



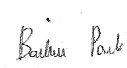
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|                             |               |
|-----------------------------|---------------|
| <b>Report Reference ID:</b> | 148253-6TRFWL |
|-----------------------------|---------------|

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

|                   |                                                                                        |
|-------------------|----------------------------------------------------------------------------------------|
| <b>Applicant:</b> | TEKO Telecom S.p.A.<br>Via Meucci, 24/a<br>I-40024 Castel S. Pietro Terme (BO) (Italy) |
| <b>Apparatus:</b> | Optical system                                                                         |
| <b>FCC ID:</b>    | XM2VERYHIGHPOWERL                                                                      |
| <b>Model:</b>     | TRU7SAWBV/AC-WS                                                                        |

|                            |                                                                           |
|----------------------------|---------------------------------------------------------------------------|
| <b>Testing laboratory:</b> | <b>Nemko Italy S.p.A.</b><br>Via Carroccio, 4<br>I-20046 Biassono (Italy) |
|----------------------------|---------------------------------------------------------------------------|

|                     | <b>Name and title</b>                                                                                                       | <b>Date</b>  |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Tested by:</b>   | <br>G. Curioni, Wireless/EMC Specialist  | May 31, 2010 |
| <b>Reviewed by:</b> | <br>P. Barbieri, Wireless/EMC Specialist | May 31, 2010 |

## Table of contents

|                                                                                |           |
|--------------------------------------------------------------------------------|-----------|
| <b>Section 1: Report summary .....</b>                                         | <b>3</b>  |
| 1.1 Test specification.....                                                    | 3         |
| 1.2 Statement of compliance.....                                               | 3         |
| 1.3 Exclusions .....                                                           | 3         |
| 1.4 Registration number .....                                                  | 3         |
| 1.5 Test report revision history .....                                         | 3         |
| 1.6 Limits of responsibility .....                                             | 3         |
| <b>Section 2: Summary of test results.....</b>                                 | <b>4</b>  |
| 2.1 FCC Part 27, test results .....                                            | 4         |
| <b>Section 3: Equipment under test (EUT) and application details .....</b>     | <b>5</b>  |
| 3.1 Applicant details .....                                                    | 5         |
| 3.2 Modular equipment.....                                                     | 5         |
| 3.3 Product details.....                                                       | 5         |
| 3.4 Application purpose.....                                                   | 5         |
| 3.5 Composite/related equipment.....                                           | 5         |
| 3.6 Sample information.....                                                    | 5         |
| 3.7 EUT technical specifications.....                                          | 6         |
| 3.8 Operation of the EUT during testing.....                                   | 6         |
| 3.9 EUT setup diagram.....                                                     | 6         |
| <b>Section 4: Engineering considerations .....</b>                             | <b>7</b>  |
| 4.1 Modifications incorporated in the EUT.....                                 | 7         |
| 4.2 Deviations from laboratory tests procedures .....                          | 7         |
| 4.3 Technical judgment .....                                                   | 7         |
| <b>Section 5: Test conditions .....</b>                                        | <b>8</b>  |
| 5.1 Power source and ambient temperatures.....                                 | 8         |
| <b>Section 6: Measurement uncertainty .....</b>                                | <b>9</b>  |
| <b>Section 7: Test equipment .....</b>                                         | <b>10</b> |
| <b>Section 8: Testing data .....</b>                                           | <b>11</b> |
| 8.1 Clause 27.50(b) Peak output power at RF antenna connector .....            | 11        |
| 8.2 Clause 27.52 RF safety.....                                                | 22        |
| 8.3 Clause 27.53 (c) Spurious emissions at RF antenna connector .....          | 23        |
| Spurious Emissions at Antenna Terminals .....                                  | 35        |
| Spurious Emissions at Antenna Terminals .....                                  | 36        |
| Spurious Emissions at Antenna Terminals .....                                  | 36        |
| 8.4 Clause 27.53 (c) Radiated spurious emissions .....                         | 52        |
| 8.5 Clause 27.53(f) Radiated spurious emissions within 1559–1610 MHz band..... | 54        |
| 8.6 Clause 27.54 Frequency stability .....                                     | 59        |
| 8.7 Clause 2.1049 Occupied bandwidth.....                                      | 61        |
| <b>Section 9: Filter Frequency Response.....</b>                               | <b>78</b> |
| <b>Section 10: Block diagrams of test set-ups .....</b>                        | <b>79</b> |
| <b>Section 11: EUT photos .....</b>                                            | <b>80</b> |

|                                                                                   |                           |                          |
|-----------------------------------------------------------------------------------|---------------------------|--------------------------|
|  | Section 1: Report summary | Product: TRU7SAWBV/AC-WS |
|                                                                                   |                           |                          |

## Section 1: Report summary

### 1.1 Test specification

|                       |                                                                 |
|-----------------------|-----------------------------------------------------------------|
| <b>Specifications</b> | <b>Part 27 – Miscellaneous wireless communications services</b> |
|-----------------------|-----------------------------------------------------------------|

### 1.2 Statement of compliance

|                   |                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compliance</b> | In the configuration tested the EUT was found compliant                                                                                                                                                                                                                                                                           |
|                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                                                                                                                                                                                               |
|                   | 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

|                   |      |
|-------------------|------|
| <b>Exclusions</b> | None |
|-------------------|------|

### 1.4 Registration number

|                             |                                     |
|-----------------------------|-------------------------------------|
| <b>Registration number:</b> | 481407 (10 m Semi anechoic chamber) |
|-----------------------------|-------------------------------------|

### 1.5 Test report revision history

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

### 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. All results contain in this report are within Nemko Canada's ISO/IEC 17025 accreditation.

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Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

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

|                                                                                   |                                    |                          |
|-----------------------------------------------------------------------------------|------------------------------------|--------------------------|
|  | Section 2: Summary of test results | Product: TRU7SAWBV/AC-WS |
|                                                                                   |                                    |                          |

## Section 2: Summary of test results

### 2.1 FCC Part 27, test results

| Part      | Test description                                      | Verdict |
|-----------|-------------------------------------------------------|---------|
| §27.50(b) | Peak output power at RF antenna connector             | Pass    |
| §27.52    | RF safety                                             | N/A a)  |
| §27.53(c) | Spurious emissions at RF antenna connector            | Pass    |
| §27.53(c) | Radiated spurious emissions                           | Pass    |
| §27.53(f) | Radiated spurious emissions within 1559–1610 MHz band | Pass    |
| §27.54    | Frequency stability                                   | N/A b)  |
| §2.1049   | Occupied bandwidth                                    | Pass    |

#### Notes:

- a) b) NO Antenna provided
- b) Modulation & frequency conversion circuitry not in use.

|                                                                                   |                                               |                          |
|-----------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|
|  | Section 3: Equipment under test (EUT) details | Product: TRU7SAWBV/AC-WS |
|                                                                                   |                                               |                          |

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

| 3.1 Applicant details            |                                    |                        |
|----------------------------------|------------------------------------|------------------------|
| Applicant complete business name | Name:                              | Teko Telecom S.p.A.    |
|                                  | Federal Registration Number (FRN): | 0018963462             |
|                                  | 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 equipment              |                                                                                                        |
|------------------------------------|--------------------------------------------------------------------------------------------------------|
| a) Single modular approval         | Single modular approval<br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>         |
| b) Limited single modular approval | Limited single modular approval<br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |

| 3.3 Product details                      |                    |                 |
|------------------------------------------|--------------------|-----------------|
| FCC ID                                   | Grantee code:      | XM2             |
|                                          | Product code:      | VERYHIGHPOWERL  |
| Equipment class                          | TNB                |                 |
| Description of product as it is marketed | Optical System     |                 |
|                                          | Model name/number: | TRU7SAWBV/AC-WS |
|                                          | Serial number:     | 100155001       |

| 3.4 Application purpose |                                                                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of application     | <input checked="" type="checkbox"/> Original certification<br><input type="checkbox"/> Change in identification of presently authorized equipment<br>Original FCC ID: _____ Grant date: _____<br><input type="checkbox"/> Class II permissive change or modification of presently authorized equipment |

| 3.5 Composite/related equipment |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Composite equipment          | The EUT is a composite device subject to an additional equipment authorization<br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                               |
| b) Related equipment            | The EUT is part of a system that operates with, or is marketed with, another device that requires an equipment authorization<br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                                                                                                                                                                                                                 |
| c) Related FCC ID               | If either of the above is "yes":<br><input checked="" type="checkbox"/> has been granted under the FCC ID(s) listed below:<br><input checked="" type="checkbox"/> is in the process of being filled under the FCC ID(s) listed below:<br><input type="checkbox"/> is pending with the FCC ID(s) listed below:<br><input type="checkbox"/> has a mix of pending and granted statues under the FCC ID(s) listed below:<br>i FCC ID: XM2-VERYHIGHPOWER<br>ii FCC ID: XM2VERYHIGHPOWERL |

| 3.6 Sample information |             |
|------------------------|-------------|
| Receipt date:          | May 5, 2010 |

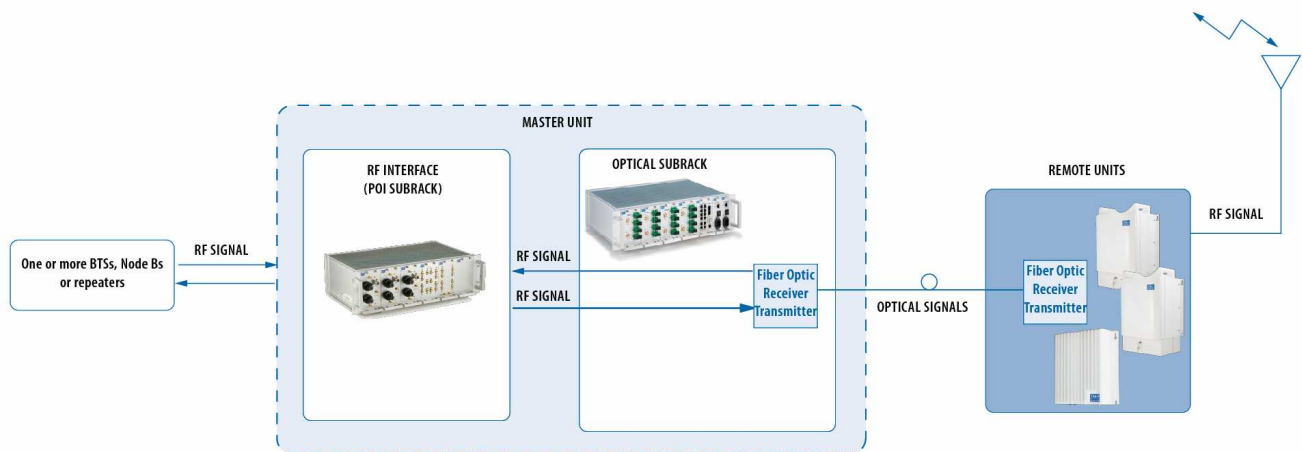
|                                                                                   |                                                      |                                 |
|-----------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------|
|  | <b>Section 3: Equipment under test (EUT) details</b> | <b>Product: TRU7SAWBV/AC-WS</b> |
|                                                                                   |                                                      |                                 |

|                                |       |
|--------------------------------|-------|
| <b>Nemko sample ID number:</b> | ----- |
|--------------------------------|-------|

| 3.7 EUT technical specifications |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| <b>Operating band:</b>           | Down Link 746–757 MHz, Up Link 776-787 MHz                                            |
| <b>Operating frequency:</b>      | Wideband                                                                              |
| <b>Modulation type:</b>          | LTE (QAM and QPSK)                                                                    |
| <b>Occupied bandwidth:</b>       | 1,4 MHz – 3 MHz – 5 MHz – 10MHz                                                       |
| <b>Channel spacing:</b>          | standard                                                                              |
| <b>Emission designator:</b>      | 1M40D7W, 3M00D7W, 5M00D7W, 10M0D7W                                                    |
| <b>RF Output</b>                 | Down Link: 43dBm (20W)<br>Up Link: 4dBm typical (0,0025W typical)                     |
| <b>Gain</b>                      | Down Link: 48dB<br>Up Link: 47dB                                                      |
| <b>Antenna type:</b>             | External Antenna is not provided,<br>equipment that has an external 50 Ω RF connector |
| <b>Power source:</b>             | 100-240 Vac external                                                                  |

| 3.8 Operation of the EUT during testing |                                                     |
|-----------------------------------------|-----------------------------------------------------|
| <b>Details:</b>                         | Normal working at max gain with max RF power output |

### 3.9 EUT setup diagram



## Section 4: Engineering considerations

### 4.1 Modifications 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 judgment

#### Judgment

None

|                                                                                                                                                      |                                   |                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 5: Test conditions</b> | <b>Product: TRU7SAWBV/AC-WS</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------|

## Section 5: Test conditions

| 5.1 Power source and ambient temperatures                            |                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Normal temperature, humidity and air pressure test conditions</b> | Temperature: 15–30 °C<br>Relative humidity: 20–75 %<br>Air pressure: 860–1060 hPa<br><br>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. |
| <b>Power supply range:</b>                                           | 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 $\pm 5\%$ , for which the equipment was designed.    |



|                                                                                                                                                                      |                                           |                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------|
| <br><small>Nemko Canada Inc.,<br/>303 River Rd, Ottawa, ON, Canada, K1V 1H2</small> | <b>Section 6:</b> Measurement uncertainty | <b>Product:</b> TRU7SAWBV/AC-WS |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------|

Section 6: 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 have been performed to provide a confidence level of 95 % and can be found in Nemko S.p.A. document WML1002.

## Section 7: Test equipment

| Identification number | Description                            | Manufacturer model      | s/n        | Cal. Due      |
|-----------------------|----------------------------------------|-------------------------|------------|---------------|
| 1a                    | Vector Signal Generator                | Agilent H.P. E4438C ESG | MY45094485 | July 2010     |
| 1b                    | Vector Signal Generator                | Agilent H.P. N5182A MXG | MY48180714 | April 2011    |
| 2                     | Spectrum Analyzer                      | Agilent H.P. E4445A     | MY46181806 | July 2010     |
| 3                     | Network Analyzer                       | Agilent H.P. E5062A     | MY44101829 | November 2012 |
| 4                     | 2xcables+directional coupler+dummyload |                         |            |               |

Client's property

| Identification number | Equipment                    | Manufacturer | Model                    | Serial N°     | Cal. due |
|-----------------------|------------------------------|--------------|--------------------------|---------------|----------|
| 5                     | Trilog Broadband Antenna     | Schwarzbeck  | VULB 9163                | VULB 9163-286 | 04/2011  |
| 6                     | Bilog antenna                | Schwarzbeck  | STLP 9148-123            | 123           | 09/2011  |
| 7                     | Broadband preamplifier       | Schwarzbeck  | BBV 9718                 | 9718-137      | 05/2011  |
| 8                     | Spectrum Analyzer 9kHz-40GHz | R&S          | FSEK                     | 848255/005    | 09/2010  |
| 9                     | Controller                   | EMCO         | 2090                     | 9511-1099     | NSC      |
| 10                    | Antenna Tower                | EMCO         | 2071-2                   | 9601-1940     | NSC      |
| 11                    | Turning table Controller     | EMCO         | 1061-1.521               | 9012-1508     | NSC      |
| 12                    | Semi-anechoic chamber        | Nemko        | 3m semi-anechoic chamber | 70            | 04/2011  |
| 13                    | Trilog Broadband Antenna     | Siemens      | 3m control room          | 3             | NSC      |

Property of Nemko Italy

|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

## Section 8: Testing data

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

#### § 27.50(b) Operation within the bands: 746–763 MHz, 775–793 MHz and 805–806 MHz.

- (1) Fixed and base stations transmitting a signal in the 757–758 and 775–776 MHz bands must not exceed an effective radiated power (ERP) of 1000 watts and an antenna height of 305 m height above average terrain (HAAT), except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section.
- (2) Fixed and base stations transmitting a signal in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands with an emission bandwidth of 1 MHz or less must not exceed an ERP of 1000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section.
- (3) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands with an emission bandwidth of 1 MHz or less must not exceed an ERP of 2000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section.
- (4) Fixed and base stations transmitting a signal in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP accordance with Table 3 of this section.
- (5) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 2000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts/MHz ERP in accordance with Table 4 of this section.
- (6) Licensees of fixed or base stations transmitting a signal in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands at an ERP greater than 1000 watts must comply with the provisions set forth in paragraph (b)(8) of this section and §27.55(c).
- (7) Licensees seeking to operate a fixed or base station located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands at an ERP greater than 1000 watts must:
  - (i) coordinate in advance with all licensees authorized to operate in the 698–763 MHz, 775–793, and 805–806 MHz bands within 120 kilometers (75 miles) of the base or fixed station
  - (ii) coordinate in advance with all regional planning committees, as identified in §90.527 of this chapter, with jurisdiction within 120 kilometers (75 miles) of the base or fixed station

|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

- (8) Licensees authorized to transmit in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands and intending to operate a base or fixed station at a power level permitted under the provisions of paragraph (b)(6) of this section must provide advanced notice of such operation to the Commission and to licensees authorized in their area of operation. Licensees who must be notified are all licensees authorized to operate in the 763–775 MHz and 793–805 MHz bands under part 90 of this chapter within 75 km of the base or fixed station and all regional planning committees, as identified in §90.527 of this chapter, with jurisdiction within 75 km of the base or fixed station. Notifications must provide the location and operating parameters of the base or fixed station, including the station's ERP, antenna coordinates, antenna height above ground, and vertical antenna pattern, and such notifications must be provided at least 90 days prior to the commencement of station operation.
- (9) Control stations and mobile stations transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands and fixed stations transmitting in the 787–788 MHz and 805–806 MHz bands are limited to 30 watts ERP.
- (10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.
- (11) For transmissions in the 757–758, 775–776, 787–788, and 805–806 MHz bands, maximum composite transmit power shall be measured over any interval of continuous transmission using instrumentation calibrated in terms of RMS-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, etc., so as to obtain a true maximum composite measurement for the emission in question over the full bandwidth of the channel.
- (12) For transmissions in the 746–757, 758–763, 776–787, and 788–793 MHz bands, licensees may employ equipment operating in compliance with either the measurement techniques described in paragraph (b)(11) of this section or a Commission-approved average power technique. In both instances, equipment employed must be authorized in accordance with the provisions of §27.51

#### Special notes

- The power was measured using spectrum analyzer with RMS detector / average power meter.

|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

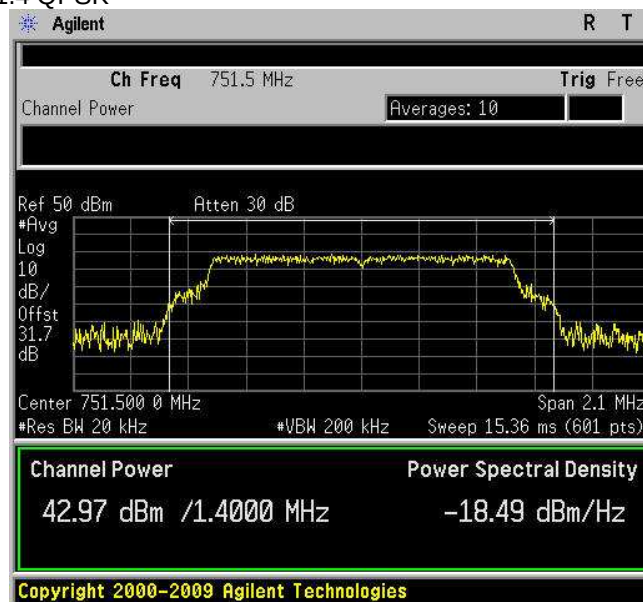
| Test data |                    |                 |                       |
|-----------|--------------------|-----------------|-----------------------|
| Direction | Modulation         | Frequency (MHz) | RF output power (dBm) |
| Down-link | LTE (QAM, 1,4MHz)  | 751.5           | 42.96                 |
| Down-link | LTE (QPSK, 1,4MHz) | 751.5           | 42.97                 |
| Down-link | LTE (QAM, 3MHz)    | 751.5           | 43.00                 |
| Down-link | LTE (QPSK, 3MHz)   | 751.5           | 43.01                 |
| Down-link | LTE (QAM, 5MHz)    | 751.5           | 42.99                 |
| Down-link | LTE (QPSK, 5MHz)   | 751.5           | 42.99                 |
| Down-link | LTE (QAM, 10MHz)   | 751.5           | 42.98                 |
| Down-link | LTE (QPSK, 10MHz)  | 751.5           | 42.96                 |
| Up-link   | LTE (QAM, 1,4MHz)  | 781.5           | 4.04                  |
| Up-link   | LTE (QPSK, 1,4MHz) | 781.5           | 4.05                  |
| Up-link   | LTE (QAM, 3MHz)    | 781.5           | 4.07                  |
| Up-link   | LTE (QPSK, 3MHz)   | 781.5           | 4.11                  |
| Up-link   | LTE (QAM, 5MHz)    | 781.5           | 4.05                  |
| Up-link   | LTE (QPSK, 5MHz)   | 781.5           | 4.07                  |
| Up-link   | LTE (QAM, 10MHz)   | 781.5           | 4.00                  |
| Up-link   | LTE (QPSK, 10MHz)  | 781.5           | 4.04                  |

|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

RF Power Output D.L. mod. 1.4 QAM

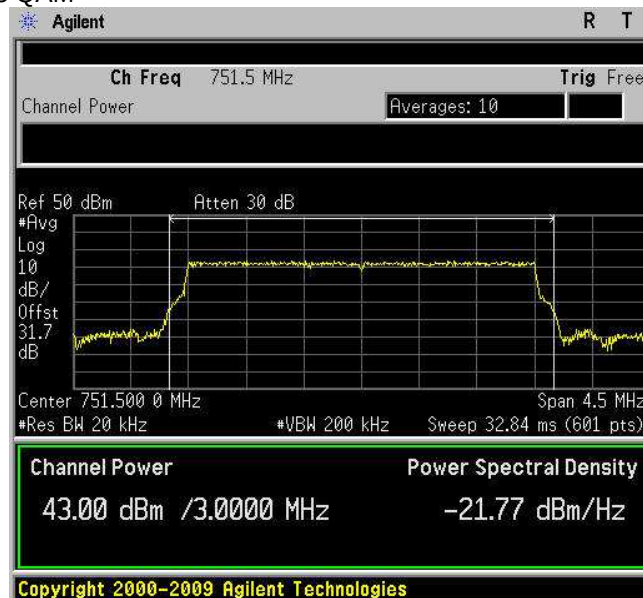


RF Power Output D.L. mod. 1.4 QPSK

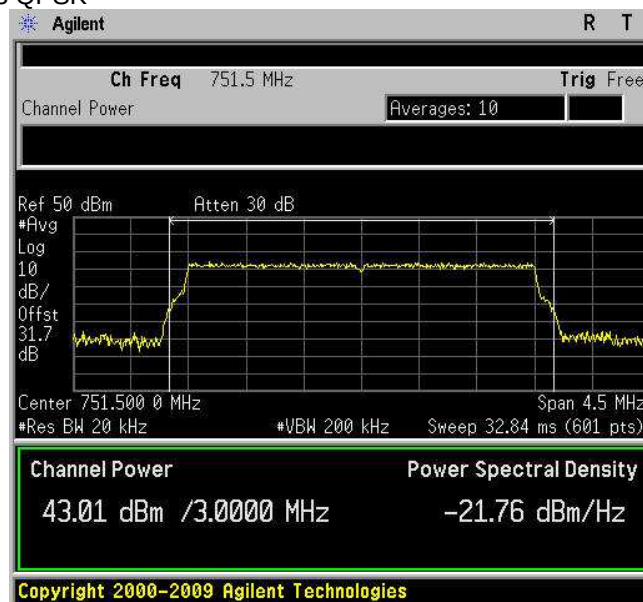


|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

RF Power Output D.L. mod. 3 QAM

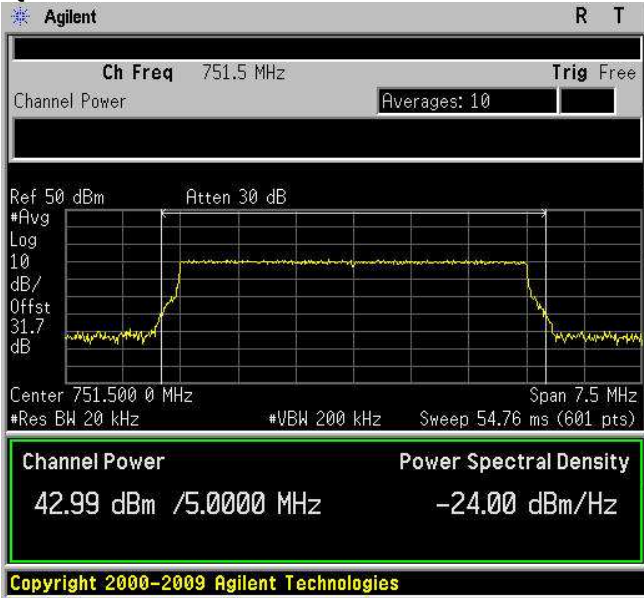


RF Power Output D.L. mod. 3 QPSK

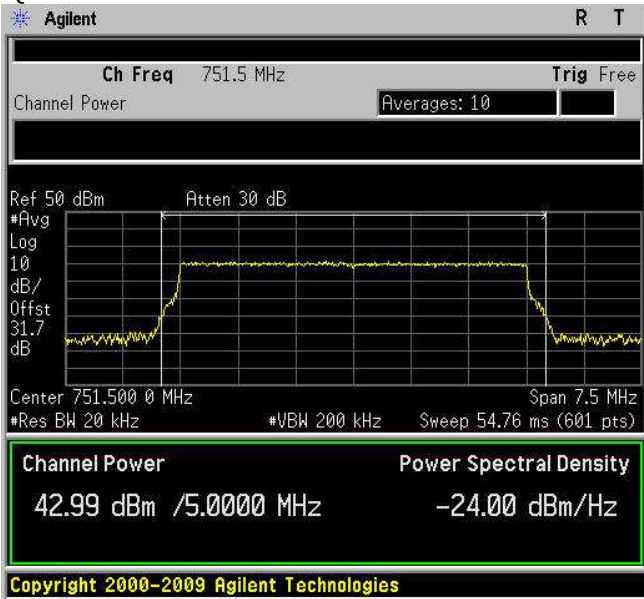


|                                                                      |                            |                           |
|----------------------------------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                                              |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 27.50(b) Peak output power at RF antenna connector |                            |                           |
| Test date: 17-19 May 2010                                            |                            | Test engineer: G. Curioni |
| Verdict: Pass                                                        |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                                                   | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                                           |                            |                           |

RF Power Output D.L. mod. 5 QAM



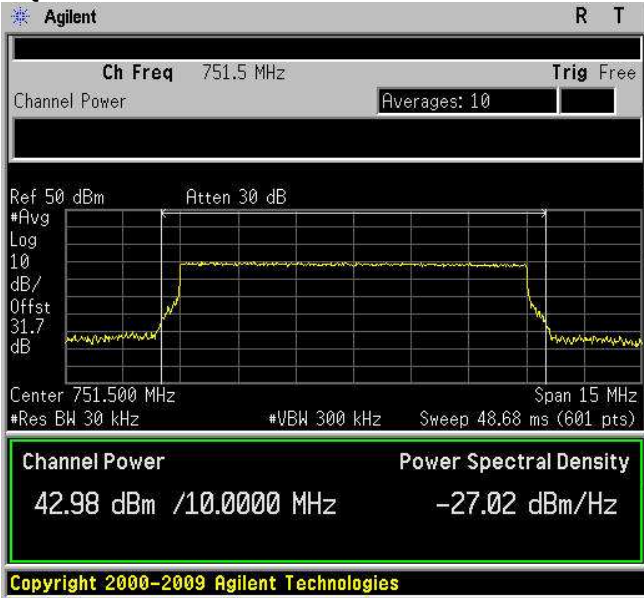
RF Power Output D.L. mod. 5 QPSK



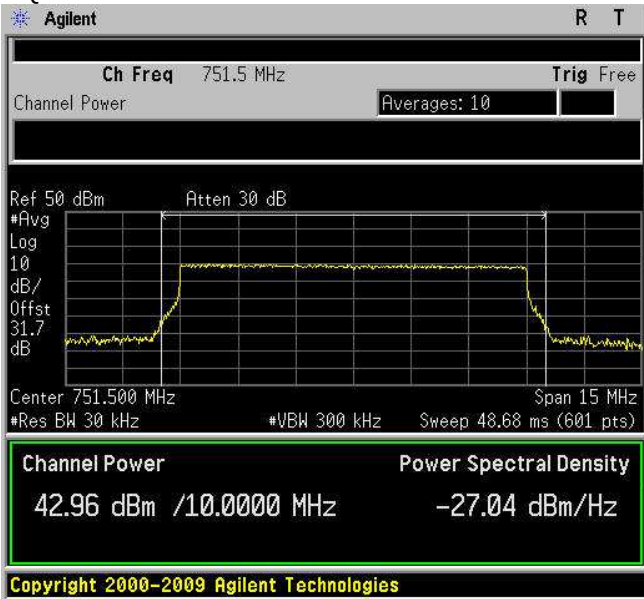


|                                                                      |                            |                           |
|----------------------------------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                                              |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 27.50(b) Peak output power at RF antenna connector |                            |                           |
| Test date: 17-19 May 2010                                            |                            | Test engineer: G. Curioni |
| Verdict: Pass                                                        |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                                                   | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                                           |                            |                           |

RF Power Output D.L. mod. 10 QAM



RF Power Output D.L. mod. 10 QPSK

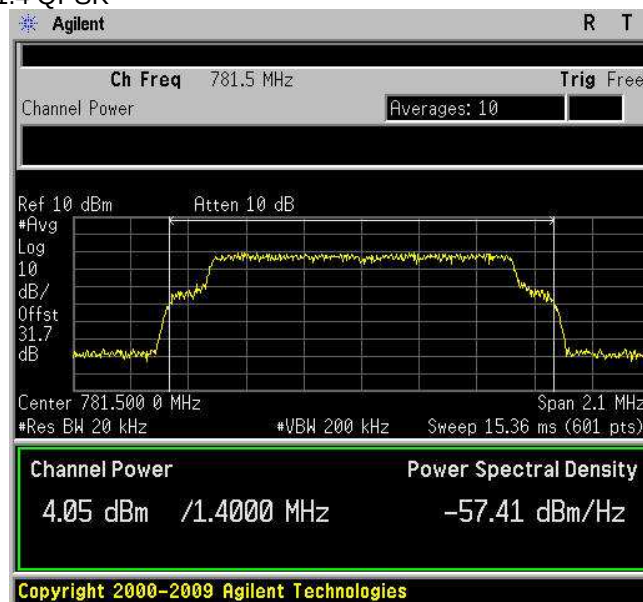


|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

RF Power Output U.L. mod. 1.4 QAM

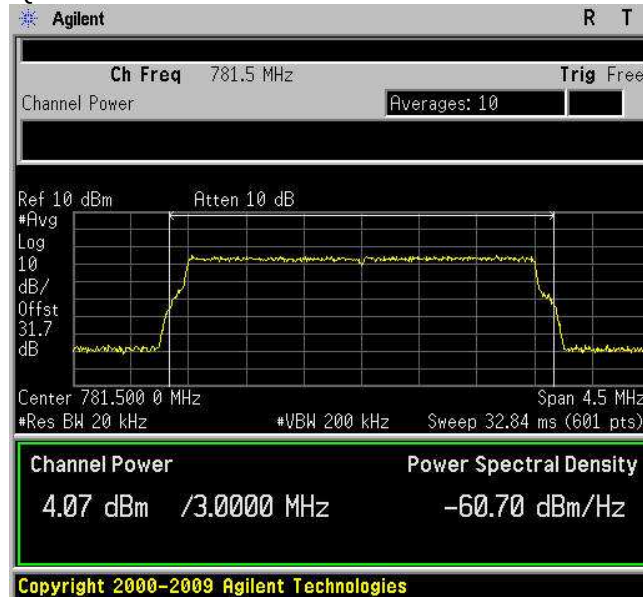


RF Power Output U.L. mod. 1.4 QPSK



|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

RF Power Output U.L. mod. 3 QAM

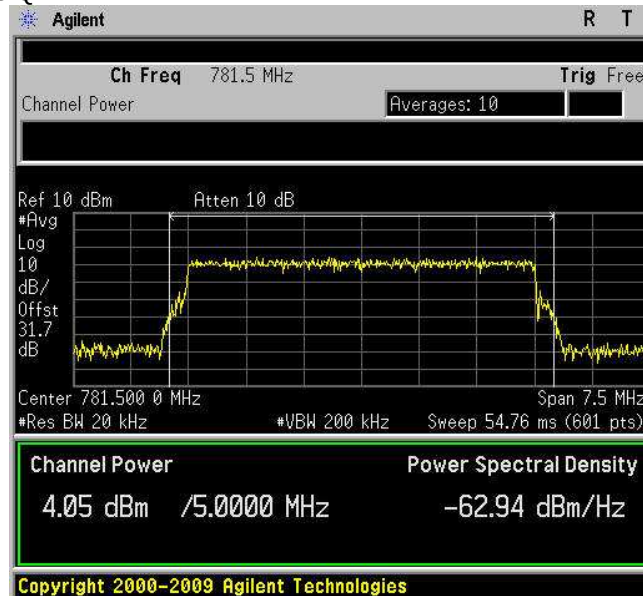


RF Power Output U.L. mod. 3 QPSK



|                                                                                                                                                      |                                                                             |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                              |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.50(b) Peak output power at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                            |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                        |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                   | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                             |                                   |                                  |

RF Power Output U.L. mod. 5 QAM



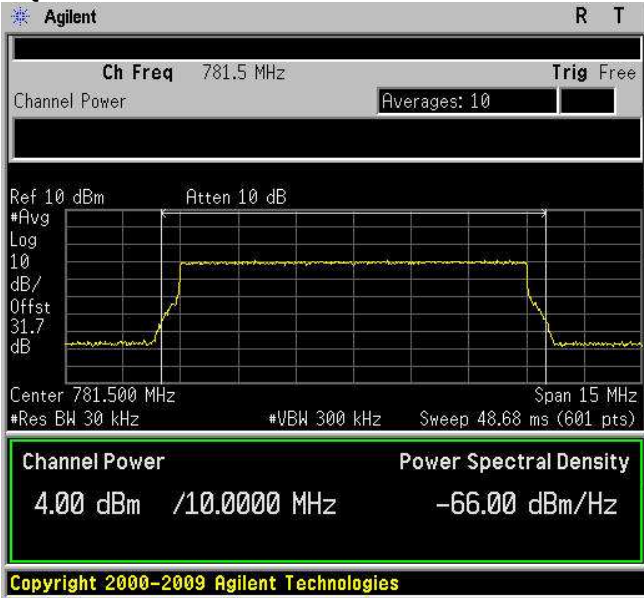
RF Power Output U.L. mod. 5 QPSK



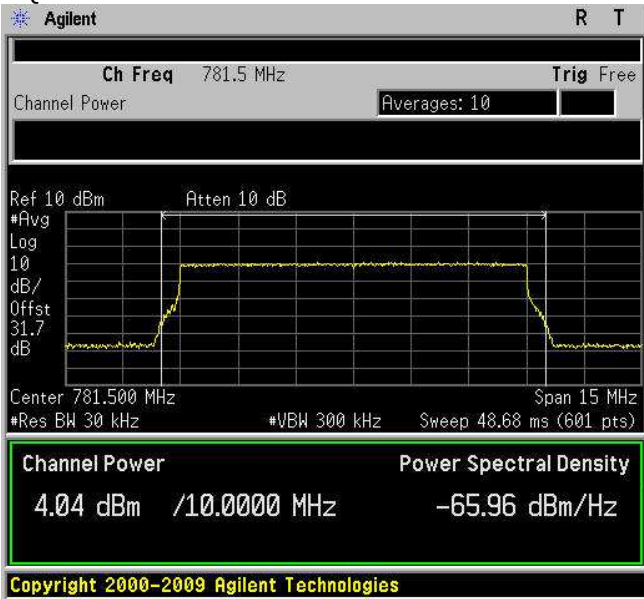


|                                                                      |                            |                           |
|----------------------------------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                                              |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 27.50(b) Peak output power at RF antenna connector |                            |                           |
| Test date: 17-19 May 2010                                            |                            | Test engineer: G. Curioni |
| Verdict: Pass                                                        |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                                                   | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                                           |                            |                           |

RF Power Output U.L. mod. 10 QAM



RF Power Output U.L. mod. 10 QPSK



|                                                                                                                                                      |                                          |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>           |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.52 RF safety |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010         |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                     |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                          |                                   |                                  |

## 8.2 Clause 27.52 RF safety

Licensees and manufacturers are subject to the radio frequency radiation exposure requirements specified in sections 1.1307(b), 2.1091, and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of mobile or portable devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

### Special notes

The test was performed using E-field probe slowly moving towards the EUT until E-field equivalent to the maximum permitted power density was measured

Equivalent power density was calculated from electric field strength as follows:

$$S_{[mW/cm^2]} = \frac{0.1 \times E^2_{[V/m]}}{120 \times \pi} \quad S[W/m^2] = E^2[V/m]/377[\Omega]$$

where S is power density and E is electric field strength.

### Test data

| Test distance (cm) | Field strength (V/m) | Equivalent power density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) | Margin (mW/cm <sup>2</sup> ) |
|--------------------|----------------------|------------------------------------------------|-----------------------------|------------------------------|
| 300                |                      |                                                |                             |                              |
| 250                |                      |                                                |                             |                              |
| 200                |                      |                                                |                             |                              |
| 150                |                      |                                                |                             |                              |
| 100                |                      |                                                |                             |                              |
| 50                 |                      |                                                |                             |                              |
| 30                 |                      |                                                |                             |                              |
| 20                 |                      |                                                |                             |                              |
| 10                 |                      |                                                |                             |                              |
| 5                  |                      |                                                |                             |                              |

NOT APPLICABLE; External Antenna is not provided.

|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

### 8.3 Clause 27.53 (c) Spurious emissions at RF antenna connector

- (c) For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
- (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;
  - (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;
  - (3) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $76 + 10 \log (P)$  dB in a 6.25 kHz band segment, for base and fixed stations;
  - (4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
  - (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
  - (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

#### Special notes

- The spectrum was searched from 30 MHz to the 10<sup>th</sup> harmonic.
- All measurements were performed using a peak detector.
- RBW within 30–1000 MHz was 100 kHz and 30 kHz for bandedge; 1 MHz above 1 GHz. VBW was wider than RBW.

|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

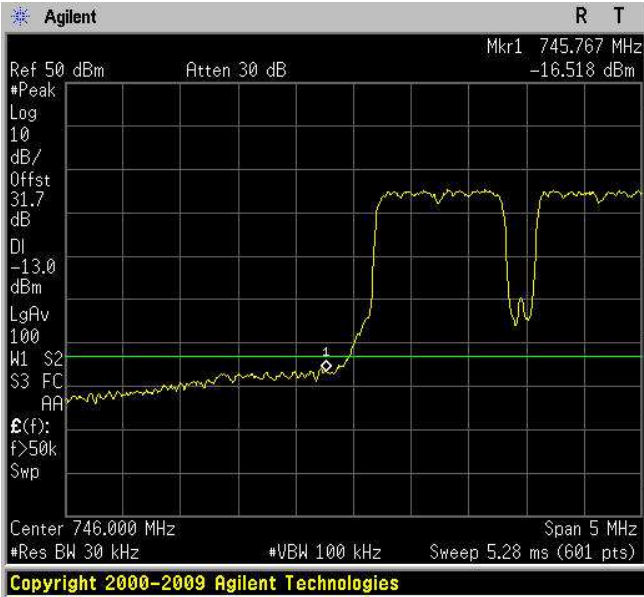
| Test data                               |                         |             |             |
|-----------------------------------------|-------------------------|-------------|-------------|
| Insert plots here                       |                         |             |             |
| Spurious emissions measurement results: |                         |             |             |
| Frequency (MHz)                         | Spurious emission (dBm) | Limit (dBm) | Margin (dB) |
| Low channel                             |                         |             |             |
| First channel Down-link                 | Negligible              | -13         |             |
| First channel Up-link                   | Negligible              | -13         |             |
|                                         |                         |             |             |
| Mid channel                             |                         |             |             |
| 751,5 MHz Down-link                     | Negligible              | -13         |             |
| 781,5 MHz Down-link                     | Negligible              | -13         |             |
|                                         |                         |             |             |
| High channel                            |                         |             |             |
| Last channel Down-link                  | Negligible              | -13         |             |
| Last channel Up-link                    | Negligible              | -13         |             |
|                                         |                         |             |             |

See Plots below



|                                                                         |                            |                           |
|-------------------------------------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                                                 |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 27. 53 (c) Spurious emissions at RF antenna connector |                            |                           |
| Test date: 17-19 May 2010                                               |                            | Test engineer: G. Curioni |
| Verdict: Pass                                                           |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                                                      | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                                              |                            |                           |

Spurious Emissions at Antenna Terminals  
Downlink – 1.4 QAM  
LOW BAND EDGE

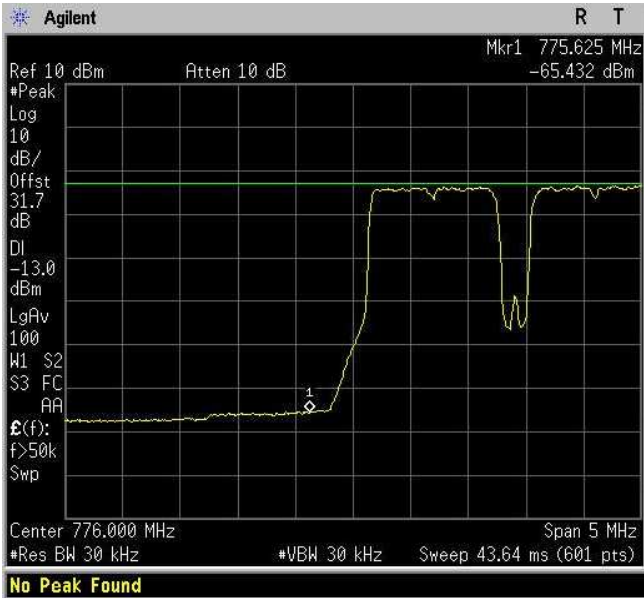


Spurious Emissions at Antenna Terminals  
Downlink – 1.4 QAM  
HIGH BAND EDGE

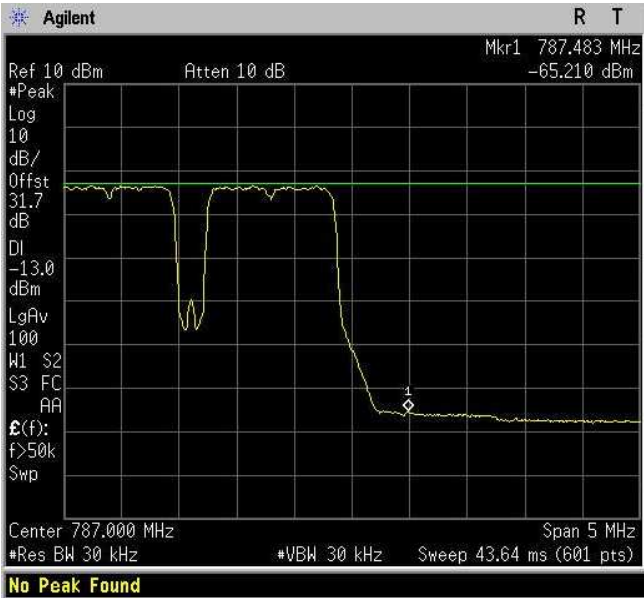


|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 1.4 QAM  
LOW BAND EDGE

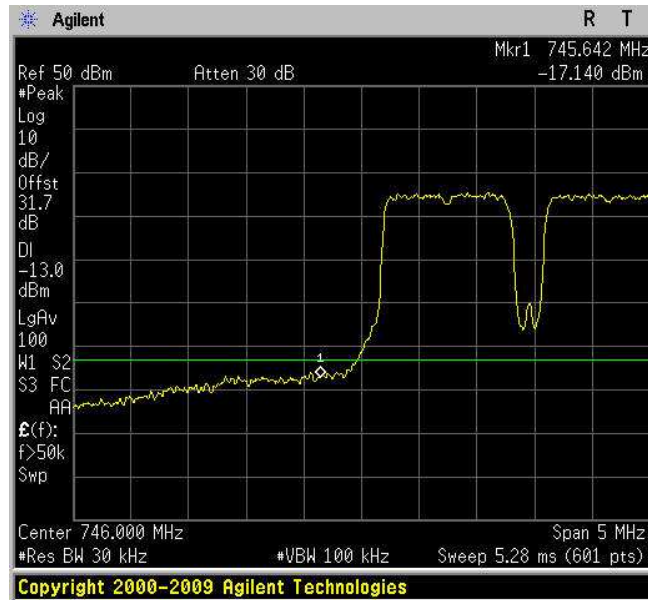


Spurious Emissions at Antenna Terminals  
Uplink – 1.4 QAM  
HIGH BAND EDGE



|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 1.4 QPSK  
LOW BAND EDGE

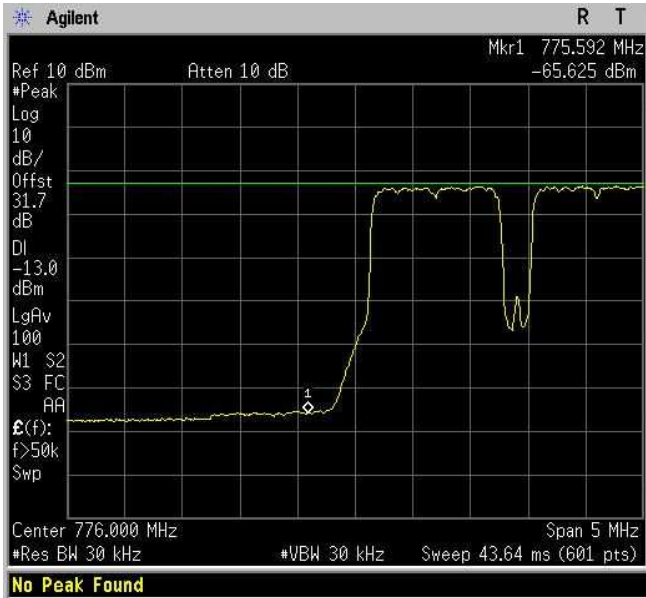


Spurious Emissions at Antenna Terminals  
Downlink – 1.4 QPSK  
HIGH BAND EDGE



|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 1.4 QPSK  
LOW BAND EDGE

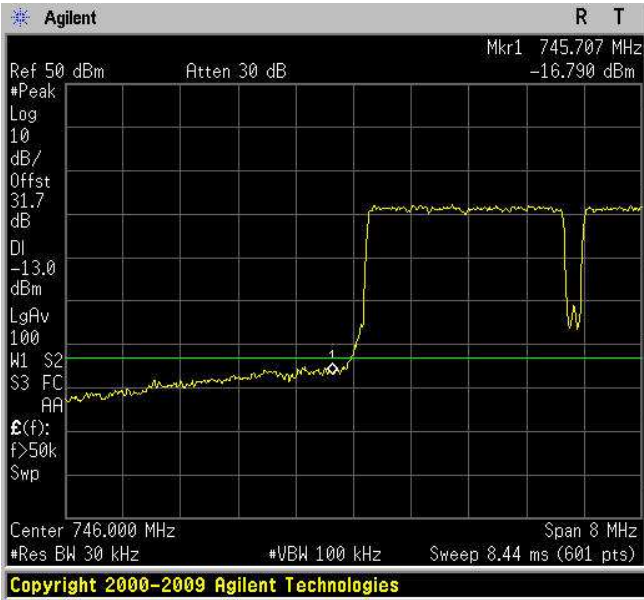


Spurious Emissions at Antenna Terminals  
Uplink – 1.4 QPSK  
HIGH BAND EDGE



|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 3 QAM  
LOW BAND EDGE

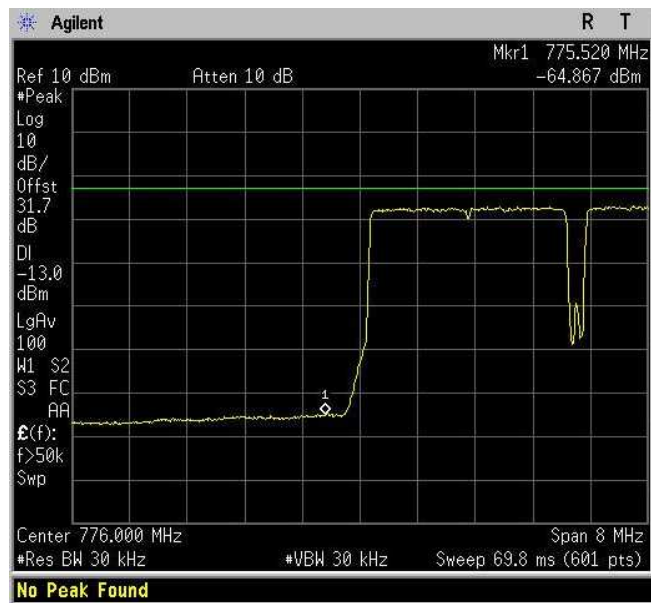


Spurious Emissions at Antenna Terminals  
Downlink – 3 QAM  
HIGH BAND EDGE

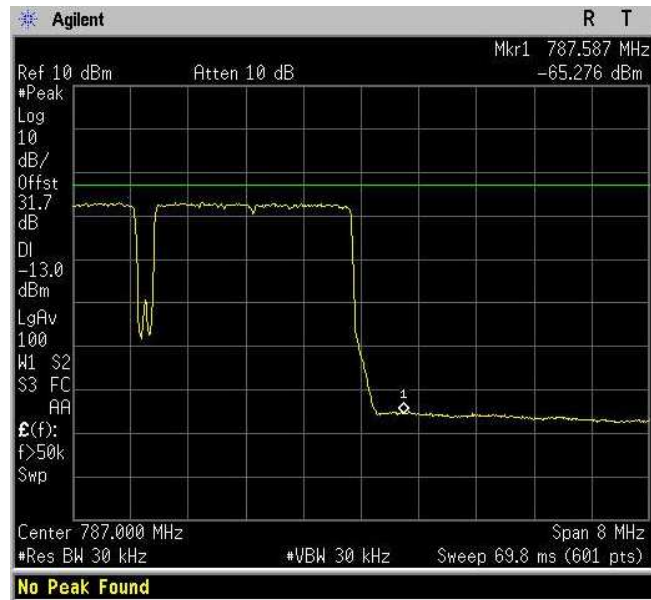


|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 3 QAM  
LOW BAND EDGE

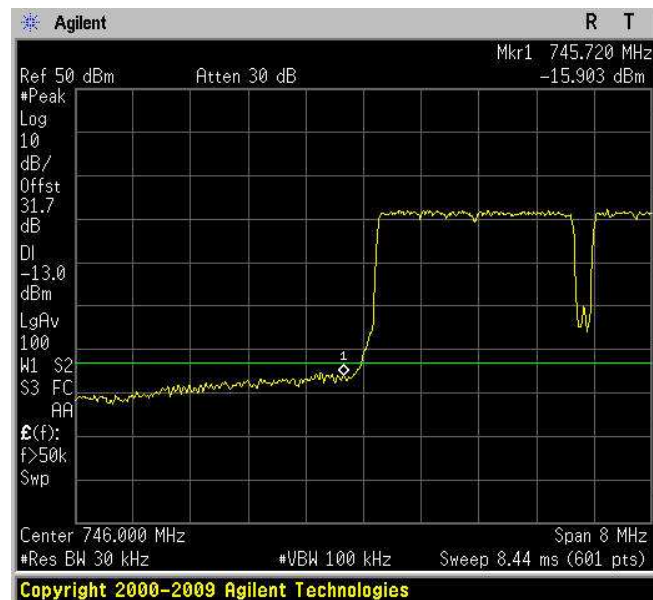


Spurious Emissions at Antenna Terminals  
Uplink – 3 QAM  
HIGH BAND EDGE

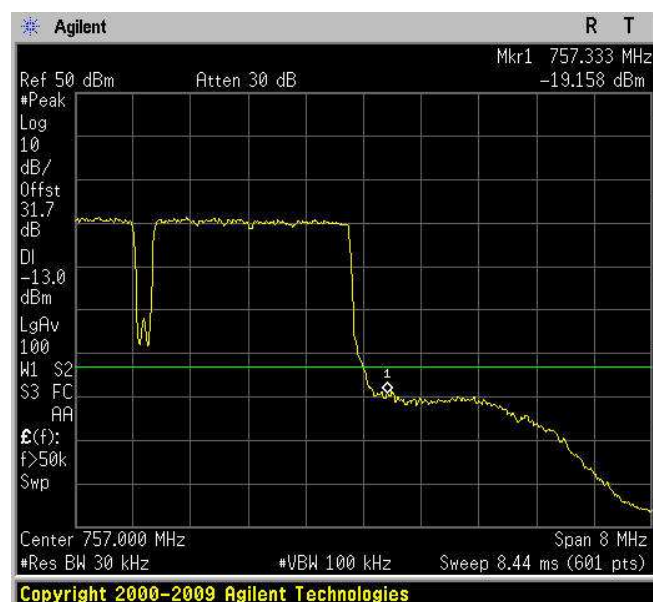


|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 3 QPSK  
LOW BAND EDGE

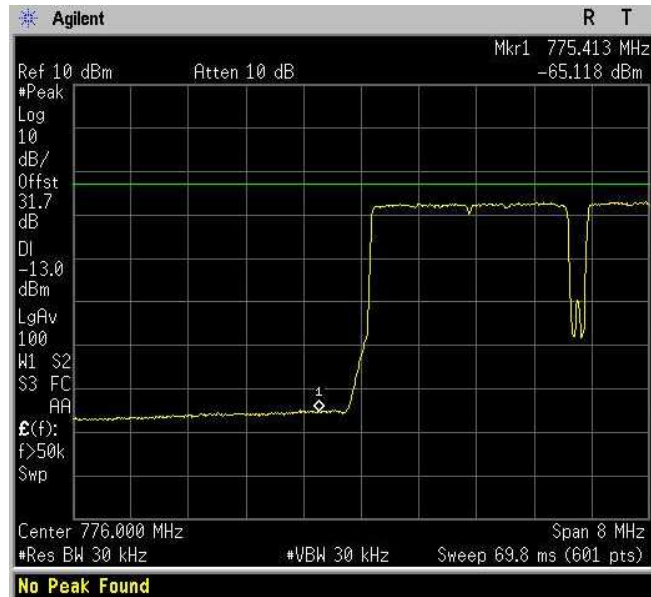


Spurious Emissions at Antenna Terminals  
Downlink – 3 QPSK  
HIGH BAND EDGE

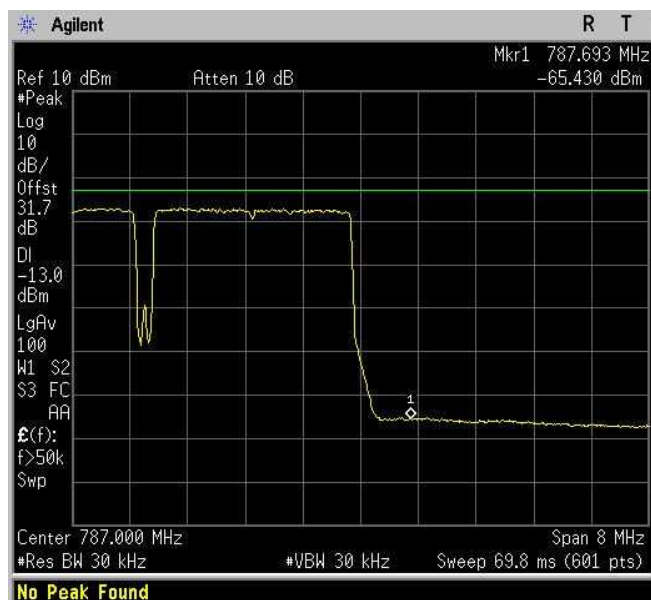


|                                                                                |                                   |
|--------------------------------------------------------------------------------|-----------------------------------|
| <b>Section 8: Testing data</b>                                                 | <b>Product: TRU7SAWBV/AC-WS</b>   |
| <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |
| <b>Test date:</b> 17-19 May 2010                                               | <b>Test engineer:</b> G. Curioni  |
| <b>Verdict:</b> Pass                                                           | <b>Supply input:</b> 100-240 Vac  |
| <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa |
| <b>Specification:</b> FCC Part 27                                              | <b>Relative humidity:</b> 50 %    |

Spurious Emissions at Antenna Terminals  
Uplink – 3 QPSK  
LOW BAND EDGE



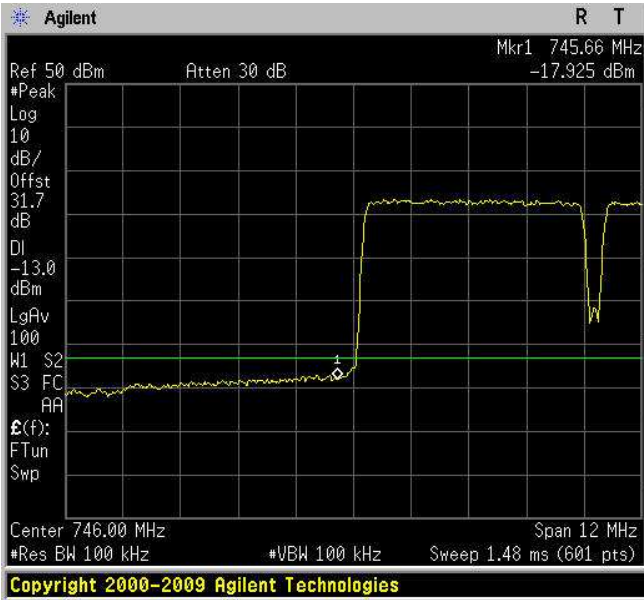
Spurious Emissions at Antenna Terminals  
Uplink – 3 QPSK  
HIGH BAND EDGE





|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 5 QAM  
LOW BAND EDGE

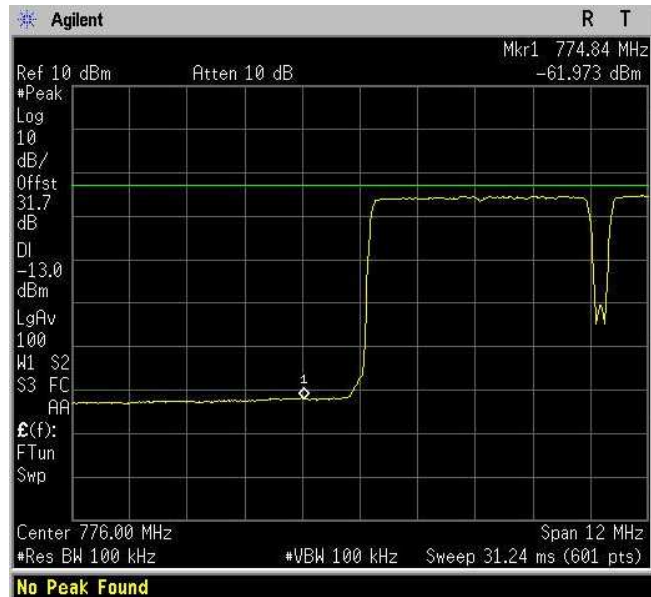


Spurious Emissions at Antenna Terminals  
Downlink – 5 QAM  
HIGH BAND EDGE

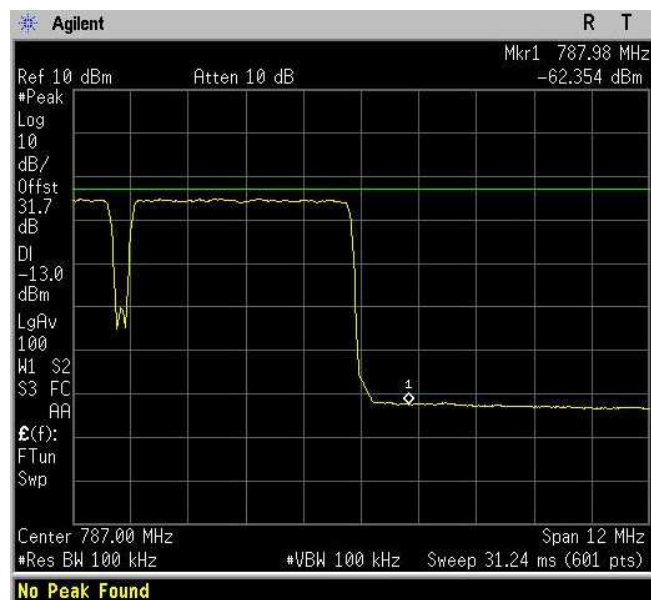


|                                                                                |                                   |                                  |
|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
| <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
| <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
| <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
| <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                              |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 5 QAM  
LOW BAND EDGE

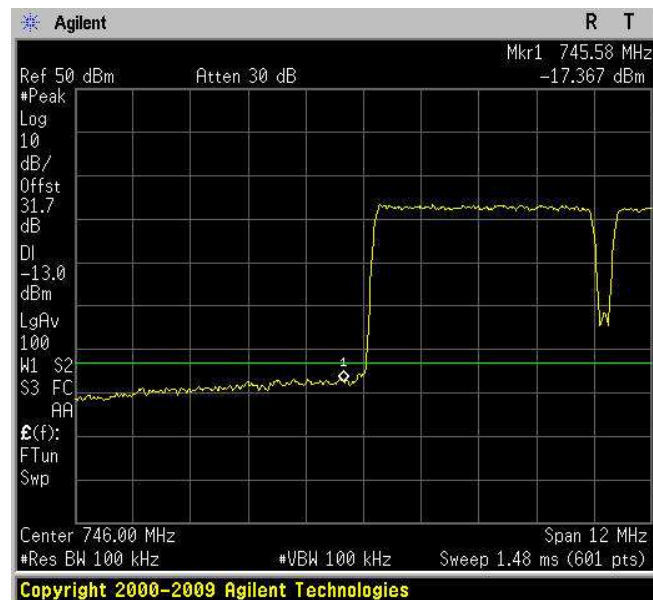


Spurious Emissions at Antenna Terminals  
Uplink – 5 QAM  
HIGH BAND EDGE



|                                                                                |                                   |
|--------------------------------------------------------------------------------|-----------------------------------|
| <b>Section 8: Testing data</b>                                                 | <b>Product: TRU7SAWBV/AC-WS</b>   |
| <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |
| <b>Test date:</b> 17-19 May 2010                                               | <b>Test engineer:</b> G. Curioni  |
| <b>Verdict:</b> Pass                                                           | <b>Supply input:</b> 100-240 Vac  |
| <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa |
| <b>Specification:</b> FCC Part 27                                              | <b>Relative humidity:</b> 50 %    |

Spurious Emissions at Antenna Terminals  
Downlink – 5 QPSK  
LOW BAND EDGE

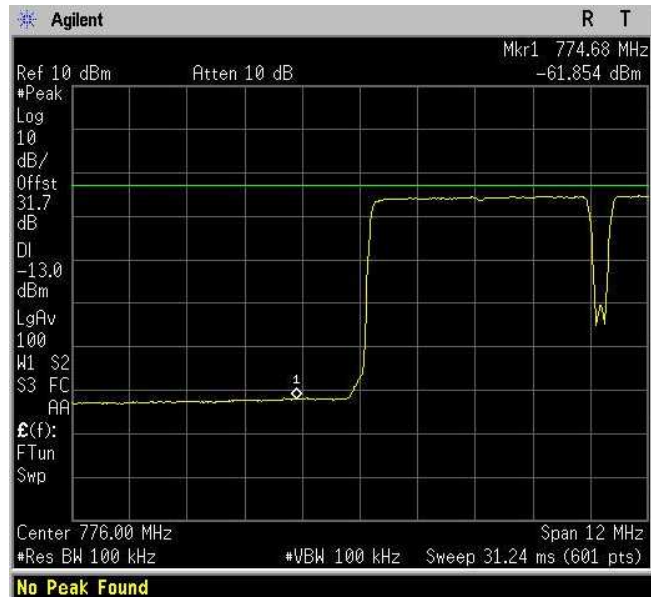


Spurious Emissions at Antenna Terminals  
Downlink – 5 QPSK  
HIGH BAND EDGE

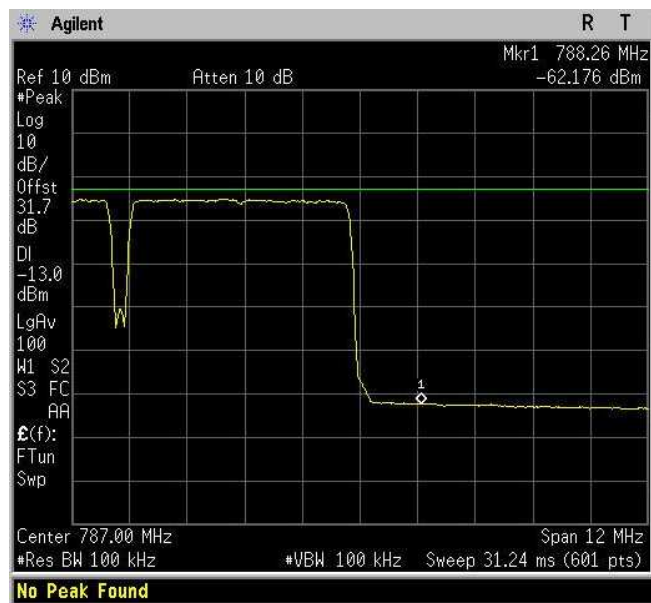


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|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 5 QPSK  
LOW BAND EDGE

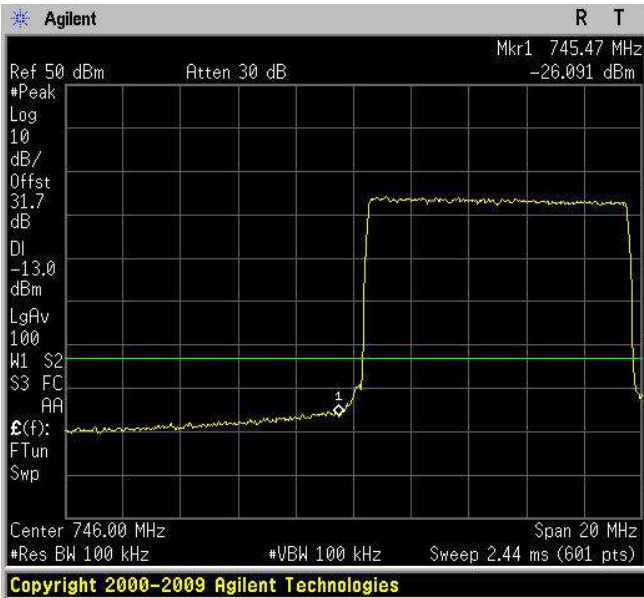


Spurious Emissions at Antenna Terminals  
Uplink – 5 QPSK  
HIGH BAND EDGE

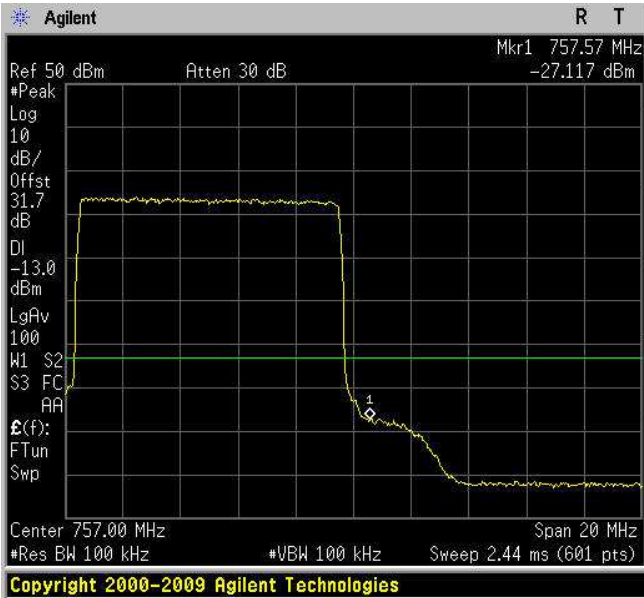


|                                                                         |                            |                           |
|-------------------------------------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                                                 |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 27. 53 (c) Spurious emissions at RF antenna connector |                            |                           |
| Test date: 17-19 May 2010                                               |                            | Test engineer: G. Curioni |
| Verdict: Pass                                                           |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                                                      | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                                              |                            |                           |

Spurious Emissions at Antenna Terminals  
Downlink – 10 QAM  
LOW BAND EDGE

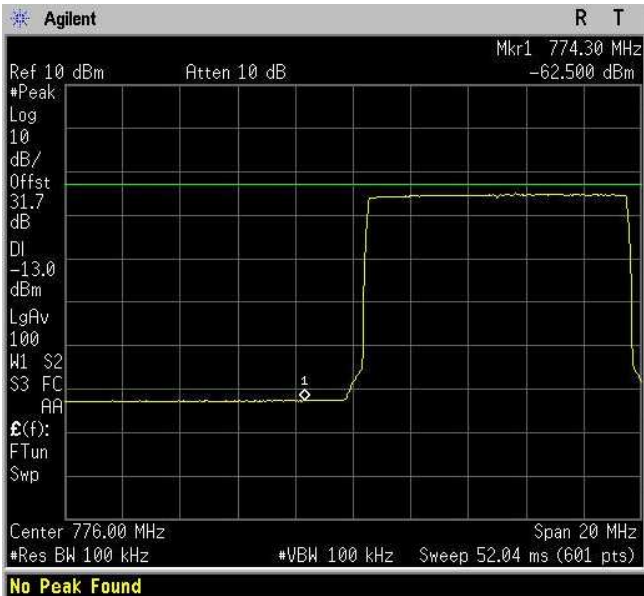


Spurious Emissions at Antenna Terminals  
Downlink – 10 QAM  
HIGH BAND EDGE



|                                                                         |                            |                           |                         |
|-------------------------------------------------------------------------|----------------------------|---------------------------|-------------------------|
| Section 8: Testing data                                                 |                            | Product: TRU7SAWBV/AC-WS  |                         |
| Test name: Clause 27. 53 (c) Spurious emissions at RF antenna connector |                            |                           |                         |
| Test date: 17-19 May 2010                                               |                            | Test engineer: G. Curioni |                         |
| Verdict: Pass                                                           |                            | Supply input: 100-240 Vac |                         |
| Temperature: 25 °C                                                      | Air pressure: 860-1060 hPa |                           | Relative humidity: 50 % |
| Specification: FCC Part 27                                              |                            |                           |                         |

Spurious Emissions at Antenna Terminals  
 Uplink – 10 QAM  
 LOW BAND EDGE



Spurious Emissions at Antenna Terminals  
 Uplink – 10 QAM  
 HIGH BAND EDGE

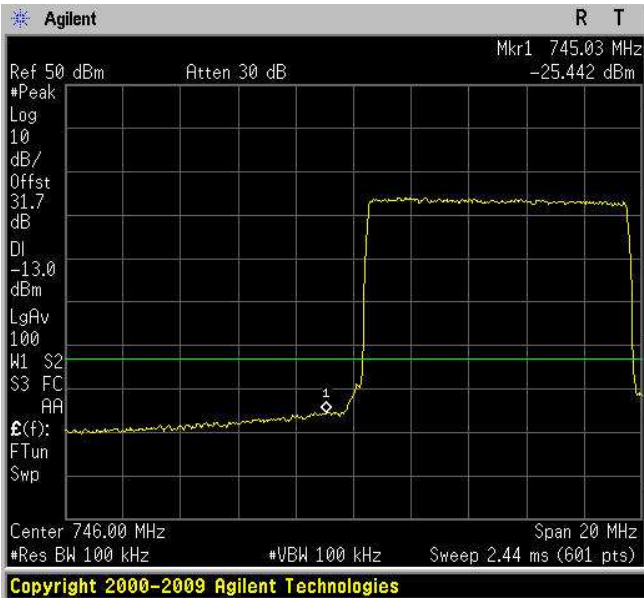


|                                                                         |                            |                           |                         |
|-------------------------------------------------------------------------|----------------------------|---------------------------|-------------------------|
| Section 8: Testing data                                                 |                            | Product: TRU7SAWBV/AC-WS  |                         |
| Test name: Clause 27. 53 (c) Spurious emissions at RF antenna connector |                            |                           |                         |
| Test date: 17-19 May 2010                                               |                            | Test engineer: G. Curioni |                         |
| Verdict: Pass                                                           |                            | Supply input: 100-240 Vac |                         |
| Temperature: 25 °C                                                      | Air pressure: 860-1060 hPa |                           | Relative humidity: 50 % |
| Specification: FCC Part 27                                              |                            |                           |                         |

Spurious Emissions at Antenna Terminals

Downlink – 10 QPSK

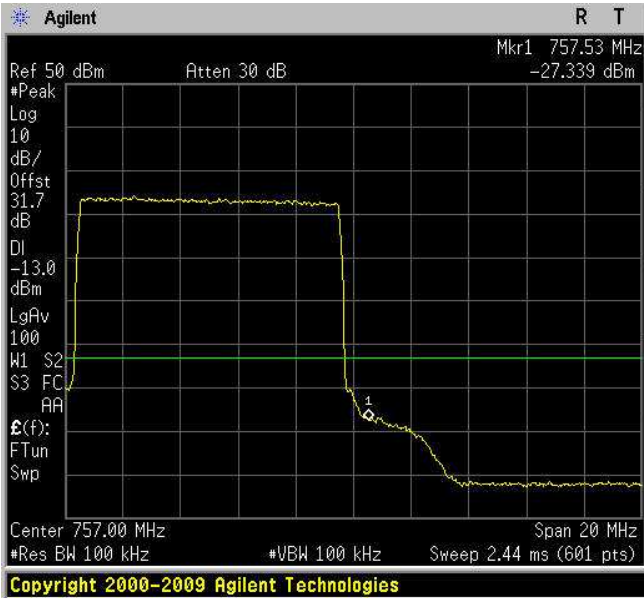
LOW BAND EDGE



Spurious Emissions at Antenna Terminals

Downlink – 10 QPSK

HIGH BAND EDGE

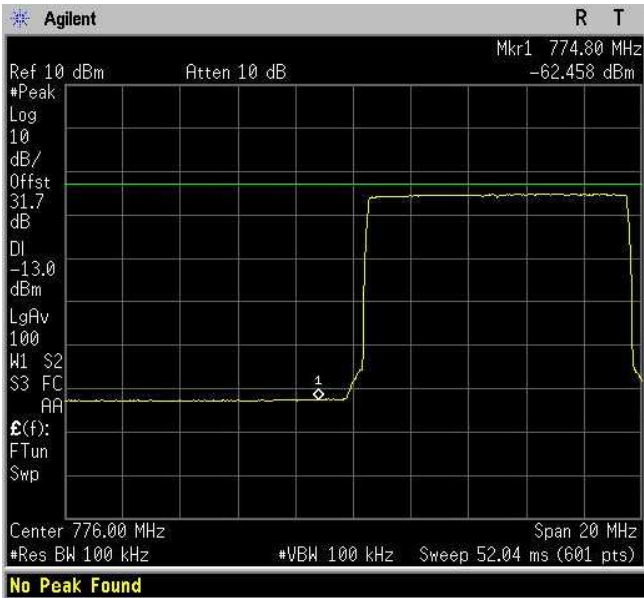


|                                                                         |                            |                           |                         |
|-------------------------------------------------------------------------|----------------------------|---------------------------|-------------------------|
| Section 8: Testing data                                                 |                            | Product: TRU7SAWBV/AC-WS  |                         |
| Test name: Clause 27. 53 (c) Spurious emissions at RF antenna connector |                            |                           |                         |
| Test date: 17-19 May 2010                                               |                            | Test engineer: G. Curioni |                         |
| Verdict: Pass                                                           |                            | Supply input: 100-240 Vac |                         |
| Temperature: 25 °C                                                      | Air pressure: 860-1060 hPa |                           | Relative humidity: 50 % |
| Specification: FCC Part 27                                              |                            |                           |                         |

Spurious Emissions at Antenna Terminals

Uplink – 10 QPSK

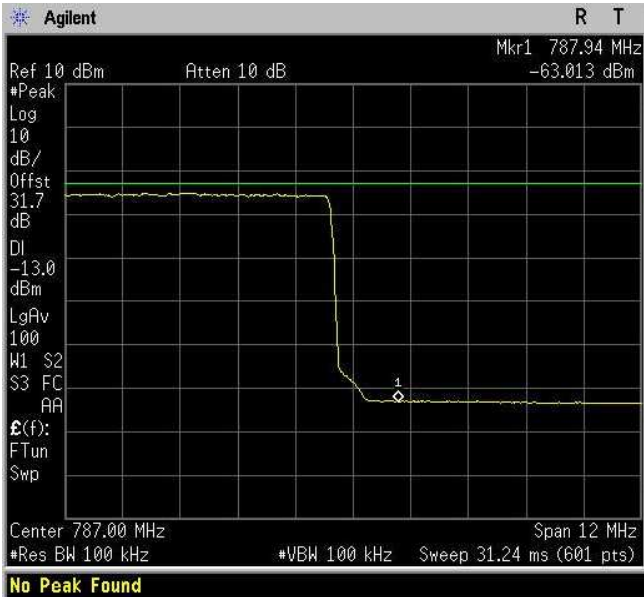
LOW BAND EDGE



Spurious Emissions at Antenna Terminals

Uplink – 10 QPSK

HIGH BAND EDGE



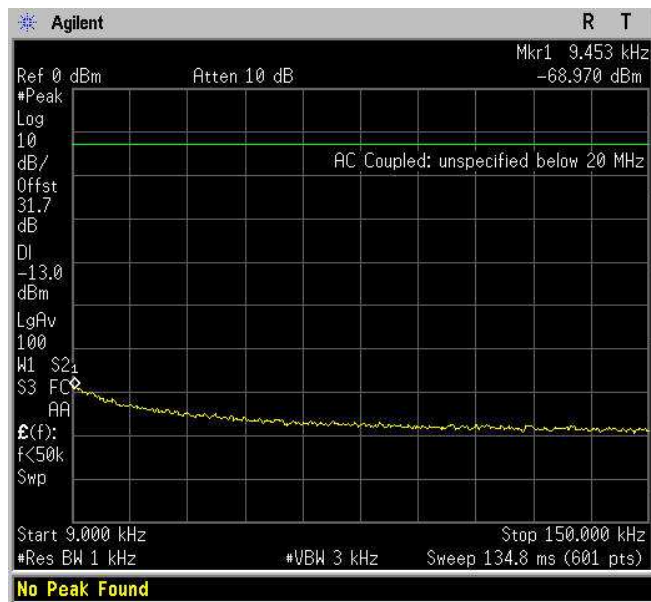


|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 1,4 QAM  
9 kHz – 150 kHz



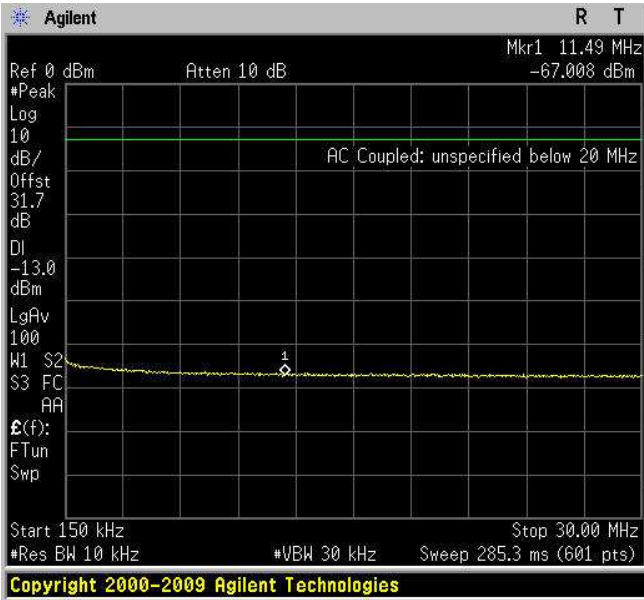
Spurious Emissions at Antenna Terminals  
Uplink – 1,4 QAM  
9 kHz – 150 kHz



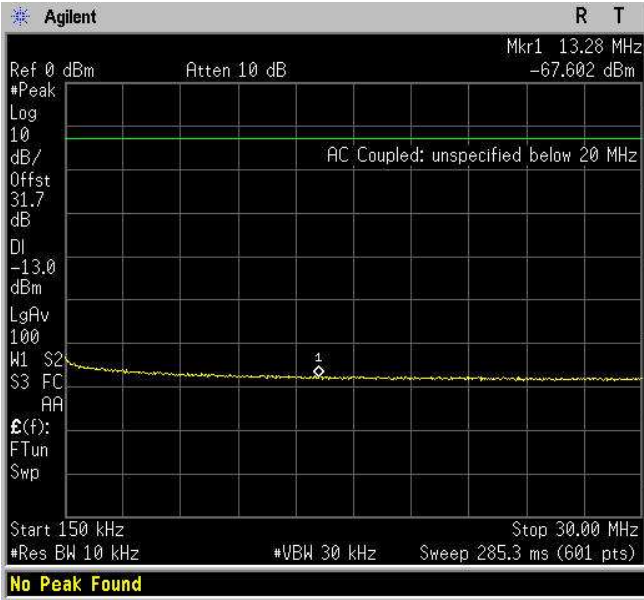
Only 1,4 QAM 9kHz-150kHz spurious emission plots are included here, other modulations spurious emission plots are negligible and the same.

|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 1,4 QAM  
150 kHz – 30MHz



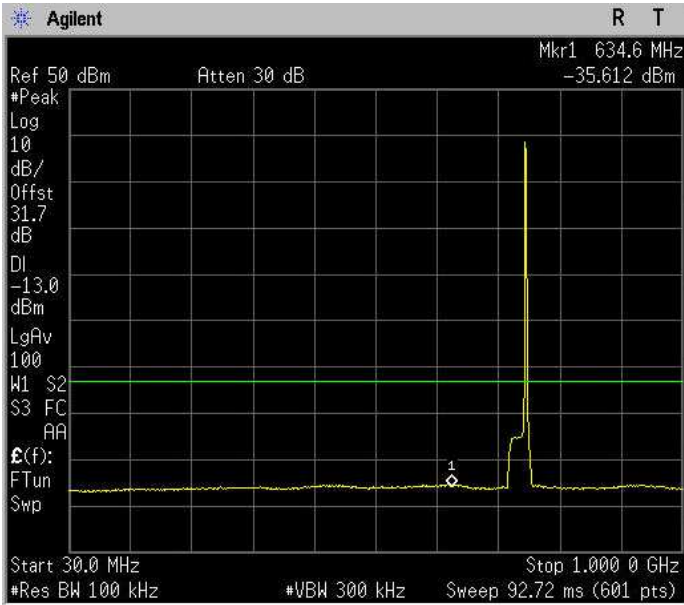
Spurious Emissions at Antenna Terminals  
Uplink – 1,4 QAM  
150 kHz – 30MHz



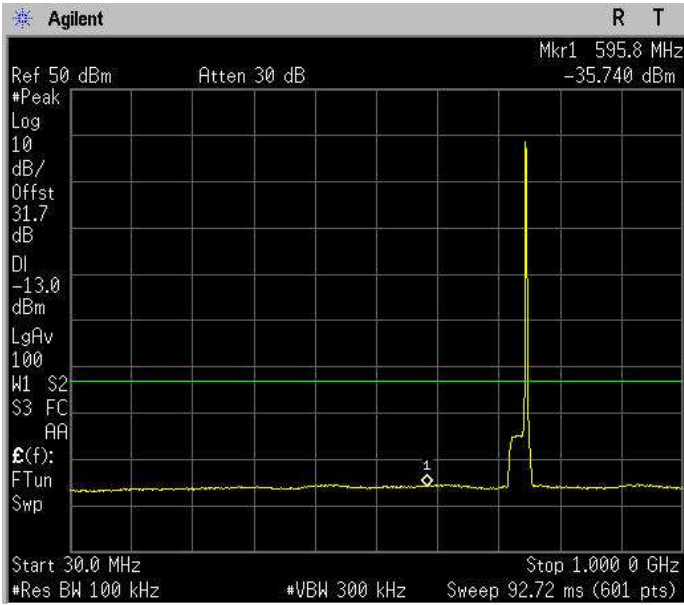
Only 1,4 QAM 150kHz-30MHz spurious emission plots are included here, other modulations spurious emission plots are negligible and the same.

|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 1,4 QAM  
30MHz – 1 GHz

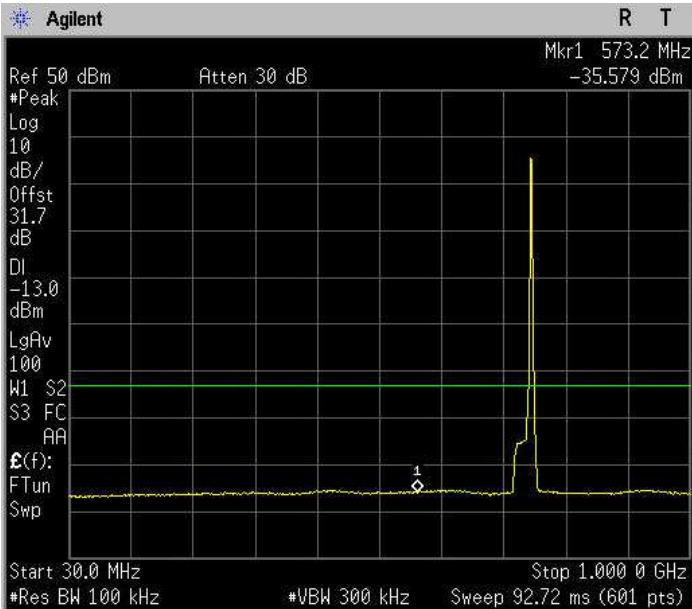


Spurious Emissions at Antenna Terminals  
Downlink – 1,4 QPSK  
30MHz – 1 GHz

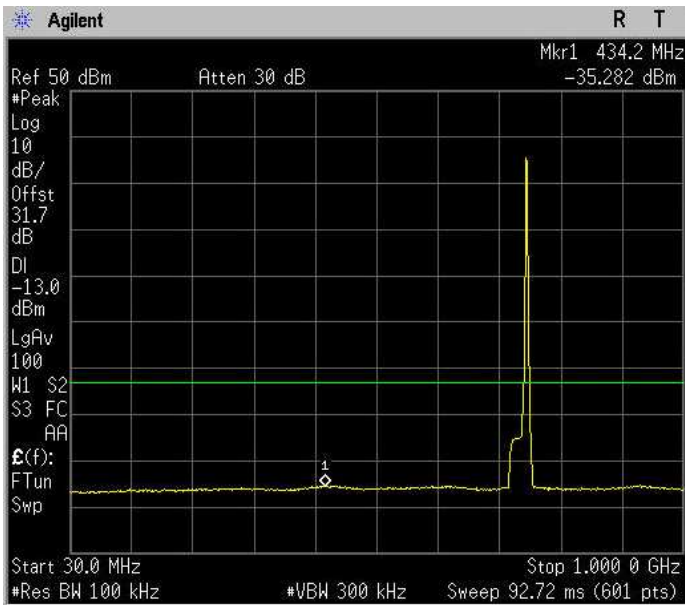


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|-------------------------------------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                                                 |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 27. 53 (c) Spurious emissions at RF antenna connector |                            |                           |
| Test date: 17-19 May 2010                                               |                            | Test engineer: G. Curioni |
| Verdict: Pass                                                           |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                                                      | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                                              |                            |                           |

Spurious Emissions at Antenna Terminals  
Downlink – 3 QAM  
30MHz – 1 GHz

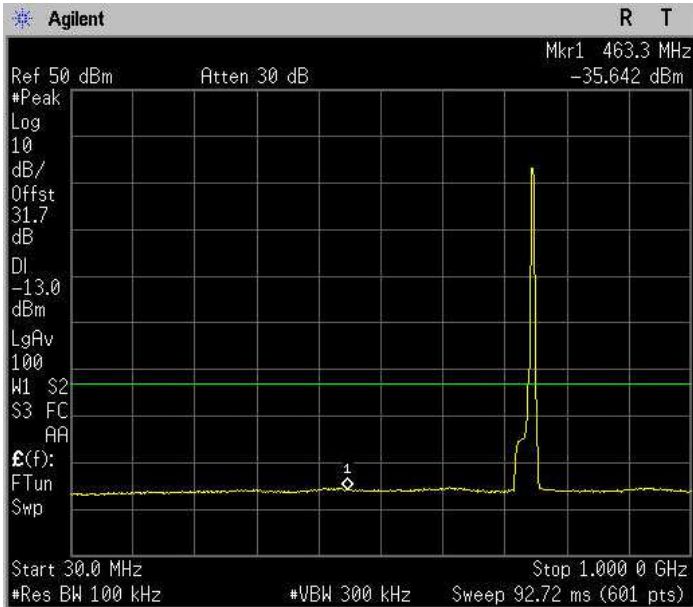


Spurious Emissions at Antenna Terminals  
Downlink – 3 QPSK  
30MHz – 1 GHz

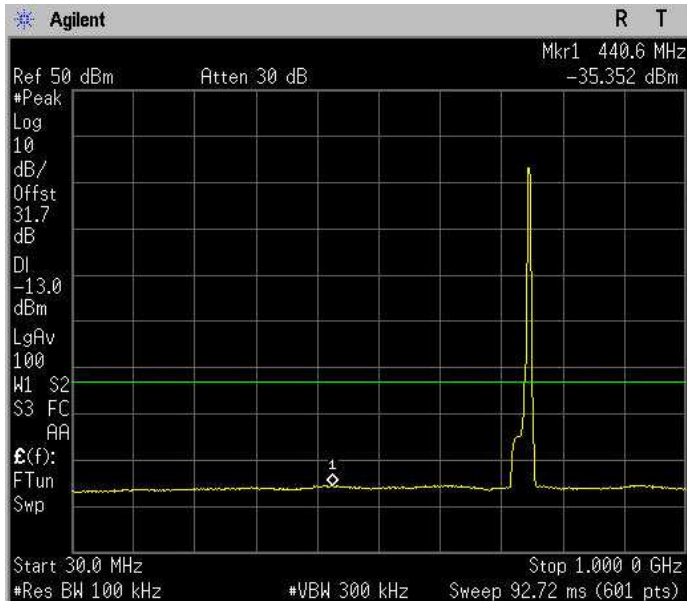


|                                                                         |                            |                           |
|-------------------------------------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                                                 |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 27. 53 (c) Spurious emissions at RF antenna connector |                            |                           |
| Test date: 17-19 May 2010                                               |                            | Test engineer: G. Curioni |
| Verdict: Pass                                                           |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                                                      | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                                              |                            |                           |

Spurious Emissions at Antenna Terminals  
Downlink – 5 QAM  
30MHz – 1 GHz

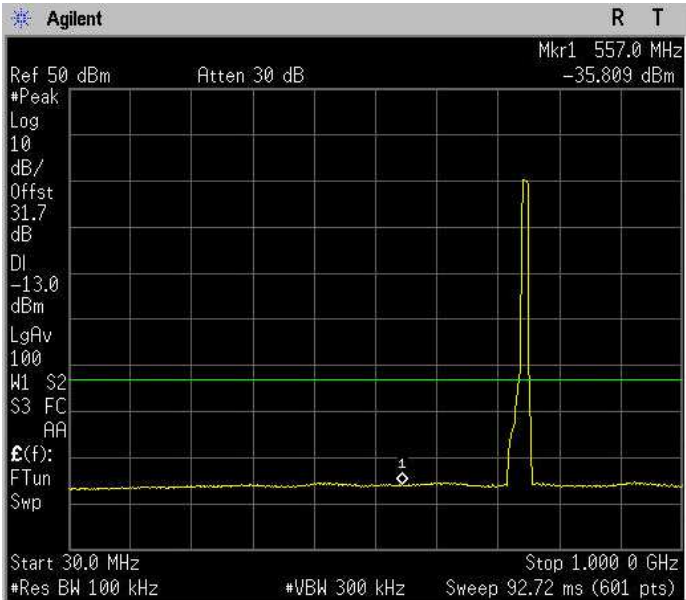


Spurious Emissions at Antenna Terminals  
Downlink – 5 QPSK  
30MHz – 1 GHz

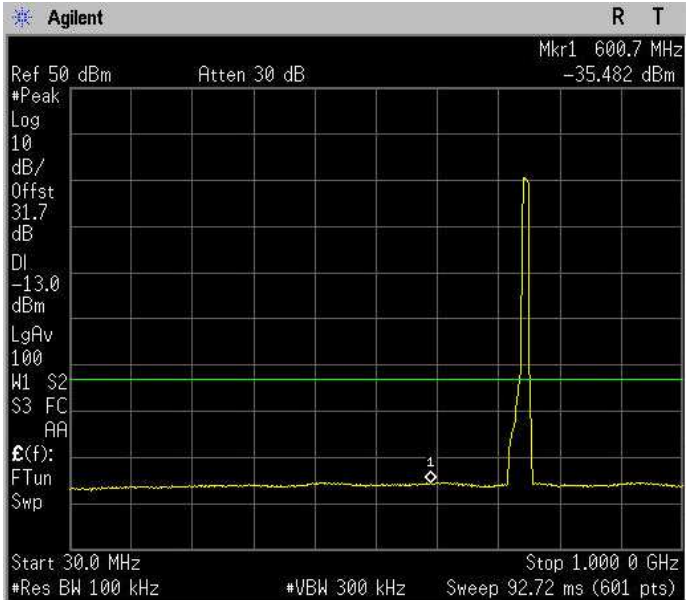


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|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 10 QAM  
30MHz – 1 GHz

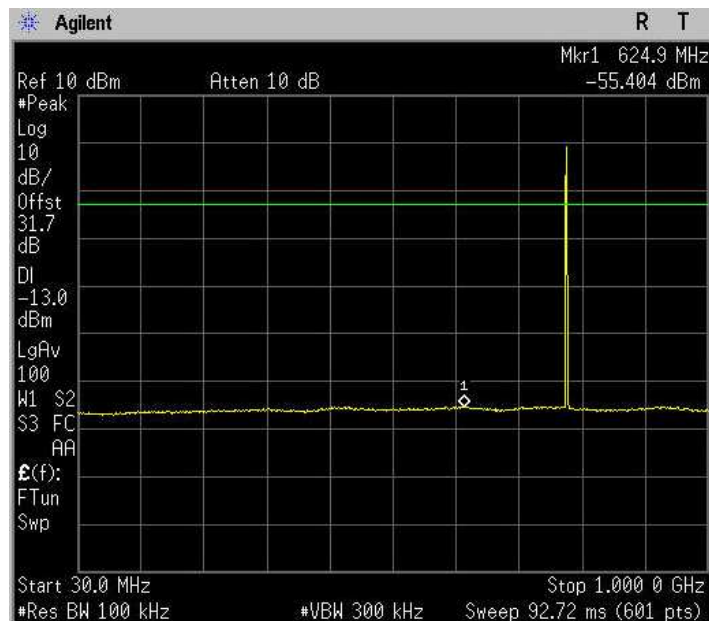


Spurious Emissions at Antenna Terminals  
Downlink – 10 QPSK  
30MHz – 1 GHz

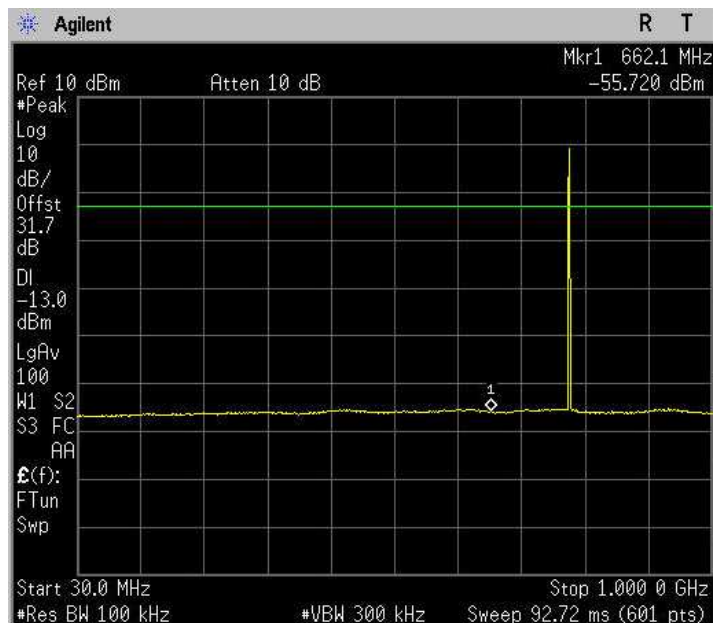


|                                                                                |                                   |                                  |
|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
| <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
| <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
| <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
| <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                              |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 1,4 QAM  
30MHz – 1 GHz

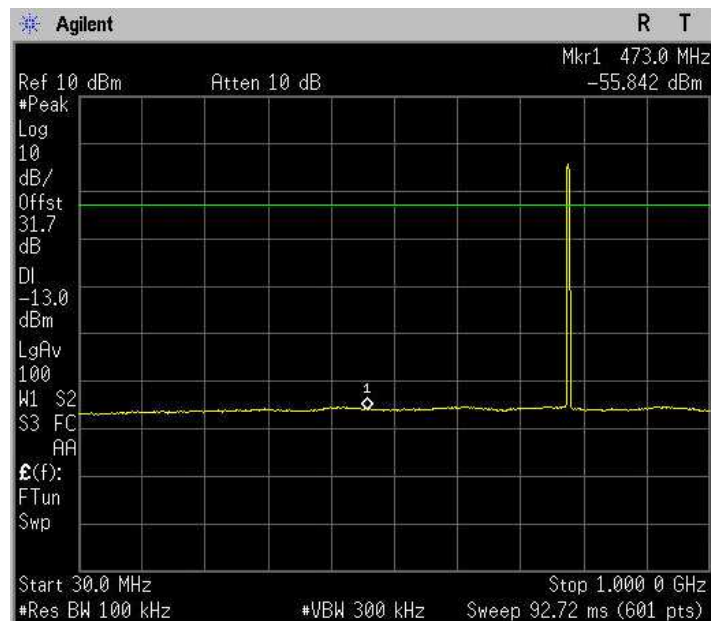


Spurious Emissions at Antenna Terminals  
Uplink – 1,4 QPSK  
30MHz – 1 GHz

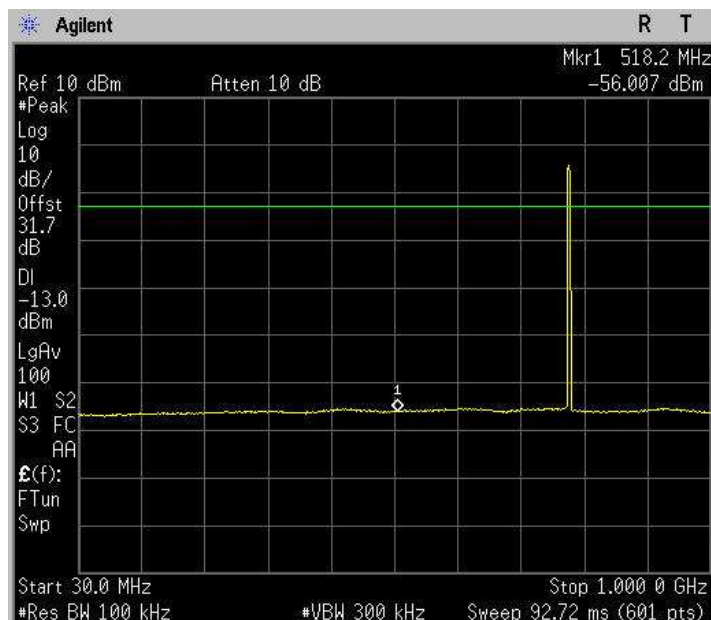


|                                                                                |                                   |                                  |
|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
| <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
| <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
| <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
| <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                              |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 3 QAM  
30MHz – 1 GHz



Spurious Emissions at Antenna Terminals  
Uplink – 3 QPSK  
30MHz – 1 GHz

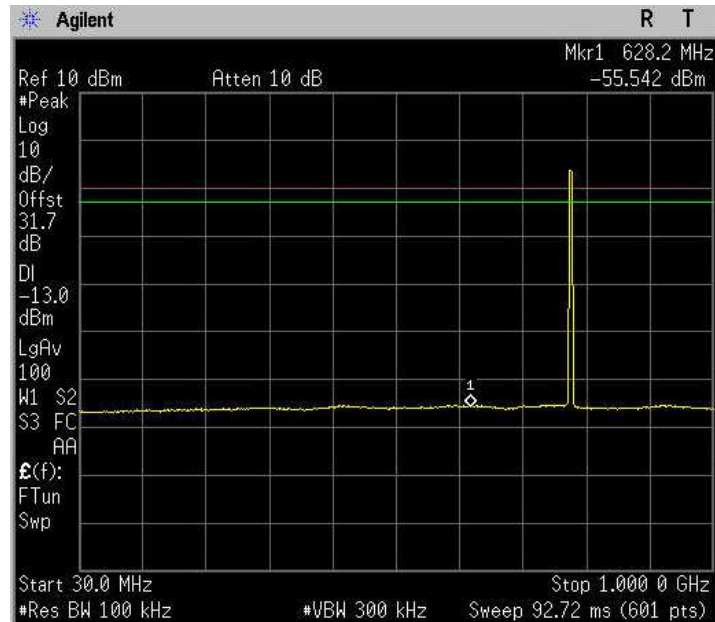




|                                                                                |                                   |                                  |
|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
| <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
| <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
| <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
| <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                              |                                   |                                  |

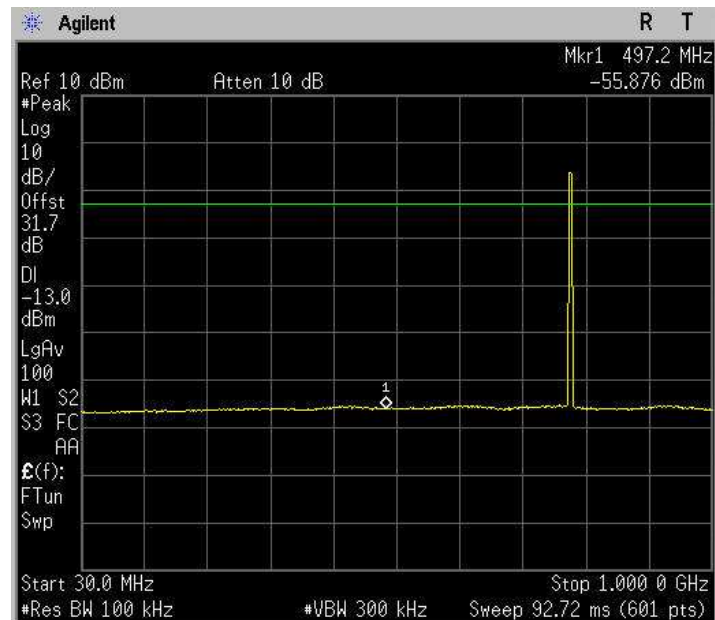
#### Spurious Emissions at Antenna Terminals

Uplink – 5 QAM  
30MHz – 1 GHz



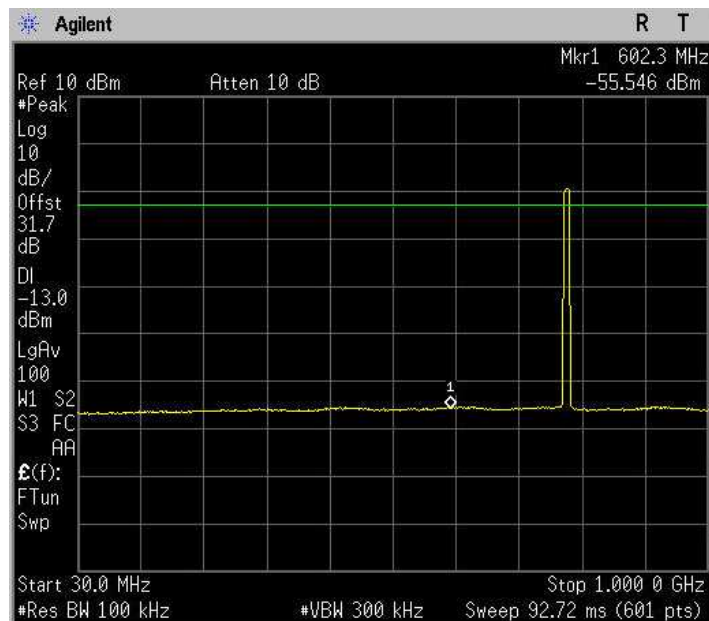
#### Spurious Emissions at Antenna Terminals

Uplink – 5 QPSK  
30MHz – 1 GHz

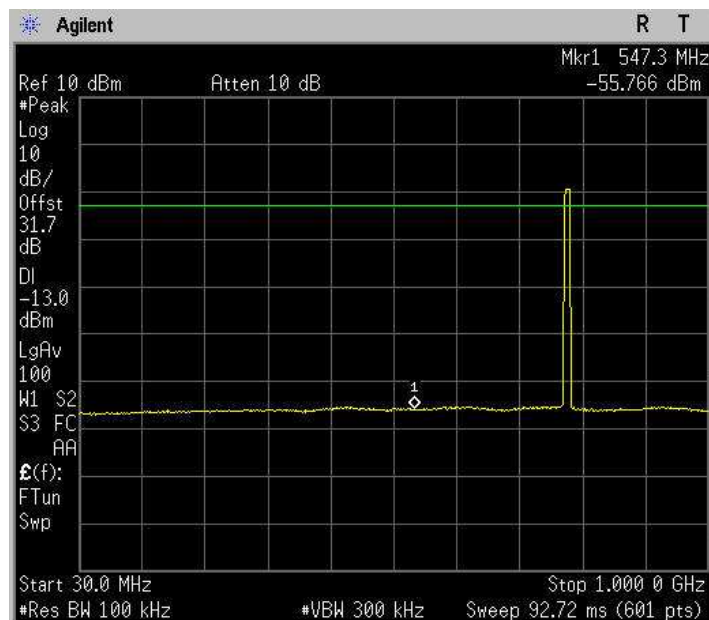


|                                                                                |                                   |                                  |
|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
| <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
| <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
| <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
| <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                              |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Uplink – 10 QAM  
30MHz – 1 GHz

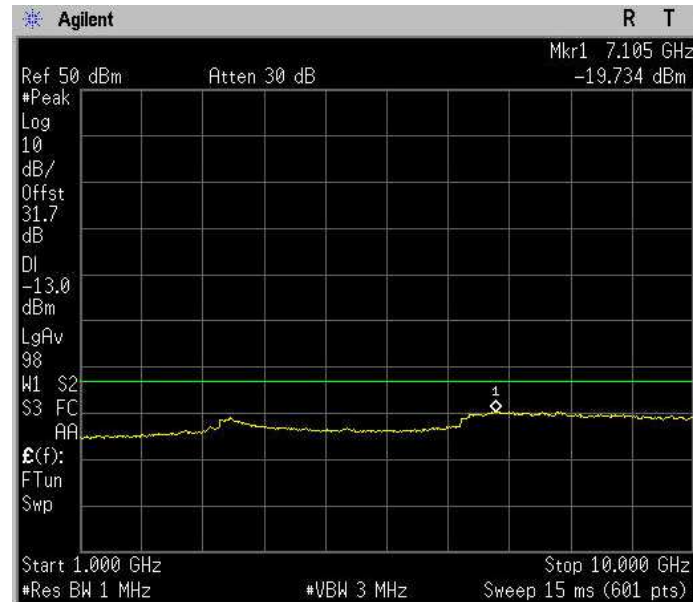


Spurious Emissions at Antenna Terminals  
Uplink – 10 QPSK  
30MHz – 1 GHz

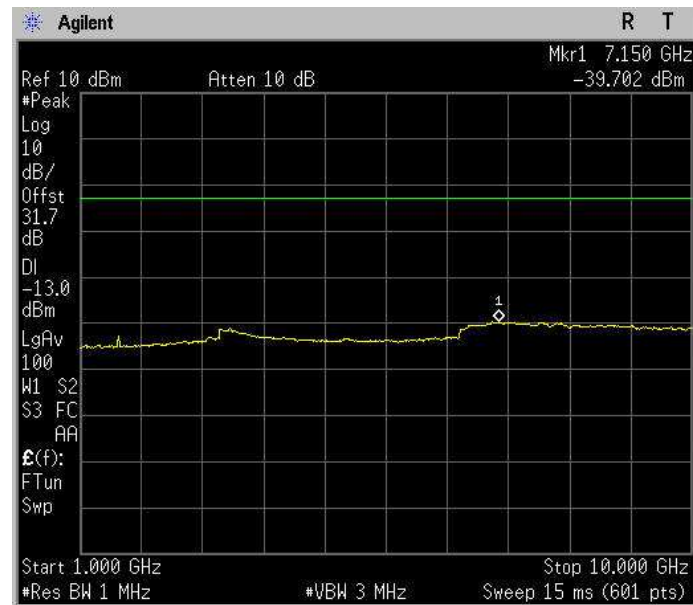


|                                                                                                                                                      |                                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27. 53 (c) Spurious emissions at RF antenna connector |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                |                                   |                                  |

Spurious Emissions at Antenna Terminals  
Downlink – 1,4 QAM  
1 GHz – 10 GHz



Spurious Emissions at Antenna Terminals  
Uplink – 1,4 QAM  
1 GHz – 10 GHz



Only 1,4 QAM 1GHz-10GHz spurious emission plots are included here, other modulations spurious emission plots are negligible and the same.

|                                                                |                                   |                                  |
|----------------------------------------------------------------|-----------------------------------|----------------------------------|
| <b>Section 8: Testing data</b>                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
| <b>Test name:</b> Clause 27.53 (c) Radiated spurious emissions |                                   |                                  |
| <b>Test date:</b> 17-19 May 2010                               |                                   | <b>Test engineer:</b> G. Curioni |
| <b>Verdict:</b> Pass                                           |                                   | <b>Supply input:</b> 100-240 Vac |
| <b>Temperature:</b> 25 °C                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                              |                                   |                                  |

#### 8.4 Clause 27.53 (c) Radiated spurious emissions

- (c) For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
- (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;
  - (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;
  - (3) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $76 + 10 \log (P)$  dB in a 6.25 kHz band segment, for base and fixed stations;
  - (4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
  - (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
  - (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

#### Special notes

- The spectrum was searched from 30 MHz to the 10<sup>th</sup> harmonic.
- All measurements were performed using a peak detector.
- The measurements were performed at the distance of 3 m.
- RBW within 30–1000 MHz was 100 kHz and 1 MHz above 1 GHz. VBW was wider than RBW.

|                                                                                                                                                      |                                                                |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                 |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.53 (c) Radiated spurious emissions |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                               |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                           |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                      | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                |                                   |                                  |

### 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.

The anechoic chamber is pre-calibrated as regards 0 dBm. (antenna factor not necessary).

|                                                                                                                                                      |                                                                                         |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                          |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.53 (f) Radiated spurious emissions within 1559-1610MHz band |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                                        |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                                    |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                               | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                         |                                   |                                  |

## 8.5 Clause 27.53(f) Radiated spurious emissions within 1559–1610 MHz band

(f) For operations in the 746–763 MHz, 775–793 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to –70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and –80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

### Special notes

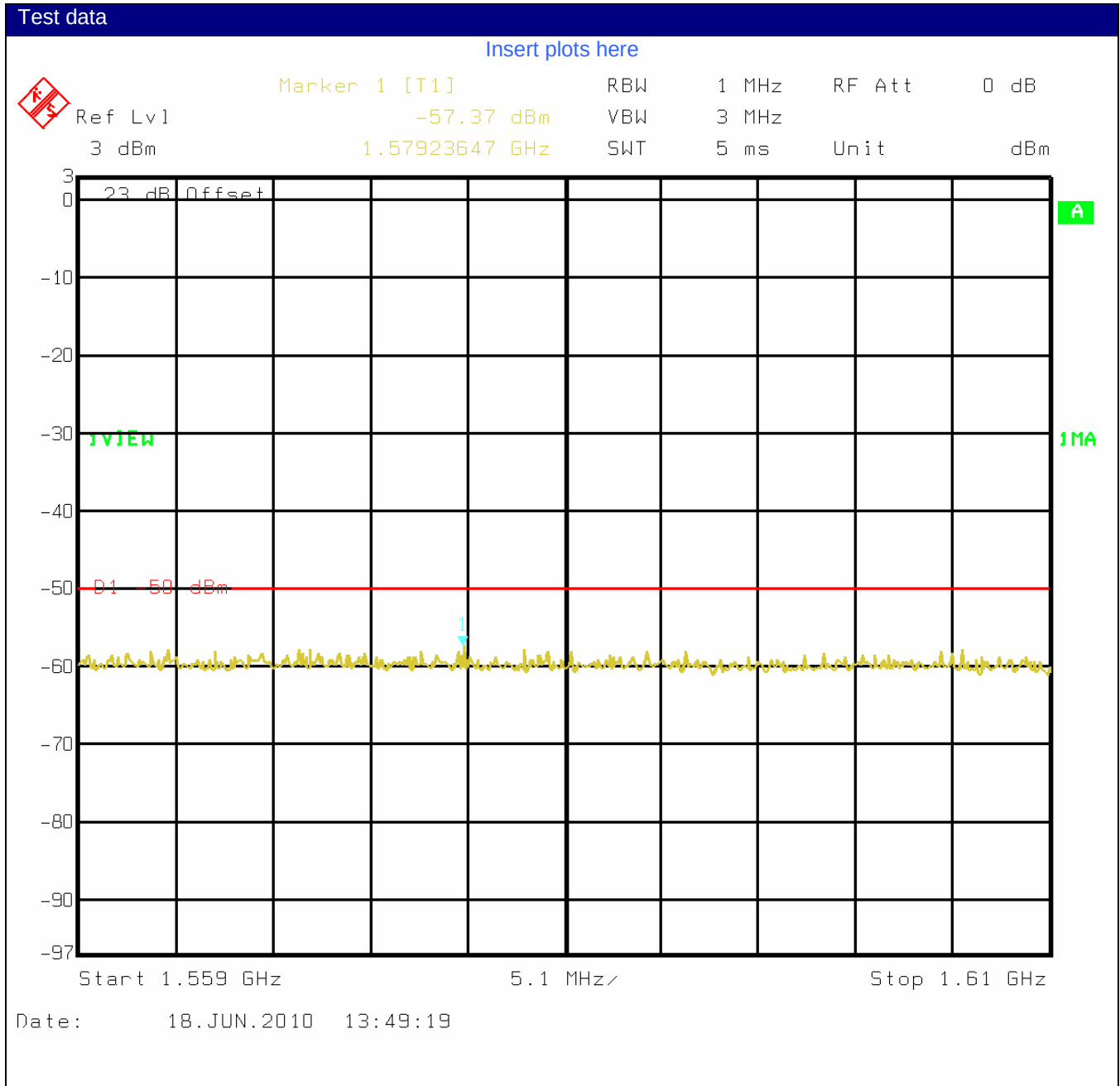
- The spectrum was searched from 1559–1610 MHz.
- All measurements were performed using a peak detector.
- The measurements were performed at the distance of 3 m.
- RBW was set to 1 MHz and VBW was wider than RBW.

Test performed with antenna connector terminated on shielded 50  $\Omega$  dummy load.

|                                                                                         |                                   |                                  |
|-----------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <b>Section 8: Testing data</b>                                                          |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
| <b>Test name:</b> Clause 27.53 (f) Radiated spurious emissions within 1559-1610MHz band |                                   |                                  |
| <b>Test date:</b> 17-19 May 2010                                                        |                                   | <b>Test engineer:</b> G. Curioni |
| <b>Verdict:</b> Pass                                                                    |                                   | <b>Supply input:</b> 100-240 Vac |
| <b>Temperature:</b> 25 °C                                                               | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                       |                                   |                                  |

Result of D.L. 43 dBm, 751.5 MHz, "1.4" QAM occupied bandwidth 1.2 MHz

(the same for "10"QAM occupied bandwidth 9 MHz)



|                                                                                                                                                      |                                                                                         |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                          |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.53 (f) Radiated spurious emissions within 1559-1610MHz band |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                                        |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                                    |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                               | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                         |                                   |                                  |

D.L. 43 dBm 751.5 MHz

| Spurious emissions measurement results:                                                                              |                      |                             |                    |                |
|----------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------|--------------------|----------------|
| Frequency<br>(MHz)                                                                                                   | Polarization.<br>V/H | Field strength<br>(dBm)eirp | Limit<br>(dBm)eirp | Margin<br>(dB) |
| 1579.23                                                                                                              | The same             | -57.37                      | -50                | -7.37          |
| Note: Field strength includes correction factor of antenna, cable loss, amplifier, and attenuators where applicable. |                      |                             |                    |                |

Limit used for discrete emissions: -80 dBw = -50 dBm

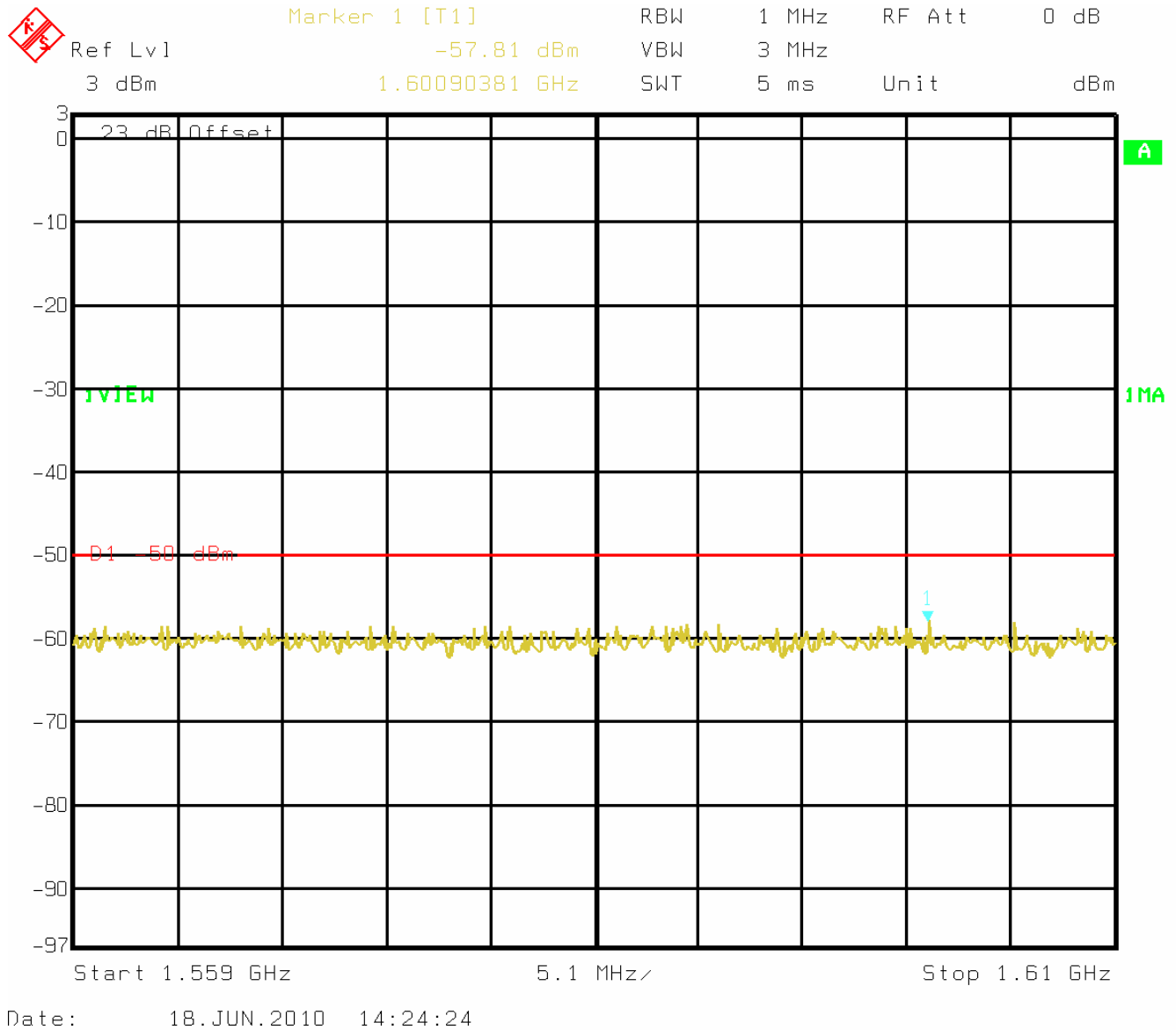
Anechoic chamber directly precalibrated in dBm eirp at 3 m.distance.



|                                                                                                                                                                                                  |                                                                                         |  |                                   |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--|-----------------------------------|--|
| <div></div> <div><b>Nemko</b></div> <div>Nemko Canada Inc.,<br/>303 River Rd, Ottawa, ON, Canada, K1V 1H2</div> | <b>Section 8: Testing data</b>                                                          |  | <b>Product: TRU7SAWBV/AC-WS</b>   |  |
|                                                                                                                                                                                                  | <b>Test name:</b> Clause 27.53 (f) Radiated spurious emissions within 1559-1610MHz band |  |                                   |  |
|                                                                                                                                                                                                  | <b>Test date:</b> 17-19 May 2010                                                        |  | <b>Test engineer:</b> G. Curioni  |  |
|                                                                                                                                                                                                  | <b>Verdict:</b> Pass                                                                    |  | <b>Supply input:</b> 100-240 Vac  |  |
|                                                                                                                                                                                                  | <b>Temperature:</b> 25 °C                                                               |  | <b>Air pressure:</b> 860-1060 hPa |  |
|                                                                                                                                                                                                  |                                                                                         |  | <b>Relative humidity:</b> 50 %    |  |
| <b>Specification:</b> FCC Part 27                                                                                                                                                                |                                                                                         |  |                                   |  |

Result of U.L. 4 dBm, 781.5 MHz, "1.4" QAM occupied bandwidth 1.2 MHz

(the same for "10"QAM occupied bandwidth 9 MHz)



|                                                                                                                                                      |                                                                                         |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                                                          |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.53 (f) Radiated spurious emissions within 1559-1610MHz band |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                                                        |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                                                                    |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                                                               | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                                                         |                                   |                                  |

U.L. 4 dBm 781.5 MHz

| Spurious emissions measurement results:                                                                              |                   |                          |                 |             |
|----------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------|-----------------|-------------|
| Frequency (MHz)                                                                                                      | Polarization. V/H | Field strength (dBm)eirp | Limit (dBm)eirp | Margin (dB) |
| 1600.90                                                                                                              | The same          | -57.81                   | -50             | -7.81       |
| Note: Field strength includes correction factor of antenna, cable loss, amplifier, and attenuators where applicable. |                   |                          |                 |             |

Limit used for discrete emissions: -80 dBw = -50 dBm

Anechoic chamber directly precalibrated in dBm eirp at 3 m.distance.

|                                                                                                                                                      |                                                    |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                     |                                   | <b>Product:</b> TRU7SAWBV/AC-WS  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.54 Frequency Stability |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                   |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                               |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                          | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                    |                                   |                                  |

## 8.6 Clause 27.54 Frequency stability

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

### Special notes

- 26 dBc points including frequency tolerance were assessed to remain within assigned band.
- RBW was set to 300 Hz.

|                                                                                                                                                      |                                                    |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                     |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 27.54 Frequency Stability |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                   |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                               |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                          | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                    |                                   |                                  |

Test data

26 dBc points measurement:

Insert plots here

Frequency tolerance measurements:

| Test conditions | Frequency (Hz) | Offset (Hz) |
|-----------------|----------------|-------------|
| +50 °C, Nominal |                |             |
| +40 °C, Nominal |                |             |
| +30 °C, Nominal |                |             |
| +20 °C, +15 %   |                |             |
| +20 °C, Nominal |                | Reference   |
| +20 °C, -15 %   |                |             |
| +10 °C, Nominal |                |             |
| 0 °C, Nominal   |                |             |
| -10 °C, Nominal |                |             |
| -20 °C, Nominal |                |             |
| -30 °C, Nominal |                |             |

Operating range including frequency drift measurements:

| Assigned frequency (MHz) | Measured 26 dBc (MHz) | Frequency drift, (Hz) |          | 25 dBc including drift (MHz) |
|--------------------------|-----------------------|-----------------------|----------|------------------------------|
|                          |                       | Negative              | Positive |                              |
|                          |                       |                       |          |                              |

NOT APPLICABLE; Frequency Stability testing was not performed since the E.U.T. does not contain modulation circuitry

|                                                                                                                                                      |                                                    |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|----------------------------------|
| <br>Nemko Canada Inc.,<br>303 River Rd, Ottawa, ON, Canada, K1V 1H2 | <b>Section 8: Testing data</b>                     |                                   | <b>Product: TRU7SAWBV/AC-WS</b>  |
|                                                                                                                                                      | <b>Test name:</b> Clause 2.1049 Occupied bandwidth |                                   |                                  |
|                                                                                                                                                      | <b>Test date:</b> 17-19 May 2010                   |                                   | <b>Test engineer:</b> G. Curioni |
|                                                                                                                                                      | <b>Verdict:</b> Pass                               |                                   | <b>Supply input:</b> 100-240 Vac |
|                                                                                                                                                      | <b>Temperature:</b> 25 °C                          | <b>Air pressure:</b> 860-1060 hPa | <b>Relative humidity:</b> 50 %   |
| <b>Specification:</b> FCC Part 27                                                                                                                    |                                                    |                                   |                                  |

## 8.7 Clause 2.1049 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.

### Special notes

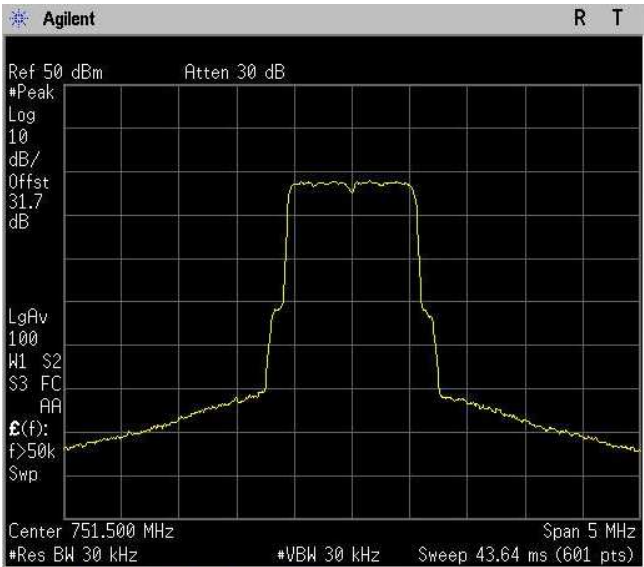
- 26 dBc points provided in terms of attenuation below unmodulated carrier.
- RBW was set to 1 % of emissions bandwidth.



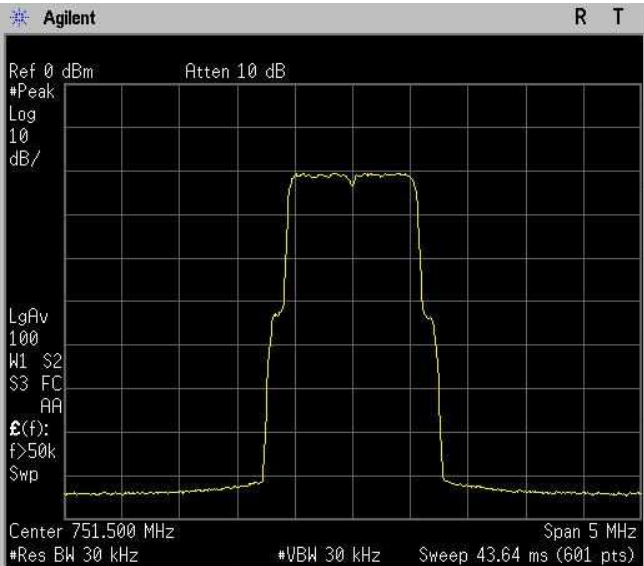
Nemko Canada Inc.,  
303 River Rd, Ottawa, ON, Canada, K1V 1H2

|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 1.4 QAM  
OUTPUT

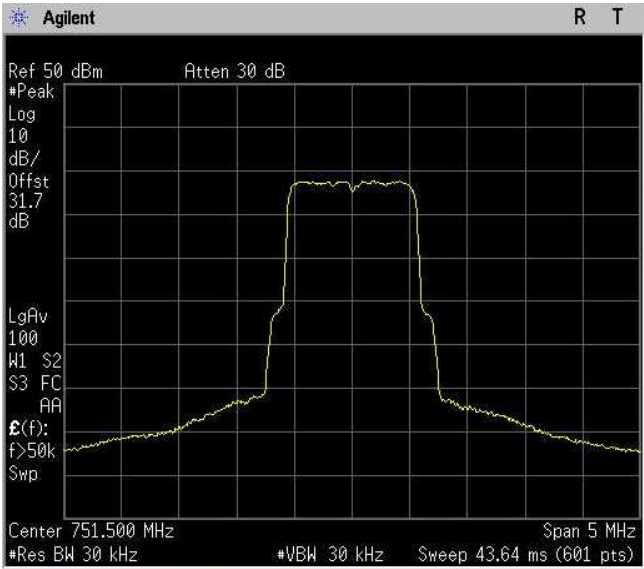


Occupied Bandwidth  
Downlink – 1.4 QAM  
INPUT

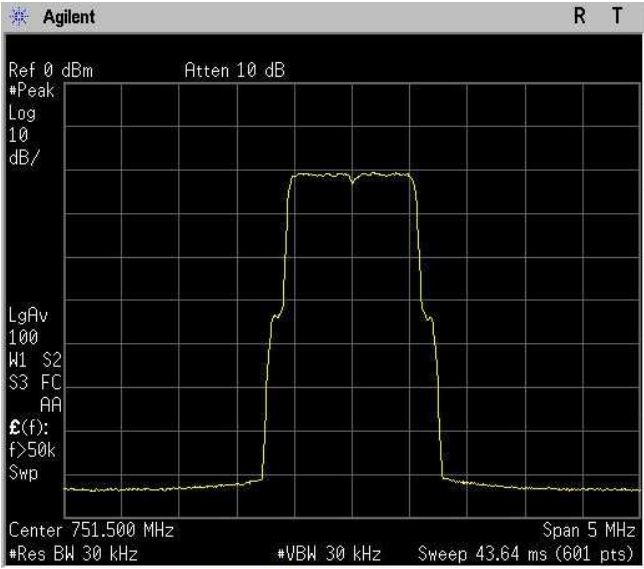


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 1.4 QPSK  
OUTPUT

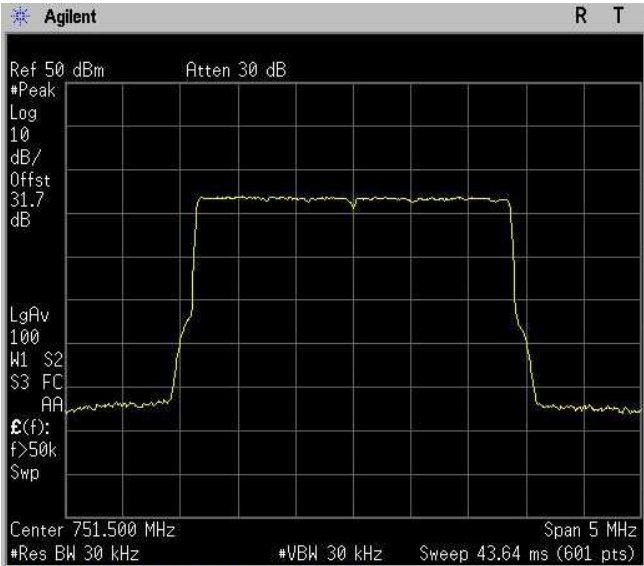


Occupied Bandwidth  
Downlink – 1.4 QPSK  
INPUT

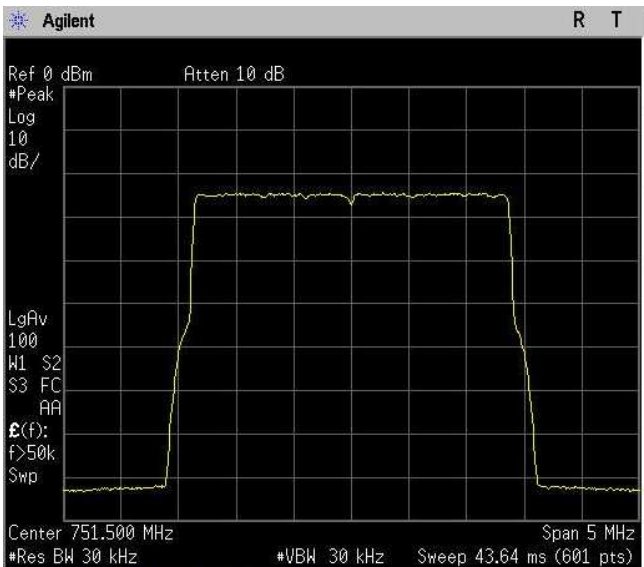


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 3 QAM  
OUTPUT



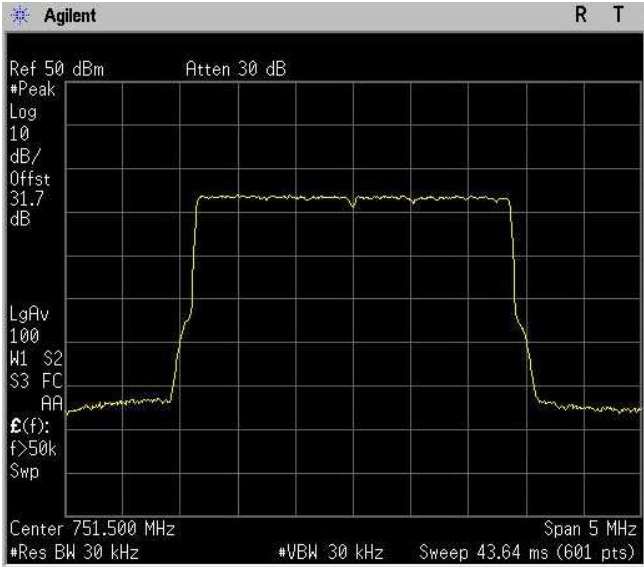
Occupied Bandwidth  
Downlink – 3 QAM  
INPUT



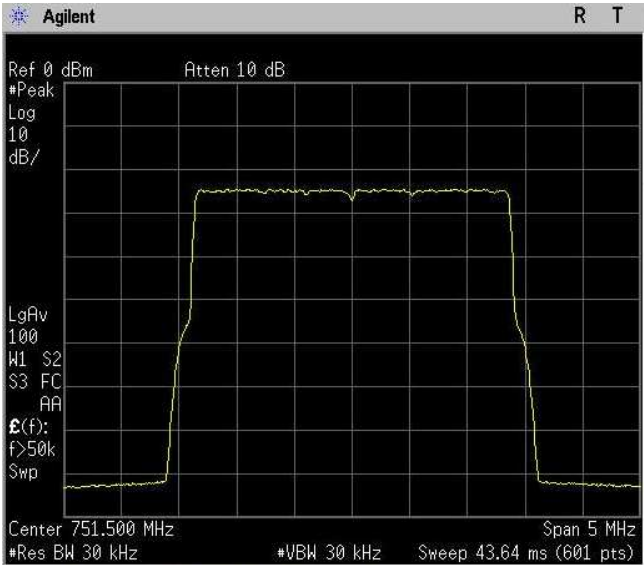


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 3 QPSK  
OUTPUT

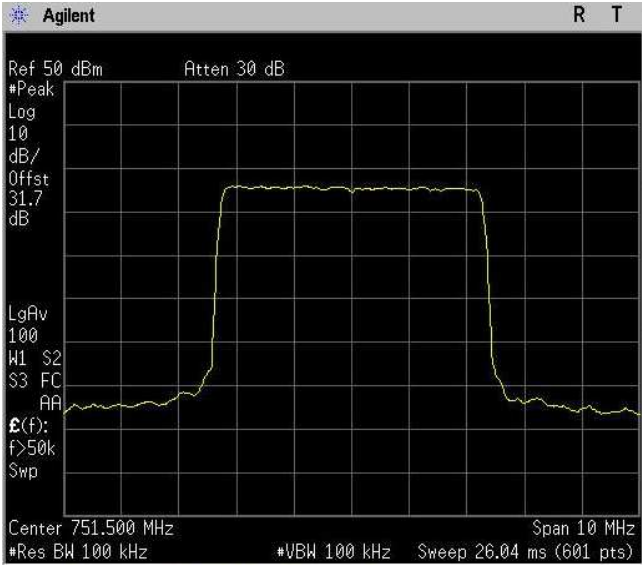


Occupied Bandwidth  
Downlink – 3 QPSK  
INPUT

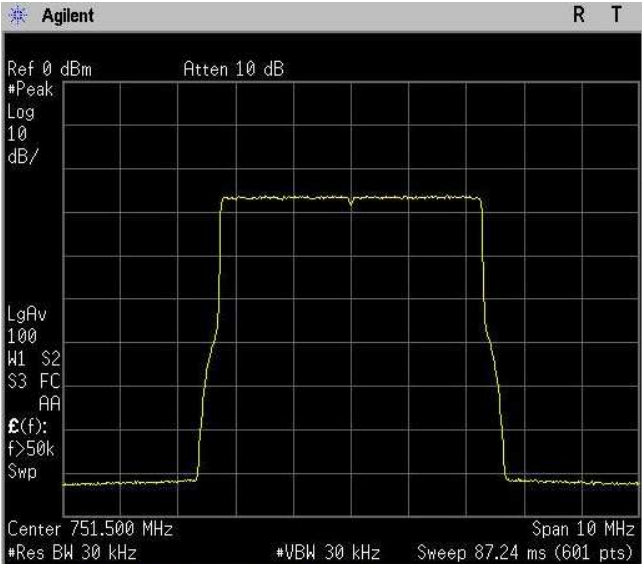


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 5 QAM  
OUTPUT

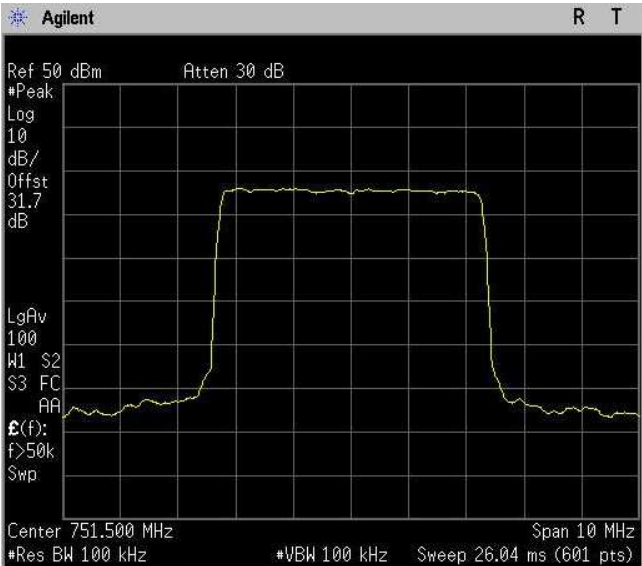


Occupied Bandwidth  
Downlink – 5 QAM  
INPUT

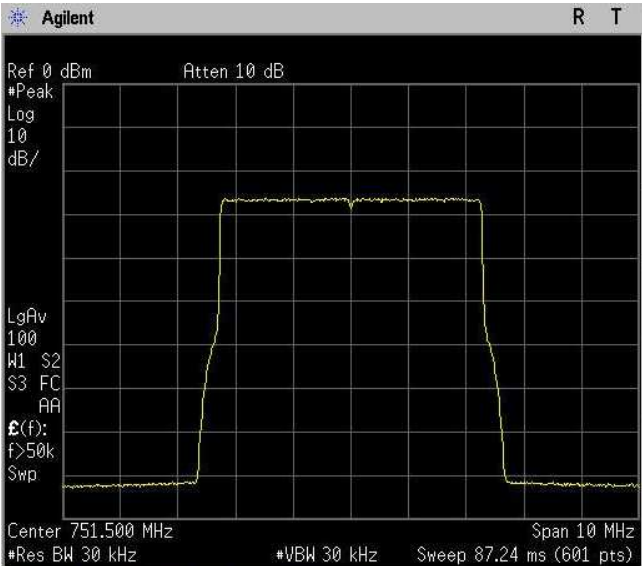


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 5 QPSK  
OUTPUT



Occupied Bandwidth  
Downlink – 5 QPSK  
INPUT

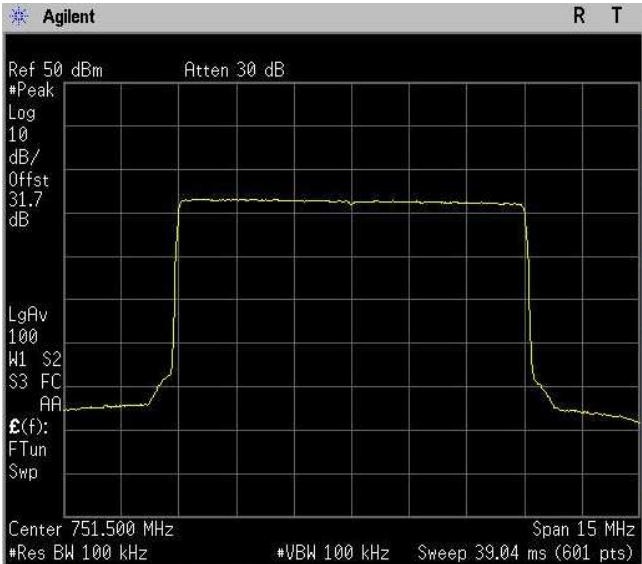




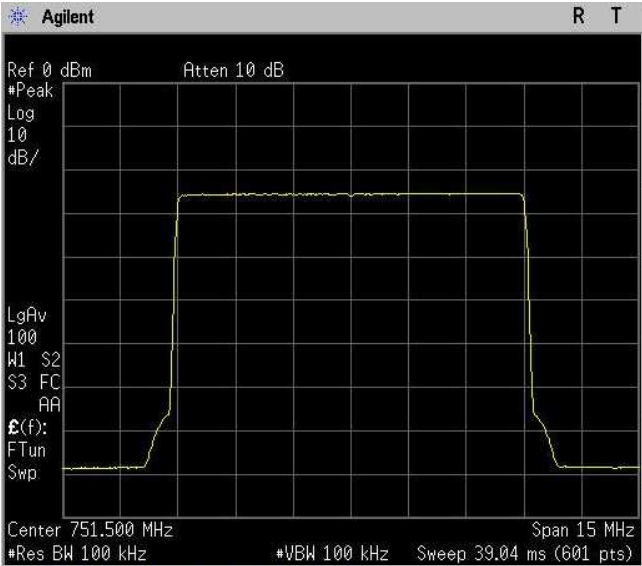
Nemko Canada Inc.,  
303 River Rd, Ottawa, ON, Canada, K1V 1H2

|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 10 QAM  
OUTPUT



Occupied Bandwidth  
Downlink – 10 QAM  
INPUT

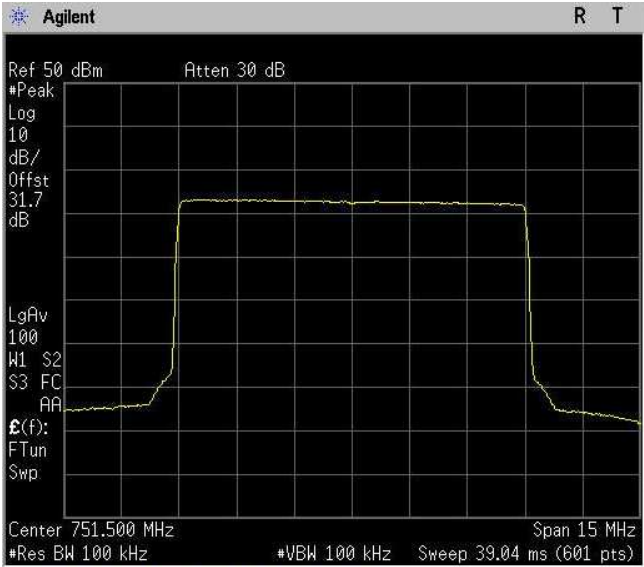




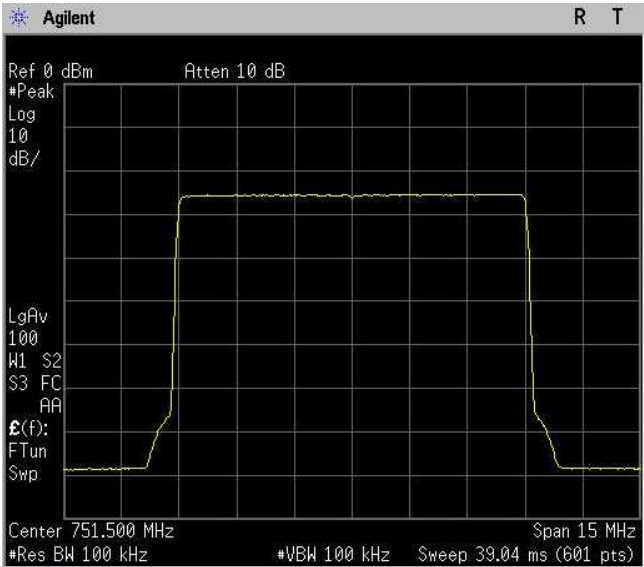
Nemko Canada Inc.,  
303 River Rd, Ottawa, ON, Canada, K1V 1H2

|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Downlink – 10 QPSK  
OUTPUT

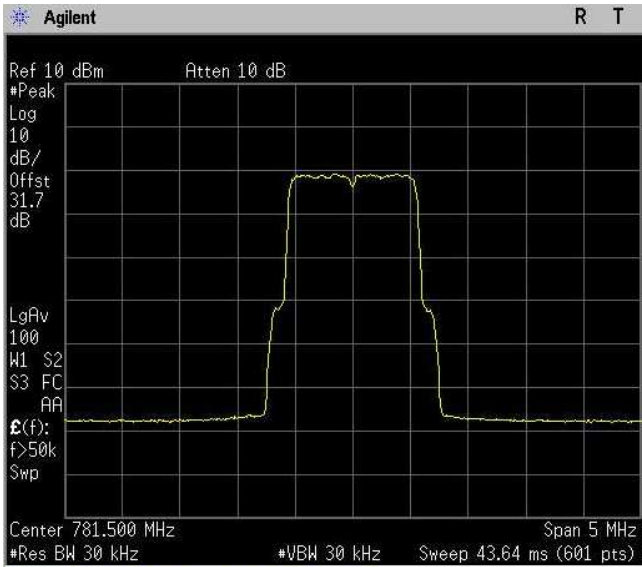


Occupied Bandwidth  
Downlink – 10 QPSK  
INPUT

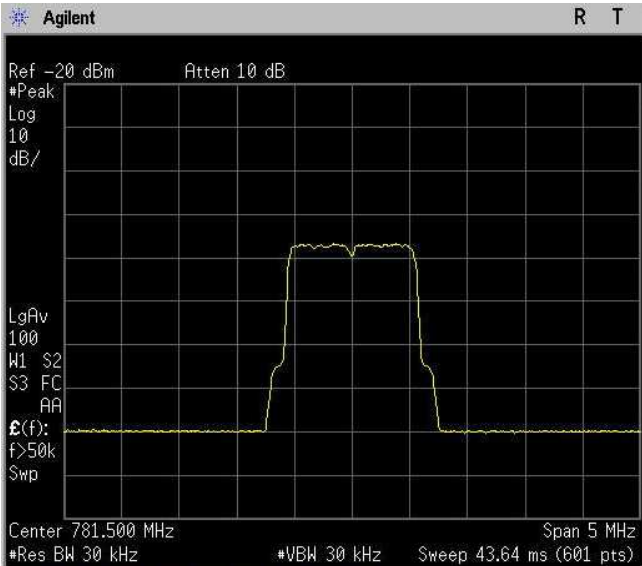


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Uplink – 1,4 QAM  
OUTPUT

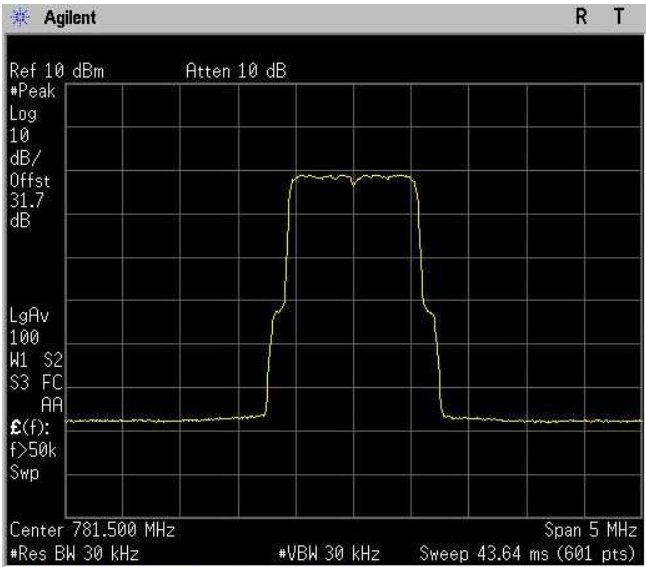


Occupied Bandwidth  
Uplink – 1,4 QAM  
INPUT

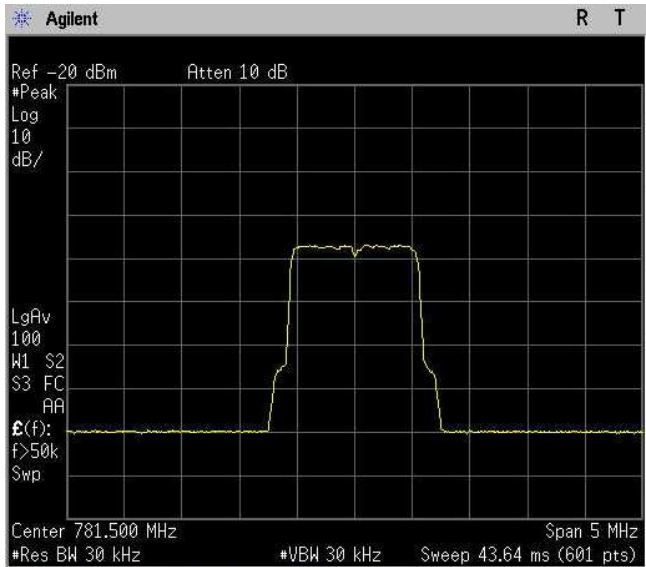


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Uplink – 1,4 QPSK  
OUTPUT



Occupied Bandwidth  
Uplink – 1,4 QPSK  
INPUT

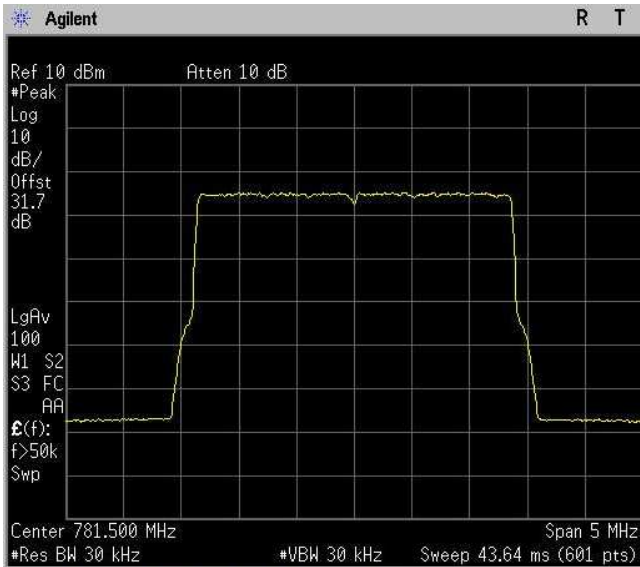




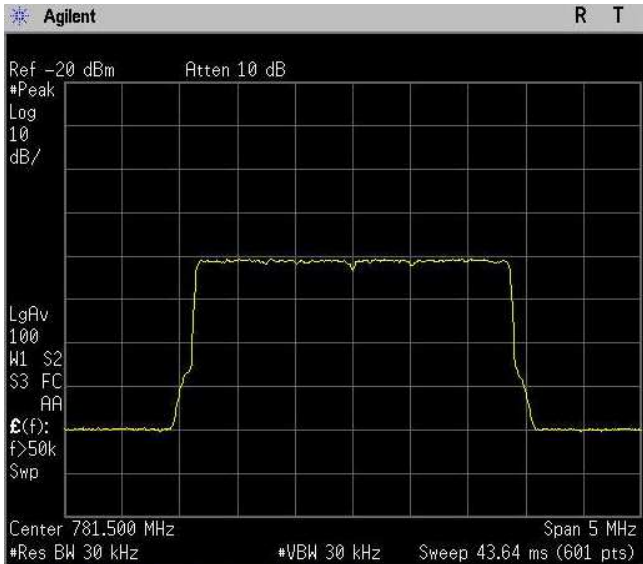
Nemko Canada Inc.,  
303 River Rd, Ottawa, ON, Canada, K1V 1H2

|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Uplink – 3 QAM  
OUTPUT



Occupied Bandwidth  
Uplink – 3 QAM  
INPUT



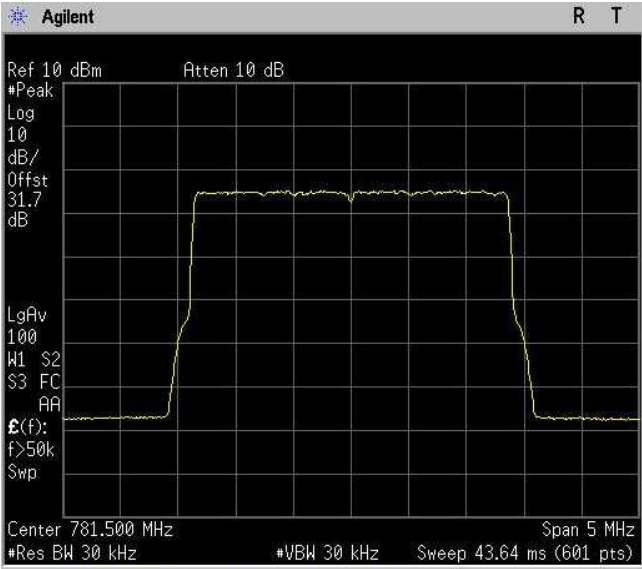




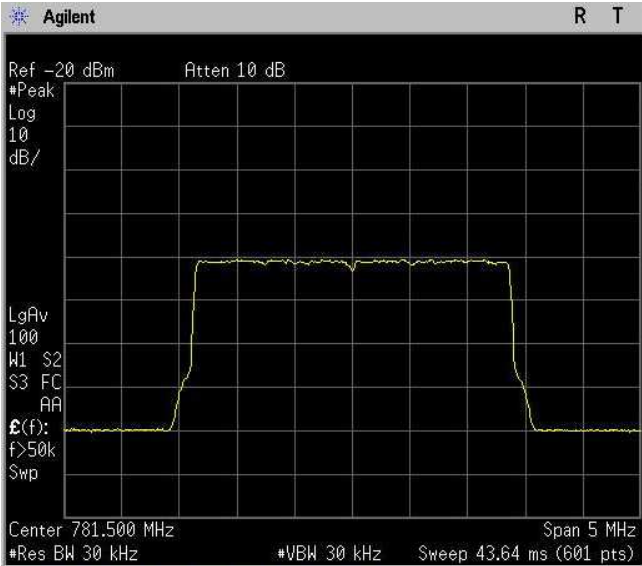
Nemko Canada Inc.,  
303 River Rd, Ottawa, ON, Canada, K1V 1H2

|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Uplink – 3 QPSK  
OUTPUT

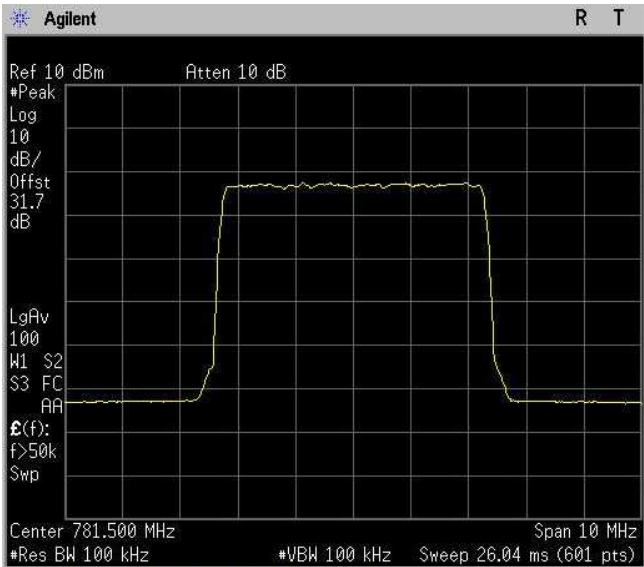


Occupied Bandwidth  
Uplink – 3 QPSK  
INPUT

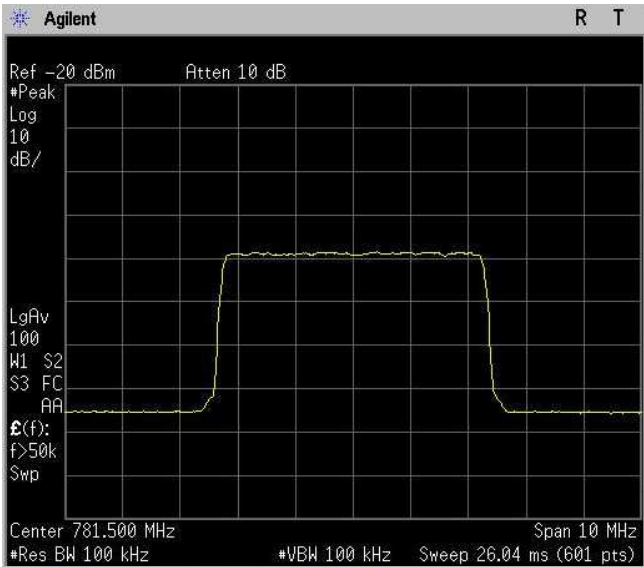


|                                             |                            |                           |                         |
|---------------------------------------------|----------------------------|---------------------------|-------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |                         |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |                         |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |                         |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |                         |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa |                           | Relative humidity: 50 % |
| Specification: FCC Part 27                  |                            |                           |                         |

Occupied Bandwidth  
Uplink – 5 QAM  
OUTPUT

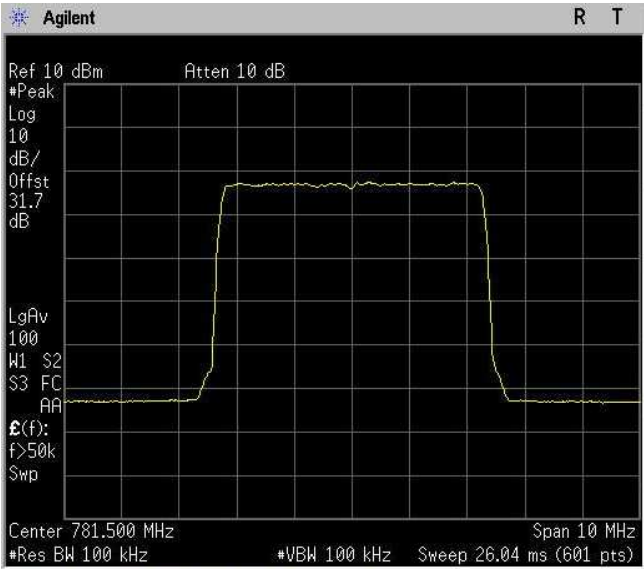


Occupied Bandwidth  
Uplink – 5 QAM  
INPUT

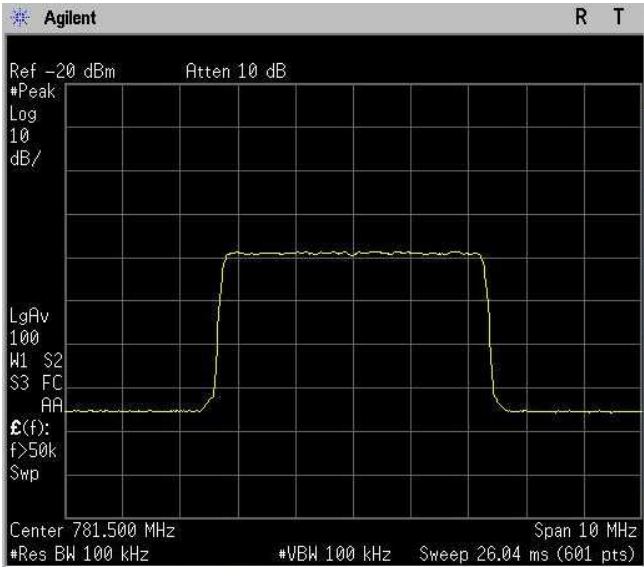


|                                             |                            |                           |                         |
|---------------------------------------------|----------------------------|---------------------------|-------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |                         |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |                         |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |                         |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |                         |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa |                           | Relative humidity: 50 % |
| Specification: FCC Part 27                  |                            |                           |                         |

Occupied Bandwidth  
Uplink – 5 QPSK  
OUTPUT

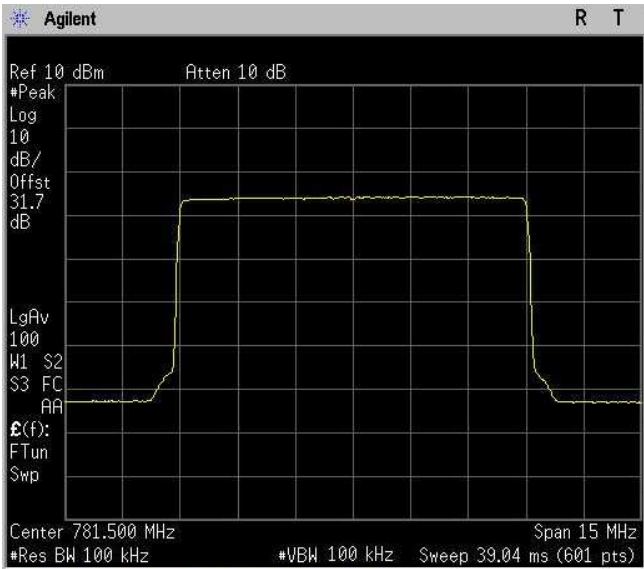


Occupied Bandwidth  
Uplink – 5 QPSK  
INPUT

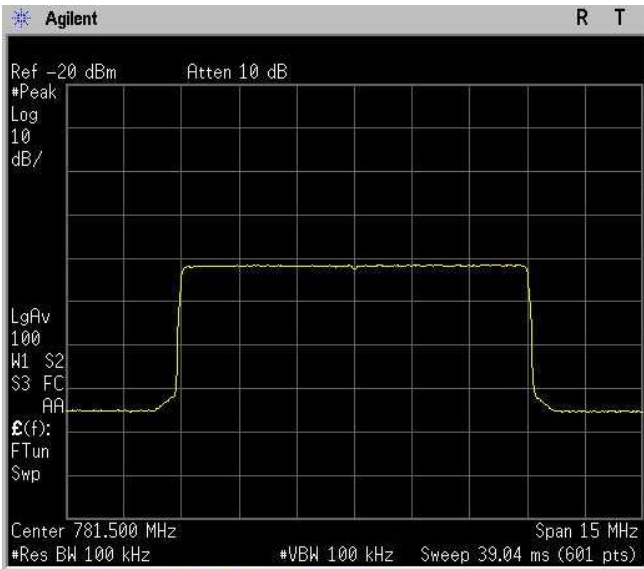


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

Occupied Bandwidth  
Uplink – 10 QAM  
OUTPUT

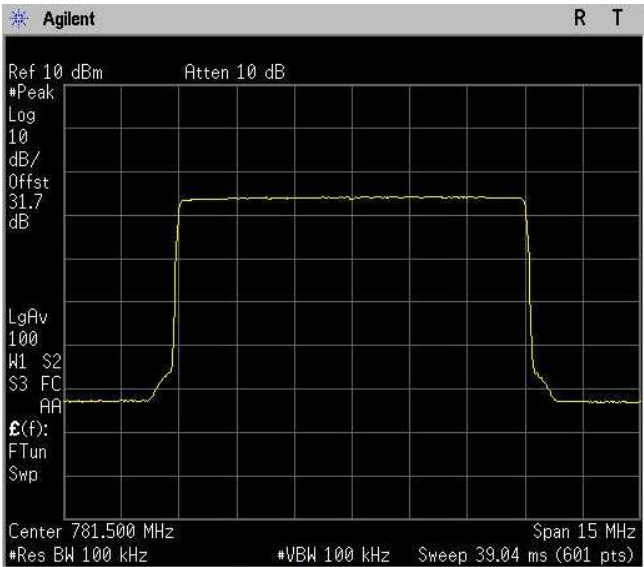


Occupied Bandwidth  
Uplink – 10 QAM  
INPUT

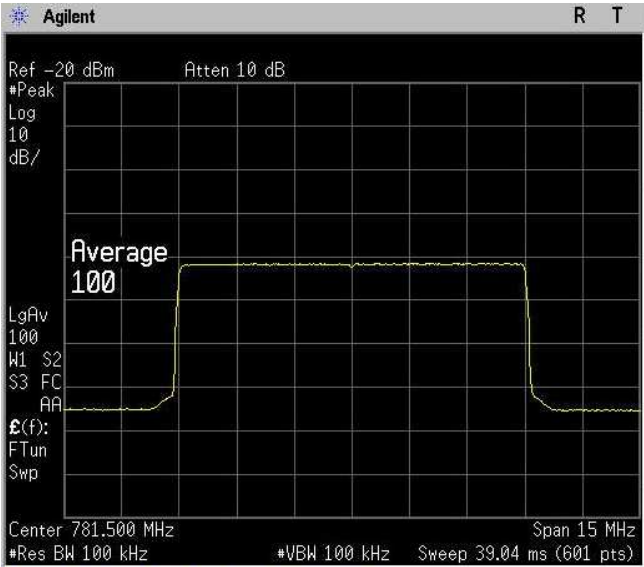


|                                             |                            |                           |
|---------------------------------------------|----------------------------|---------------------------|
| Section 8: Testing data                     |                            | Product: TRU7SAWBV/AC-WS  |
| Test name: Clause 2.1049 Occupied bandwidth |                            |                           |
| Test date: 17-19 May 2010                   |                            | Test engineer: G. Curioni |
| Verdict: Pass                               |                            | Supply input: 100-240 Vac |
| Temperature: 25 °C                          | Air pressure: 860-1060 hPa | Relative humidity: 50 %   |
| Specification: FCC Part 27                  |                            |                           |

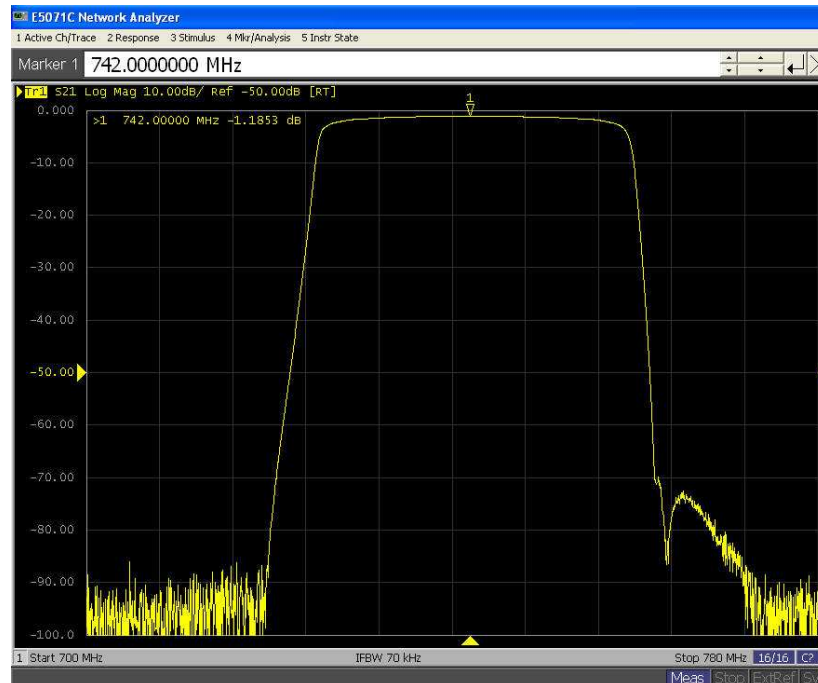
Occupied Bandwidth  
Uplink – 10 QPSK  
OUTPUT



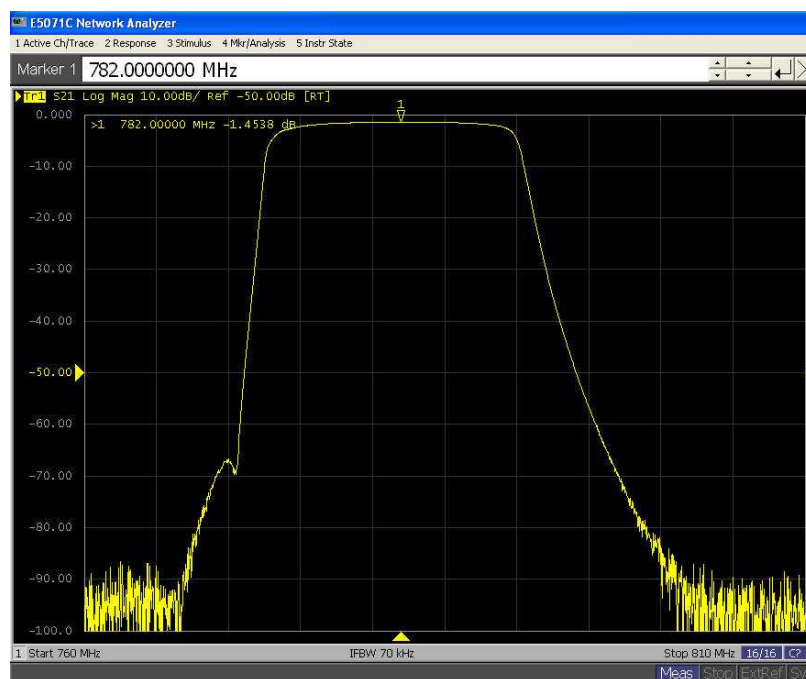
Occupied Bandwidth  
Uplink – 10 QPSK  
INPUT



## Section 9: Filter Frequency Response



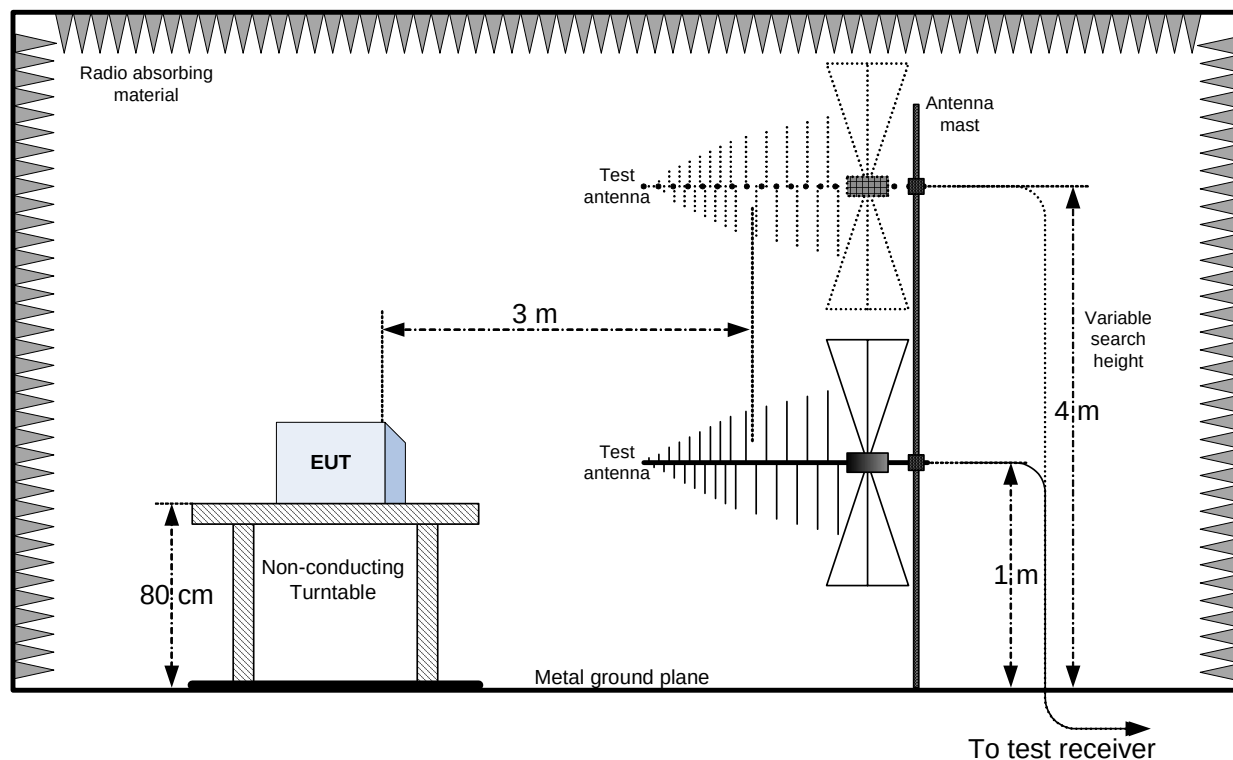
Down-link



Up-link

## Section 10: Block diagrams of test set-ups

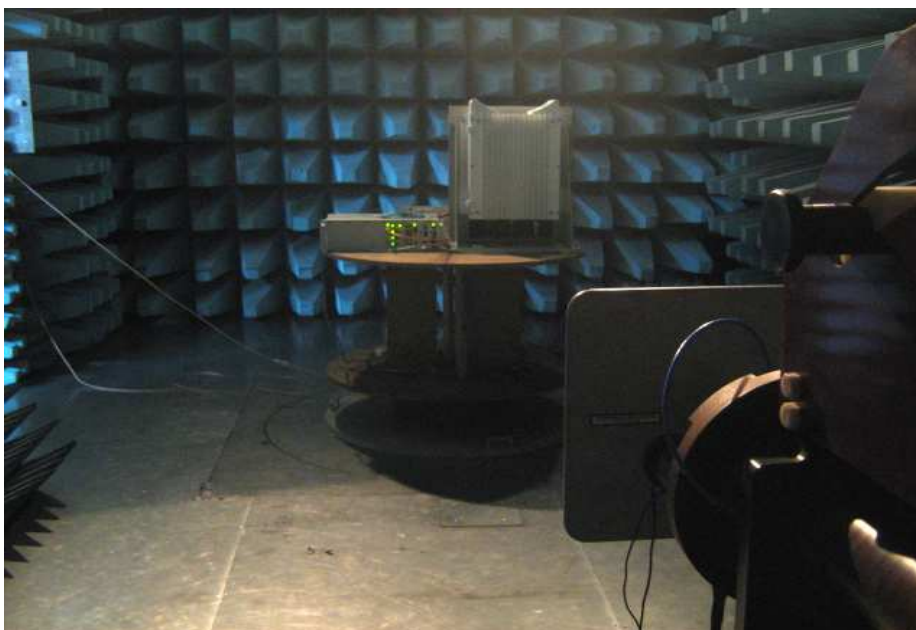
### Radiated emissions set-up



## Section 11: EUT photos

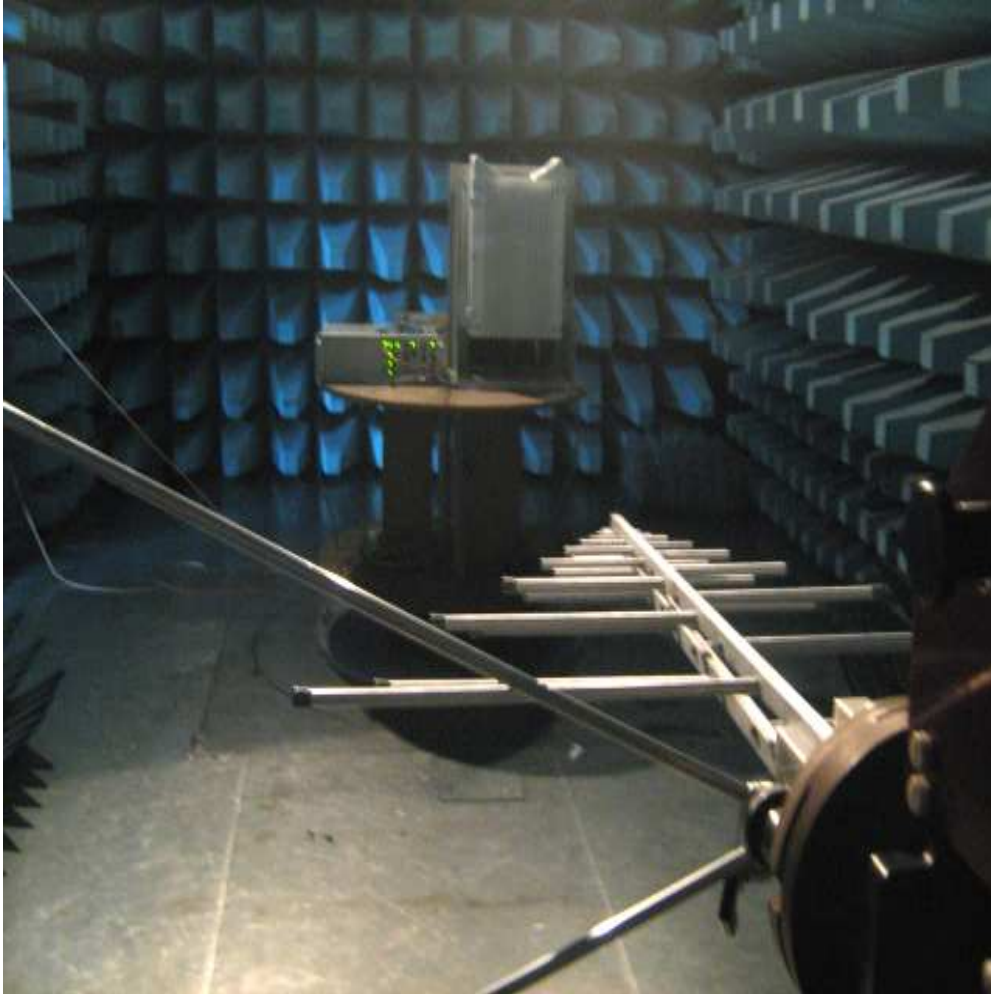
### EUT

#### SETUP

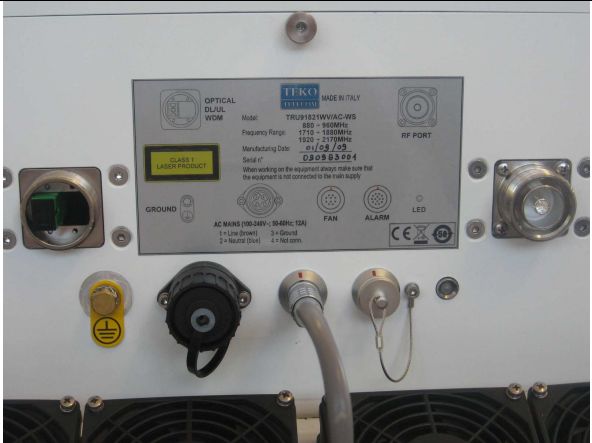




EUT



REMOTE



**MASTER**



