

| Report Reference ID: | 309139-3TRFWL |
|----------------------|---------------|
|----------------------|---------------|

| Test specification: | Title 47 – Telecommunication Chapter I – Federal Communications Commission Subchapter B – Common carrier services Part 27 – Miscellaneous wireless communications services |
|---------------------|--|
|---------------------|--|

| Applicant: | TEKO Telecom Srl. Via Meucci, 24/a I-40024 Castel S. Pietro Terme (BO) (Italy) |
|------------|--|
| Apparatus: | Enhanced Power Remote Unit   |
| Model:     | TRLAW2325AT  |
| FCC ID:    | XM2- EPAWE2325   |

| Testing laboratory: | Nemko Italy Spa Via del Carroccio, 4 20853 Biassono (MB) – Italy Telephone: +39 039 2201201 Facsimile: +39 039 2201221 |
|---------------------|--|
|---------------------|--|

|              | Name and title                       | Date       |
|--------------|--------------------------------------|------------|
| Tested by:   | P. Barbieri, Wireless/EMC Specialist | 2016-06-24 |
| Reviewed by: | Curianis                             | 2016-06-24 |
| rioniou sy.  | G. Curioni, Wireless/EMC Specialist  | 20.0 00 21 |

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# Table of contents

| <b>Section 1</b> 1.1 | : Report summary Test specification                            |    |
|----------------------|--|----|
| 1.2                  | Statement of compliance  | 4  |
| 1.3                  | Exclusions   | 4  |
| 1.4                  | Registration number  | 4  |
| 1.5                  | Test report revision history                                   | 4  |
| 1.6                  | Limits of responsibility                                       | 4  |
| <b>Section 2</b> 2.1 | : Summary of test results                                      |    |
| <b>Section 3</b> 3.1 | : Equipment under test (EUT) and application details           |    |
| 3.2                  | Modular equipment  | 6  |
| 3.3                  | Product details  | 6  |
| 3.4                  | Application purpose  | 6  |
| 3.5                  | Composite/related equipment                                    | 7  |
| 3.6                  | Sample information   | 7  |
| 3.7                  | EUT technical specifications                                   | 7  |
| 3.8                  | Accessories and support equipment                              | 8  |
| 3.9                  | Operation of the EUT during testing                            | 9  |
| 3.10                 | EUT setup diagram  | 9  |
|                      | : Engineering considerations                                   |    |
| 4.1                  | Modifications incorporated in the EUT                          |    |
| 4.2                  | Deviations from laboratory tests procedures                    |    |
| 4.3                  | Technical judgment   |    |
| 5.1                  | : Test conditions  Deviations from laboratory tests procedures |    |
| 5.2                  | Test conditions, power source and ambient temperatures         | 11 |
| 5.3                  | Measurement uncertainty  | 12 |
| 5.4                  | Test equipment   | 12 |
|                      | A: Test results  |    |
|                      | 5210 D05v01 (3.3) Out of band rejection                        |    |
|                      | .53(m)(6) Occupied bandwidth                                   |    |
|                      | .50(h) Peak output power at RF antenna connector               |    |
|                      | .53(m) Spurious emissions at RF antenna connector              |    |
| 1                    |  |    |





| Clause 27.53(m) Radiated Spurious emissions                      | 25       |
|--|----------|
| Appendix B: Block diagrams of test set-upsAppendix C: EUT Photos | 33<br>34 |
|  |          |
|  |          |
|  |          |
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Specification: FCC 27

# Section 1: Report summary

# Test specification

**Specifications** 

Part 27 - Miscellaneous wireless communications services

#### 1.2 Statement of compliance

#### Compliance

In the configuration tested the EUT was found compliant

Yes 🖂 No □

This report contains an assessment of apparatus against specifications based upon tests carried out on samples submitted at Nemko Canada Inc. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 27. Radiated tests were conducted in accordance with ANSI C63.4-2003.

#### 1.3 **Exclusions**

**Exclusions** 

None

#### 1.4 Registration number

| Test site FCC |
|---------------|
| ID number     |

176392 (3 m Semi anechoic chamber)

# Test report revision history

| •          |  |
|------------|--|
| Revision # | Details of changes made to test report |
| TRF        | Original report issued                 |
| R1TRF      |  |

#### 1.6 Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025. Nemko Spa authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only.

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Nemko Spa accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.



Specification: FCC 27

# Section 2: Summary of test results

| Part         | Methods                  | Test description                           | Verdict |
|--------------|--------------------------|--|---------|
|              | § 935210<br>D05v01 (3.2) | AGC threshold                              | Pass    |
|              | § 935210<br>D05v01 (3.3) | Out of band rejection                      | Pass    |
| §27.53(m)(6) | § 935210<br>D05v01 (3.4) | Occupied bandwidth                         | Pass    |
| §27.50(h)    | § 935210<br>D05v01 (3.5) | Peak output power at RF antenna connector  | Pass    |
| §27.53(m)    | § 935210<br>D05v01 (3.6) | Spurious emissions at RF antenna connector | Pass    |
| §27.53(m)    | § 935210<br>D05v01 (3.8) | Radiated spurious emissions                | Pass    |
| §27.54       | § 935210<br>D05v01 (3.7) | Frequency stability                        | N/A a)  |

### Notes:

a) NOT APPLICABLE: Modulation/frequency conversion circuitry not in use. No frequency change in EUT (input and output have same frequency)

Nemko

Product: TRLAW2325AT

Specification: FCC 27

# Section 3: Equipment under test (EUT) and application details

| 3.1 Applicant of  | lotaile                         |  |
|-------------------|---------------------------------|--|
|                   |                                 | Tales Tales are Orl  |
| Applicant         | Name:                           | Teko Telecom Srl   |
| complete          | Federal                         |  |
| business name     | Registration                    | 0018963462   |
|                   | Number (FRN):                   |  |
|                   | Grantee code                    | XM2  |
| Mailing address   | Address:                        | Via Meucci, 24/a   |
|                   | City:                           | Castel S. Pietro Terme   |
|                   | Province/State:                 | Bologna  |
|                   | Post code:                      | 40024  |
|                   | Country:                        | Italy  |
|                   |                                 |  |
|                   |                                 |  |
| 3.2 Modular ed    | quipment                        |  |
| a) Single modular | Single modular approval         |  |
| approval          | Yes □                           | No ⊠   |
| b) Limited single | Limited single modular approval |  |
| modular approval  | Yes □ No ⊠                      |  |
|                   |                                 |  |
| 3.3 Product de    | tails                           |  |
| FCC ID            | Grantee code:                   | XM2  |
|                   | Product code:                   | - EPAWE2325  |
| Equipment class   | B2I                             |  |
| Description of    | Booster                         |  |
| product as it is  | Model                           |  |
| marketed          | name/number:                    | TRLAW2325AT  |
|                   | Serial number:                  | 1004835001   |
|                   | Condination.                    | 100100001  |
|                   |                                 |  |
| 3.4 Application   | purpose                         |  |
| Type of           | Original certi                  | fication   |
| application       | ☐ Change in id                  | entification of presently authorized equipment   |
|                   | Original FCC                    | ,  |
|                   | 9                               | nissive change or modification of presently authorized   |
|                   | equipment                       | and the second of the second o |
|                   |                                 |  |



Specification: FCC 27

# Section 3: Equipment under test

| 3.5 Composite/related equipment |  |  |  |
|---------------------------------|--|--|--|
| a) Composite                    | The EUT is a composite device subject to an additional equipment     |  |  |
| equipment                       | authorization  |  |  |
|                                 | Yes □ No ⊠   |  |  |
| b) Related                      | The EUT is part of a system that operates with, or is marketed with, |  |  |
| equipment                       | another device that requires an equipment authorization              |  |  |
|                                 | Yes □ No ⊠   |  |  |
| c) Related FCC ID               | If either of the above is "yes":                                     |  |  |
|                                 | has been granted under the FCC ID(s) listed below:                   |  |  |
|                                 | is in the process of being filled under the FCC ID(s) listed below:  |  |  |
|                                 | is pending with the FCC ID(s) listed below:                          |  |  |
|                                 | has a mix of pending and granted statues under the FCC ID(s)         |  |  |
|                                 | listed below:  |  |  |
|                                 | i FCC ID:  |  |  |
|                                 | ii FCC ID:   |  |  |

| 3.6 Sample information  |            |  |
|-------------------------|------------|--|
| Receipt date:           | 2016-06-20 |  |
| Nemko sample ID number: |            |  |

| 3.7 EUT techn        | ical specifications  |
|----------------------|--|
| Operating band:      | Down Link – Up Link: 2496–2690 MHz   |
| Operating frequency: | Wideband   |
| Modulation type:     | LTE-TDD (QAM and QPSK)   |
| Occupied bandwidth:  | LTE: 5 MHz, 10 MHz, 15 MHz, 20 MHz   |
| Channel spacing:     | standard   |
| Emission designator: | LTE: D7W   |
| RF Output            | Down Link: 31dBm (1,25W) Up Link: N.A. (The EUT does not transmit over the air in the up-link direction) |
| Gain                 | Down Link: 36dB Up Link: N.A. (The EUT does not transmit over the air in the up-link direction)          |
| Antenna type:        | External Antenna is not provided, equipment that has an external 50 $\Omega$ RF connector                |
| Power source:        | 100-240 Vac  |



Specification: FCC 27

# Section 3: Equipment under test

| 3.8 Accessories and    | d support equipment  |
|------------------------|--|
|                        | lentifies accessories used to exercise the EUT during testing: |
|                        | entines accessories used to exercise the EOT during testing.   |
| Item # 1               |  |
| Type of equipment:     | Master Unit - Subrack  |
| Brand name:            | Teko Telecom srl   |
| Model name or number:  | SUB-TRX-PSU  |
| Serial number:         | 101083001  |
| Nemko sample number:   |  |
| Connection port:       |  |
| Cable length and type: |  |
| Item # 2               |  |
| Type of equipment:     | Master Unit – Management Module                                |
| Brand name:            | Teko Telecom srl   |
| Model name or number:  | TSPV-R   |
| Serial number:         | 110942253  |
| Nemko sample number:   |  |
| Connection port:       | LAN port   |
| Cable length and type: |  |
| Item # 3               |  |
| Type of equipment:     | Master Unit – Optical Module                                   |
| Brand name:            | Teko Telecom srl   |
| Model name or number:  | TTRU4W-S-M   |
| Serial number:         | 110679007  |
| Nemko sample number:   |  |
| Connection port:       | DL/UL RF connector (to connect to the base station)            |
| ·                      | Optical port (to connect to remote unit)                       |
| Cable length and type: |  |
| Item # 4               |  |
| Type of equipment:     | Master Unit – Power Supply                                     |
| Brand name:            | Teko Telecom srl   |
| Model name or number:  | TPSU/AC  |
| Serial number:         | 081063004  |
| Nemko sample number:   |  |
| Connection port:       |  |
| Cable length and type: |  |
| 7.                     |  |
|                        | ·  |



Specification: FCC 27

### 3.9 Operation of the EUT during testing

**Details:** 

In down-link direction, normal working at max gain with max RF power output.

## 3.10 EUT setup diagram

In this system, Remote Unit is the EUT. Master Unit includes only management module and optical module (to convert RF signal in optical signal in down link direction and viceversa optical signal in RF signal in up link direction). As described in "Operational description", master unit is connected directly to base station, so the system doesn't use another equipment (under another FCC ID) to exercise the EUT. Signal generator is linked directly to the RF connector of optical module in the Master Unit.

### Test setup for output power, occupied bandwidth, spurious emissions:



#### **Procedure**

Connect the signal modulated generator to the input of the EUT, so that the EUT works at the max gain. Raise the input level to the EUT until reach the maximum output power. Connect the spectrum analyzer to the RF output connector of the EUT.



Product: TRLAW2325AT

| Section 4: Eng  | Section 4: Engineering considerations   |  |  |  |
|-----------------|---|--|--|--|
|                 |   |  |  |  |
| 4.1 Modificatio | ns incorporated in the EUT  |  |  |  |
| Modifications   | Modifications performed to the EUT during this assessment None ☑ Yes ☐, performed by Client ☐ or Nemko ☐ Details: |  |  |  |
|                 |   |  |  |  |
| 4.2 Deviations  | from laboratory tests procedures  |  |  |  |
| Deviations      | Deviations from laboratory test procedures  None ☑ Yes ☐ - details are listed below:                              |  |  |  |
|                 |   |  |  |  |
| 4.3 Technical j | udgment   |  |  |  |
| Judgment        | None  |  |  |  |



Specification: FCC 27

# Section 5: Test conditions

# Deviations from laboratory tests procedures

No deviations were made from laboratory test procedures.

| 5.2 Test conditions, power source and ambient temperatures    |  |  |  |  |
|---|--|--|--|--|
| Normal temperature, humidity and air pressure test conditions | Temperature: 15–30 °C Relative humidity: 20–75 % Air pressure: 86–106 kPa  |  |  |  |
|   | When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.   |  |  |  |
| Power supply range:   | The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages ±5 %, for which the equipment was designed. |  |  |  |





## Section 5: Test conditions, continued

# 5.3 Measurement uncertainty

Nemko S.p.A. measurement uncertainty has been calculated using the standard CISPR 16-4-2 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-2: Uncertainties, statistics and limit modeling – Uncertainty in EMC measurements". All calculations can be found in Nemko S.p.A. document WML1002.

| 5.4 Test equ                             | ipment       |                           |                  |           |
|--|--------------|---------------------------|------------------|-----------|
| Equipment                                | Manufacturer | Model No.                 | Asset/Serial No. | Next cal. |
| Vector Signal<br>Generator               | Agilent      | N5172B EXG                | MY53051238       | Jan 2018  |
| Vector Signal<br>Generator               | Agilent      | E4438C ESG                | MY45094485       | Ago 2016  |
| Spectrum Analyzer                        | Agilent      | N9030A PXA                | MY53120882       | Jun 2016  |
| Network Analyzer                         | Agilent      | E5071C ENA                | MY46106183       | Jun 2016  |
| V-network                                | R&S          | ESH2-Z5                   | 872 460/041      | 11/2016   |
| Trilog Broad Band<br>Antenna 25-2000 MHz | Schwarzbeck  | VULB 9168                 | VULB 9168-242    | 06/2018   |
| Trilog Broad Band<br>Antenna 25-8000 MHz | Schwarzbeck  | VULB 9162                 | VULB 9162-25     | 07/2018   |
| Antenna 1-18 GHz                         | Schwarzbeck  | STLP 9148                 | STPL 9148-123    | 06/2018   |
| Double ridge waveguide horn              | RFspin       | DRH40                     | 061106A40        | 08/2016   |
| Preamplifier 18-40 GHz                   | Miteq        | JS44                      | 1648665          | 12/2016   |
| Broadband preamplifier 1-18 GHz          | Schwarzbeck  | BBV 9718                  | 9718-137         | 10/2016   |
| EMI receiver 20 Hz ÷ 8 GHz               | R&S          | ESU8                      | 100202           | 04/2017   |
| EMI receiver 20 Hz ÷ 3<br>GHz            | R&S          | ESCI                      | 100888           | 09/2016   |
| Hydraulic revolving platform             | Nemko        | RTPL 01                   | 4.233            | NCR       |
| Turning-table                            | R&S          | HCT                       | 835 803/03       | NCR       |
| Antenna mast                             | R&S          | HCM                       | 836 529/05       | NCR       |
| Controller                               | R&S          | HCC                       | 836 620/7        | NCR       |
| Spectrum Analyzer<br>9kHz ÷ 40GHz        | R&S          | FSEK                      | 848255/005       | 11/2016   |
| Semi-anechoic chamber                    | Nemko        | 10m semi-anechoic chamber | 530              | 09/2016   |
| Shielded room                            | Siemens      | 10m control room          | 1947             | NCR       |
| Semi-anechoic chamber                    | Nemko        | 10m semi-anechoic chamber | 70               | NCR       |
| Shielded Room                            | Siemens      | 3m semi-anechoic chamber  | 3                | NCR       |
| Motor controller                         | Emco         | 1051-25                   | 9012-1559        | NCR       |
| Motor controller                         | Emco         | 1061-1.521                | 9012-1508        | NCR       |
| Antenna Tower                            | Emco         | 2071-2                    | 9601-1940        | NCR       |
| Controller pole/table                    | Emco         | 2090                      | 9511-1099        | NCR       |

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use (\*) Equipment supplied by manufacturer's



Specification: FCC 27

# Appendix A: Test results

# Clause 935210 D05v01 (3.2) AGC threshold

Measure of EUT AGC Threshold

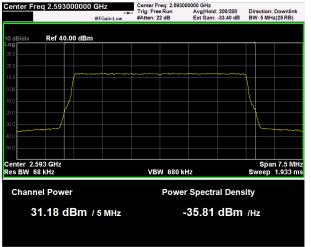
Test date: 2016-06-20

Test results: Pass

#### Special notes

Broadband amplifiers: AWGN test signal used (5 MHz LTE channel)

#### Test data







AWGN signal, nominal input signal +1 dB



Specification: FCC 27

# Clause 935210 D05v01 (3.3) Out of band rejection

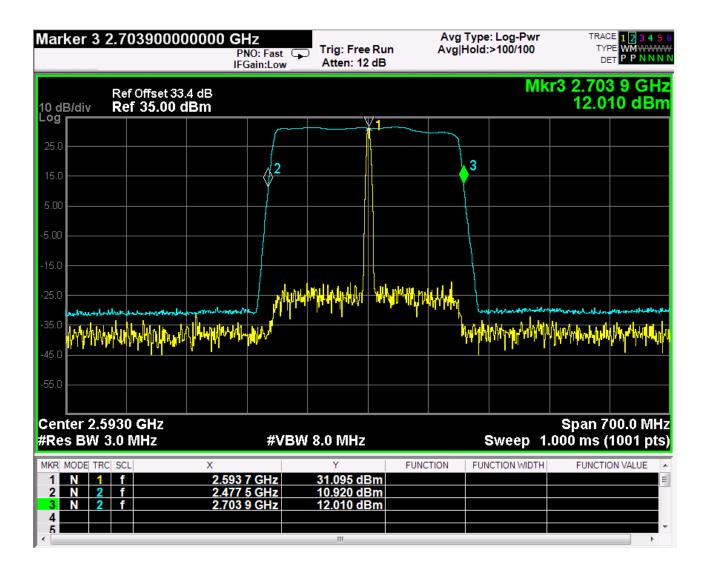
Out of Band Rejection - Test for rejection of out of band signals.

Test date: 2016-06-20
Test results: Pass

Special notes

-

#### Test data





Specification: FCC 27

# Clause 27.53(m)(6) Occupied bandwidth

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Test date: 2016-06-20

Test results: Pass

# Special notes

- Broadband amplifiers: AWGN test signal used (5 MHz LTE channel)

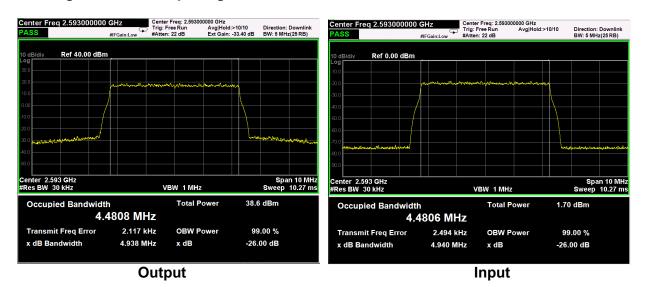


Product: TRLAW2325AT

## Clause 27.53(m)(6) Occupied bandwidth, continued

#### Test data

#### AWGN signal, nominal input signal



# AWGN signal, nominal input signal + 3dB





Specification: FCC 27

# Clause 27.50(h) Peak output power at RF antenna connector

# § 27.50(h) The following power limits shall apply in the BRS and EBS:

- (1) Main, booster and base stations.
  - (i) The maximum EIRP of a main, booster or base station shall not exceed 33 dBW  $\pm$  10log(X/Y) dBW, where X is the actual channel width in MHz and Y is either 6 MHz if prior to transition or the station is in the MBS following transition or 5.5 MHz if the station is in the LBS and UBS following transition, except as provided in paragraph (h)(1)(ii) of this section.
  - (ii) If a main or booster station sectorizes or otherwise uses one or more transmitting antennas with a non-omnidirectional horizontal plane radiation pattern, the maximum EIRP in dBW in a given direction shall be determined by the following formula: EIRP =  $33 \text{ dBW} + 10 \log(\text{X/Y}) \text{ dBW} + 10 \log(360/\text{beamwidth}) \text{ dBW}$ , where X is the actual channel width in MHz, Y is either (i) 6 MHz if prior to transition or the station is in the MBS following transition or (ii) 5.5 MHz if the station is in the LBS and UBS following transition, and beamwidth is the total horizontal plane beamwidth of the individual transmitting antenna for the station or any sector measured at the half-power points.

Test date: 2016-06-20
Test results: Pass

### Special notes

- Broadband amplifiers: AWGN test signal used (5 MHz LTE channel)



### Clause 27.50(h) Peak output power at RF antenna connector

Test data

### AWGN signal, nominal input signal

| Test data |                  |                    |                                |                                   |                               |             |
|-----------|------------------|--------------------|--------------------------------|-----------------------------------|-------------------------------|-------------|
| Direction | Modulation       | Frequency<br>(MHz) | RF<br>output<br>Power<br>(dBm) | RF output<br>channel Power<br>(W) | RF output<br>Power<br>(W/MHz) | PAR<br>(dB) |
| Down-link | AWGN (LTE, 5MHz) | 2593.0             | 31.18                          | 1.31                              | 0.26                          | 11.31       |



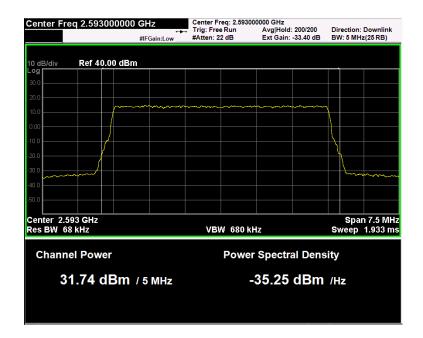
PAR measure is performed by the "CCDF" function installed on Spectrum analyzer that provides average power (the same measured with "Channel power" function), peak power and PAR.



Specification: FCC 27

# AWGN signal, nominal input signal + 3dB

| Test data |                  |                    |                                |                                   |                               |  |
|-----------|------------------|--------------------|--------------------------------|-----------------------------------|-------------------------------|--|
| Direction | Modulation       | Frequency<br>(MHz) | RF<br>output<br>Power<br>(dBm) | RF output<br>channel Power<br>(W) | RF output<br>Power<br>(W/MHz) |  |
| Down-link | AWGN (LTE, 5MHz) | 2593.0             | 31.74                          | 1.49                              | 0.3                           |  |





Specification: FCC 27

# Clause 27.53(m) Spurious emissions at RF antenna connector

- (m) For BRS and EBS stations, the power of any emissions outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) measured in watts in accordance with the standards below. If a licensee has multiple contiguous channels, out-of-band emissions shall be measured from the upper and lower edges of the contiguous channels.
- (2) For digital base stations, the attenuation shall be not less than 43 + 10 log (P) dB, unless a documented interference complaint is received from an adjacent channel licensee with an overlapping Geographic Service Area. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS No. 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. Provided that a documented interference complaint cannot be mutually resolved between the parties prior to the applicable deadline, then the following additional attenuation requirements shall apply:
- (6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

Test date: 2016-06-20
Test results: Pass

### Special notes

- Broadband amplifiers: AWGN test signal used (5 MHz LTE channel)



# Clause 27.53 (m) Spurious emissions at RF antenna connector, continued

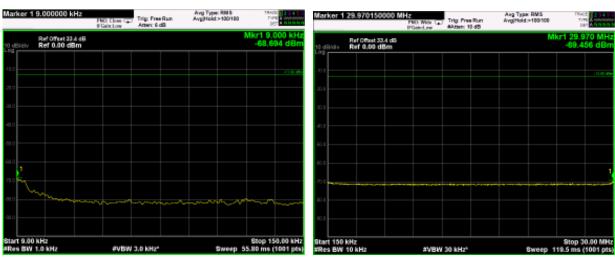
| Test data             |                         |                |                |
|-----------------------|-------------------------|----------------|----------------|
| See Plots below       |                         |                |                |
| Spurious emissions me | easurement results:     |                |                |
| Frequency<br>(MHz)    | Spurious emission (dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| Low channel           |                         |                |                |
| First channel         | Negligible              | -13            |                |
|                       |                         |                |                |
| Mid channel           |                         |                |                |
| 2593 MHz              | Negligible              | -13            |                |
|                       |                         |                |                |
| High channel          |                         |                |                |
| Last channel          | Negligible              | -13            |                |
|                       |                         |                |                |
|                       |                         |                |                |



#### Test data, continued: spurious emissions at antenna terminal

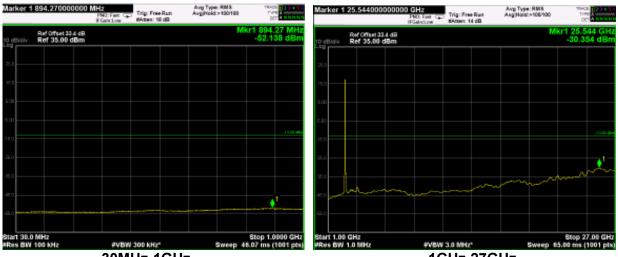
# **AWGN** signal

(Plots are referred to modulated carrier at the Middle Channel)





150kHz-30MHz



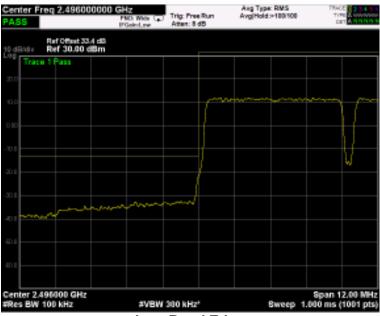
30MHz-1GHz

1GHz-27GHz



# Test data, continued: band edges Inter modulation

# AWGN signal, nominal input signal



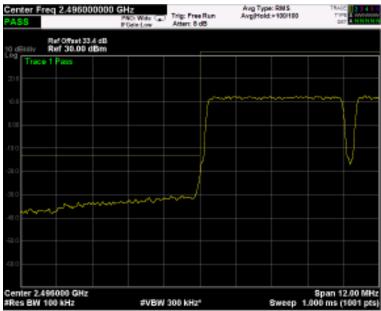
**Low Band Edge** 



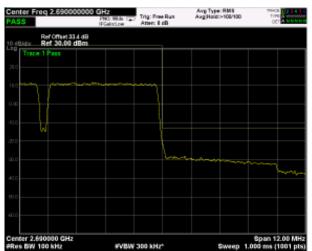
**High Band Edge** 



# AWGN signal, nominal input signal + 3dB



**Low Band Edge** 



**High Band Edge** 



Specification: FCC 27

# Clause 27.53(m) Radiated Spurious emissions

- (m) For BRS and EBS stations, the power of any emissions outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) measured in watts in accordance with the standards below. If a licensee has multiple contiguous channels, out-of-band emissions shall be measured from the upper and lower edges of the contiguous channels.
- (2) For digital base stations, the attenuation shall be not less than 43 + 10 log (P) dB, unless a documented interference complaint is received from an adjacent channel licensee with an overlapping Geographic Service Area. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS No. 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. Provided that a documented interference complaint cannot be mutually resolved between the parties prior to the applicable deadline, then the following additional attenuation requirements shall apply:
- (6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

| Special notes |  |  |
|---------------|--|--|
|               |  |  |
|               |  |  |
|               |  |  |
|               |  |  |

Test date: 2016-06-20/21
Test results: Pass



Specification: FCC 27

### Clause 27.53(m) Radiated spurious emissions, continued

Spurious emissions measurement results:

#### Test data

The D.U.T. was positioned according to the radiated emissions set-up

The D.U.T. antenna connector was terminated by a 50  $\Omega$  shielded dummy load.

The spectrum was searched from 30 MHz to 1 GHz (RBW 100 kHz) & 1 GHz (RBW 1 MHz) to the tenth harmonic of the carrier.

There were no emissions detected above the noise floor which was at least 20 dB below the specification limit.

Frequency (MHz) V/H (dBµV/m) Limit (dBµV/m) (dB)

Low channel

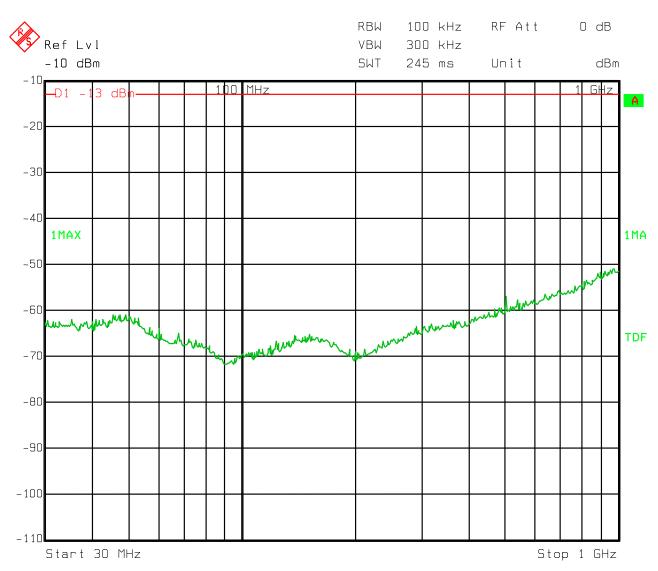
Mid channel

Mid channel

High channel

Note: Field strength includes correction factor of antenna, cable loss, amplifier, and attenuators where applicable.

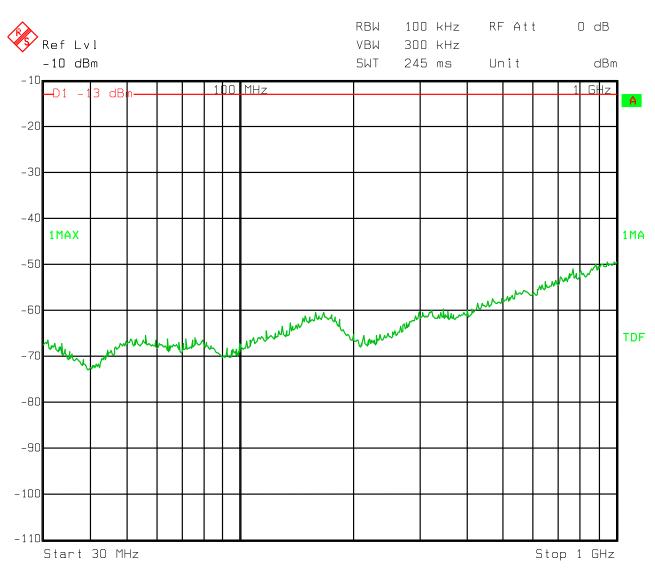




Date: 20.JUN.2016 16:07:55

30MHz-1GHz - H Pol

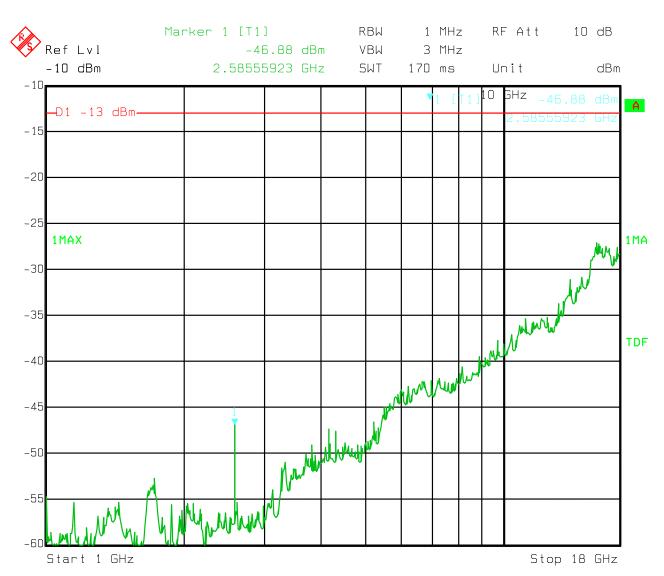




Date: 20.JUN.2016 16:09:54

30MHz-1GHz - V Pol

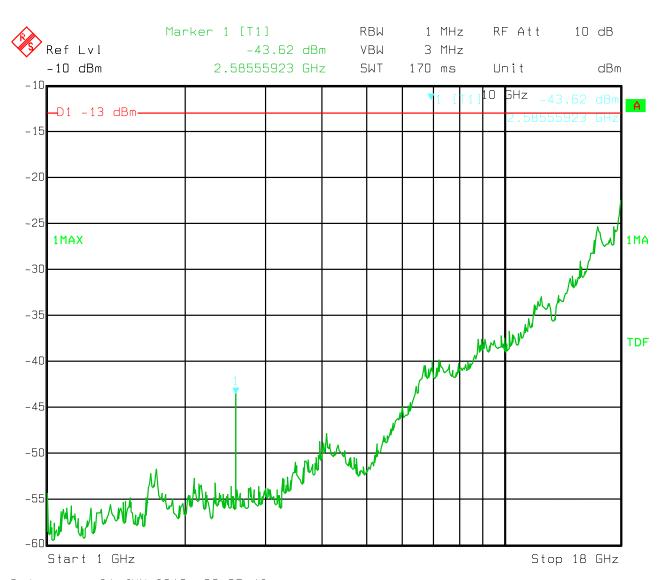




Date: 21.JUN.2016 06:38:22

1GHz-18GHz - H Pol

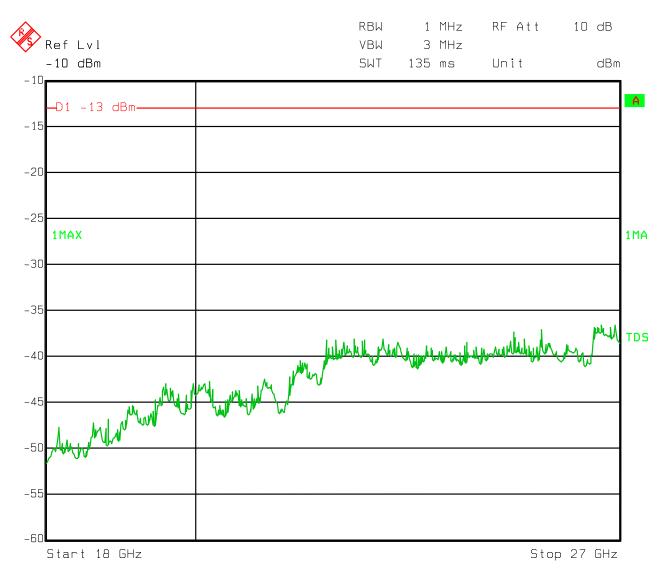




Date: 21.JUN.2016 06:35:42

1GHz-18GHz - V Pol

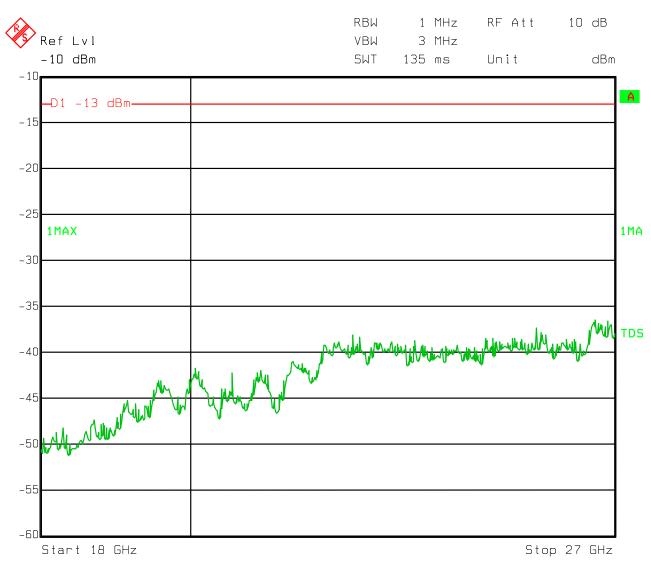




Date: 21.JUN.2016 08:09:42

18GHz-27GHz - H Pol



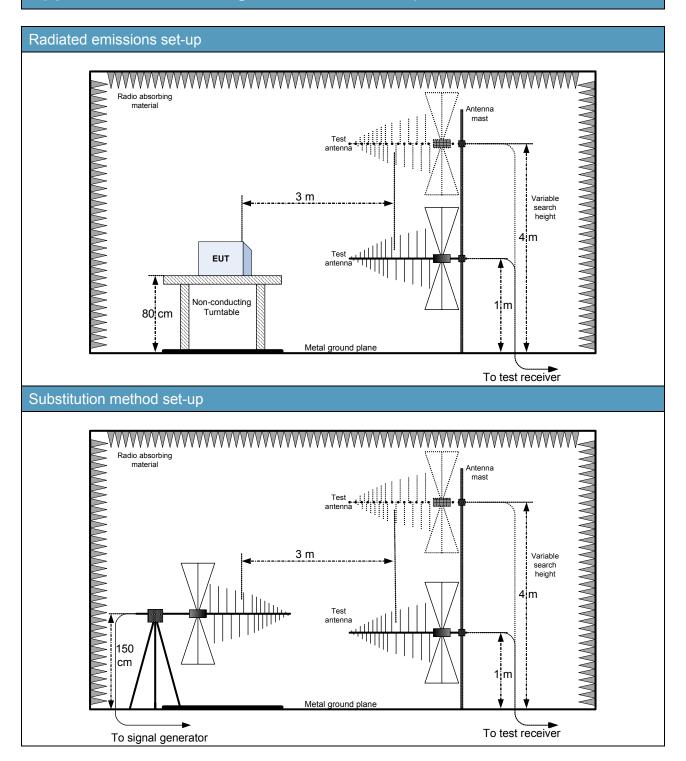


Date: 21.JUN.2016 08:10:34

18GHz-27GHz - V Pol

Specification: FCC 27

# Appendix B: Block diagrams of test set-ups



Nemko

Product: TRLAW2325AT

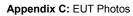
Specification: FCC 27

# Appendix C: EUT Photos

# Photo Set up



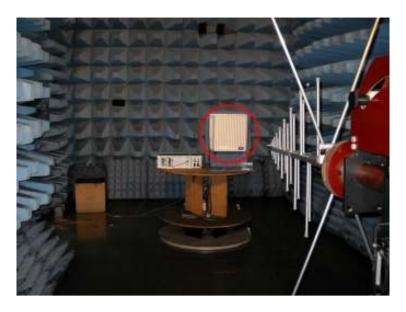




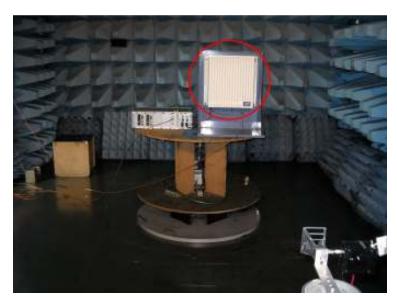
Nemko



Specification: FCC 27







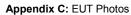


Specification: FCC 27

# Photo EUT









Specification: FCC 27

