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RADIO TEST REPORT

No. 1516063STO-002, Ed. 1

RF Performance

EQUIPMENT UNDER TEST

| Equipment: | Radio Base Station |
|-----------------------|--------------------|
| Tested model: | KRD 901 060/1X |
| Manufacturer: | Oy LM Ericsson AB |
| Tested by request of: | Oy LM Ericsson AB |

SUMMARY

Only RF output power, Transmitter out of band spurious emissions, radiated, Receiver out of band spurious emissions, radiated and Conducted spurious emissions from AC-Mains, have been tested.

47 CFR Part 2 (2013) 47 CFR Part 24 (2013): Subpart E 47 CFR Part 15 (2013): Subpart B RSS-GEN Issue 4 (2014) RSS-133 Issue 6 (2013) ICES-003 Issue 5 (2012)

Antonio Macedo / Matti Virkki

For details, see clause 2 – 4.

Date of issue: 2015-10-14

Tested by:

Approved by:

Stefan Andersson

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Revision History

| Edition | Date | Description | Changes |
|---------|------------|---------------|---------|
| 1 | 2015-10-14 | First release | |
| | | | |
| | | | |



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1 CLIENT INFORMATION

The EUT has been tested by request of

| Company | Oy LM Ericsson AB | |
|---------|---------------------|--|
| | Elektroniikkatie 10 | |
| | 90590 OULU | |
| | FINLAND | |
| | | |

| Name of contact | Mika Savilakso |
|-----------------|----------------------|
| | Phone +358 442654000 |

Client observer

Esko Korhonen

2 EQUIPMENT UNDER TEST (EUT)

2.1 Identification of the EUT

| Equipment: | Radio base station | |
|-------------------------------------|--------------------------------|------------------|
| Tested Model: | KRD 901 060/1X | |
| Additional models: | - | |
| Brand name: | Ericsson | |
| Serial number: | (S)C829931232 | |
| Manufacturer: | Oy LM Ericsson AB | |
| Transmitter frequency range: | FDD Band 2 | 1930 – 1990 MHz |
| Receiver frequency range: | FDD Band 2 | 1850 – 1910 MHz |
| Antenna: | 🛛 Internal antennas | External antenna |
| Antenna gain: | 4.6 dBi max | |
| Rating RF output power: | 13 – 24 dBm to antenna | |
| Type of modulation: | WCDMA, single carrier, QPSK me | odulation |
| Channel BW: | 5 MHz | |
| Transmitter standby mode supported: | ⊠ Yes | 🗌 No |



2.2 FCC ID, IC and IC model number

| Function Designation | Product nr. | FCC ID: | IC: | IC MODEL NO: |
|-------------------------|----------------|---------------|----------------|-----------------|
| RBS 6402; B2 | KRD 901 060/1X | TA8AKRD901060 | 287AB-AS901060 | AS9010601 |

2.3 EUT description

The tested RBS 6402 is a modular dual band indoor product for 3GPP WCDMA.

The main characteristics of the RBS 6402 product are:

- Full modularity
- Dual band, FDD
- IBW 20/40 MHz
- LTE 20+20 w/ CA over the bands (option)
- WCDMA 20 MHz
- Wi-Fi with integrated internal antennas as a separate module (option)

RBS 6402 eNodeB product's maximum configurable output power is 20...250 mW (+13...+24 dBm) complying with the 3GPP Local Area requirement specification (maximum output power equal or less than +24 dBm).

RBS 6402 will include modules presented in Figure 1. Two triple band RF modules can be included with four internal antenna modules when RBS 6402 can support 2*three FDD bands (one band enabled at time / RF module).

In this tested configuration only one RF module, band 2, single carrier with two antenna modules was included.

RBS 6402 shall always be powered via a specified power supply: AC/DC adapter or PoE injector (Power over Ethernet). RBS 6402 has a connector for DC input (48 V) when supplied by the AC/DC adapter. Alternatively, the RBS 6402 can be supplied via a PoE injector which includes DC connection and LAN transmission via the specified PoE injector.

The DC input of RBS 6402 was not tested as a DC input port because a specified AC/DC power supply always has to be used, except in configurations that use PoE power supplies. During the EMC tests tested and approved AC/DC and PoE power supplies were used. The AC/DC and PoE power supplies were earthed via AC mains cables, but RBS 6402 itself was not.

The Ethernet interface is for transport backhaul and it is connected to the RBS 6402 with a RJ-45 connector. The Ethernet interface is considered as a telecommunication port. There are no requirements of using shielded LAN cables, so unshielded Ethernet cables (Cat. 5E and Cat.6) were used in the tests.

The tested RBS 6402 has two integrated internal antennas for WCDMA transmission. The connector for the RBS 6402 internal antennas can also be used for the external antennas as an alternative antenna option.

RBS 6402 is designed to get the clock synchronization from the GPS signal via the separate GRU module (GPS Receiver Unit) of Ericsson. RBS 6402 has an interface for an external GRU module including DC power feeding to the amplifier integrated in the GPS antenna. GRU module is connected via a special cable (length 2,9 m) to the GRU port on RBS 6402, which is considered as a signal/control port.

RBS 6402 is multimode (e)NodeB supporting following operational modes:

- LTE FDD
- WCDMA FDD
- Mixed mode (own RF module for LTE and WCDMA)

Intertek Semko AB Torshamnsgatan 43, Box 1103, SE-164 22 Kista, Sweden Telephone +46 8 750 00 00, Fax +46 8 750 60 30 www.intertek.se Registered in Sweden: No: SE556024059901, Registered office: As address



Below is a block diagram of RBS 6402 indoor base station.

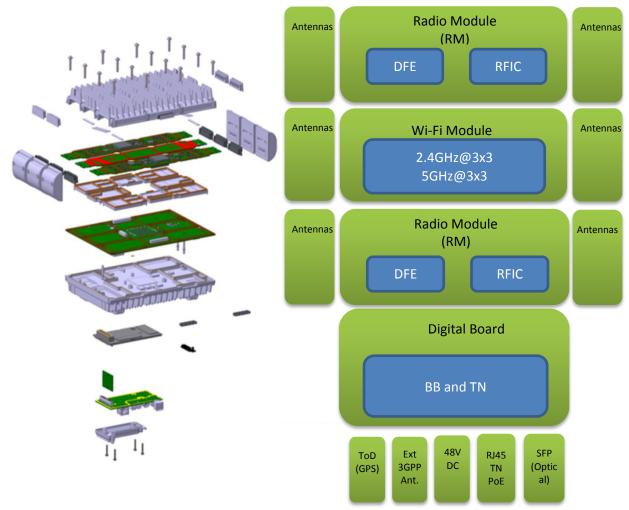


Figure 1. RBS 6402 block diagram. Wi-Fi module was not included in the tested configuration.



2.4 Additional information about the EUT

The EUT consists of the following units:

| Unit | Туре | Serial number | Note |
|----------------------------|------------------|--------------------|-------------------|
| | | | |
| Radio base station | RBS 6402 | C829931232 | |
| Radio base station | RBS 6402 | C829930754 | Used in RF output |
| | | | power test |
| Antennas (2pcs) | R1B 20150211 | 1 | Used in RF output |
| | | | power test |
| AC/DC Power supply adapter | AD10048P3L-403 | BR84057235 | |
| PoE Injector | PowerDsine 9601G | N13446610000302A00 | |

RBS software used in the tests: SW RELEASE: wcdma_daily_build_rnd R1BD02

The EUT was tested with the following cables:

| Port: | Туре: | Length: [m] | Specifications: |
|------------------------------|-----------------------------------|----------------|--|
| AC port | AC power supply for AC/DC adapter | 2,0 | Three core |
| AC port | AC power supply for PoE injector | 2,0 | Three core |
| DC port | DC input cable with AC/DC adapter | 1,2 | Coaxial |
| LAN/Power input port | Signal cable | 10,0 | Unshielded, CAT 6, RJ45 |
| LAN (Telecommunication port) | Signal cable | 10,0 | Unshielded, CAT.6, RJ-45 |
| GRU signal port | Signal cable | 2,9 | Shielded, CAT 6, Mini I/O connector |

2.5 Peripheral equipment

Peripheral equipment is equipment needed for correct operation of the EUT, but not included as part of the testing and evaluation of the EUT.

| Equipment | Type / Model | Manufacturer | Serial number |
|------------------------------|---------------------|--------------|---------------|
| Laptop | Dell Latitude E6420 | Dell | 4rkfbs1 |
| 2 pcs of 50 ohm terminations | Anne 50+ | MCL | |
| GRU termination | | | |
| WAN A termination | | | |

PoE injector was used as an alternative power supply in certain tests.

2.6 Modifications made to improve EMC-characteristics

No modifications have been made during the tests.



3 TEST SPECIFICATIONS

3.1 Standards

Requirements: 47 CFR Part 2 (2013) 47 CFR Part 24 (2013): Subpart E 47 CFR Part 15 (2013): Subpart B RSS-GEN Issue 4 (2014) RSS-133 Issue 6 (2013) ICES-003 Issue 5 (2012)

Test methods: ANSI-TIA-603-C-2004 ANSI C63.4-2014 KDB 971168 D01 v02r01

3.2 Additions, deviations and exclusions from standards and accreditation

RSS-GEN Issue 4 (2014) and RSS-133 Issue 6 (2013) are not within the scope of accreditation.

Only radiated spurious emission, RF output power and conducted spurious emissions from AC-mains parts of the standards are measured by request from the client.

No other additions, deviations or exclusions have been made from standards and accreditation.

3.3 Test site

Measurements were performed at:

Intertek Semko AB. Torshamnsgatan 43, P.O. Box 1103 SE-164 22 Kista

Intertek Semko AB is a FCC listed test site with site registration number 90913 Intertek Semko AB is a FCC accredited conformity assessment body with designation number SE0002 Intertek Semko AB is an Industry Canada listed test facility with IC assigned code 2042G

Measurement chambers

| Measurement Chamber | Type of chamber | IC Site filing # |
|---------------------|----------------------|------------------|
| 5 Meters Hall | Semi-anechoic 5 m | 2042G-3 |

3.4 Mode of operation during the test

The EUT was tested with 120 V, 60 Hz. AC/DC adapter or PoE injector is used for powering EUT during tests, as specified in each test chapter.

Tests are made with QPSK, modulation on the bottom (B), middle (M) and top (T) channels and with the channel bandwidths as stated in the table below.



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| Mode | Channel BW [MHz] | TX B, M, T Frequencies [MHz] | TX B, M, T Channels | RX B, M, T Frequencies [MHz] | RX B, M, T Channels |
|--------|---------------------|---------------------------------------|---------------------------|---------------------------------------|---------------------------|
| WCDMA | 5 | 1932.4 1960.0 | 9662 9800 | 1852.4 1880.0 | 9262 9400 |
| WODINA | 5 | 1987.6 | 9938 | 1907.6 | 9538 |

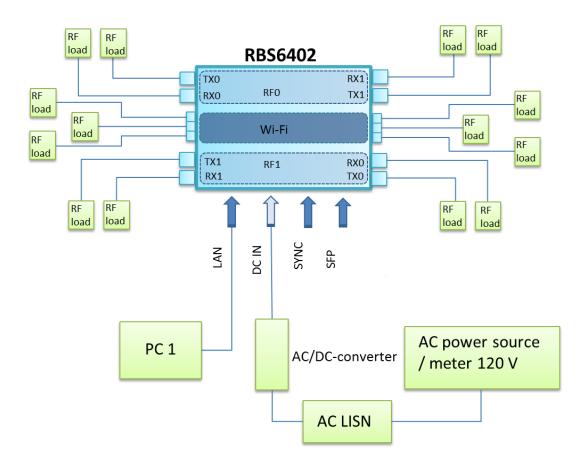
The EUT is activated by software for maximum transmit power 2×0.25 W. Channel bandwidth 5 MHz is used during the tests.

Because RBS 6402 can be mounted on the wall (vertical position) or on the ceiling (horizontal position) a part of the radiated emission test cases are performed at the both positions.

3.5 Test setup block diagram

Conducted emissions

Only one radio module was included into the tested configuration. Wi-Fi module was not included in the tested configuration.

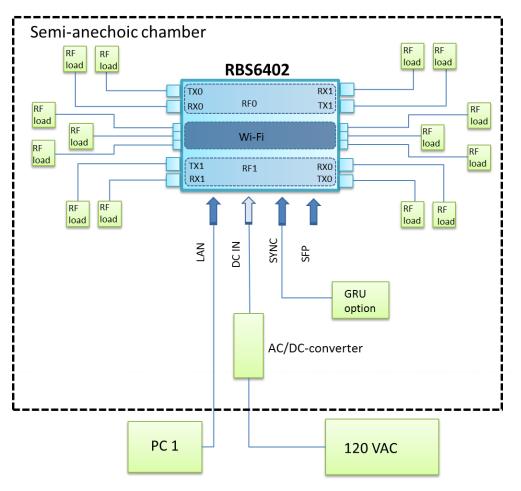


S 114 10-06 Strömberg 164234



Radiated emissions

Only one radio module was included into the tested configuration. Wi-Fi module was not included in the tested configuration. In the radiated emission measurements below 1 GHz, instead of connected PC, WAN A line (LAN) was terminated and Ethernet EMI test model TM-1 was used.





4 TEST SUMMARY

The results in this report apply only to sample tested:

| Standard | Description | |
|--|---|------|
| | Emission | |
| CFR 47, Part 2.1046, | RF output power | PASS |
| Part 24.232 | The EUT complies with the limits. | |
| RSS-Gen section 4.8 | The margin to the limit was at least 9.5 dB at 1960.0 MHz | |
| RSS-133 section 6.4 | See clause 7. | |
| CFR 47, Part 2.1049 | Occupied bandwidth | NT |
| RSS-Gen section 4.6 | Not Tested by request of the client. Test is performed by the client in another test house and reported in the corresponding documents. | |
| CFR 47, Part 2.1051, | Intermodulation | NT |
| Part 24.238 | Not Tested by request of the client. Test is performed by the client in another test house and reported in the corresponding documents. | |
| CFR 47, Part 2.1051, | Out of band spurious emissions, conducted | NT |
| Part 24.238 | Not Tested by request of the client. Test is performed by the | |
| RSS-Gen section 4.9 | client in another test house and reported in the corresponding | |
| RSS-133 section 6.5 | documents. | |
| CFR 47, Part 2.1053, | Transmitter out of band spurious emissions, radiated | PASS |
| Part 24.238 | The EUT complies with the limits. | |
| RSS-Gen section 4.9 RSS-133 section 6.5 | The margin to the limit was at least 28 dB at 18.0 GHz See clause 6.5 | |
| CFR 47, Part 2.1055 | Frequency stability | NT |
| RSS-Gen section 4.7 | Not Tested by request of the client. Test is performed by the | |
| RSS-133 section 6.3 | client in another test house and reported in the corresponding documents. | |
| CRF 47, Part 15.109 | Receiver out of band spurious emissions, radiated | PASS |
| RSS-Gen section 6.1 | The EUT complies with the limits. | |
| ICES-003 section 6.2 | The margin to the limit was at least 10.7 dB at 933.966 MHz See clause 6.4 | |
| CRF 47, Part 15.107 | Conducted spurious emissions from AC-Mains | PASS |
| ICES-003 section 6.1 | The EUT complies with the limits. | |
| | The margin to the limit was at least 18.7 dB at 0.154 MHz See clause 5.3 | |



5 CONDUCTED CONTINUOUS DISTURBANCES IN THE FREQUENCY-RANGE 0.15 - 30 MHZ

| Date of test: | 2015-09-11 | Test location: | 5 Meters Hall |
|---------------|----------------|--------------------------|---------------|
| EUT Serial: | C829931232 | Ambient temp: [°C] | 22 |
| Tested by: | Antonio Macedo | Relative humidity: [%RH] | 49 |
| Test result: | Pass | Margin: [dB] | 18.7 |

5.1 Test set-up and test procedure

The test method is in accordance with ANSI C63.4 (2014).

The EUT was connected to the power via Artificial Mains Networks AMN. The EUT was placed on an insulating support 0.8 m above the floor, 0.4 m from the vertical reference ground plane (RGP) and 0.8 m from the AMN/ISN.

Overview sweeps were performed for each lead.

During the tests the EUT was in receive mode.

Tests are made with EUT powered by both AC/DC adapter and PoE injector.

5.2 Conducted emission requirements:

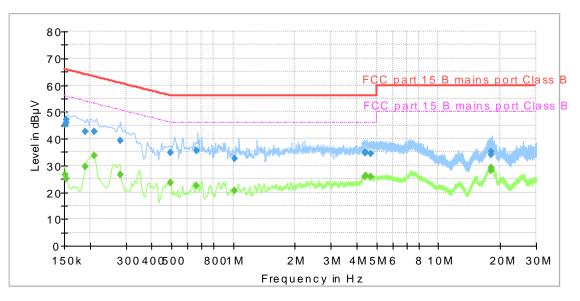
The EUT shall meet the limits for the standards. Reference: 47 CFR §15.107 ICES-003, section 8.8 table 3

Limits for conducted emission:

| Frequency range | Limits [dBµV] | | |
|-----------------|---------------|---------|--|
| [MHz] | Quasi-Peak | Average | |
| 0.15 – 0.50 | 66 – 56 | 56 – 46 | |
| 0,50 - 5.00 | 56 | 46 | |
| 5.00 - 30.0 | 60 | 50 | |



5.3 Test results: AC Power input port of AC/DC adapter



Diagram, Peak and Average overview sweep, EUT powered by AC/DC adapter

| Frequency [MHz] | Level [dBµV] | Limit [dBµV] | Line L/N | Margin [dB] |
|--------------------|-----------------|-----------------|-------------|----------------|
| 0.151 | 45.2 | 65.9 | N | 20.7 |
| 0.153 | 46.1 | 65.8 | N | 19.7 |
| 0.154 | 47.1 | 65.8 | L1 | 18.7 |
| 0.211 | 42.6 | 63.2 | N | 20.6 |
| 0.496 | 34.9 | 56.0 | N | 21.1 |
| 0.665 | 35.6 | 56.0 | N | 20.4 |

Measurement results, Quasi-peak

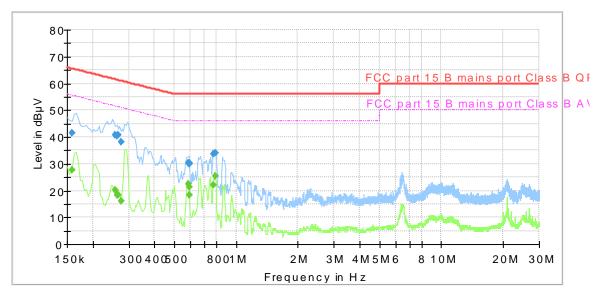
Measurement results, Average

| Frequency [MHz] | Level [dBµV] | Limit [dBµV] | Line L/N | Margin [dB] |
|--------------------|-----------------|-----------------|-------------|----------------|
| 0.211 | 33.6 | 53.2 | N | 19.6 |
| 4.364 | 25.8 | 46.0 | Ν | 20.2 |
| 4.447 | 26.1 | 46.0 | N | 19.9 |
| 4.690 | 25.8 | 46.0 | N | 20.2 |
| 18.185 | 29.0 | 50.0 | N | 21.0 |

Result $[dB\mu V]$ = Analyser reading $[dB\mu V]$ + cable loss [dB] + LISN insertion loss [dB]



5.4 Test results: AC Power input port of PoE injector



Diagram, Peak and Average overview sweep, EUT powered by PoE injector

| Frequency [MHz] | Level [dBµV] | Limit [dBµV] | Line L/N | Margin [dB] |
|--------------------|-----------------|-----------------|-------------|----------------|
| 0.256 | 40.9 | 61.6 | Ν | 20.7 |
| 0.263 | 40.5 | 61.3 | L1 | 20.8 |
| 0.265 | 40.8 | 61.3 | L1 | 20.5 |
| 0.275 | 38.2 | 61.0 | Ν | 22.8 |
| 0.771 | 33.6 | 56.0 | L1 | 22.5 |
| 0.797 | 34.1 | 56.0 | L1 | 21.9 |

Measurement results, Quasi-peak

Measurement results, Average

| Frequency [MHz] | Level [dBµV] | Limit [dBµV] | Line L/N | Margin [dB] |
|--------------------|-----------------|-----------------|-------------|----------------|
| 0,158 | 27,8 | 55,6 | L1 | 27,8 |
| 0,586 | 22,6 | 46,0 | L1 | 23,4 |
| 0,589 | 21,4 | 46,0 | N | 24,6 |
| 0,590 | 18,4 | 46,0 | N | 27,6 |
| 0,771 | 22,0 | 46,0 | L1 | 24,1 |
| 0,797 | 25,4 | 46,0 | L1 | 20,6 |

Result $[dB\mu V]$ = Analyser reading $[dB\mu V]$ + cable loss [dB] + LISN insertion loss [dB]



6 OUT OF BAND SPURIOUS EMISSIONS THE FREQUENCY-RANGE 30 MHZ TO 20 GHZ

| Date of test: | 2015-09-08 2015-09-09 2015-09-10 | Test location: | 5 Meters Hall |
|---------------|--|--------------------------|---------------|
| EUT Serial: | C829931232 | Ambient temp: [°C] | 22 / 21 / 21 |
| Tested by: | Antonio Macedo | Relative humidity: [%RH] | 38 / 40 / 48 |
| Test result: | Pass | Margin: [dB] | 10.7 dB |

6.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.4 and ANSI-TIA-603-C-2004.

Both receiver and transmitter were active during the tests.

The EUT was set up in order to transmit maximum power, QPSK modulation and 5 MHz channel BW.

Antenna ports were terminated during the tests.

Tests have been performed with the EUT in horizontal position, supplied by PoE, as this was considered the worst case setup acc. to previous test report 1507865STO-001, Ed1.

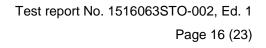
The EUT was placed on an insulating support 0.8 m above the turntable which is part of the reference ground plane.

Overview sweeps were performed with the measurement receiver in max-hold mode and the peak detector activated. Above 1 GHz both peak and average detector is activated.

6.2 Test conditions

| Test set-up: Test receiver | set-un | 30 MHz to 100 | 0 MHz |
|--|-------------------------------|---|---------------------------------------|
| Preview test: Final test: | | Peak, Quasi-Peak, | RBW 120 kHz. VBW 1 MHz RBW 120 kHz |
| Measuring dis Measuring an Antenna | | 3 m 0 – 359° | |
| | above ground plane: ation: | 1 – 4 m Vertical and Ho Bilog | prizontal |
| Test set-up: Test receiver | sat-un- | 1 GHz – 20 GH | łz |
| Preview test: | ser-up. | Peak, Average, | RBW 1 MHz. VBW 3 MHz RBW 1 MHz |
| Final test: | | Average, Peak, | RBW 1 MHz RBW 1 MHz |
| Measuring dis Measuring an Antenna | | 3 m 0 – 359° | |
| | | 1 – 4 m Vertical and Ho Horn Activated | prizontal |

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6.3 Radiated Emission requirements

The EUT shall meet the limits for the standards.

Receiver

| Reference: | 47 CFR §15.109 |
|------------|---------------------------|
| | IC RSS-GEN Table 2 |
| | ICES-003 Table 5, Table 7 |

Limits for general radiated emission:

| Frequency range [MHz] | Field strength at 3 m (dBµV/m) | Detector (dBµV/m) |
|--------------------------|--------------------------------------|----------------------|
| 30 – 88 | 40.0 | Quasi Peak |
| 88 – 216 | 43.5 | Quasi Peak |
| 216 – 960 | 46.0 | Quasi Peak |
| 960 – 1000 | 54.0 | Quasi Peak |
| Above 1000 | 54.0 / 74.0 | Average / Peak |

The values for each measurement distance are given using an extrapolation factor of 20 dB/decade above 30 MHz and 40 dB/decade below 30 MHz according to \$15.31(f)(1), \$15.31(f)(2) and RSS-GEN sections 6.4 and 6.5.

The frequency range to be inspected is up to the fifth harmonics of the highest fundamental frequency according to 47 CFR §15.33 and ICES-003 Table 3.

Transmitter

Reference: 47 CFR §24.238 RSS-133 Section 6.5.1

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P) dB$. This gives a limit at -13 dBm.

The frequency range to be inspected is up to the tenth harmonics of the highest fundamental frequency according to 47 CFR 2.1057 and RSS-Gen Section 6.13.

The field strength limit is calculated using the plane wave relation.

$GP/4\pi R^2 = E^2 / 120\pi$

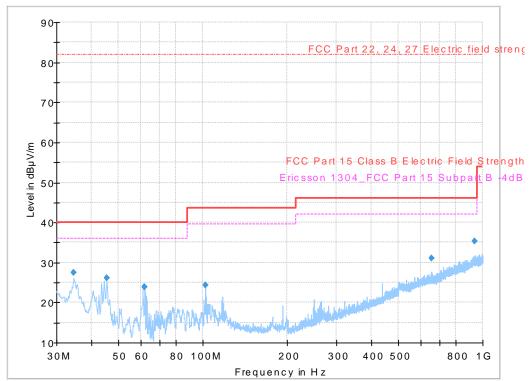
G: antenna gain P: power (W) R: measurement distance (m)

-13 dBm EIRP gives a field strength limit of 84.4 dB $_{\mu}V/m$ at a 3m measurement distance in an anechoic chamber.



6.4 Test results 30 MHz – 1000 MHz

Preview sweep is repeated for bottom, middle and top channel with EUT in horizontal position. No significant difference in results are found for different channels or positions of EUT. The worst case preview is shown below:



Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance. Middle channel, EUT in horizontal position, powered by PoE injector,

| Frequency [MHz] | Level [dBµV/m] | Limit, RX [dBµV/m] | Polarization H/V | Margin [dB] |
|--------------------|-------------------|-----------------------|---------------------|----------------|
| 34.629 | 27.4 | 40.0 | V | 12.6 |
| 45.390 | 26.2 | 40.0 | V | 13.8 |
| 62.002 | 23.8 | 40.0 | V | 16.2 |
| 62.023 | 23.8 | 40.0 | V | 16.2 |
| 102.044 | 24.4 | 43.5 | V | 19.1 |
| 657.292 | 31.0 | 46.0 | Н | 15.0 |
| 933.966 | 35.3 | 46.0 | V | 10.7 |

Measurement results, Quasi Peak

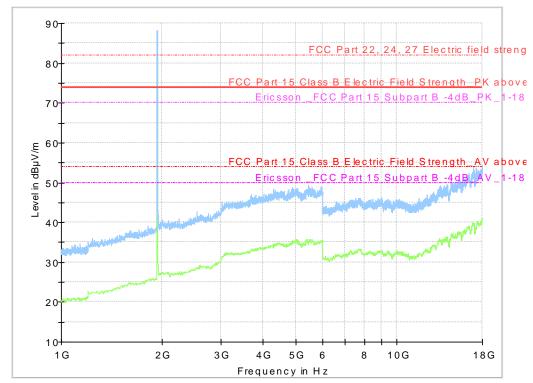
The margin to the TX limit is at least 46.7 dB.

Result $[dB\mu V/m] =$ Analyser reading $[dB\mu V] +$ Antenna factor [1/m] - Amplifier gain [dB] + Cable loss [dB]

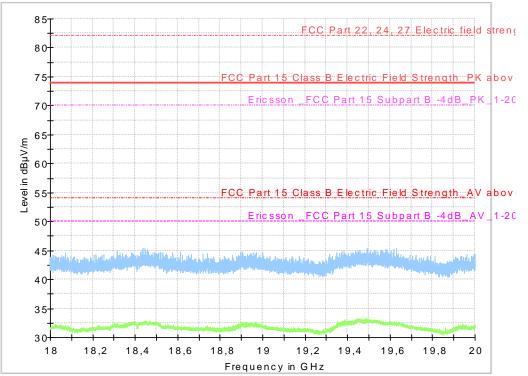


6.5 Test results 1 GHz - 20 GHz

Preview sweep is repeated for bottom, middle and top channel with EUT in horizontal position. No significant difference in results are found for different channels or positions of EUT. The worst cases preview are shown below:



Diagram, Peak overview sweep, 1 – 18 GHz at 3 m distance. Bottom channel. EUT in horizontal position, supplied by PoE injector. TX frequency of B2 shall be ignored.



Diagram, Peak overview sweep, 18 – 20 GHz at 3 m distance. Top channel. EUT in horizontal position, supplied by PoE injector.



Measurement results, Peak / Average

No emissions except carrier are found above noise floor for any frequency above 1 GHz.

All measured emissions in RX mode have a margin of more than 12 dB to the average limit and more than 20 dB to the peak limit.

All measured emissions in TX mode have a margin of more than 28 dB to the limit.

Result $[dB\mu V/m] =$ Analyser reading $[dB\mu V] +$ Antenna factor [1/m] - Amplifier gain [dB] + Cable loss [dB]



7 RF OUTPUT POWER

| Date of test: | 2015-09-10 | Test location: | 5 Meters Hall |
|---------------|--------------|--------------------------|---------------|
| EUT Serial: | C829278266 | Ambient temp: [°C] | 21 |
| Tested by: | Matti Virkki | Relative humidity: [%RH] | 48 |
| Test result: | Pass | Margin: [dB] | 12.7 |

7.1 Test set-up and test procedure.

The test method is in accordance with ANSI-TIA-603-C-2004 and KDB971168 D01 v02r01.

The same test setup as in radiated spurious emission test was used to find the angle and antenna height which gives highest emission (see section 6). Spectrum analyser with channel power measurement function and substitution method is used to determine the RF output power.

The EUT was set up in order to emit maximum output power.

The EUT was placed in vertical position supplied with AC/DC adapter, as it was considered the worst case acc. to previous Test report 1507865STO-001, Ed1.

Measurements are made with 5 channel bandwidth and on bottom, middle and top channel for QPSK modulation.

7.2 Test conditions

| 5MHz channel BW: | | | | | |
|------------------|----------|--|--|--|--|
| Detector: | RMS | | | | |
| RBW | 100 kHz | | | | |
| VBV | 300 kHz | | | | |
| Span | 7 MHz | | | | |
| Trace | Max hold | | | | |

7.3 RF output power requirements:

The EUT shall meet the limits for the standards.

Reference: 47 CFR §24.232 Base stations with an emission bandwidth greater than 1 MHz are limited to 1640 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT.

Reference: RSS-133, section 6.4 Base station transmitters operating in the band 1930-1995 MHz shall not have output power exceeding 100 watts.



7.4 Test results

RF output power

| Frequency | Modulation | Channel bandwidth | EIRP | Limit | Polarization |
|-----------|------------|-------------------|-------|-------|--------------|
| [MHz] | | [MHz] | [dBm] | [dBm] | H/V |
| 1932,4 | QPSK | 5 | 35,5 | 50 | Н |
| 1960,0 | QPSK | 5 | 37,3 | 50 | Н |
| 1987,6 | QPSK | 5 | 32,1 | 50 | Н |



8 TEST EQUIPMENT

| Conducted emission, test site: RC Chamber | | | | | |
|---|--|--|--|--|--|
| | | | | | |

| Equipment type | Manufacturer | Model | Inv. No. | Last Cal. date | Cal. interval |
|----------------------|--------------------|-------------|----------|----------------|---------------|
| Measurement software | Rohde & Schwarz | EMC32 | | | |
| Measurement Receiver | R&S | ESIB 26 | 32286 | 2015-06-30 | 1 year |
| Transient Protection | R&S | ESH3-Z2 | 32455 | 2015-07-01 | 1 year |
| Coaxial Cable | R&S | MLR400UF | 39023 | 2015-01-30 | 1 year |
| Coaxial Cable | R&S | MLR400UF | 39022 | 2015-06-17 | 1 year |
| AMN | R&S | ESH3-Z5 | 32711 | 2015-06-30 | 1 year |
| CDN | Teseq | ISN T8-Cat6 | 13132 | 2015-07-02 | 1 year |

Radiated emission, test site: 5 Meters Hall

| Equipment type | Manufacturer | Model | Inv. No. | Last Cal. date | Cal. interval |
|----------------------------------|--------------------|------------------|----------|----------------|---------------|
| Measurement software | Rohde & Schwarz | EMC32 | | | |
| Measurement receiver | Rohde & Schwarz | ESIB26 | 32287 | 2015-06-30 | 1 year |
| Preamplifier | Rohde & Schwarz | TS-PRE1 | 32297 | 2015-07-03 | 1 year |
| Antenna ultralog | Rohde & Schwarz | HL562 | 32310 | 2015-02-05 | 1 year |
| Horn antenna | Rohde & Schwarz | HF907 | 32550 | 2015-04-08 | 1 year |
| Horn antenna + preamplifier | BONN | BLMA 1826- 5A | 31247 | 2014-01-22 | 3 years |
| Coaxial cable | Rosenberger | JFB293C | 9981 | 2015-06-30 | 1 year |
| Coaxial cable | Rosenberger | JFB293C | 9982 | 2015-06-30 | 1 year |
| Coaxial cable | Rosenberger | UFB311A | 39053 | 2015-06-30 | 1 year |
| Antenna mast | Maturo Gmbh | TAM 4.0-E | 32375 | | |
| Antenna mast | Maturo Gmbh | AM 4.0 | 32377 | | |
| Control unit | Maturo Gmbh | NCD | 32390 | | |
| Coaxial cable | Radiall | SHF8M | 9989 | 2015-07-16 | 1 year |
| Monitoring camera | Pontis | Cam 80P261 | 32423 | | |
| Open switch and control platform | Rohde & Schwarz | OSP130 | 32298 | 2015-07-16 | 1 year |
| Open switch and control platform | Rohde & Schwarz | OSP-F7-B | 32299 | 2015-07-16 | 1 year |
| Rotary join | Spinner | BN835027 | 31807 | 2015-06-26 | |
| EMI Test Receiver | Rohde & Schwarz | ESU 40 | 13178 | 2015-07-07 | 1 year |
| Coaxial cable | HUBER + SUHNER | SUCOFLEX 106 | 39078 | 2015-07-06 | 1 year |



9 MEASUREMENT UNCERTAINTY

Continuous conducted disturbances with AMN in the frequency range 9 kHz to 30 MHz ± 3.6 dB

Measurement uncertainty for radiated disturbanceUncertainty for the frequency range 30 to 1000 MHz at 3 m± 4.9 dBUncertainty for the frequency range 30 to 1000 MHz at 10 m± 4.8 dBUncertainty for the frequency range 1.0 to 18 GHz at 3 m± 5.4 dBUncertainty for the frequency range 18 to 26 GHz at 3 m± 5.5 dBUncertainty for the frequency range 26 to 40 GHz at 3 m± 5.6 dB

Measurement uncertainty is calculated in accordance with CISPR 16-4-2:2011. The measurement uncertainty is given with a confidence of 95 %.

10 TEST SET UP AND EUT PHOTOS

EUT photos are in separate document 1507865STO, Annex 1, Ed 1.

Test setup photos are in separate document 1507865STO, Annex 2, Ed 1.