



Nemko USA, Inc.

2210 Faraday Ave., Suite 150

Carlsbad, CA 92008

Phone (760) 444-3500 Fax (760) 444-3005

CERTIFICATION TEST REPORT

Class II Permissive Change

Report Number: 2012 08215559 FCC

Project Number: 10228656

Nex Number: 215559

Applicant: MICROPOWER TECHNOLOGIES
4350 EXECUTIVE DRIVE, SUITE 325
SAN DIEGO, CA 92121

Equipment Under Test (EUT): WIRELESS DIGITAL CAMERA SYSTEM

Model: MPT-2700

FCC ID: ZHXMPT2700

In Accordance With: FCC Part 15 Subpart C, 15.247

Tested By: Nemko USA Inc.
2210 Faraday Ave., Suite 150
Carlsbad, CA 92008

Authorized By: 
ANDREAS GILLMEIER, EMC/RF Test Engineer

Date: AUGUST 08, 2012

Total Number of Pages: 20



Section1: Summary of Test Results

1.1 General

All measurements are traceable to national standards

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15; Subpart C. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

The assessment summary is as follows:

Apparatus Assessed: Wireless Digital Camera System

Model: MPT-2700

Specification: FCC Part 15 Subpart C, 15.247

Date Received in Laboratory: August 02, 2012

Compliance Status: Complies

Exclusions: None

Non-compliances: None



1.2 Report Release History

| Revision | Date | Comments | |
|----------|-----------------|------------------|-------------------|
| - | August 08, 2012 | Prepared By: | Andreas Gillmeier |
| - | August 08, 2012 | Initial Release: | Alan Laudani |

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

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

Nemko USA Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only.

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 USA 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.

TESTED BY: A. Gillmeier Date: August 08, 2012
ANDREAS GILLMEIER, EMC Test Engineer

TABLE OF CONTENTS

| | |
|--|-----------|
| Section1: Summary of Test Results | 2 |
| 1.1 General | 2 |
| 1.2 Report Release History..... | 3 |
| Section 2: Equipment Under Test..... | 5 |
| 2.1 Product Identification | 5 |
| 2.2 Theory of Operation..... | 5 |
| 2.3 Technical Specifications of the EUT..... | 7 |
| Section 3: Test Conditions | 8 |
| 3.1 Specifications..... | 8 |
| 3.3 Test Environment..... | 8 |
| 3.4 Test Equipment..... | 9 |
| Section 4: Observations | 10 |
| 4.1 Modifications Performed During Assessment..... | 10 |
| 4.2 Record Of Technical Judgements | 10 |
| 4.3 EUT Parameters Affecting Compliance..... | 10 |
| 4.4 Deviations From Laboratory Test Procedures..... | 10 |
| 4.5 Test Deleted | 10 |
| 4.6 Additional Observations..... | 10 |
| Section 5: Results Summary..... | 11 |
| 5.1 Test Results | 11 |
| Appendix A: Test Results..... | 12 |
| Power Line Conducted Emissions | 12 |
| 20 dB Bandwidth..... | 13 |
| Minimum 6dB RF Bandwidth..... | 14 |
| Peak Output Power | 16 |
| RF Radiated Emissions and Band-edge Compliance..... | 17 |
| Spurious RF Conducted Emissions | 19 |
| Power Spectral Density for Digitally Modulated Devices | 20 |



Section 2: Equipment Under Test

2.1 Product Identification

The Equipment Under Test was identified as follows:

Error! Not a valid filename.

www.nemko.com

| Connection | I/O Cable |
|---|---|
| EUT Hub to Unterminated | Ethernet, 2.5m, unshielded, 24AWG, CAT 5 cable |
| EUT Hub to Unterminated | Serial, 4.5 m, 26AWG |
| EUT Hub to Display | VGA cable, 15 pol, shielded, 1.5m (with VGA to DVI adapter) |
| EUT Hub to RF combiner and then to Yagi Antenna | 3 x 9" LMR100 cable with SMA connector on each end |
| EUT Hub to Unterminated | HDMI, Cable, 1 m, Shielded |

2.2 Theory of Operation

The MPT-2700 is the hub of a Wireless Digital Camera System. Control commands communicate through the 902 to 928 MHz band radio and the Camera Data communicate through the 2400 to 2483.5 MHz band radio. The camera MPT-2700 is powered by a battery charged by Solar panels and the Hub MPT-2700 is powered by the AC mains (120 VAC 60 Hz) and connects to a network via Ethernet. The hub may have a display, mouse and serial cable when in setup or operation.

The EUT's performance during test was evaluated against the performance criterion specified by applicable test standards. Performance results are detailed in the test results section of this report.

This test report is for the MPT-2700 Hub communication system section of the system. The hub's transmitters were set into a test mode for testing. The third radio, FCC ID: PD9WM3945ABG, in the hub is used for receive mode only.



2.3 Technical Specifications of the EUT

Manufacturer: **MicroPower Technologies**

Operating Frequency: 909.798 MHz to 920.596 MHz
in the 902 -928 MHz Band
2412.0 MHz to 2462.0 MHz
in the 2400 -2483.5 MHz Band

Rated Power: Low band: 0.0076 W
High band: 0.0596 W

Modulation: Low band: GFSK,
High band: Digital

Antenna Connector: Type "SMA", professionally installed

Power Source: 120 VAC 60 Hz



Section 3: Test Conditions

3.1 Specifications

The apparatus was assessed against the following specifications:

FCC Part 15 Subpart C, 15.247

Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz and 24.0-24.25 GHz bands.

www.nemko.com

3.3 Test Environment

All tests were performed under the following environmental conditions:

| | |
|--------------------|-------------------|
| Temperature range | 23 – 25 °C |
| Humidity range | 55 – 65 % |
| Pressure range | 100.4 – 100.8 kPa |
| Power supply range | 120VAC nominal |

3.4 Test Equipment

| Nemko ID | Device | Manufacturer | Model | Serial Number | Cal Date | Cal Due Date |
|----------|--------------------------------|--------------------|----------|---------------|------------|--------------|
| E1018 | 9kHz to 7GHz Spectrum Analyzer | Rohde & Schwarz | FSP7 | 835363/0003 | 02/23/2012 | 02/23/2013 |
| 110 | Antenna, LPA | Electrometrics | LPA-25 | 1217 | 04/01/2011 | 04/01/2013 |
| 128 | Antenna, Bicon | EMCO | 3104 | 2882 | 03/21/2011 | 03/21/2013 |
| E1029 | Preamplifier (20MHz to 18GHz) | A.H. Systems, Inc. | PAM-0118 | 343 | 02/21/2012 | 02/21/2013 |
| 752 | Antenna, DRG Horn, .7-18GHz | EMCO | 3115 | 4943 | 12/02/2010 | 12/02/2012 |
| 810 | Multimeter | Fluke | 111 | 77820242 | 04/06/2012 | 04/06/2013 |
| 911 | Spectrum Analyzer | Agilent | E4440A | US41421266 | 10/27/2011 | 10/27/2012 |
| N/A | 10 dB Medium Power Attenuator | Narda | 768-10 | N/A | N/A | N/A |
| 911 | Spectrum Analyzer | Narda | 768-10 | N/A | N/A | N/A |

Registrations of the 10m Semi-anechoic chamber are on file with the Federal Communications Commission and with Industry Canada under Site Number 2040B-3.

Section 4: Observations

4.1 Modifications Performed During Assessment

No modifications were performed during assessment.

4.2 Record Of Technical Judgements

No technical judgements were made during the assessment.

4.3 EUT Parameters Affecting Compliance

The user of the apparatus could not alter parameters that would affect compliance.

4.4 Deviations From Laboratory Test Procedures

No deviations from Laboratory Test Procedure

4.5 Test Deleted

No Tests were deleted from this assessment.

4.6 Additional Observations

There were no additional observations made during this assessment.



Section 5: Results Summary

This section contains the following:

FCC Part 15 Subpart C:

The column headed "Required" indicates whether the associated clauses were invoked for the apparatus under test. The following abbreviations are used:

N No: not applicable / not relevant

Y Yes: Mandatory i.e. the apparatus shall conform to these tests.

N/T Not Tested, mandatory but not assessed. (See section 4.4 Test deleted)

The results contained in this section are representative of the operation of the apparatus as originally submitted.

5.1 Test Results

| Part 15C | Test Description | Required | Result |
|--------------|--|----------|--------|
| 15.207 (a) | Conducted Emission Limit | N* | N/T |
| 15.215(c) | 20 dB Bandwidth | N* | N/T |
| 15.247(a)(2) | Minimum 6dB RF Bandwidth | Y | Pass |
| 15.247(b)(3) | Peak Output Power | Y | Pass |
| 15.247(d) | Band-edge Compliance of RF Conducted Emissions | Y | Pass |
| 15.247 (d) | Spurious RF Conducted Emissions | N* | N/T |
| 15.247 (d) | Spurious Radiated Emissions | Y | Pass |
| 15.247(e) | Power Spectral Density for Digitally Modulated Devices | N* | N/T |

* Permissive change class II; not deemed to be affected by the hardware change and therefore not re-measured



Appendix A: Test Results

Power Line Conducted Emissions

15.207(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

| Frequency of emission (MHz) | Conducted limit (dB μ V) | |
|-----------------------------|------------------------------|-----------|
| | Quasi-peak | Average |
| 0.15–0.5 | 66 to 56* | 56 to 46* |
| 0.5–5 | 56 | 46 |
| 5–30 | 60 | 50 |

*Decreases with the logarithm of the frequency.

Test Conditions:

| | | | |
|---------------------|---------------------------|--------------|-------------------|
| Sample Number: | MPT-2700 | Temperature: | N/A °C |
| Date: | | Humidity: | N/A % |
| Modification State: | Low, Mid and High Channel | Tester: | Andreas Gillmeier |
| | | Laboratory: | |

Test Results:

Not deemed to be affected by the hardware change and therefore not re-measured.

20 dB Bandwidth

(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test Conditions:

| | | | |
|---------------------|----------------------------|--------------|-------------------|
| Sample Number: | MPT-2700 | Temperature: | N/A°C |
| Date: | August 02, 2012 | Humidity: | N/A% |
| Modification State: | Low , Mid and High Channel | Tester: | Andreas Gillmeier |
| Laboratory: | | | |

Test Results:

Not deemed to be affected by the hardware change and therefore not re-measured.



www.nemko.com

**Minimum 6dB RF Bandwidth**

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Conditions:

| | | | |
|---------------------|---------------------------|--------------|-------------------|
| Sample Number: | MPT-2700 | Temperature: | 23 °C |
| Date: | August 02, 2012 | Humidity: | 61 % |
| Modification State: | Low ,Mid and High Channel | Tester: | Andreas Gillmeier |

Laboratory: Nemko

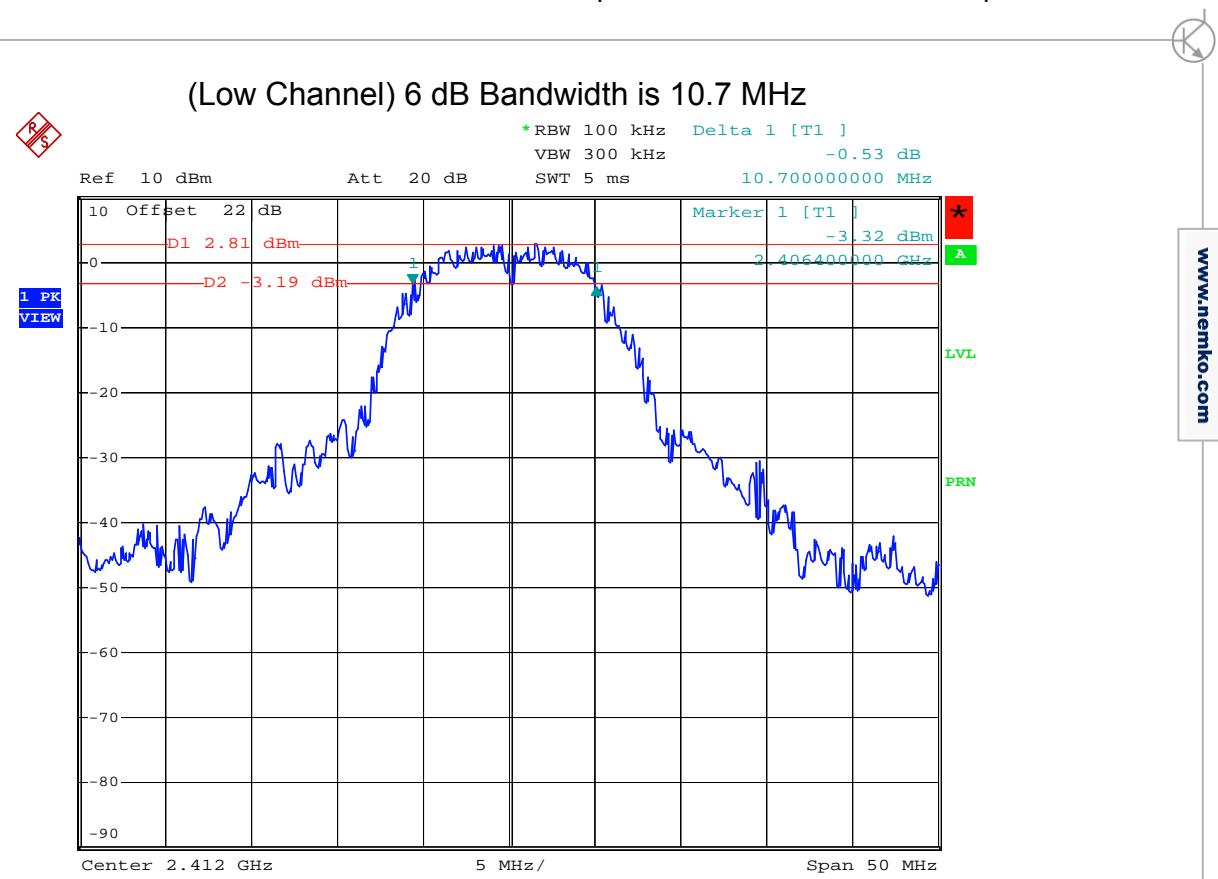
Test Results: EUT complies, See attached plots.

Additional Observations:

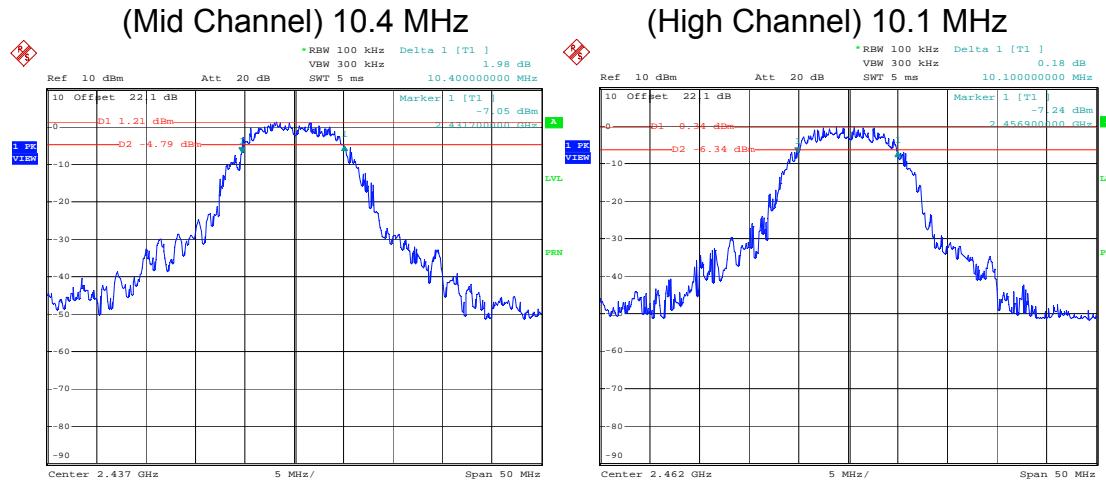
- Only tested in 2400 MHz band as it is required for correction of the measured peak power as the 6dB BW is larger than the largest available RBW on the spectrum analyzer.
- This is a conducted test
- RBW is set to 100kHz
- VBW is 3X RBW
- Sweep is auto
- Detector is Peak
- Trace is Max Hold
- For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was plotted; a DISPLAY line was drawn 6 dB lower than PEAK level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.
- EUT complies as 6 dB BW > 500 kHz

| Channel Range | Observed 6 dB bandwidth |
|--------------------|-------------------------|
| Low (909.798MHz) | Not tested |
| Mid (914.596 MHz) | Not tested |
| High (920.596 MHz) | Not tested |

| Channel Range | Observed 6 dB bandwidth |
|-------------------|-------------------------|
| Low (2412.0 MHz) | 10.70 MHz |
| Mid (2437.0 MHz) | 10.40 MHz |
| High (2462.0 MHz) | 10.10 MHz |



Date: 2.AUG.2012 11:20:48



Date: 2.AUG.2012 11:14:05

Date: 2.AUG.2012 11:08:17



Peak Output Power

(3) For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signalling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Conditions:

| | | | |
|---------------------|---------------------------|--------------|-------------------|
| Sample Number: | MPT-2700 | Temperature: | 23°C |
| Date: | August 02, 2012 | Humidity: | 61% |
| Modification State: | Low ,Mid and High Channel | Tester: | Andreas Gillmeier |
| | | Laboratory: | Nemko |

Test Results: Table below

Additional Observations:

- Only measured on nominal voltage to verify that the output power complies with the rules of a permissive change class II.
- This is a conducted test. 21 dB was offset for the attenuator and cable used.
- Input voltage to the EUT was monitored by a calibrated multimeter.
- Spectrum Analyser used at Maximum RBW, VBW of 10 MHz. For the upper band, a correction factor of $10 \times \log(\text{measured 6dB BW}/10\text{MHz})$ was added to fully account for the power of the digital modulation.
- Detector, Max Hold Peak.

| Channel Range | Voltage | Measured OP (dBm) | Watts |
|--------------------|---------|-------------------|---------------|
| Low (909.798 MHz) | 120 VAC | 8.79 | <u>0.0076</u> |
| Mid (914.596 MHz) | 120 VAC | 6.86 | 0.0049 |
| High (920.596 MHz) | 120 VAC | 6.41 | 0.0044 |

| Channel Range | Voltage | Measured OP (dBm) | Calculated OP (dBm) | Watts |
|-------------------|---------|-------------------|---------------------|---------------|
| Low (2412.0 MHz) | 120 VAC | 17.44 | 17.73 | <u>0.0593</u> |
| Mid (2437.0 MHz) | 120 VAC | 15.93 | 16.10 | 0.0407 |
| High (2462.0 MHz) | 120 VAC | 14.37 | 14.41 | 0.0276 |



RF Radiated Emissions and Band-edge Compliance

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Conditions:

| | | | |
|---------------------|------------------------|--------------|-------------------|
| Sample Number: | MPT-2700 | Temperature: | 23 – 25 °C |
| Date: | August 02 and 06, 2012 | Humidity: | 55 -65 % |
| Modification State: | Low and High Channel | Tester: | Andreas Gillmeier |

Laboratory:

Nemko

Test Results:

See attached radiated emissions table.

Additional Observations:

- Only radiated emissions were deemed to be affected by the hardware change and therefore the conducted measurements have not been repeated.

Low Band:

- Span is wide enough to capture the peak level of the emission operating on the channel closest to the band edges (Lower and Upper).
- Band edges were measured with quasi-peak detector.
- VBW is 3X RBW
- Sweep is auto.
- Detector is Peak, Trace is Max Hold
- No other emissions were found within 20 dB of the limits.

High Band:

- Span is wide enough to capture the peak level of the emission operating on the channel closest to the band edges (Lower and Upper).
- For Lower bandedge (no restricted zone) RBW is 100kHz
- For Lower bandedge, the peak level reading was taken and a display line was drawn 20 dBc below this level, which will be the limit for this test.
- For Upper bandedge (restricted zone) RBW is 1MHz,
- For Upper bandedge Limit is 74 dBuV/m peak @ 3m
- For Upper bandedge Limit is 54 dBuV/m average @ 3m
- VBW is 3X RBW
- Sweep is auto.
- Detector is Peak, Trace is Max Hold
- Average = Peak + Duty Cycle Factor
- No other emissions were found within 20 dB of the limits.

Bandedge and Harmonic Spurious

Radiated Emissions Data

| | | | | | | | |
|--|-------------------------|------------------------|---------------|------------------------------------|-------------------------|----|---|
| Job # : | 10228656 | Date : | 08/02/06/2012 | Page | 1 | of | 1 |
| NEX#: | 215559 | Time : | | | | | |
| Client Name : | MicroPower Technologies | | | EUT Voltage : | 120V | | |
| EUT Name : | Wireless Hub | | | EUT Frequency : | 60 | | |
| EUT Model #: | MPT-2700 | | | Phase: | 1 | | |
| EUT Serial #: | N/A | | | | | | |
| EUT Config. : | TX in test mode | | | | | | |
| Specification : | FCC Part 15.247 | | | Distance < 1000 MHz: | 3 m | | |
| Loop Ant. #: | NA | | | Distance > 1000 MHz: | 3 m | | |
| Bicon Ant.#: | 128_3m | Temp. (°C) : | 23-24 | Quasi-Peak | RBW: 120 kHz | | |
| Log Ant.#: | 110_3m | Humidity (%) : | 55-72 | Peak | Video Bandwidth 300 kHz | | |
| DRG Ant. # | 752 | Spec Analyzer #: | 911 | Average = Peak + Duty Cycle Factor | RBW: 1 MHz | | |
| Cable LF#: | SAC_10m | Analyzer Display #: | 911 | DCF = 20 x log(duty cycle) | Video Bandwidth 3 MHz | | |
| Cable HF#: | WCC | Quasi-Peak Detector #: | 911 | | | | |
| Preamp LF#: | N/A | Duty Cycle (%): | 2.60 0.37 | | | | |
| Preamp HF# | E1029 | | | | | | |
| Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated. | | | | | | | |

Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.
Measurements above 1 GHz are Average values, unless otherwise stated.

| Meas. Freq. (MHz) | Meter Reading Vertical | Meter Reading Horizontal | Det. | EUT Side DEG | Ant. Height cm | Max. Reading (dB μ V) | Corrected Reading (dB μ V) | Spec. limit (dB μ V) | CR/SL Diff. (dB) | Pass Fail | Comment |
|-------------------|------------------------|--------------------------|------|--------------|----------------|---------------------------|--------------------------------|--------------------------|------------------|-----------|-----------------------------|
| 909.798 | 68.3 | 80.9 | P | 179.0 | 100.0 | 80.9 | 110.5 | | | | RBW 3MHz, VBW 8MHz |
| 920.596 | 64.6 | 78.3 | P | 165.0 | 100.0 | 78.3 | 107.9 | | | | RBW 3MHz, VBW 8MHz |
| 902.0 | 35.8 | 47.5 | P | 179.0 | 100.0 | 47.5 | 77.1 | 90.5 | -13.4 | Pass | band edge; limit 20 dBc |
| 928.0 | 34.4 | 47.9 | P | 165.0 | 100.0 | 47.9 | 77.6 | 87.9 | -10.3 | Pass | band edge; limit 20 dBc |
| 2390.0 | 26.1 | 30.0 | P | 180.0 | 150.0 | 30.0 | 66.2 | 74.0 | -7.8 | Pass | band edge restricted |
| 2390.0 | 26.1 | 30.0 | A | 180.0 | 150.0 | 30.0 | 46.2 | 54.0 | -7.8 | Pass | band edge restricted |
| 2400.0 | 23.0 | 31.1 | P | 180.0 | 150.0 | 31.1 | 67.3 | 90.3 | -23.0 | Pass | 100k rbw |
| 2400.0 | 23.0 | 31.1 | A | 180.0 | 150.0 | 31.1 | 47.3 | 70.3 | -23.0 | Pass | 100k rbw |
| 2412.0 | 62.5 | 74.1 | P | 180.0 | 157.0 | 74.1 | 110.3 | | | | 1 MHz RBW |
| 2483.5 | 26.3 | 29.3 | P | 190.0 | 157.0 | 29.3 | 65.5 | 74.0 | -8.5 | Pass | bandedge |
| 2483.5 | 26.3 | 29.3 | A | 190.0 | 157.0 | 29.3 | 45.5 | 54.0 | -8.5 | Pass | bandedge |
| 1841.0 | 69.3 | 77.5 | P | 184.0 | 100.0 | 77.5 | 67.4 | 87.5 | -20.1 | Pass | 900 MHz band, high channel |
| 1841.0 | 69.3 | 77.5 | A | 184.0 | 100.0 | 77.5 | 47.4 | 67.5 | -20.1 | Pass | 900 MHz band, high channel |
| 1829.0 | 69.1 | 79.6 | P | 193.0 | 100.0 | 79.6 | 69.5 | 74.0 | -4.5 | Pass | 900 MHz band, mid channel |
| 1829.0 | 69.1 | 79.6 | A | 193.0 | 100.0 | 79.6 | 49.5 | 54.0 | -4.5 | Pass | 900 MHz band, mid channel |
| 1820.0 | 75.7 | 84.2 | P | 168.0 | 100.0 | 84.2 | 74.1 | 90.5 | -16.4 | Pass | 900 MHz band, low channel |
| 1820.0 | 75.7 | 84.2 | A | 100.0 | 100.0 | 84.2 | 54.1 | 70.5 | -16.4 | Pass | 900 MHz band, low channel |
| 4825.0 | 62.2 | 61.0 | P | 1.0 | 106.0 | 62.2 | 61.3 | 74.0 | -12.7 | Pass | 2400 MHz band, low channel |
| 4825.0 | 62.2 | 61.0 | A | 1.0 | 106.0 | 62.2 | 41.3 | 54.0 | -12.7 | Pass | 2400 MHz band, low channel |
| 4864.0 | 61.0 | 57.0 | P | 350.0 | 109.0 | 61.0 | 60.1 | 74.0 | -13.9 | Pass | 2400 MHz band, mid channel |
| 4864.0 | 61.0 | 57.0 | A | 350.0 | 109.0 | 61.0 | 40.1 | 54.0 | -13.9 | Pass | 2400 MHz band, mid channel |
| 4924.0 | 58.0 | 57.0 | P | 183.0 | 108.0 | 58.0 | 57.1 | 74.0 | -16.9 | Pass | 2400 MHz band, high channel |
| 4924.0 | 58.0 | 57.0 | A | 183.0 | 108.0 | 58.0 | 37.1 | 54.0 | -16.9 | Pass | 2400 MHz band, high channel |



Spurious RF Conducted Emissions

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Conditions:

| | | | |
|---------------------|---------------------------|--------------|----------------------|
| Sample Number: | MPT-2700 | Temperature: | N/A °C |
| Date: | | Humidity: | N/A % |
| Modification State: | Low, Mid and High Channel | Tester: | Andreas Gillmeier |
| Laboratory: | | | |

Test Results:

Not deemed to be affected by the hardware change and therefore not re-measured.

Power Spectral Density for Digitally Modulated Devices

(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Conditions:

| | | | |
|---------------------|---------------------------|--------------|-------------------|
| Sample Number: | MPT-2700 | Temperature: | N/A °C |
| Date: | | Humidity: | N/A % |
| Modification State: | Low ,Mid and High Channel | Tester: | Andreas Gillmeier |
| Laboratory: | | | |

Test Results:

Not deemed to be affected by the hardware change and therefore not re-measured.