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TEST REPORT

Report Number: 19010391HKG-001

Application For Class II Permissive Change of 47 CFR Part 15 Certification

Unlicensed Personal Communication Service Devices

(Base Unit)

FCC ID: EW780-0835-00

Prepared and Checked by:	**Approved by:**
Signed On File Leung Chiu Kuen, Stanley Engineer	Digitally signed by Jess Tang Location: Intertek Testing Services Hong Kong Limited Tang Kwan Mo, Jess Lead Engineer Date: March 01, 2019

TEST REPORT

GENERAL INFORMATION

Grantee:	VTech Telecommunications Ltd.
Grantee Address:	23/F., Tai Ping Industrial Centre, Block 1, 57 Ting Kok Road, Tai Po, Hong Kong.
FCC Specification Standard:	FCC Part 15, October 1, 2017 Edition
FCC ID:	EW780-0835-00
FCC Model(s):	DL72219, DL72XY9, DL72119, DL72319, DL72419
Type of EUT:	Unlicensed Personal Communications Service Devices
Description of EUT:	DECT 6.0 Cordless Telephone
Serial Number:	N/A
Sample Receipt Date:	January 11, 2019
Date of Test:	January 15, 2019 to February 15,2019
Report Date:	March 01, 2019
Environmental Conditions:	Temperature: +10 to 40°C Humidity: 10 to 90%
Conclusion:	Test was conducted by client submitted sample. The submitted sample as received complied with the 47 CFR Part 15 Certification.

TEST REPORT

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TEST REPORT

1.0 TEST RESULTS SUMMARY & STATEMENT OF COMPLIANCE

1.1 Summary of Test Results

Test Items	General Technical Requirements FCC Part 15 Section	Test Procedure ANSI C63.17 / ANSI C63.4*	Results	Details See Section
Occupied/Emission Bandwidth	15.323(a)	6.1.3	Pass	4.1
Power Spectral Density	15.319(d)	6.1.5	Pass	4.2
AC Power Line Conducted Emissions from EUT	15.315	7 *	Pass	4.5

Test Items	Specific Requirements for UPCS Device FCC Part 15 Section	Test Procedure ANSI C63.17	Results	Details See Section
Unwanted Emission Inside the Sub-Band	15.323(d)	6.1.6.1	Pass	4.3
Emissions Outside the Sub-Band	15.323(d)	6.1.6.2	Pass	4.4

1.2 Statement of Compliance

The equipment under test is found to be complying with the following standards:

FCC Part 15, October 1, 2017 Edition

TEST REPORT

2.0 GENERAL DESCRIPTION

2.1 Product Description

The DL72219 is a DECT 6.0 Cordless Telephone. It operates at frequency range of 1921.536MHz to 1928.448MHz with 5 channels (1921.536MHz, 1923.264MHz, 1924.992MHz, 1926.720MHz and 1928.448MHz) and Bluetooth Transmitter operates with 79 channels (2402MHz - 2480MHz). The Base Unit is powered by an adaptor 100-120VAC 60Hz 150mA. And it also has a Bluetooth transceiver that manages Bluetooth connections to a Bluetooth-equipped mobile device. With Bluetooth and 1.9GHz wireless communications enabled, the Base Unit allows user uses the cordless handset to make or receive cellular phone calls via the cellular network.

The antennas used in base unit are integral, and the test sample is a prototype.

The Model(s): DL72119, DL72319, DL72419, DL72XY9 are the same as the Model: DL72219 in electronics/electrical designs including software & firmware, PCB layout and construction design/physical design/enclosure as declared by client. The only differences between these models are color, model number, package type, no. of handset and charger to be sold for marketing purpose as declared by client. Suffix (“X,Y” in DL72XY9) indicates different number of handset and extra charger, and different package type or different color of enclosure.

Connection between the device and the telephone network is accomplished through the use of USOC RJ11C in the 2-wire loop calling central office line.

2.2 Purpose of Change

The purpose of change is saved with filename: product change.pdf

2.3 Test Methodology

The radiated emission measurements for unintentional radiator (if any) and AC power line-conducted emission measurements were performed according to the test procedures specified in ANSI C63.4 (2014). The radiated emission measurements for intentional radiator contained in UPCS device, conducted emission measurements, Listen Before Transmit (LBT) tests, Time Frame and Frequency Stability tests were performed according to the test procedures specified in ANSI C63.17 (2013). All radiated measurements were performed in radiated emission test site. Preliminary scans were performed in the radiated emission test site only to determine worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "Justification Section" of this Application. All other measurements were made in accordance with the procedures in 47 CFR Part 2.

2.4 Test Facility

The radiated emission test site, AC power line conducted measurement facility and antenna port conducted measurement facility used to collect the radiated data, AC Power Line conducted data, and conductive data are at Intertek Testing Services Hong Kong Ltd., which is located at Workshop No. 3, G/F., World-Wide Industrial Centre, 43-47 Shan Mei Street, Fo Tan, Sha Tin, N.T., Hong Kong. This test facility and site measurement data have been fully placed on file with FCC.

TEST REPORT

3.0 SYSTEM TEST CONFIGURATION

3.1 Justification

For emissions testing, the equipment under test (EUT) was set up to transmit continuously in burst mode with pseudo-random data to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst-case emissions.

The Base Unit was powered by a 100-120VAC 60Hz 150mA to 6.0VDC 400mA adaptor.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. If the EUT is attached to accessories, they were connected and operational (as typical as possible).

The signal was maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization were varied during the search for maximum signal level. The antenna height was varied from 1 to 4 meters. Detector function was in peak mode. Radiated emissions are taken at three meters unless the signal level was too low for measurement at that distance. If necessary, a pre-amplifier was used and/or the test was conducted at a closer distance.

For UPCS transmitter radiated measurement, the spectrum analyzer resolution bandwidth was approximately 1% of EUT emission bandwidth, unless otherwise specified.

Radiated emission measurements for UPCS transmitter were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

RF module for base unit of DL72219 is the same with original granted model RT802. Therefore conducted emission measurement for peak transmit power, jitter, frame repetition stability, carrier stability and listen before transmit requirements for DL72219 are skipped.

As the base unit has 2 antennas, both have been checked. While conducting the test on one of antennas, another one was being disable its transmission. The data in this report represented the worst-case.

Bluetooth module was mounted onto the EUT and switched on when taking radiated emission for determining worst-case spurious emission.

For AC line conducted emission test, the EUT along with its peripherals were placed on a 1.0m(W)x1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50ohm coupling impedance for measuring instrument. The LISN housing, measuring instrument case, reference ground plane, and vertical ground plane were bounded together. The excess power cable between the EUT and the LISN was bundled.
All connecting cables of EUT and peripherals were manipulated to find the maximum emission.
All relevant operation modes have been tested, and the worst case data is included in this report.

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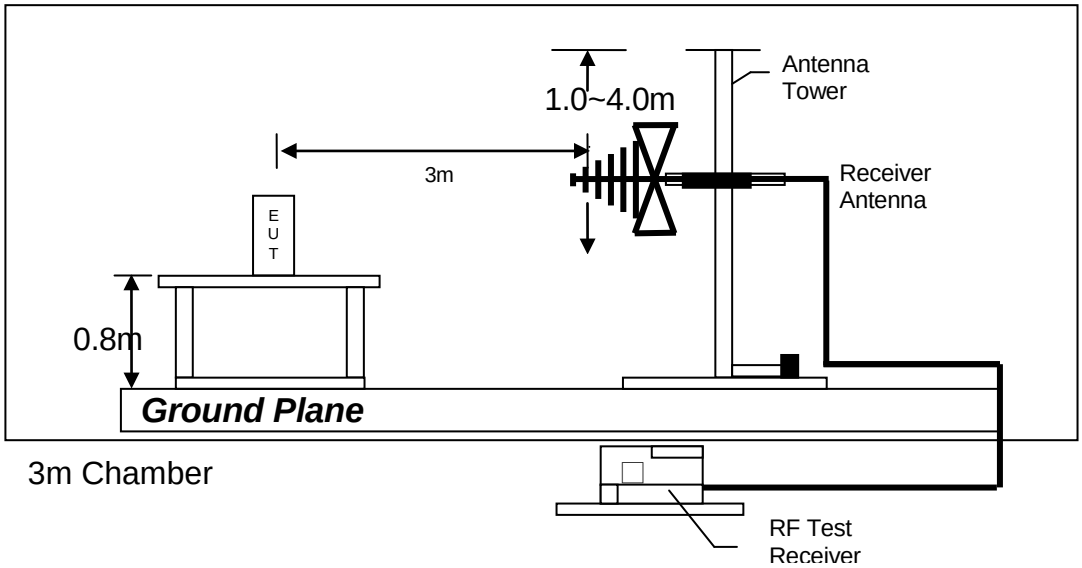
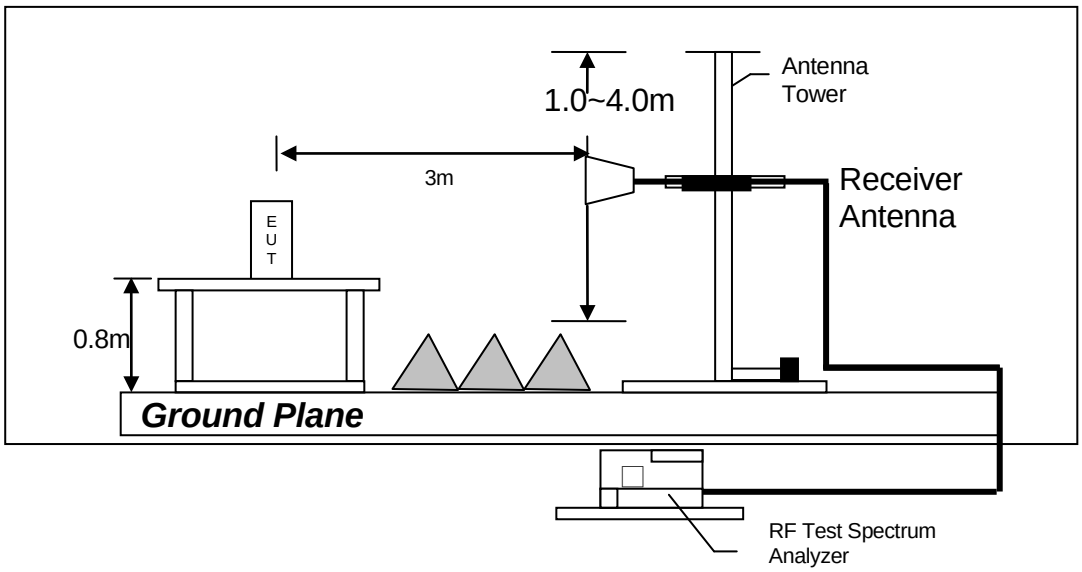
3.2 Radiated Emission Test Setup

The figure below shows the test setup, which is utilized to make these measurements.



Test setup of radiated emissions up to 1GHz



Test setup of radiated emissions above 1GHz

Figure 3.2.1

TEST REPORT

3.3 AC Line Conducted Emission Test Setup

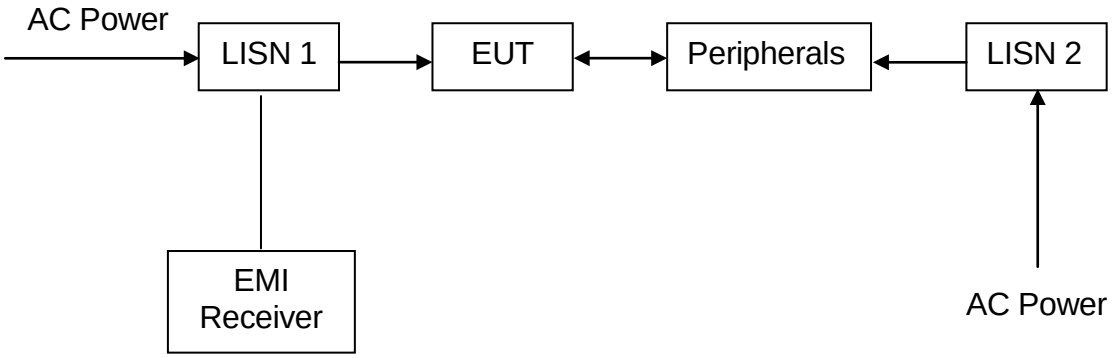


Figure 3.3.1

TEST REPORT

3.4 Conducted Emission Test Configuration

The setup and equipment setting were made in accordance with ANSI C63.17. The antenna of EUT transmitter was replaced by a coaxial cable. The impendence matching of connection, cable loss and external RF attenuator are taken into account. The EUT was arranged to communicate via a fixed carrier frequency between its transmitter and a companion device. The transmission was configured in burst mode with pseudo-random data as typical as normal operation.

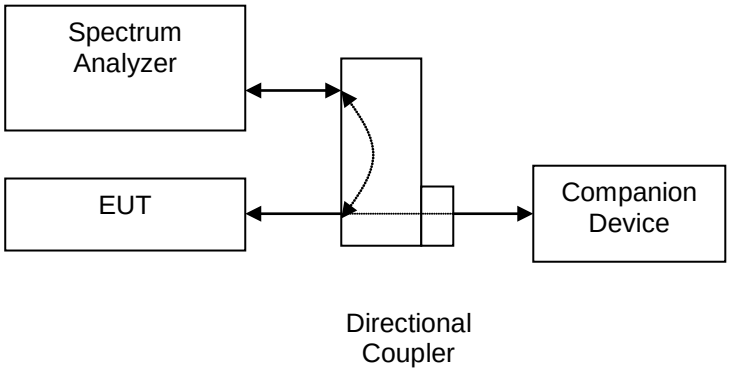


Figure 3.4.1

3.5 Conducted Monitoring and Operation Test Configuration

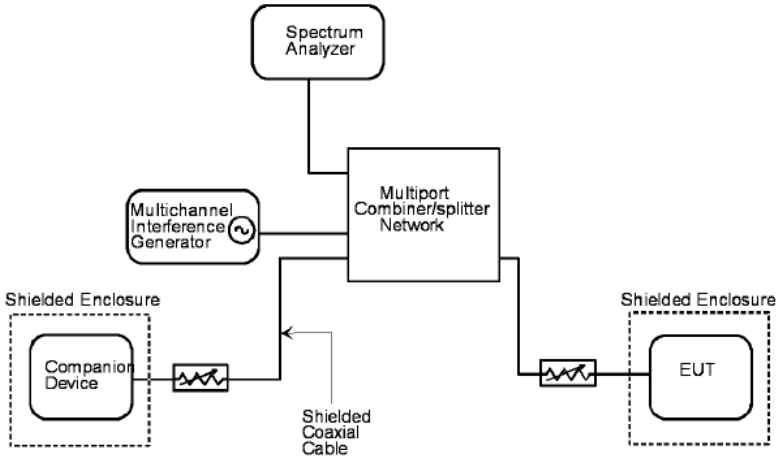


Figure 3.5.1

3.6 EUT Exercising Software

The EUT exercise program (if any) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

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3.7 Details of EUT and Description of Accessories

Details of EUT:

An AC adaptor (provided with the unit) were used to power the device. Their descriptions are listed below.

(1) An AC adaptor (100-120VAC 60Hz 150mA to 6.0VDC 400mA, Model: VT05UUS06040, Brand Name: VTPL) (Supplied by Client)
(2) An AC adaptor (100-120VAC 60Hz 150mA to 6.0VDC 400mA, Model: S003AKU0600040, Brand Name: Ten Pao) (Supplied by Client)

Description of Accessories:

(1) Telecommunication cable with RJ11C connectors (1m, unshielded), terminated (Supplied by Intertek)
(2) Handset, Model: DL72XY9 (FCC ID: EW780-9854-00) (Supplied by Client)

3.8 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered. The values of the Measurement uncertainty for radiated emission test, AC line conducted emission test and RF conducted test are ± 5.3dB, ± 4.2dB, ±1dB respectively.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

TEST REPORT

4.0 MEASUREMENT RESULTS

4.1 Emission Bandwidth, FCC Rule 15.323(a):

Operation shall be contained within the 1920 – 1930 MHz band. The emission bandwidth (*B*) shall be less than 2.5 MHz and greater than 50 kHz.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.3. Test setup is shown in section 3.4 Figure 3.4.1.

Test Results:

I. Traffic Carrier

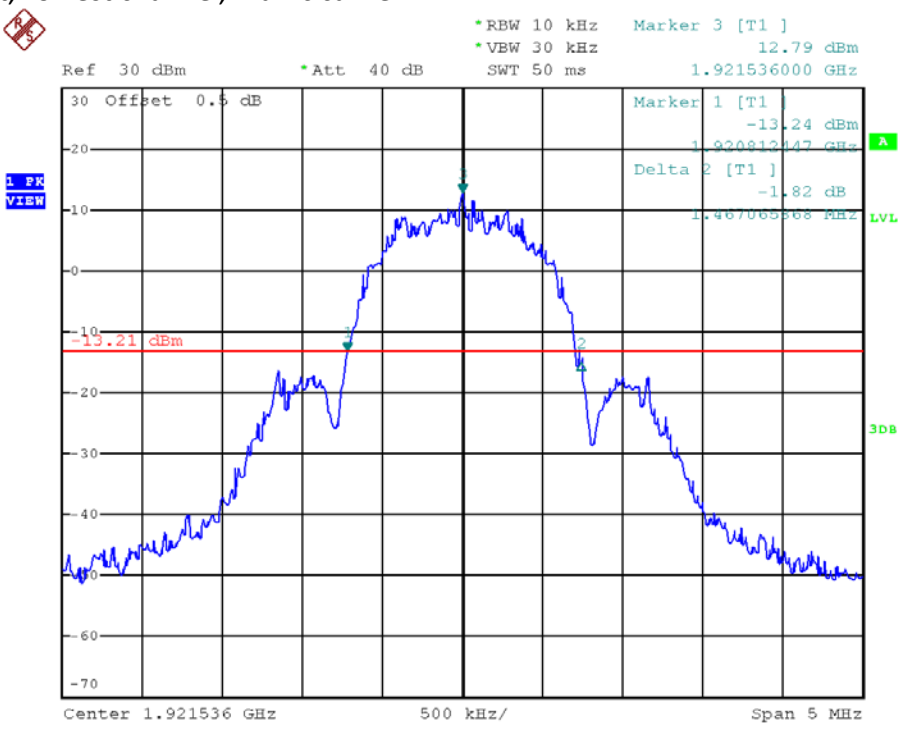
Channel	Channel Frequency (MHz)	Measuring Signal Level	Measured Emission Bandwidth (MHz)	Results
Lowest	1921.536	26 dB down	1.47	Pass
Highest	1928.448	26 dB down	1.48	Pass

The plots of emission bandwidth are saved as below.

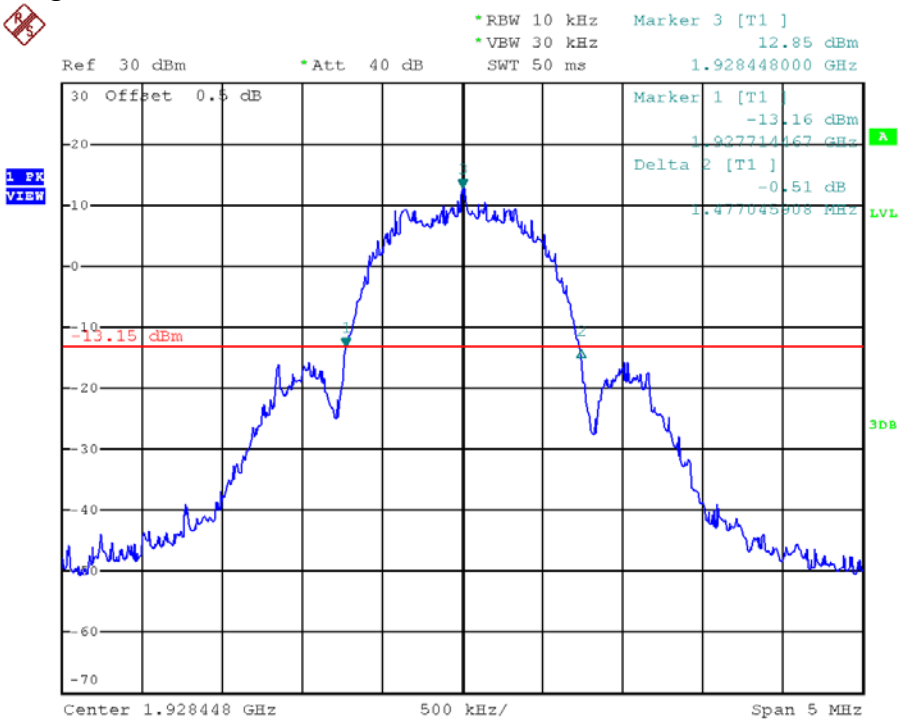
TEST REPORT

PLOTS OF EMISSION BANDWIDTH

Base unit, Lowest channel, Traffic carrier



Base unit, Highest channel, Traffic carrier



TEST REPORT

4.2 Power Spectral Density, FCC Rule 15.319(d):

Power spectral density shall not exceed 3 mW (4.8dBm) in any 3 kHz bandwidth as measured with a spectrum analyzer having a resolution bandwidth of 3 kHz.

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.5. Test setup is shown in section 3.4 Figure 3.4.1.

Test Results:

I. Traffic Carrier

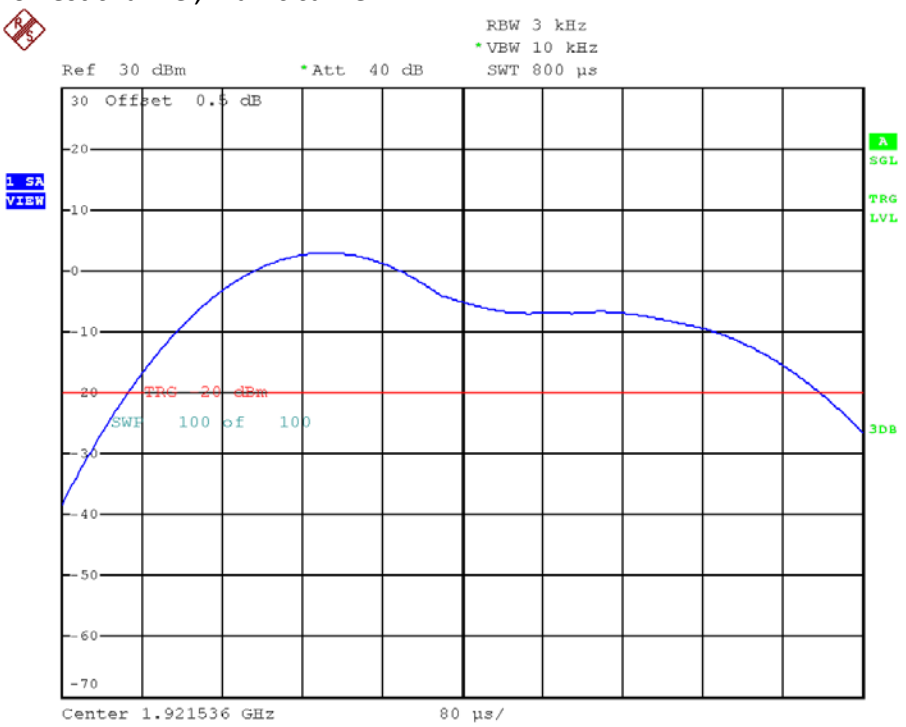
Channel	Channel Frequency (MHz)	Measured Power Spectral Density (dBm/3kHz)	Limit (dBm/3 kHz)	Results
Lowest	1921.536	-3.5	4.8	Pass
Highest	1928.448	-3.2	4.8	Pass

The plots of the power spectral density are as below.

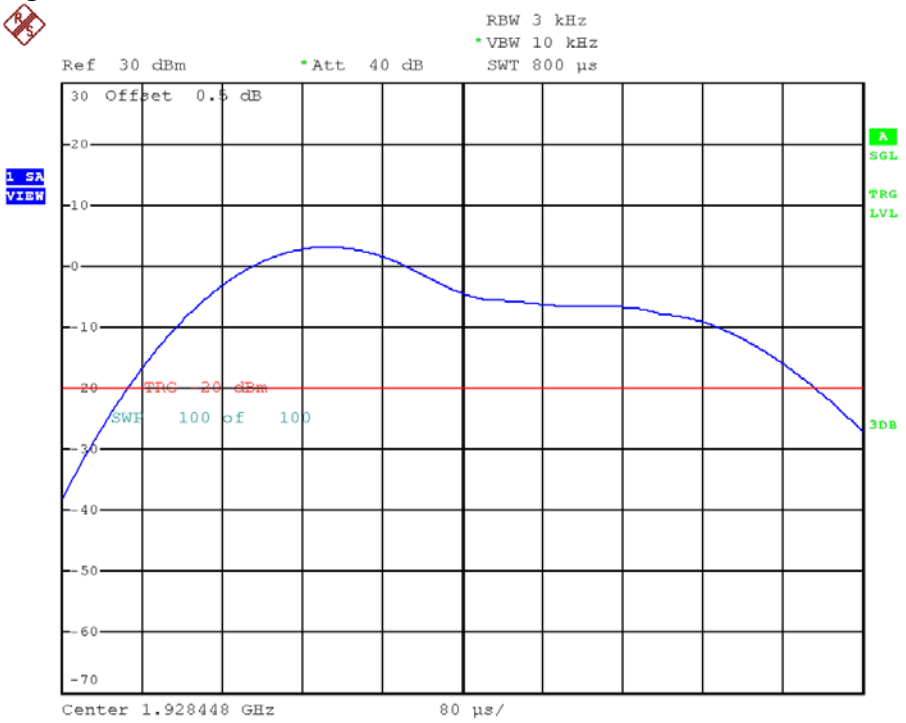
TEST REPORT

PLOTS OF THE POWER SPECTRAL DENSITY

Base unit, Lowest channel, Traffic carrier



Base unit, Highest channel, Traffic carrier



TEST REPORT

4.3 Unwanted Emission Inside the Sub-Band, FCC Rule 15.323(d):

Emissions inside the sub-band must comply with the following emission mask:

1. In the bands between 1*B* and 2*B* measured from the center of the emission bandwidth, emission shall be at least 30 dB below the permitted peak transmit power.

2. In the bands between 2*B* and 3*B* measured from the center of the emission bandwidth, emission shall be at least 50 dB below the permitted peak transmit power.

3. In the bands between 3*B* and the band edge, emission shall be at least 60 dB below the permitted peak transmit power.

Where *B* = emission bandwidth in Hz

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.6.1. Test setup is shown in section 3.4 Figure 3.4.1

Test Results:

I. Traffic Carrier

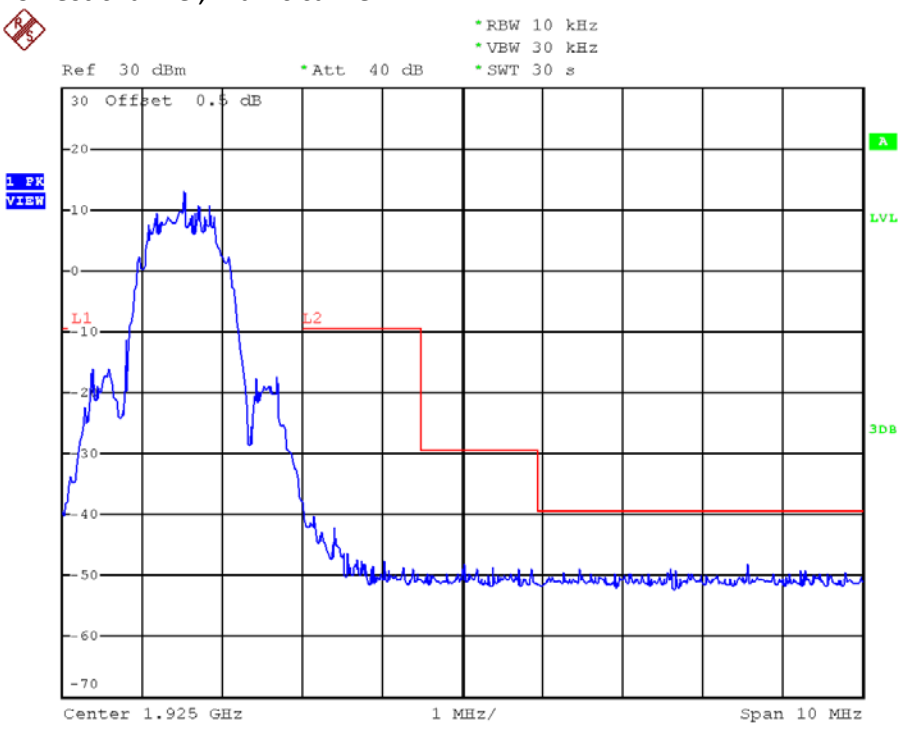
Channel	Channel Frequency (MHz)	Results
Lowest	1921.536	Pass
Middle	1924.992	Pass
Highest	1928.448	Pass

The plots of the unwanted emission inside the sub-band are as below.

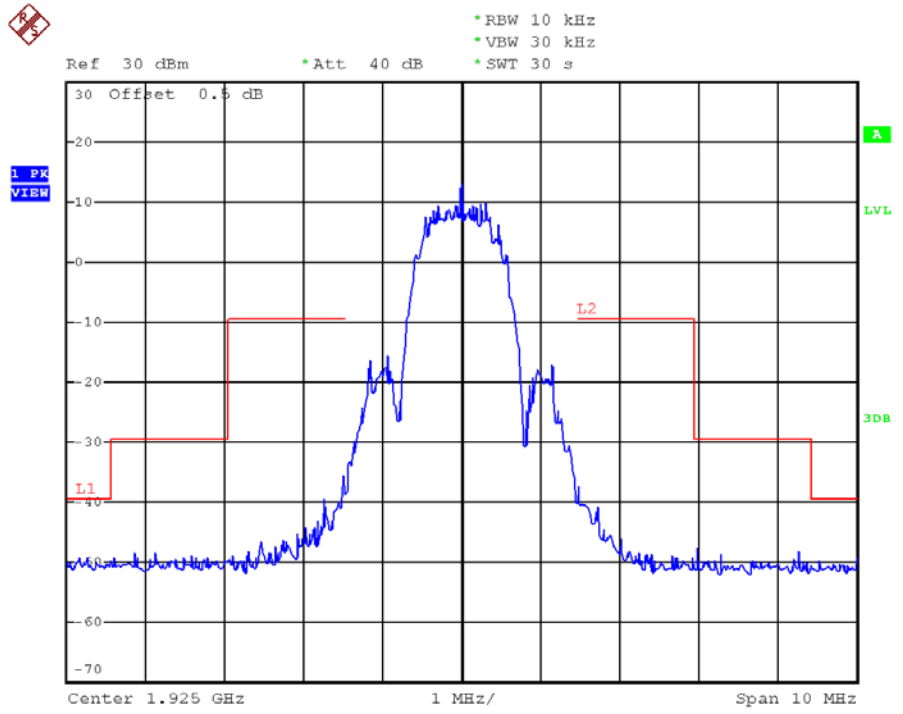
TEST REPORT

PLOTS OF THE UNWANTED EMISSION INSIDE THE SUB-BAND

Base unit, Lowest channel, Traffic carrier



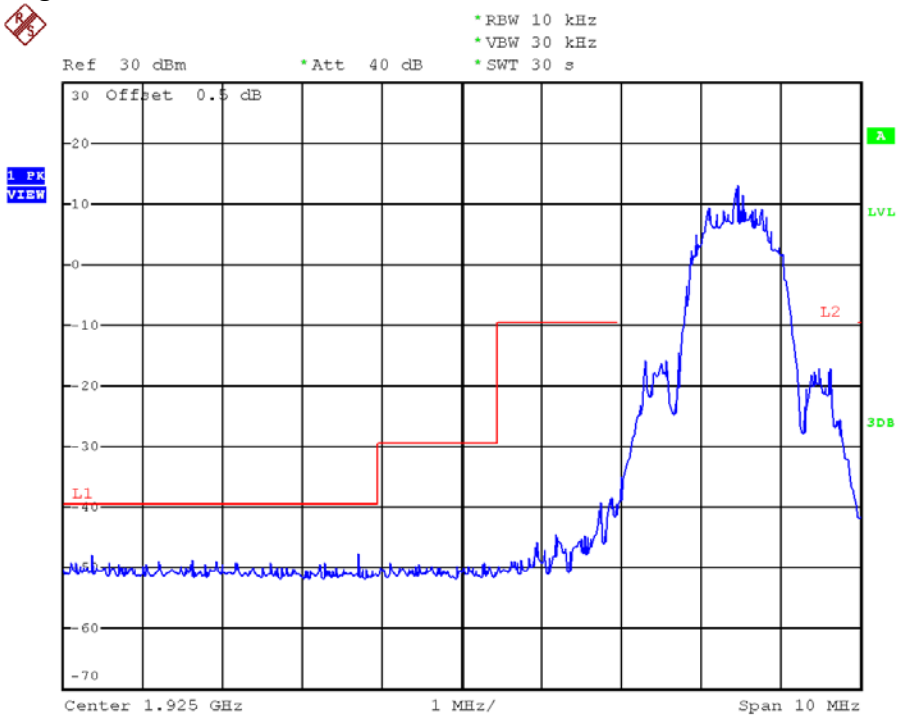
Base unit, Middle channel, Traffic carrier



TEST REPORT

PLOTS OF THE UNWANTED EMISSION INSIDE THE SUB-BAND

Base unit, Highest channel, Traffic carrier



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4.4 Emissions Outside the Sub-Band, FCC Rule 15.323(d):

Emissions outside the sub-band shall be attenuated below a reference power of 112 mW (20.5 dBm) as follows:

1. 30 dB between the band edge and 1.25 MHz above or below the band;
2. 50 dB between 1.25 and 2.5 MHz above or below the band; and
3. 60 dB at 2.5 MHz or greater above or below the band, or shall meet the requirement of FCC Rule 15.319(g) which shall not exceed the limits of FCC Rule 15.209.

Example: Calculation of Limit for emissions between the band edge and 1.25 MHz (1920.000 – 1918.750 MHz)

The emissions shall not exceed the Limit: 20.5 dBm – 30 dB = -9.5 dBm

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.6.2. Radiated emissions test method is used. Emissions that are directly caused by digital circuits in the transmit path and transmitter portion are measured.

Test setup is shown in section 3.2 Figure 3.2.1

Test Results:

Channel	Carrier Frequency (MHz)	Measured Band (MHz)	Limit (dBm)	Results
Lowest	1921.536	1920.000 - 1918.750	-9.5	Pass
		1918.750 - 1917.500	-29.5	Pass
		0.009 - 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209	Pass
Highest	1928.448	1930.000 - 1931.250	-9.5	Pass
		1931.250 - 1932.500	-29.5	Pass
		0.009 – 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209	Pass

TEST REPORT

4.4.1 Radiated Emissions Configuration Photographs:

Worst Case Radiated Emission
at

With Ten Pao adaptor: 960.645 MHz

With VTPL adaptor: 960.770 MHz

The worst case radiated emission configuration photographs are saved with filename: config photos.pdf

4.4.2 Radiated Emissions Data:

Data are included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data in table 1-6 list the significant emission frequencies, the limit and the margin of compliance.

Judgement:

With Ten Pao adaptor - Passed by 10.0 dB margin

With VTPL adaptor - Passed by 10.4 dB margin

TEST REPORT

RADIATED EMISSIONS DATA

Mode: Transmission with Ten Pao adaptor

Table 1

Pursuant to FCC Part 15 Section 15.323 (d) Emissions Requirements

Lowest Channel

Polarization	Frequency (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1917.378	-56.8	-39.5	-17.3
V	1918.644	-54.6	-29.5	-25.1
V	1919.937	-45.0	-9.5	-35.5
V	3843.072	-63.1	-39.5	-23.6
H	5764.608	-61.7	-39.5	-22.2
H	7686.144	-60.9	-39.5	-21.4
V	9607.680	-59.4	-39.5	-19.9
V	11529.216	-56.7	-39.5	-17.2
V	13450.752	-55.5	-39.5	-16.0

NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

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Mode: Transmission with Ten Pao adaptor

Table 2

Pursuant to FCC Part 15 Section 15.323 (d) Emissions Requirements

Highest Channel

Polarization	Frequency (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1930.175	-44.8	-9.5	-35.3
V	1931.415	-54.5	-29.5	-25.0
V	1932.854	-57.0	-39.5	-17.5
V	3856.896	-63.2	-39.5	-23.7
H	5785.344	-61.8	-39.5	-22.3
H	7713.792	-60.7	-39.5	-21.2
V	9642.240	-59.5	-39.5	-20.0
V	11570.688	-57.0	-39.5	-17.5
V	13499.136	-55.1	-39.5	-15.6

NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

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Mode: Talk with Ten Pao adaptor

Table 3

Pursuant to FCC Part 15 Section 15.323 (d) Emissions Requirements

Polarization	Frequency (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	33.996	-71.1	-39.5	-31.6
V	63.734	-75.6	-39.5	-36.1
V	71.578	-75.9	-39.5	-36.4
V	140.404	-72.0	-39.5	-32.5
V	207.413	-59.4	-39.5	-19.9
H	311.073	-53.2	-39.5	-13.7
V	414.734	-54.4	-39.5	-14.9
H	960.645	-49.5	-39.5	-10.0

NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

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Mode: Transmission with VTPL adaptor

Table 4

Pursuant to FCC Part 15 Section 15.323 (d) Emissions Requirements

Lowest Channel

Polarization	Frequency (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1917.218	-57.1	-39.5	-17.6
V	1918.684	-54.4	-29.5	-24.9
V	1919.935	-44.7	-9.5	-35.2
V	3843.072	-63.3	-39.5	-23.8
H	5764.608	-62.0	-39.5	-22.5
H	7686.144	-60.6	-39.5	-21.1
V	9607.680	-59.6	-39.5	-20.1
V	11529.216	-57.0	-39.5	-17.5
V	13450.752	-55.3	-39.5	-15.8

NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

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Mode: Transmission with VTPL adaptor

Table 5

Pursuant to FCC Part 15 Section 15.323 (d) Emissions Requirements

Highest Channel

Polarization	Frequency (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1930.169	-44.5	-9.5	-35.0
V	1931.398	-54.8	-29.5	-25.3
V	1932.922	-57.0	-39.5	-17.5
V	3856.896	-62.8	-39.5	-23.3
H	5785.344	-62.0	-39.5	-22.5
H	7713.792	-60.9	-39.5	-21.4
V	9642.240	-59.4	-39.5	-19.9
V	11570.688	-57.0	-39.5	-17.5
V	13499.136	-55.5	-39.5	-16.0

NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

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Mode: Talk with VTPL adaptor

Table 6

Pursuant to FCC Part 15 Section 15.323 (d) Emissions Requirements

Polarization	Frequency (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	48.157	-73.9	-39.5	-34.4
V	104.693	-70.7	-39.5	-31.2
V	121.056	-70.9	-39.5	-31.4
V	207.415	-57.0	-39.5	-17.5
H	311.030	-53.7	-39.5	-14.2
V	414.739	-52.9	-39.5	-13.4
V	960.770	-49.9	-39.5	-10.4

NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters.

3. Negative value in the margin column shows emission below limit.

TEST REPORT

4.4.3 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD + AV

Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB
AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD + AV

Example

Assume a receiver reading of 62.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29.0 dB is subtracted. The pulse desensitization factor of the spectrum analyzer is 0.0 dB, and the resultant average factor is -10.0 dB. The net field strength for comparison to the appropriate emission limit is 32.0 dBμV/m. This value in dBμV/m is converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0.0 dB
AV = -10 dB

FS = 62.0 + 7.4 + 1.6 – 29.0 + 0.0 + (-10.0) = 32.0 dBμV/m

Level in μV/m = Common Antilogarithm [(32.0 dBμV/m)/20] = 39.8 μV/m

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4.4.4 Average Factor Calculation and Transmitter ON Time Measurements, FCC Rule 15.35(b, c)

[ ] The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SPAN function on the analyzer was set to ZERO. The transmitter ON time was determined from the resultant time-amplitude display:

Please refer to the attached plots for more details:

The plots of Transmitter ON Time Measurements are as below.

[ ] Please refer to the attached transmitter timing diagram that are provided by manufacturer

[×] Not applicable - No average factor is required.

[ ] Please refer to Technical Description (descri.pdf) for more details.

TEST REPORT

4.5 AC Power Line Conducted Emissions, FCC Rule 15.315:

The AC power line conducted emission shall not exceed the limits of FCC Rule 15.207.

Measurements are made in accordance with ANSI C63.4 sub-clause 7. Emissions that are directly caused by digital circuits in the transmit path and transmitter portion are measured.

Test setup is shown in section 3.3 Figure 3.3.1.

[ ] Not applicable – EUT is only powered by battery for operation.

[ ] EUT connects to AC power line. Emission Data is listed in following pages.

[×] Base Unit connects to AC power line and has transmission. Handset connects to AC power line (indirectly) but has no transmission. Emission Data of Base Unit is listed in following pages.

[ ] Handset connects to AC power line (indirectly) only during charging. Emission Data is listed in following pages.

TEST REPORT

4.5.1 AC Power Line Conducted Emissions Configuration Photographs:

Worst Case AC Power Line Conducted Emission
at

With Ten Pao adaptor: 29.9985 MHz

With VTPL adaptor: 402 kHz

The worst case AC power Line conducted emission configuration photographs are saved with filename: config photos.pdf

4.5.2 AC Power Line Conducted Emissions Data:

The plot(s) and data in the following pages list the significant emission frequencies, the limit and the worst case margin of compliance.

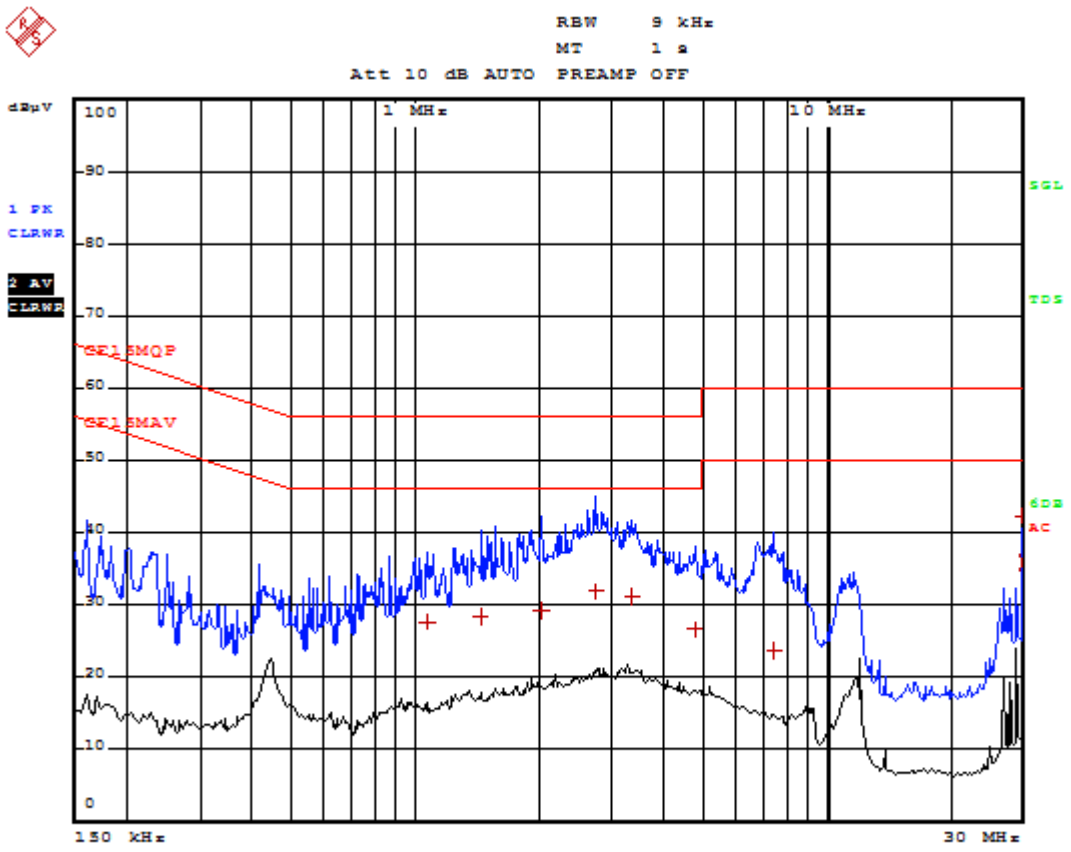
Judgment:

With Ten Pao adaptor: Passed by 14.13 dB margin compared with CISPR average limit

With VTPL adaptor: Passed by 11.51 dB margin compared with the CISPR average limit

TEST REPORT

Worst Case: Talk with Ten Pao adaptor



TEST REPORT

Worst Case: Talk with Ten Pao adaptor

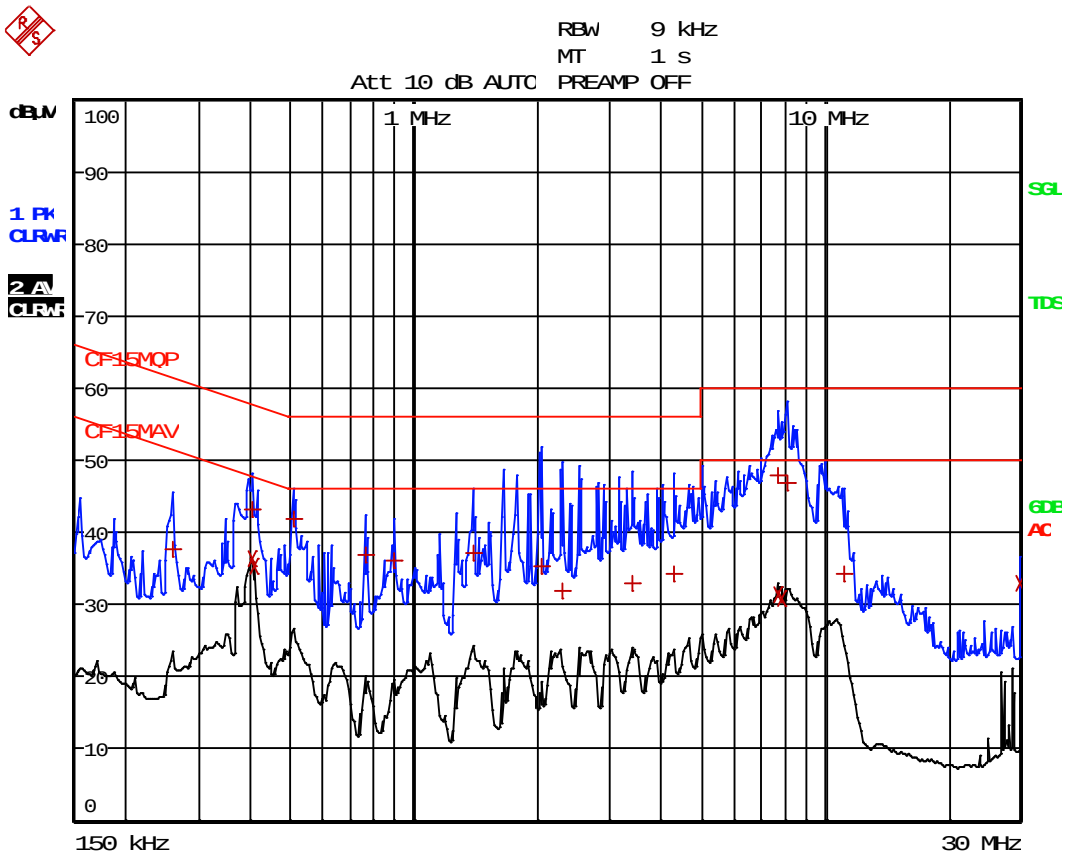
EDIT PEAK LIST (Final Measurement Results)

Trace1: CF15MQP
Trace2: CF15MAV
Trace3: ---

TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	1.0725 MHz	27.73	L1	-28.26
1 Quasi Peak	1.437 MHz	28.57	N	-27.42
1 Quasi Peak	2.022 MHz	29.35	L1	-26.64
1 Quasi Peak	2.751 MHz	31.84	L1	-24.15
1 Quasi Peak	3.3945 MHz	31.20	N	-24.79
1 Quasi Peak	4.785 MHz	26.66	N	-29.33
1 Quasi Peak	7.4445 MHz	23.86	N	-36.13
2 CISPR Average	29.9985 MHz	35.86	N	-14.13
1 Quasi Peak	30 MHz	42.30	L1	-17.69

TEST REPORT

Worst Case: Talk with VTPL adaptor



TEST REPORT

Worst Case: Talk with VTPL adaptor

EDIT PEAK LIST (Final Measurement Results)

Trace1: CF15MQP
Trace2: CF15MAV
Trace3: ---

TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	258 kHz	37.58	L1	-23.90
1 Quasi Peak	402 kHz	43.08	L1	-14.73
2 CISPR Average	402 kHz	36.29	L1	-11.51
2 CISPR Average	406.5 kHz	35.31	N	-12.40
1 Quasi Peak	510 kHz	41.99	L1	-14.01
1 Quasi Peak	762 kHz	36.84	L1	-19.15
1 Quasi Peak	892.5 kHz	36.18	N	-19.81
1 Quasi Peak	1.392 MHz	37.16	N	-18.83
1 Quasi Peak	2.04 MHz	35.34	N	-20.65
1 Quasi Peak	2.301 MHz	31.96	L1	-24.03
1 Quasi Peak	3.417 MHz	33.01	L1	-22.98
1 Quasi Peak	4.3125 MHz	34.20	N	-21.80
1 Quasi Peak	7.7505 MHz	47.87	L1	-12.12
2 CISPR Average	7.7505 MHz	31.30	N	-18.69
2 CISPR Average	7.98 MHz	30.78	N	-19.21
1 Quasi Peak	8.133 MHz	46.97	N	-13.02
1 Quasi Peak	11.1795 MHz	34.20	L1	-25.79
2 CISPR Average	29.9985 MHz	32.81	L1	-17.18

TEST REPORT

5.0 EQUIPMENT LIST

1) Radiated Emissions Test

Equipment	EMI Test Receiver	Spectrum Analyzer	Biconical Antenna
Registration No.	EW-3156	EW-2253	EW-0571
Manufacturer	ROHDESCHWARZ	ROHDESCHWARZ	EMCO
Model No.	ESR26	FSP40	3104C
Calibration Date	November 19, 2018	November 27, 2018	February 27, 2018
Calibration Due Date	November 19, 2019	November 27, 2019	August 27, 2019

Equipment	Log Periodic Antenna	BiConiLog Antenna	Pyramidal Horn Antenna (18.0 - 26.5)GHz
Registration No.	EW-0447	EW-3061	EW-0905
Manufacturer	EMCO	EMCO	EMCO
Model No.	3146	3142E	3160-09
Calibration Date	January 17, 2018	November 02, 2017	August 18, 2017
Calibration Due Date	July 17, 2019	May 02, 2019	February 18, 2019

Equipment	Notch Filter (cutoff frequency 1.9GHz to 2.0GHz)	12m Double Shield RF Cable (20MHz to 6GHz)	High Frequency Coaxial Cable Assembly (4 pcs)
Registration No.	EW-2360	EW-1852	EW-3126c
Manufacturer	MICROWAVE	RADIALL	GREATBILLION
Model No.	N0319502	N(m)-RG142 - N(m)	SMAm st - SMA m ra 0.6m 18GHz
Calibration Date	January 17, 2018	January 19, 2018	May 11, 2018
Calibration Due Date	January 17, 2019	January 19, 2019	May 11, 2019

Equipment	Double Ridged Guide Antenna (1GHz - 18GHz)
Registration No.	EW-1133
Manufacturer	EMCO
Model No.	3115
Calibration Date	November 29, 2018
Calibration Due Date	May 29, 2020

2) Conducted Emissions Test

Equipment	EMI Test Receiver	RF Cable 9kHz to 1000MHz	LISN
Registration No.	EW-3095	EW-3170	EW-2874
Manufacturer	R&S	N/A	R&S
Model No.	ESCI	9kHz to 1000MHz	ENV-216
Calibration Date	February 15, 2018	May 11, 2018	March 29, 2018
Calibration Due Date	February 15, 2019	May 11, 2019	March 29, 2019

TEST REPORT

3) Conductive Measurement Test

Equipment	Coaxial Directional Coupler	Spectrum Analyzer	Digital Multimeter
Registration No.	EW-2337	EW-3016	EW-1020
Manufacturer	MAGNA	R&S	FLUKE
Model No.	4222-16	FSP30	87-IV
Calibration Date	Nil*	October 16, 2018	June 25, 2018
Calibration Due Date	Nil*	October 16, 2019	July 09, 2019

Equipment	Vector Signal Generator	Temperature & Humidity Chamber	Digital Radiocommunication Tester For DECT
Registration No.	EW-2411	EW-2134	EW-1739
Manufacturer	R&S	GIANT FORCE	ROHDESCHWARZ
Model No.	SMU200A	GTH-750-40-CP-SD	CMD60
Calibration Date	January 24, 2018	September 18, 2018	October 24, 2018
Calibration Due Date	January 24, 2019	September 18, 2019	October 24, 2019

Equipment	DECT 01 02 03 (SMA - SMA) Cable x 3 pcs	Power Combiner 10 to 2500 MHz
Registration No.	EW-3102	EW-3067
Manufacturer	N/A	MINICIRCUITS
Model No.	EMC2 SMA - SMA	15542 ZFSC-2-2500 0 0106
Calibration Date	June 06, 2018	April 13, 2018
Calibration Due Date	June 06, 2019	April 13, 2019

END OF TEST REPORT