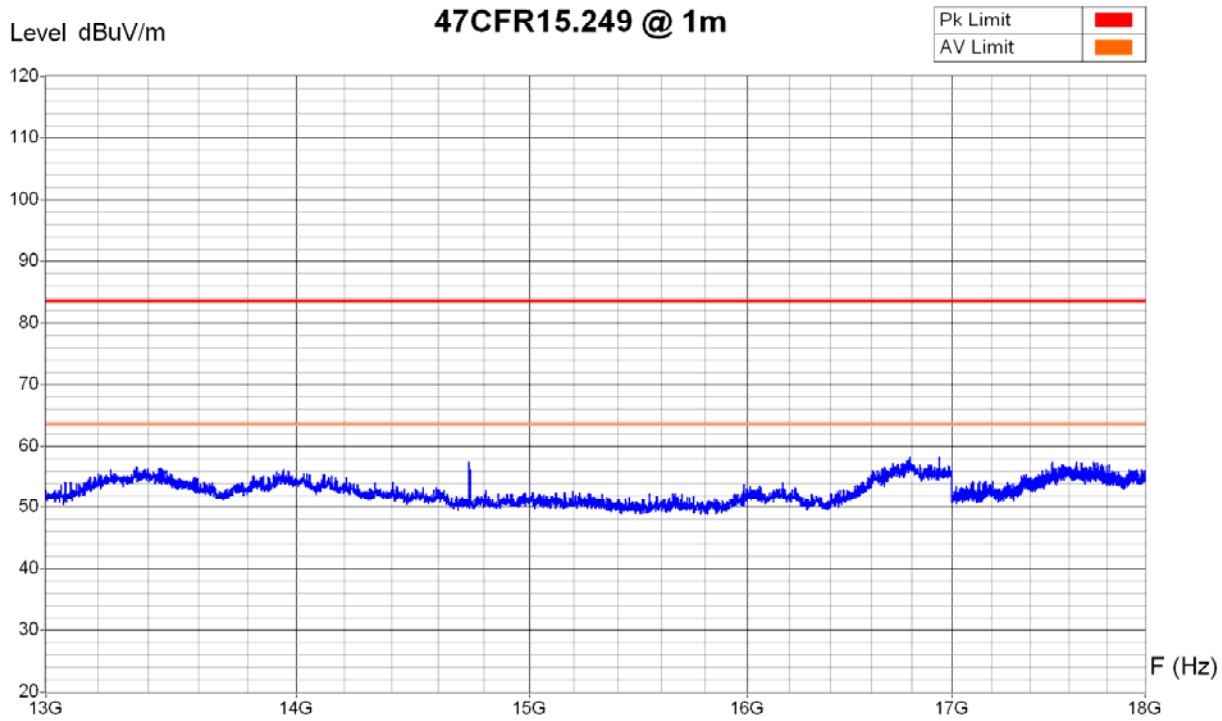
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal<br>C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 13 GHz - 15 GHz | 15 GHz - 17 GHz | 17 GHz - 18 GHz |
|---|---|---|---|
| Video Bandwidth | 1 MHz | 1 MHz | 300 KHz |
| Resol Bandwidth | 1 MHz | 1 MHz | 300 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 14:39
Filename:
20067171_Tx_er_013v_standing.png/.txt

### 6.5 Radiated emission - Electromagnetic field (18 GHz < f < 26.5 GHz)

| | | | | |
|---|---|---|---|---|
| Test site: | ☒ anechoic chamber (foam) | | ☐ open test site | |
| | ☐ anechoic chamber (ferrites) | | ☐ ..... | |
| Distance: | ☐ 30 m | ☐ 10 m | ☐ 3 m | ☒ 1 m |

Position of EUT: *0.8 m* (height of the equipment under test above floor)

Meas. uncertainty: ± 5.4 dB

Test method: The electromagnetic disturbance radiated by the equipment is measured using a spectrum analyser and a wide band antenna. The antenna is placed at the same hight as the EUT successively with horizontal and vertical polarisations. The turning table is operated through 360° during the measurements. The recordings are carried out taking into account the maximum value of all the disturbances appearing while the apparatus is under test. The peak values are recorded continuously on the graph. The values exceeding a limit are remeasured manually using a receiver.

Test set-up:

*Universal Receiver: laying*

*Transmitter: standing*

| | |
|---|---|
| Remarks: | *Limit values expressed in dBµV/m and transformed to a measuring distance of 1m (factor used = 20 dB/decade) if necessary*<br>*e.g.: for f = 19GHz the limit is 500µV/m at 3m;*<br>*20 $\log_{10}$ (500µV/m) + 20 $\log_{10}$ (3m/1m)= 63.5 dBµV/m at 1m* |

Test equipment:

| | | | | | | |
|---|---|---|---|---|---|---|
| Spectrum analyser | ☒ 88-14 | ☐ 90-26 | ☐ 94-24 | ☐ 02-06 | ☐ 03-45 | ☐ 03-57 |
| Receiver | ☐ 85-04 | ☐ 90-43 | ☐ 94-35 | | | |
| Preamplifier | ☐ 90-01 | ☐ 95-86 | ☐ 05-56 | ☐ 05-59 | ☐ 05-62 | ☐ 05-87 |
| Antenna (horn) | ☐ 90-24 | ☐ 90-29 | ☒ 98-12 | ☐ 98-13 | ☐ ..... | |
| Mixers | ☒ External | | | | | |

| | | | | |
|---|---|---|---|---|
| **Result:** | **☒ pass** | **☐ fail** | **☐ not applicable** | **☐ not tested** |

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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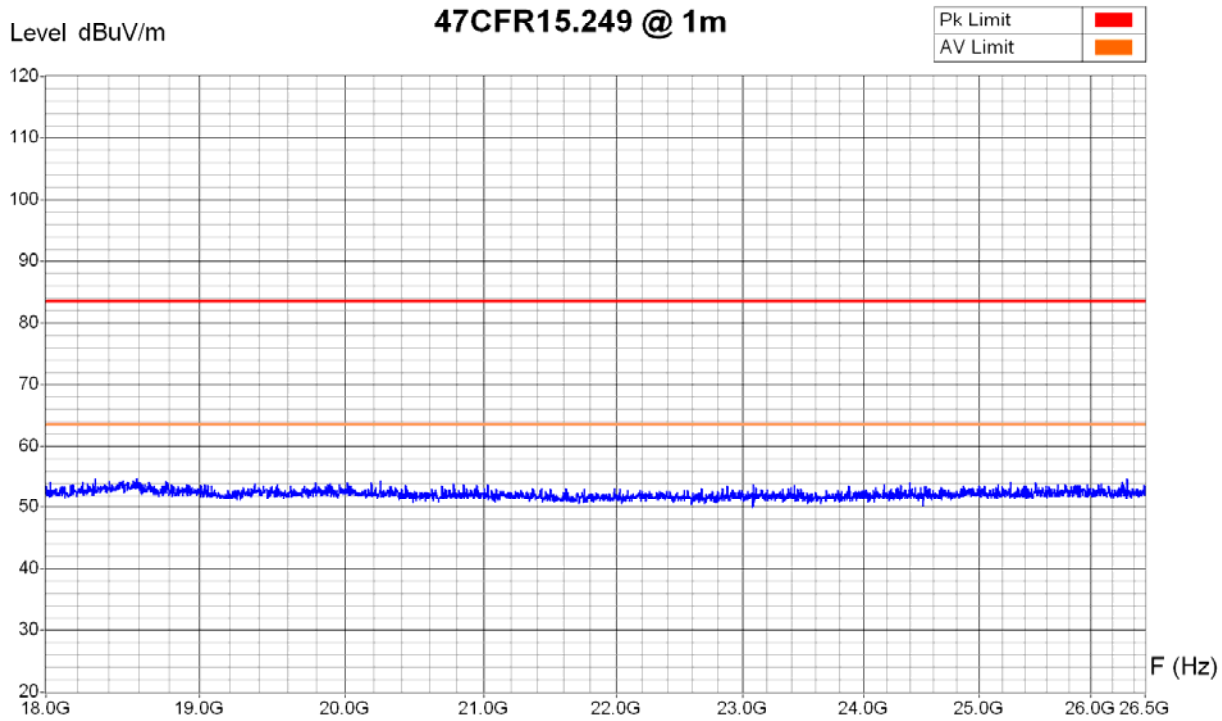
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 16:17
Filename:
20067171_UR_er_011h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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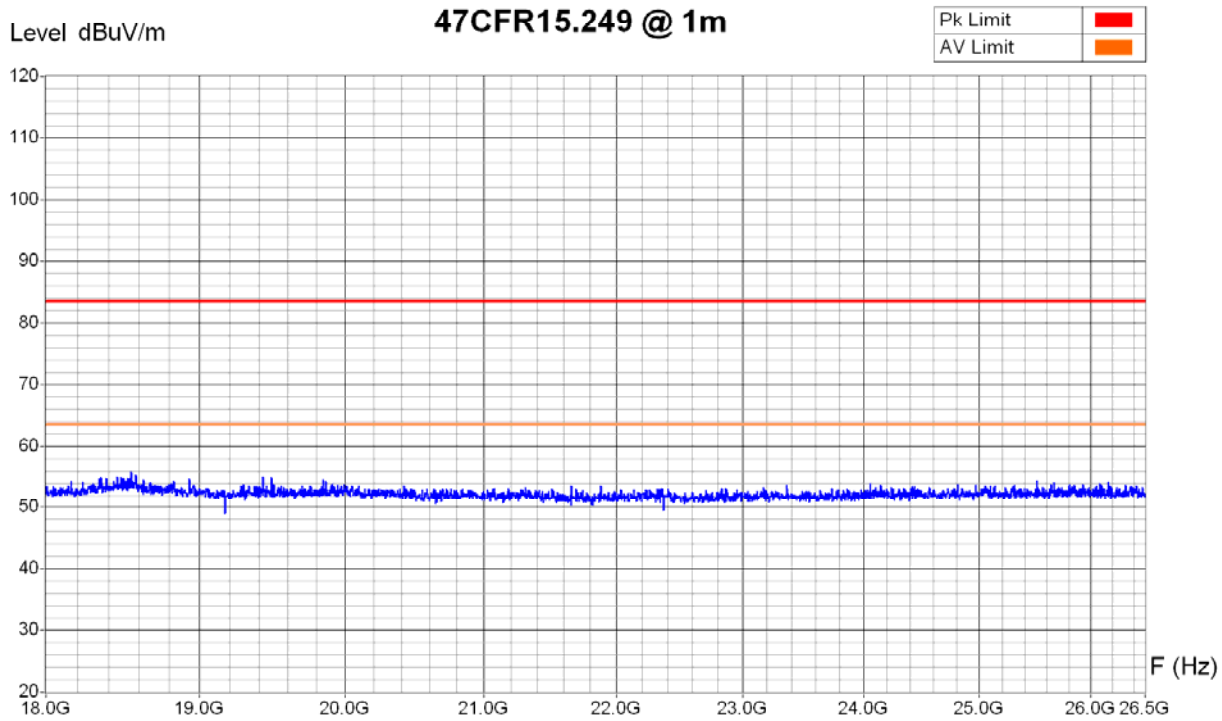
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal<br>L3 = 1.8 nH |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 16:12
Filename:
20067171_UR_er_011h_staying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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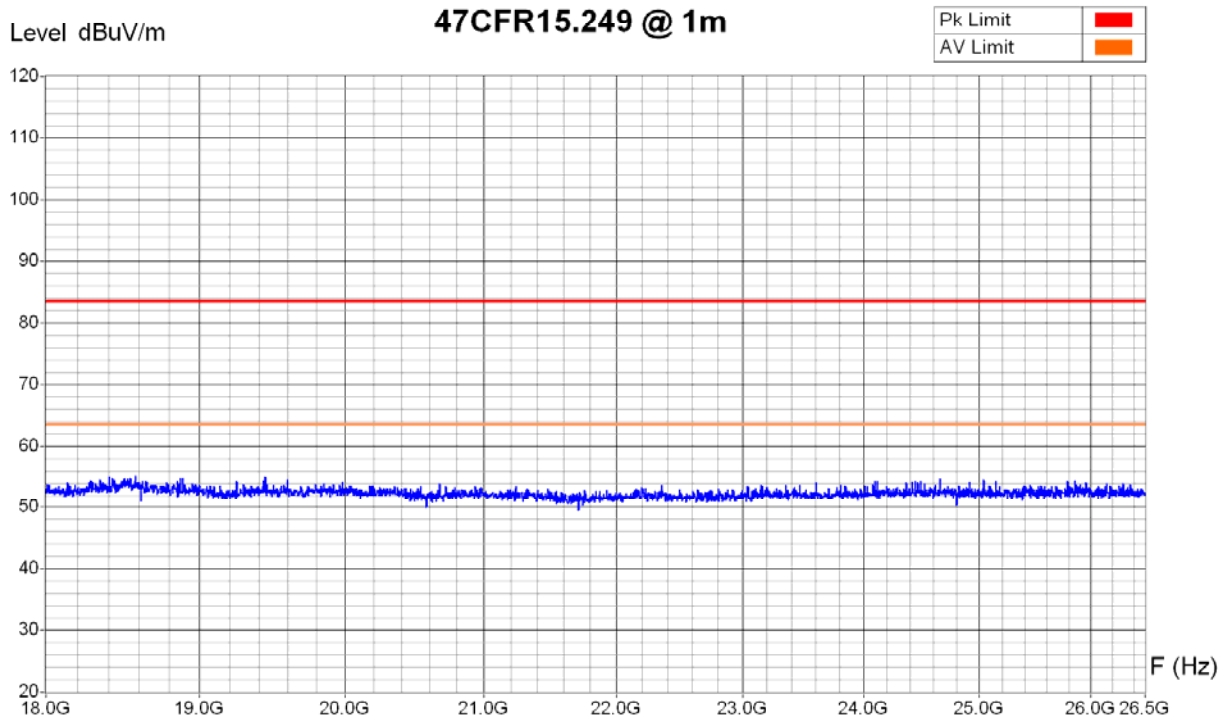
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | laying with antenna vertical<br>L3 = 1.8 nH |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 16:03
Filename:
20067171_UR_er_011v_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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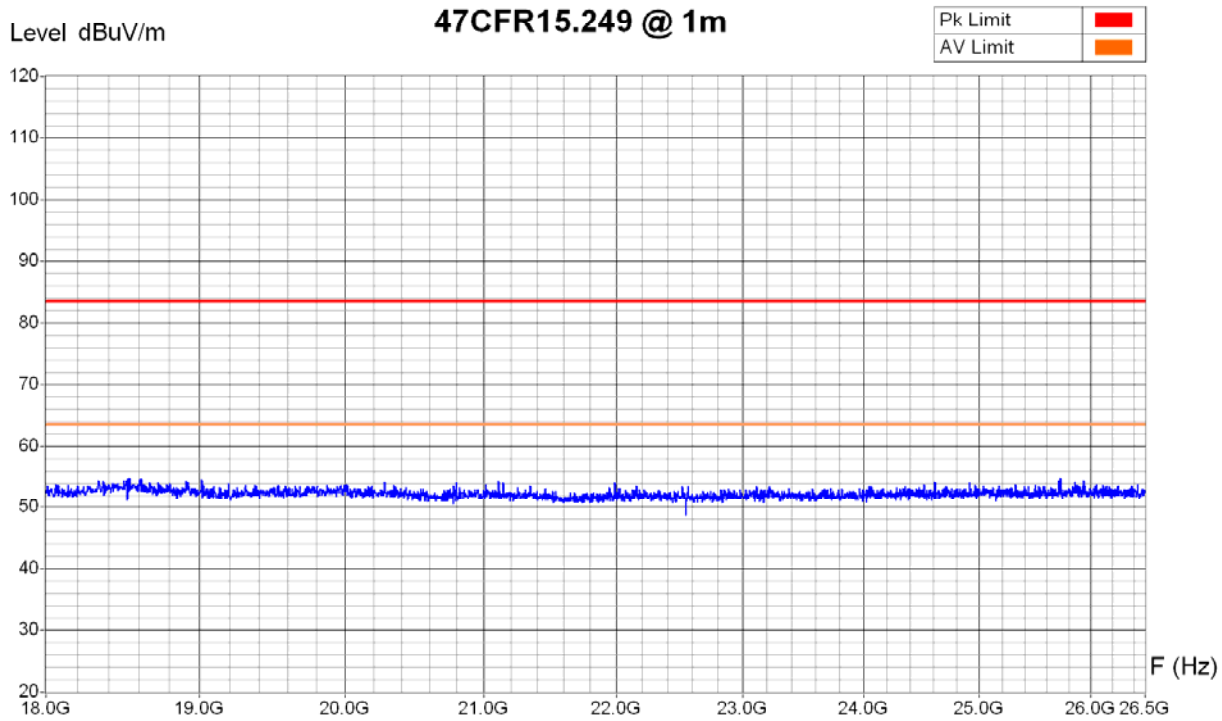
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Universal Receiver |
| **Set-Up :** | 5VDC; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2448MHz) |
| **Remarks :** | standing with antenna horizontal |
| | L3 = 1.8 nH |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 16:07
Filename:
20067171_UR_er_011v_staying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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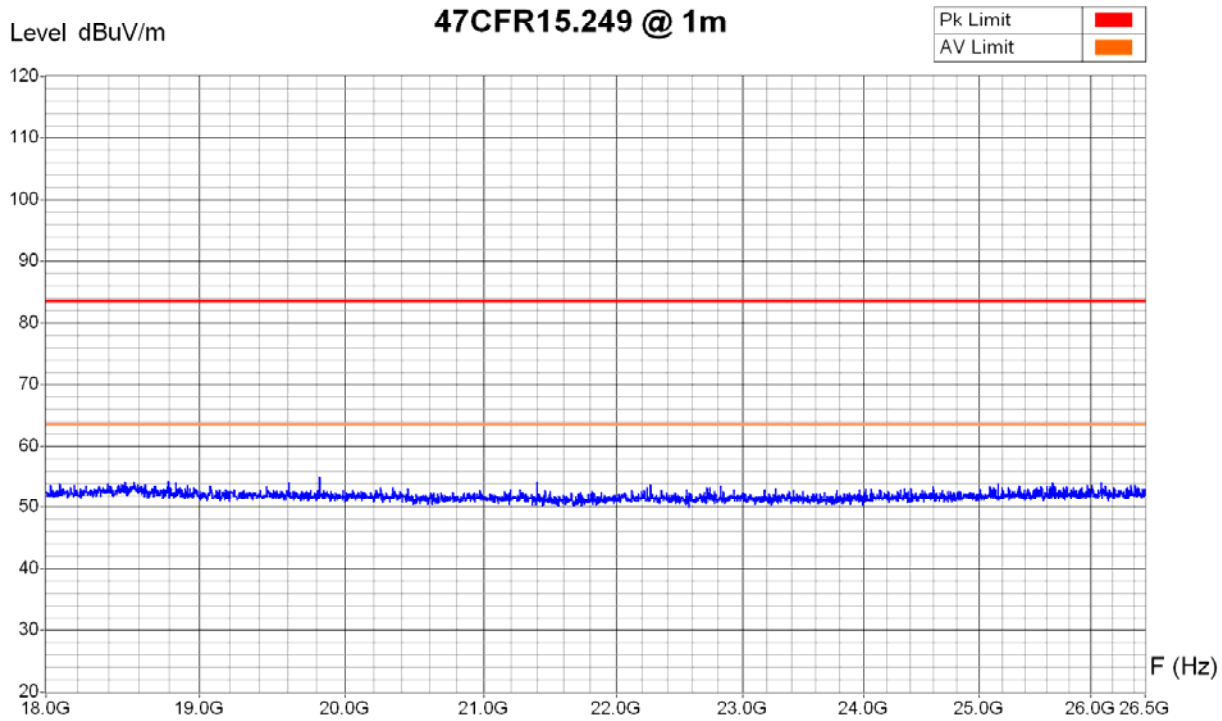
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 15:30
Filename:
20067171_Tx_er_014h_laying.png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Horizontal |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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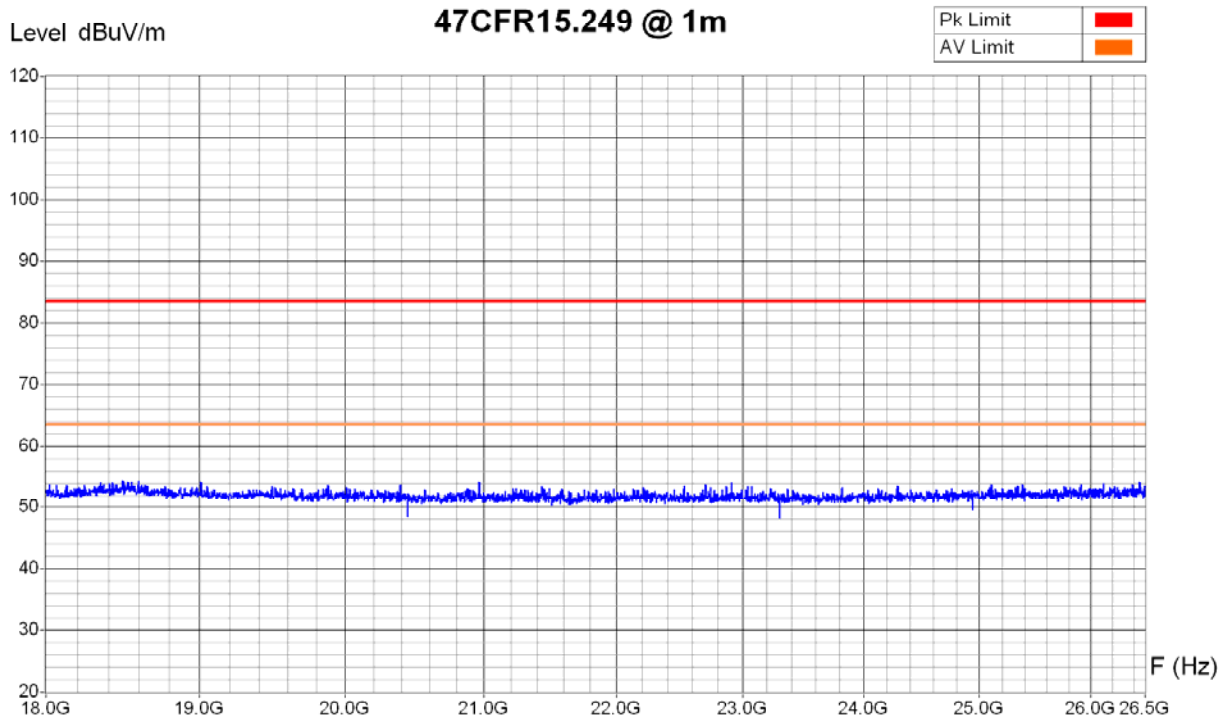
montena emc sa

| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 15:34
Filename:
20067171_Tx_er_014h_standing.
png/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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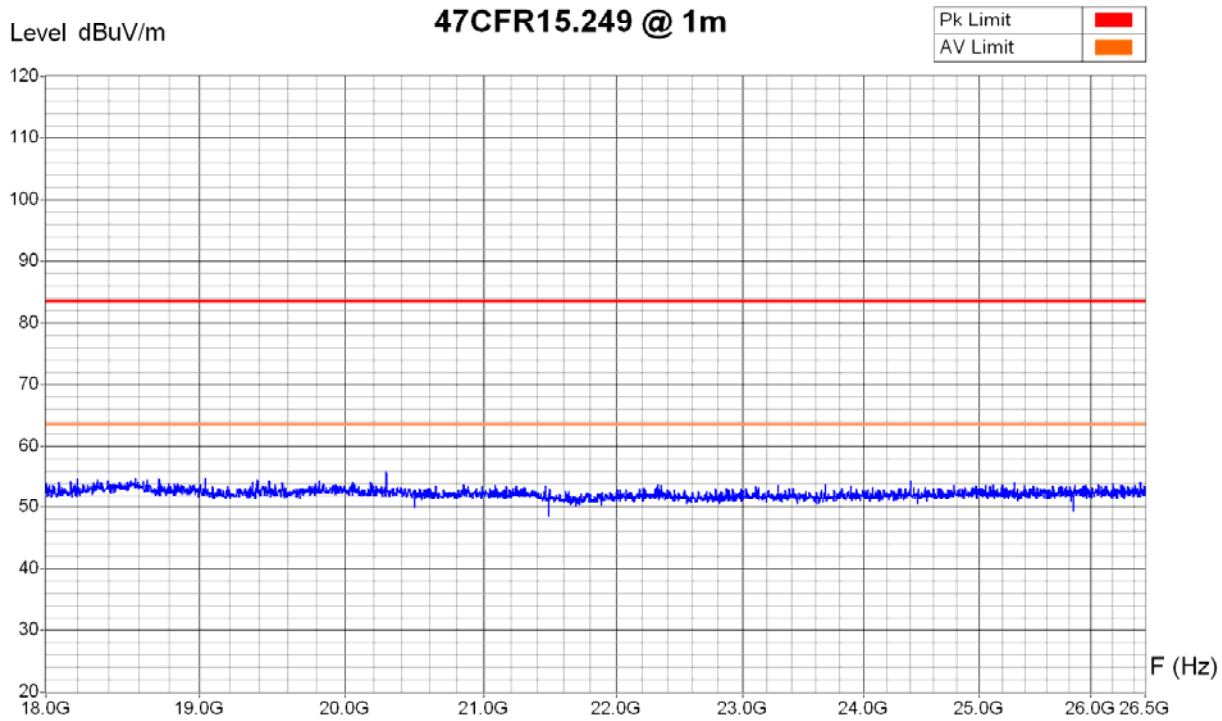
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | laying with antenna vertical |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 15:48
Filename:
20067171_Tx_er_014v_laying.png
/.txt

| | |
|---|---|
| **Measurement Type :** | Radiated Field |
| **Polarisation :** | Vertical |
| **Table Angle :** | 0 - 360° |
| **Antenna Height :** | 0.95m |

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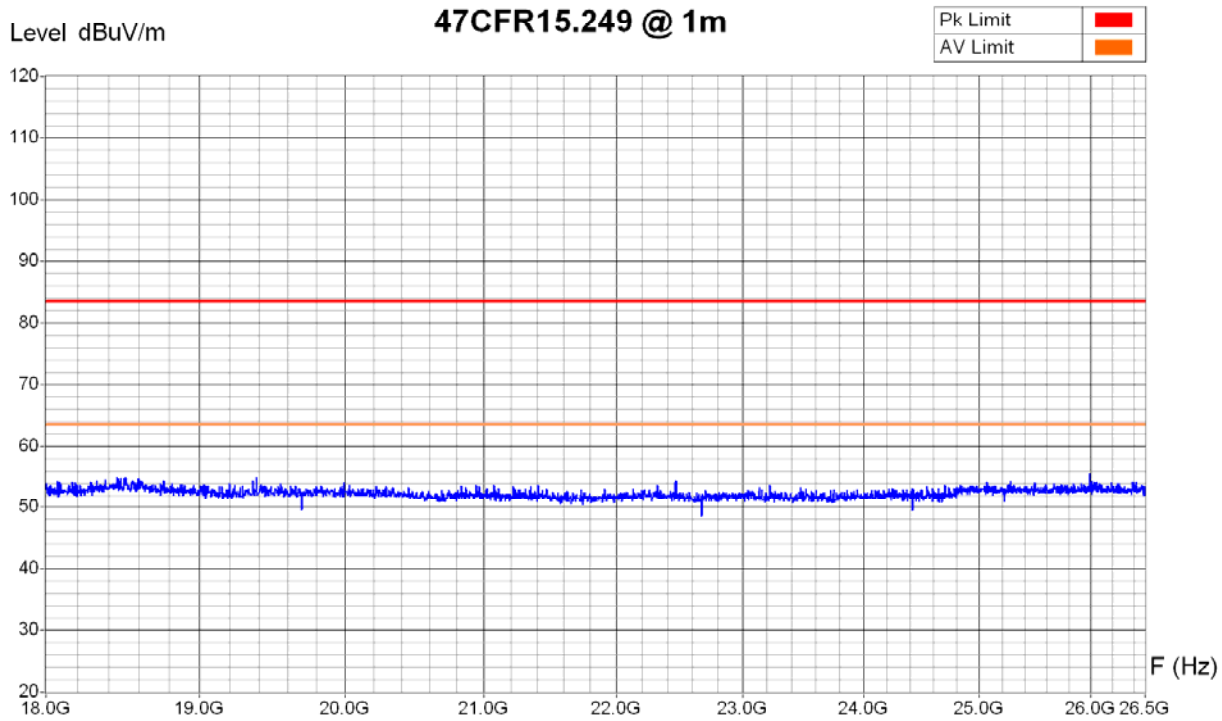
| | |
|---|---|
| **Equipment Under Test :** | EL-Skyport Transmitter |
| **Set-Up :** | Internal 3VDC lithium; synchron cable (L = 30cm) |
| **Operating Conditions :** | Continuous transmitting every 5ms burst mode, channal 1 (=2456MHz) |
| **Remarks :** | standing with antenna horizontal |
| | C3 replaced with bridge; L3 = 1.8 nH close to amplifier |




| Zone | 18 GHz - 19.70 GHz | 19.70 GHz - 21.40 | 21.40 GHz - 23.10 | 23.10 GHz - 24.80 | 24.80 GHz - 26.50 |
|---|---|---|---|---|---|
| Video Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |
| Resol Bandwidth | 100 KHz | 100 KHz | 100 KHz | 100 KHz | 100 KHz |

Operator: E. Staub
Date/Time: 28.11.2006 15:42
Filename:
20067171_Tx_er_014v_standing.png/.txt