MEASUREMENT/TECHNICAL REPORT

Continental Conair Limited - MODEL: FF915(XXX)
FCC ID: LBBFF915

This report concerns (check one:) Original Grant__X__ Class II Change_____

Equipment Type: Cordless Telephone (example: computer, modem, transmitter, etc.)

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes___ No_X__

If yes, defer until : _____
date

Company Name agrees to notify the Commission by: _____
date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes_____ No_X__

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-1-96 Edition] provision.

Report prepared by:

C. K. Lam
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EXHIBIT 1
GENERAL DESCRIPTION

1.0 General Description

1.1 Product Description

The FF915(XXX) is a 900MHz 40-Channel Cordless Phone with Caller ID. The unit is capable of either tone or pulse dialing. The internal power supply's isolation is accomplished through a power transformer having an adequate dielectric rating. The circuit wiring is consistent under the requirement of part 68.

The handset unit consists of a keypad with twelve standard keys (0,...9,*,#), seven function keys (calls, review, delete, program, memory, flash, redial), and one channel switch key. A talk key is provided to control pick/release telephone line in a toggle base.

The base unit has a page key, which is used to page the handset unit.

The circuit description is listed in the following page.

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.

1. CIRCUIT DESCRIPTION

1.1. GENERAL

A. BASE UNIT
   1). RECEIVER
   2). DIGITAL SIGNAL
   3). VOICE SIGNAL
   4). TRANSMITTER
   5). RINGER DETECTOR
   6). POWER SUPPLY CIRCUIT

B. REMOTE UNIT
   1). RECEIVER
   2). DIGITAL SIGNAL
   3). VOICE SIGNAL
   4). TRANSMITTER
   5). DIALING SIGNAL
   6). BATTERY SAVING OPERATION

1.2. SYSTEM OPERATION

   1). INCOMING CALL
   2). OUTGOING CALL
   3). DIALING
   4). DIGITAL SECURITY CODING

REFERENCE TO THE BLOCK DIAGRAM WILL BE OF CONSIDERABLE HELP IN UNDER-STANDING THE OPERATION OF THE FF915 CIRCUITRY. PLEASE REFER TO THE SCHEMATIC DIAGRAM FOR SPECIFIC COMPONENT DETAILS.

1.1 GENERAL

A. BASE UNIT

1). RECEIVER

THE RF SIGNAL FROM THE ANTENNA IS FED THROUGH THE ANTENNA DUPLEXER DUP. 1 TO THE RF AMPLIFIER Q1.

THE AMPLIFIED RF SIGNAL IS THEN HETERODYNED BY 1st MIXER Q2 WITH THE 1st LOCAL SIGNAL SUPPLIED FROM PLL (PHASE-LOCKED-LOOP) FREQUENCY SYNTHESIZER CONSISTING OF RX VCO AND PLL IC IC2, PRODUCING A FIRST IF SIGNAL (10.6875MHz).

THE 1st IF SIGNAL IS THEN AMPLIFIED BY Q2 THROUGH CERAMIC FILTER CF1 AND CF2 WHICH SUPPRESSES THE 2nd IF IMAGE SIGNAL, AND FED TO 2nd MIXER WITHIN IC1, WHERE THE 1st IF SIGNAL HETERODYNED WITH 2nd LOCAL SIGNAL SUPPLIED FROM CPU CLOCK OSCILLATOR (8.0MHz), PRODUCING A 2.6875KHz 2nd IF.

THE 2nd IF SIGNAL IS FED TO THE IF LIMITTER AMPLIFIER WITHIN IC1. THE AMPLIFIED 2nd IF SIGNAL IS THEN DELIVERED TO THE DISCRIMINATOR WITHIN IC1 WHICH PRODUCES AN AUDIO OUTPUT IN RESPONSE TO A CORRESPONDING CHANGE IN THE FREQUENCY OF THE 2nd IF SIGNAL.

THE DISCRIMINATOR OUTPUT SIGNAL CONSISTS OF DIGITAL AND VOICE SIGNALS.

2). DIGITAL SIGNAL

THE DIGITAL SIGNAL WITH "TALK-ON", "TALK-OFF", DIAL DIGIT, FLASH, CHANNEL- CHANGE, AND SECURITY CODE IS SHAPED WAVEFORM BY DATA SHAPER WITHIN IC1, AND THEN FED TO THE CPU IC101. THE CPU DECODES THE DIGITAL SIGNAL TO REFORM REQUIRED OPERATION.

3). VOICE SIGNAL

THE VOICE SIGNAL IS FED TO THE EXPANDER WITHIN IC1 TO BE RETURNED ITS ORIGINAL DYNAMIC RANGE. THE VOICE SIGNAL IS THEN DELIVERED TO THE TELEPHONE LINE THROUGH THE AMPLIFIER WITHIN Q102, HYBRID CIRCUIT Q104, AND THE ISOLATION TRANSFORMER T101.

4). TRANSMITTER

THE VOICE SIGNAL FROM THE TELEPHONE LINE THROUGH THE HYBRID CIRCUIT Q104 IS AMPLIFIED BY Q103 AND FED TO THE COMPRESSOR WITHIN IC1 TO COMPRESS ITS DYNAMIC RANGE. THE COMPRESSED VOICE SIGNAL IS APPLIED TO THE VARACTOR D2 FOR FREQUENCY MODULATION. A 903MHz CARRIER IS PRODUCED BY PLL CIRCUIT CONSISTING OF VCO AND PLL IC IC2. THE MODULATED CARRIER IS AMPLIFIED BY Q4 AND TRANSMITTED INTO THE ANTENNA THROUGH THE DUPLEXER DUP1.

5). RINGER DETECTOR

THE INCOMING RING SIGNAL IS DETECTED BY THE PHOTO COUPLER PC101 WHICH OUTPUT IS CONNECTED PIN 10 OF CPU AND CHECKED ITS FREQUENCY BY CPU. THE "RING" CODE IS THEN GENERATED AND DELIVERED TO THE VARACTOR D2 FOR MODULATION.

6). POWER SUPPLY CIRCUIT

THE POWER SUPPLY CIRCUIT IS COMPOSED OF RIPPLE REJECTION CIRCUIT Q108, 5V REGULATOR CIRCUIT IC102, AND REMOTE BATTERY CHARGE REGULATOR CIRCUIT Q109 & D107.

B. REMOTE UNIT

1). RECEIVER

THE RF SIGNAL FROM THE ANTENNA IS FED THROUGH THE ANTENNA DUPLEXER DUP401 TO THE RF AMPLIFIER Q401.

THE AMPLIFIED RF SIGNAL IS THEN HETERODYNED BY 1st MIXER Q403 WITH THE 1st LOCAL SIGNAL SUPPLIED FROM PLL FREQUENCY SYNTHESIZER CONSISTING OF RX VCO AND PLL IC IC402, PRODUCING A FIRST IF SIGNAL (10.6875MHz).

THE 1st IF SIGNAL IS THEN AMPLIFIED BY Q405 THROUGH CERAMIC FILTER CF402 AND CF403 WHICH SUPPRESSES THE 2nd IF IMAGE SIGNAL, AND FED TO 2nd MIXER WITHIN IC401, WHERE THE 1st IF SIGNAL IS HETERODYNED WITH 2nd LOCAL SIGNAL (12.375MHz) SUPPLIED FROM THE TRIPLED CPU CLOCK OSCILLATOR (4.125MHz), PRODUCING A 1.6875MHz 2nd IF.

THE 2nd IF SIGNAL IS FED TO THE IF LIMITTER AMPLIFIER WITHIN IC401.

THE AMPLIFIED 2nd IF SIGNAL THEN DELIVERED TO THE DISCRIMINATOR WITHIN IC401 AND PRODUCES AS AUDIO OUTPUT IN RESPONSE TO A CORRESPONDING CHANGE IN THE FREQUENCY OF THE 2nd IF SIGNAL.

THE DISCRIMINATOR OUTPUT SIGNAL CONSISTS OF DIGITAL AND VOICE SIGNALS.

2). DIGITAL SIGNAL

THE DIGITAL SIGNAL WITH INCOMING CALL, PAGING CALL, OR A SECURITY CODE IS SHAPED WAVEFORM BY DATA SHAPER WITHIN IC401 AND THEN FED TO THE CPU IC501.
THE CPU DECODES THE DIGITAL SIGNAL AND DRIVES THE BUZZER.

3). VOICE SIGNAL

THE VOICE SIGNAL IS FED TO THE EXPANDER WITHIN IC401 TO BE RETURNED ITS ORIGINAL DYNAMIC RANGE. THE VOICE SIGNAL IS THEN DELIVERED TO THE SPEAKER THROUGH THE DRIVE CIRCUIT Q407.

4). TRANSMITTER

THE VOICE SIGNAL ENTERED FROM THE MICROPHONE IS AMPLIFIED BY Q406 AND FED TO THE COMPRESSOR WITHIN IC401 TO BE COMPRESSED ITS DYNAMIC RANGE. THE COMPRESSED VOICE SIGNAL IS APPLIED TO THE VARACTOR D402 FOR FREQUENCY MODULATION. THE 926MHz CARRIER IS PRODUCED BY PLL CIRCUIT CONSISTING OF TX VCO AND PLL IC IC402. THE MODULATED CARRIER IS AMPLIFIED BY Q402 AND TRANSMITTED INTO THE ANTENNA THROUGH THE DUPLEXER DUP401.

5). DIALING SIGNAL

WHEN THE "TALK" KEY IS PRESSED, THE TRANSMITTER CIRCUIT IS ACTIVATED. THEN THE "TALK-ON" DIGITAL DATA WITH ID CODE IS DELIVERED TO THE VARACTOR D402 FOR MODULATION. AFTER THAT THE DIGIT KEY DATA IS SENT TO THE BASE UNIT.

6). BATTERY SAVING OPERATION

THE RECEIVER CIRCUIT UNDER STAND BY MODE WORKS PERIODICALLY TO EXTEND BATTERY LIFE. CPU CONTROLS THE PERIODICAL DC POWER TO THE RECEIVER.

1.2. SYSTEM OPERATION

1). INCOMING CALL

WHEN INCOMING RING SIGNAL IS DETECTED BY RINGER DETECTOR, THE TRANSMITTER IS ACTIVATED, AND "RING" CODE IS SENT TO THE REMOTE UNIT ALONG WITH ID CODE FROM PIN 29 OF BASE CPU UNTIL THE RING SIGNAL STOPS.

WHEN "RING" CODE IS DEMODULATED IN THE REMOTE UNIT, THE REMOTE CPU WILL DECODE IT AND GENERATE RING TONE TO THE BUZZER THROUGH THE DRIVE CIRCUIT Q506.

2). OUTGOING CALL

WHEN "TALK" KEY ON THE REMOTE UNIT IS PRESSED, PIN 20 OF REMOTE CPU GOES "LOW", CAUSING TX B+ SWITCH Q504 TO TURN ON.
THEN THE TRANSMITTER IS ACTIVATED AND "TALK-ON" CODE IS SENT TO THE BASE UNIT ALONG WITH ID CODE GENERATED FROM PIN 29 OF CPU.

WHEN THE BASE CPU DECODES "TALK-ON" CODE AND THE REMOTE ID CODE COINCIDE WITH THE BASE ID CODE, PIN 4 OF THE BASE SUB CPU (IC105) GOES "HIGH". AND THEN THE TEL. LINE LOOP RELAY RLY101 IS ACTIVATED.

3). DIALING

THE DIAL SIGNAL IS SENT TO THE BASE UNIT ACCORDING TO THE PRESSED KEY.

UPON RECEIPT OF DIAL SIGNAL, THE BASE UNIT GENERATES EITHER PULSE DIAL SIGNAL OR DTMF TONE SIGNAL ACCORDING TO THE TEL. LINE MODE SELECT SWITCH SW101 POSITION.

UPON RECEIPT OF "*" SIGNAL AT PULSE MODE, THE BASE UNIT CHANGES DIAL MODE TO TONE MODE UNTIL THE LINE IS TERMINATED.

UPON RECEIPT OF "FLASH" SIGNAL, THE BASE UNIT OPENS THE TEL. LINE LOOP FOR A MOMENT.

UPON RECEIPT OF "REDIAL" SIGNAL, THE BASE UNIT OUTPUTS THE SAME DIAL DIGIT AS THE LAST DIAL, WHICH STORED IN BASE CPU MEMORY.

UPON RECEIPT OF "MEMORY" + "LOCATION NO." SIGNAL, THE BASE UNIT RECALL THE DIAL DIGITS WHICH STORED IN THE BASE CPU MEMORY AND OUTPUTS THEM TO THE TEL. LINE.

3. THE PROTECTION FROM UNINTENTIONAL ACCESS

AS EXPLAINED AT THE ITEM 1.2 4) DIGITAL SECURITY CODING OF THE CIRCUIT DESCRIPTION.
HE FF925 INCORPORATES THE 16-BITS DIGITAL SECURITY CODE. ACCESS TO THE TELEPHONE NETWORK OCCURS ONLY IF THE CODE TRANSMITTED BY THE HANDSET MATCHES CODE SET IN THE BASE UNIT. SIMILARLY, RINGING OF THE HANDSET OCCURS ONLY IF THE CODE TRANSMITTED BY THE BASE UNIT MATCHES THE CODE SET IN THE HANDSET.

4). DIGITAL SECURITY CODING

THE 16-BIT ID CODE IS USED IN THIS SYSTEM TO SECURE THE RF LINK. BASE UNIT PROGRAMS THIS ID CODE RANDOMLY. WHENEVER THE REMOTE UNIT IS PLACED IN THE BASE CRADLE, ID CODE EXCHANGE IS DONE BETWEEN THE BOTH UNITS, AND THEN THE SAME ID CODE IS RETAINED IN THE BOTH UNITS' RAM.

DEFAULT ID CODE IS SET IN THE REMOTE RAM WHEN THE REMOTE UNIT IS POWERED-UP FROM BELOW THE DATA RETENTION VOLTAGE, APX. 2V. UNDER THIS CONDITION, THE BOTH UNITS DO NOT LINK.

RANDOM ID CODE IS GENERATED IN THE BASE UNIT WHEN THE BASE UNIT IS POWERED-UP WITH DEFAULT ID CODE OR WHEN THE REMOTE UNIT IS PLACED IN THE BASE CRADLE.

1.2 Related Submittal(s) Grants

This is an Application for Certification of a cordless telephone system. Two transmitters are included in this Application. This specific report details the emission characteristics of each transmitter. The receivers are subject to the verification authorization process, in accordance with 15.101(b). A verification report has been prepared for the receiver sections of each device. The device is also subject to Part 68 Registration.

1.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (1992). All measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine worst case modes. For each scan, the procedure for maximizing emissions in Appendices D and E were followed. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC.

EXHIBIT 2
SYSTEM TEST CONFIGURATION

2.0 System Test Configuration

2.1 Justification

For emission testing, the equipment under test (EUT) was configured for testing in a typical fashion (as a customer would normally use it). During testing, all cables were manipulated to produce worst case emissions. The handset was powered by a fully charged battery.

For the measurements, the EUT is attached to a cardboard box and placed on the wooden turntable. If the base unit attaches to peripherals, they are connected and operational (as typical as possible). The handset is remotely located as far from the antenna and the base as possible to ensure full power transmission from the base. Else, the base is wired to transmit full power without modulation.

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

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater. All emissions greater than 20 dBμV/m are recorded.

Radiated emission measurement were performed from 30 MHz to tenth harmonics.

2.2 EUT Exercising Software

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

For emissions testing, the units were setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing.

2.3 Support Equipment List and Description

The FCC ID's for all equipment, plus descriptions of all cables used in the tested system (included inserted cards, which have grants) are:

HARDWARE:

The unit was operated standalone. An AC adapter (provided with the unit) was used to power the device. Its description is listed below.

(1) AC adapter with two meter unshielded power cord permanently affixed.

CABLES:

(1) Telecommunication cable with RJ11C connectors (1m, unshielded), terminated

OTHERS:

There are no special accessories necessary for compliance of this product.

2.4 Equipment Modification

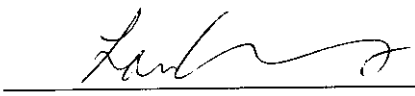
Any modifications installed previous to testing by Continental Conair Limited will be incorporated in each production model sold/leased in the United States.

No modifications were installed by ETL Division, Intertek Testing Services Hong Kong Ltd.

All the items listed under section 2.0 of this report are confirmed by:

Confirmed by:

C. K. Lam
Assistant Manager
Intertek Testing Services
Agent for Continental Conair Limited


Signature

March 31, 1998
Date

EXHIBIT 3
EMISSION RESULTS

3.0 **Emission Results**

Data is 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.

3.1 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF - AG

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

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:-

FS = RR + LF

where FS = Field Strength in dBμV/m
RR = RA - AG in dBμV
LF = CF + AF in dB

Assume a receiver reading of 52.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 52.0 dBμV/m
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
FS = RR + LF
FS = 23 + 9 = 32 dBμV/m

RR = 23.0 dBμV
LF = 9.0 dB

Level in μV/m = Common Antilogarithm [(32 dBμV/m)/20] = 39.8 μV/m

3.3 Radiated Emission Data - Base Unit

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Judgement : Passed by 1.9 dB

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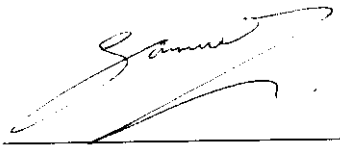
TEST PERSONNEL:



Tester Signature

H. Y. Vu, Engineer
Typed/Printed Name

April 16, 1998
Date

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX-Channel 1

Date of Test: March 14, 1998

Table 1, Base unit

Radiated Emissions

Polarity	Frequency (MHz)	Reading (dBμV)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dBμV/m)	Limit (dBμV/m)	Margin (dB)
V	905.250	68.4	32.0	16	84.4	94	-9.6
V	1804.501	53.6	26.5	34	46.1	54	-7.9
V	*2706.751	47.2	29.1	34	42.3	54	-11.7
H	*3609.000	45.8	32.8	34	44.6	54	-9.4
V	*4511.252	45.6	34.0	34	45.6	54	-8.4
H	*5413.501	41.5	35.2	34	42.7	54	-11.3
V	*6415.752	39.8	36.5	34	42.3	54	-11.7

NOTES: 1. Peak Detector data

2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.

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

4. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 15.205. The corresponding limit as per 15.209 is based on Quasi peak detector data for frequencies below 1000 MHz and average detector data for frequencies over 1000 MHz.

Test Engineer: H. Y. Vu

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX-Channel 20

Date of Test: March 14, 1998

Table 2, Base unit

Radiated Emissions

Polarity	Frequency (MHz)	Reading (dBμV)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dBμV/m)	Limit (dBμV/m)	Margin (dB)
V	903.737	68.4	32.0	16	84.4	94	-9.6
V	1807.476	54.3	26.5	34	46.8	54	-7.2
V	2112.130	48.5	29.1	34	43.6	54	-10.4
H	*3614.951	43.3	32.8	34	42.1	54	-11.9
V	*4518.689	46.3	34.0	34	46.3	54	-7.7
H	*5422.426	41.9	35.2	34	43.1	54	-10.9
V	*6326.165	39.5	36.5	34	42.0	54	-12.0

NOTES:
1. Peak Detector data
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 15.205. The corresponding limit as per 15.209 is based on Quasi peak detector data for frequencies below 1000 MHz and average detector data for frequencies over 1000 MHz.

Test Engineer: H. Y. Vu

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX-Channel 40

Date of Test: March 14, 1998

Table 3, Base unit

Radiated Emissions

Polarity	Frequency (MHz)	Reading (dBμV)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dBμV/m)	Limit (dBμV/m)	Margin (dB)
V	904.687	69.1	32.0	16	85.1	94	-8.9
V	1809.375	54.7	26.5	34	47.2	54	-6.8
V	*2714.063	46.2	29.1	34	41.3	54	-12.7
H	*3618.750	43.9	32.8	34	42.7	54	-11.3
V	*4523.437	46.3	34.0	34	46.3	54	-7.7
H	*5428.125	43.4	35.2	34	44.6	54	-9.4
V	*6332.813	41.2	36.5	34	43.7	54	-10.3

NOTES: 1. Peak Detector data

2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.

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

4. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 15.205. The corresponding limit as per 15.209 is based on Quasi peak detector data for frequencies below 1000 MHz and average detector data for frequencies over 1000 MHz.

Test Engineer: H. Y. Vu

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : Charging/Standby

Date of Test: March 14, 1998

Table 4, Base unit

Radiated Emissions

Polarity	Frequency (MHz)	Reading (dBμV)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dBμV/m)	Limit (dBμV/m)	Margin (dB)
V	914.625	27.1	33.0	16	44.1	46	-1.9
H	1829.251	46.9	26.5	34	39.4	54	-14.6
H	*2743.875	47.2	29.1	34	42.3	54	-11.7
H	*3658.502	40.9	32.8	34	39.7	54	-14.3

NOTES:
1. Peak Detector data
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 15.205. The corresponding limit as per 15.209 is based on Quasi peak detector data for frequencies below 1000 MHz and average detector data for frequencies over 1000 MHz.

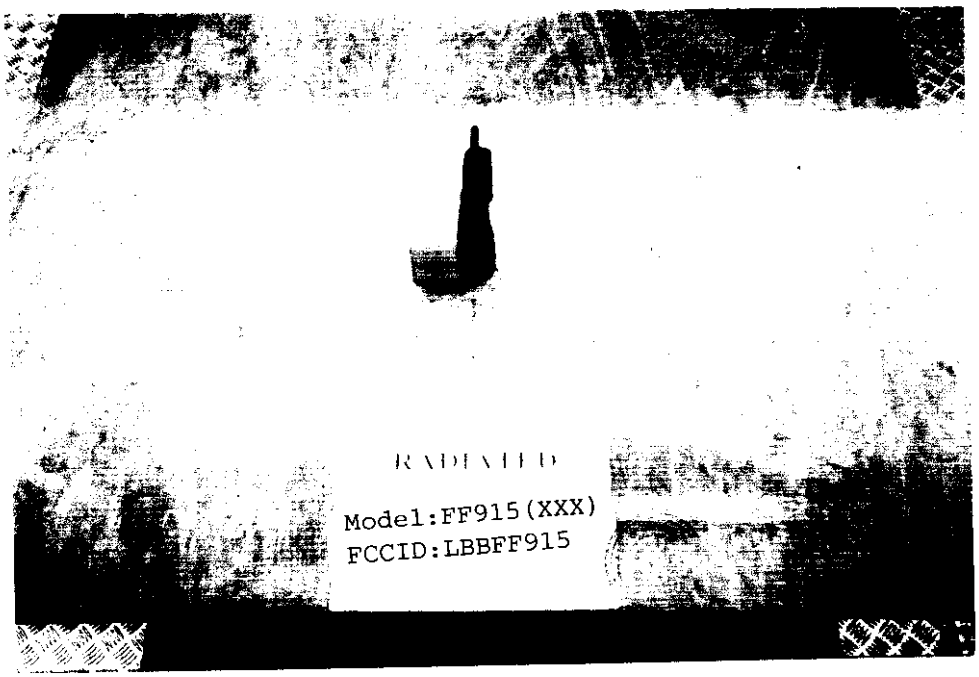
Test Engineer: H. Y. Vu

3.4 Radiated Emission Configuration Photograph - Handset

Worst Case Radiated Emission

Front View

at 925.312 MHz

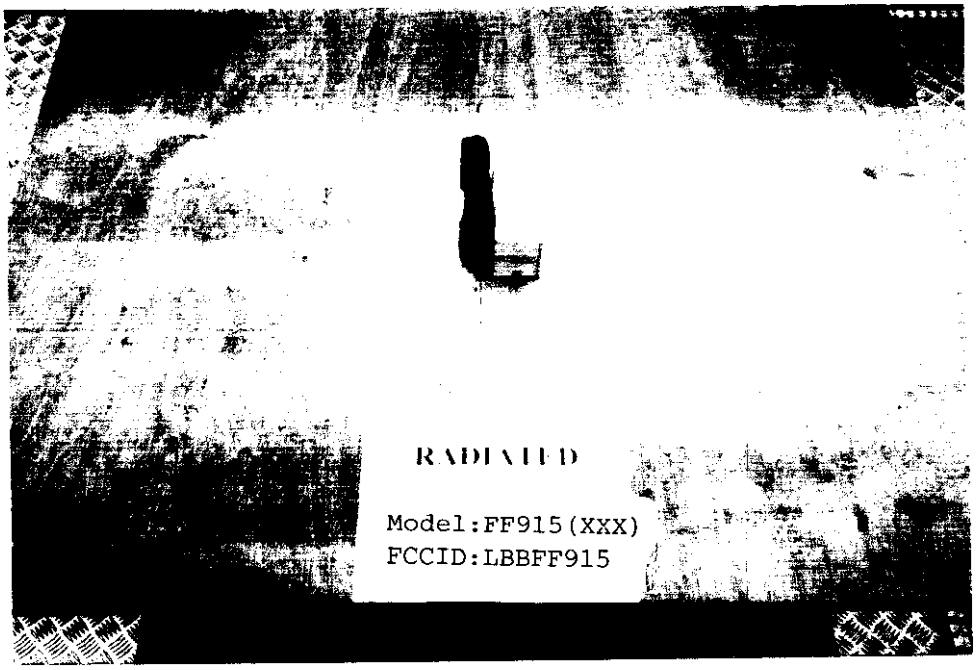


3.4 Radiated Emission Configuration Photograph (cont.) - Handset

Worst Case Radiated Emission

Rear View

at 925.312 MHz



3.5 Radiated Emission Data - Handset

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Judgement : Passed by 9.4 dB

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TEST PERSONNEL:

Tester Signature

H. Y. Vu, Engineer
Typed/Printed Name

April 16, 1998
Date

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX-Channel 1

Date of Test: March 14, 1998

Table 5, Handset

Radiated Emissions

Polarity	Frequency (MHz)	Reading (dBμV)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dBμV/m)	Limit (dBμV/m)	Margin (dB)
V	925.312	67.6	33.0	16	84.6	94	-9.4
H	1850.625	44.9	26.5	34	37.4	54	-16.6
H	*3775.938	39.7	32.8	34	38.5	54	-15.5
H	*4626.563	40.7	34.0	34	40.7	54	-13.3
H	*7402.507	38.8	37.0	34	41.8	54	-12.2

NOTES: 1. Peak Detector data

2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.

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

4. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 15.205. The corresponding limit as per 15.209 is based on Quasi peak detector data for frequencies below 1000 MHz and average detector data for frequencies over 1000 MHz.

Test Engineer: Test Engineer

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX-Channel 20

Date of Test: March 14, 1998

Table 6, Handset

Radiated Emissions

Polarity	Frequency (MHz)	Reading (dBμV)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dBμV/m)	Limit (dBμV/m)	Margin (dB)
V	926.500	66.5	33.0	16	83.5	94	-10.5
H	1853.002	45.4	26.5	34	37.9	54	-16.1
H	*2779.503	45.1	29.1	34	40.2	54	-13.8
H	*3706.005	41.0	32.8	34	39.8	54	-14.2
H	*4632.505	40.7	34.0	34	40.7	54	-13.3
H	*7412.008	39.3	37.0	34	42.3	54	-11.7

NOTES:
1. Peak Detector data
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 15.205. The corresponding limit as per 15.209 is based on Quasi peak detector data for frequencies below 1000 MHz and average detector data for frequencies over 1000 MHz.

Test Engineer: H. Y. Vu

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX-Channel 40

Date of Test: March 14, 1998

Table 7, Handset

Radiated Emissions

Polarity	Frequency (MHz)	Reading (dBμV)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dBμV/m)	Limit (dBμV/m)	Margin (dB)
V	927.750	67.2	33.0	16	84.2	94	-9.8
H	1855.505	44.2	26.5	34	36.7	54	-17.3
H	*2783.251	45.2	29.1	34	40.3	54	-13.7
H	*3711.000	36.8	32.8	34	35.6	54	-18.4
H	*4638.751	37.8	34.0	34	37.8	54	-16.2
H	*7422.001	39.7	37.0	34	42.7	54	-11.3

NOTES:
1. Peak Detector data
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna and average detector are used for the emission over 1000MHz.

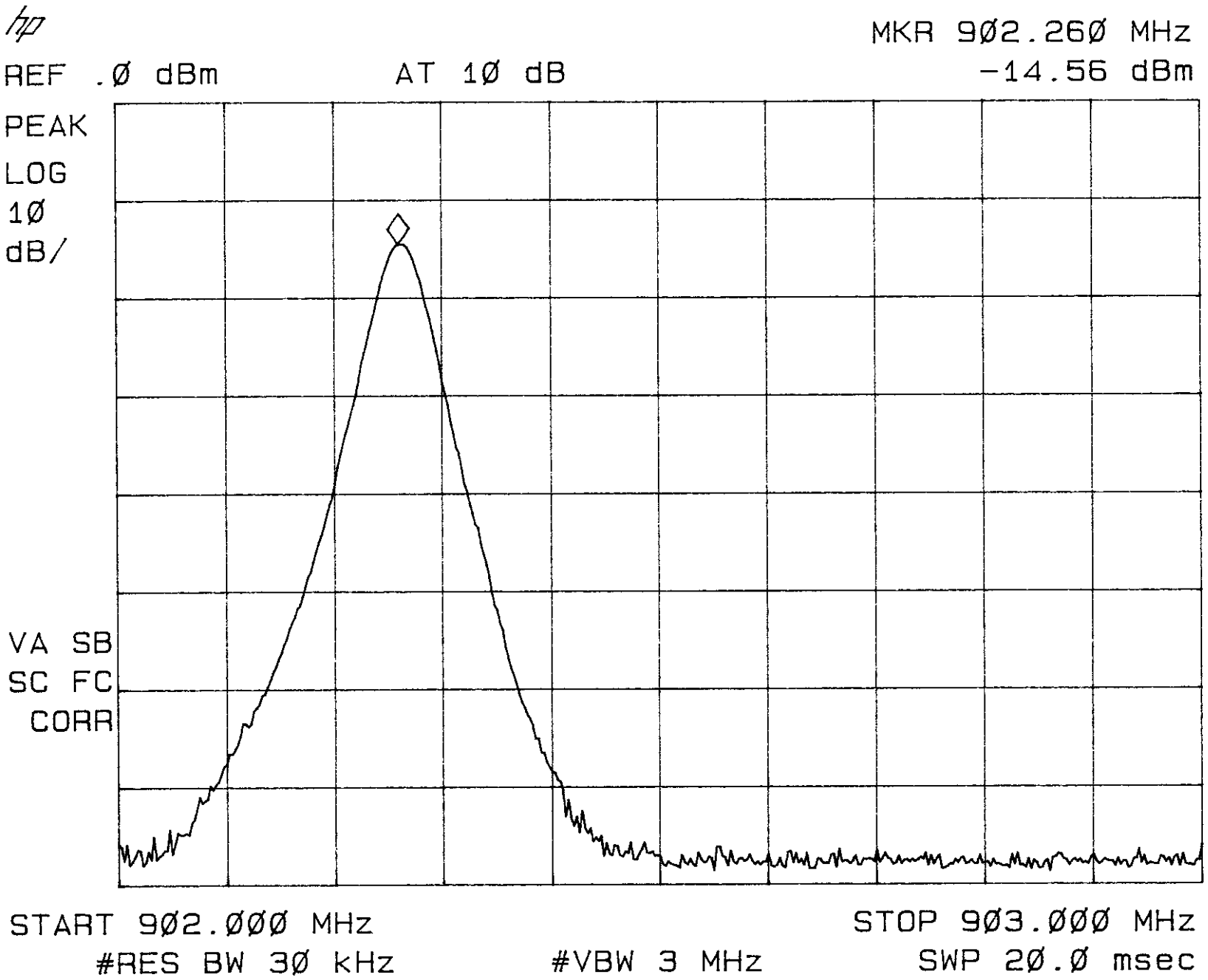
* Emission within the restricted band meets the requirement of part 15.205. The corresponding limit as per 15.209 is based on Quasi peak detector data for frequencies below 1000 MHz and average detector data for frequencies over 1000 MHz.

Test Engineer: H. Y. Vu

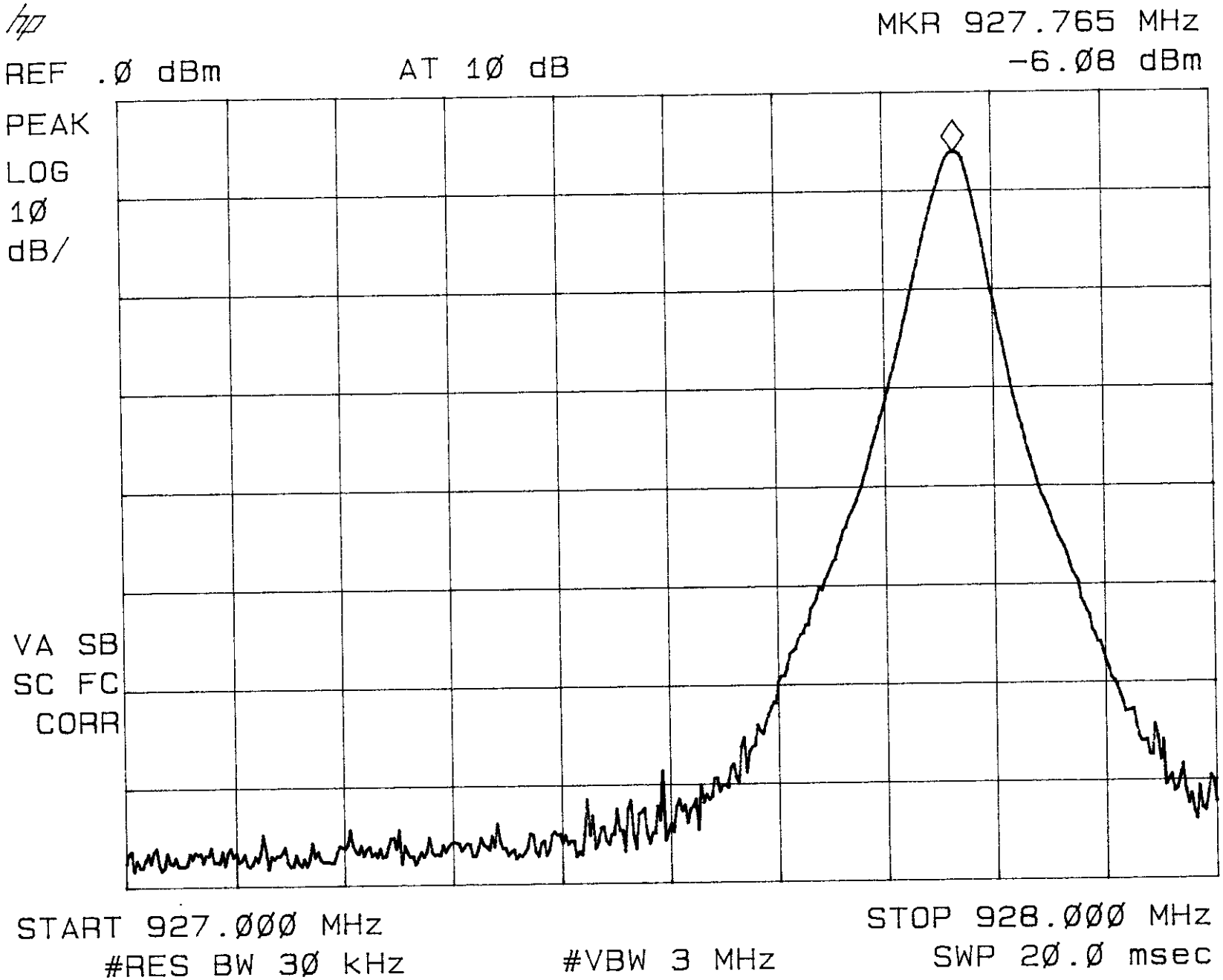
3.6 Radiated Emission on the bandedge

From the following plot, they show that the fundamental emissions are confined in the specified band. In addition, they show that the emissions are at least 60 dB below the carrier level at band edge (902 and 928 MHz). They meet the requirement of section 15.249(c).

Emission Plot -Base


MKR 902.260 MHz
REF .0 dBm
AT 10 dB
-14.56 dBm
PEAK
LOG
10
dB/
VA SB
SC FC
CORR
START 902.000 MHz
#RES BW 30 kHz
#VBW 3 MHz
STOP 903.000 MHz
SWP 20.0 msec

Emission Plot - Handset


hp
MKR 927.765 MHz
-6.Ø8 dBm
REF .Ø dBm
AT 1Ø dB
PEAK
LOG
1Ø
dB/
VA SB
SC FC
CORR
START 927.ØØØ MHz
#RES BW 3Ø kHz
#VBW 3 MHz
STOP 928.ØØØ MHz
SWP 2Ø.Ø msec

3.8 Line Conducted Emission Configuration Data

The data on the following pages list the significant emission frequencies, the limit, and the margin of compliance.

Judgement : Passed by more than 30 dB margin

* All readings are peak unless stated otherwise.

TEST PERSONNEL:

Tester Signature

H. Y. Vu, Engineer
Typed/Printed Name

April 16, 1998
Date

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX

Date of Test: March 14, 1998

Graph 1, Base Unit

Conducted Emissions

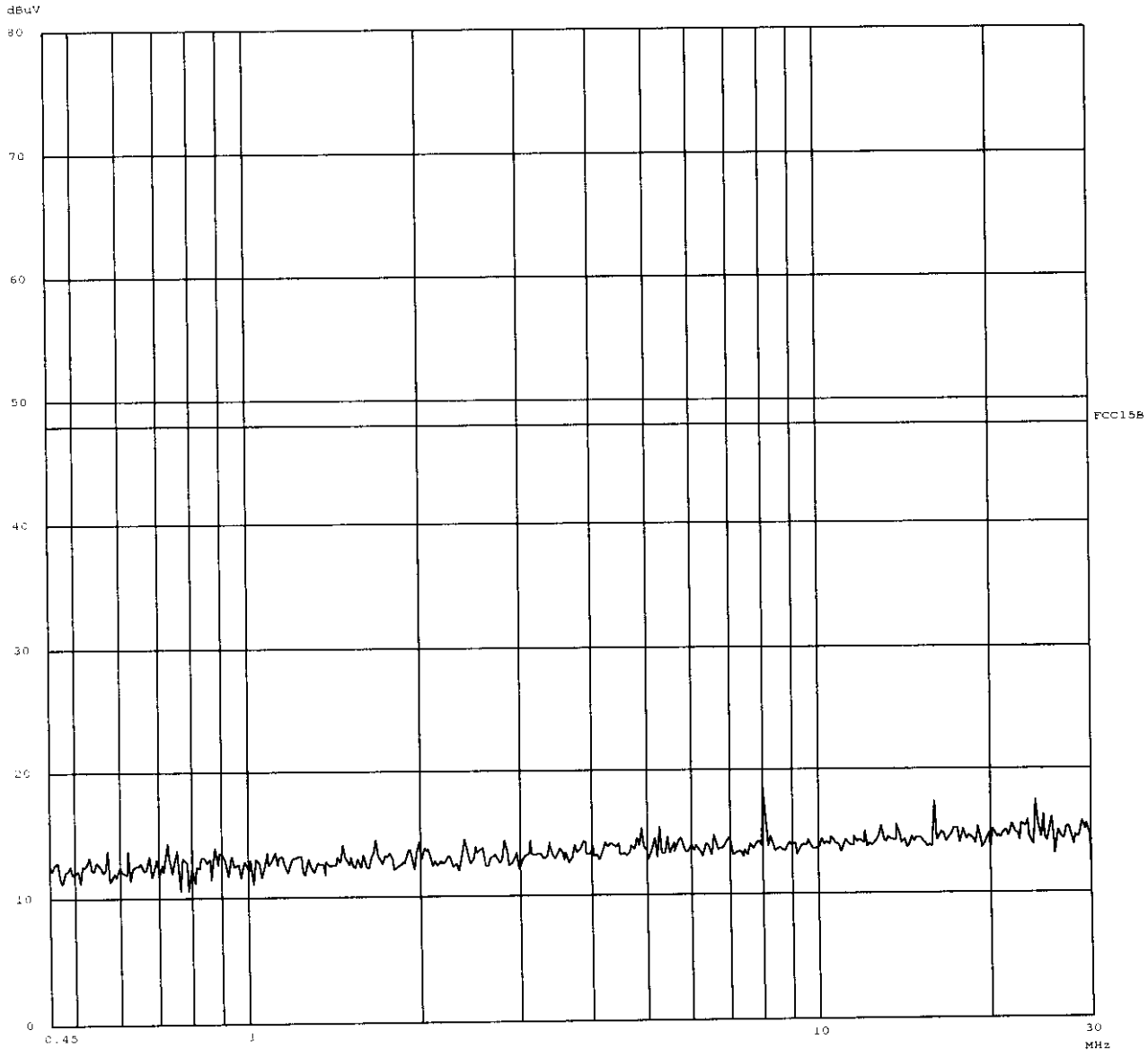
Report No.: 9800762
Transmission Mode

Tested By:Hong, Report No.:9800762
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Transducer No.	Start	Stop	Name
3	9k	30M	EI078

Final Measurement: x QP
Meas Time: 1 s
Subranges: 16
Acc Margin: 20dB



Ctrl. No.: N/A

FCC ID: LBBFF915

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : TX

Date of Test: March 14, 1998

Table 8, Base Unit

Conducted Emissions

Report No.: 9800762
Transmission Mode

Tested By:Hong, Report No.:9800762
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Final Measurement Results:

no Results

Ctrl. No.: N/A

FCC ID: LBBFF915

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : Charging

Date of Test: March 14, 1998

Graph 2, Base Unit

Conducted Emissions

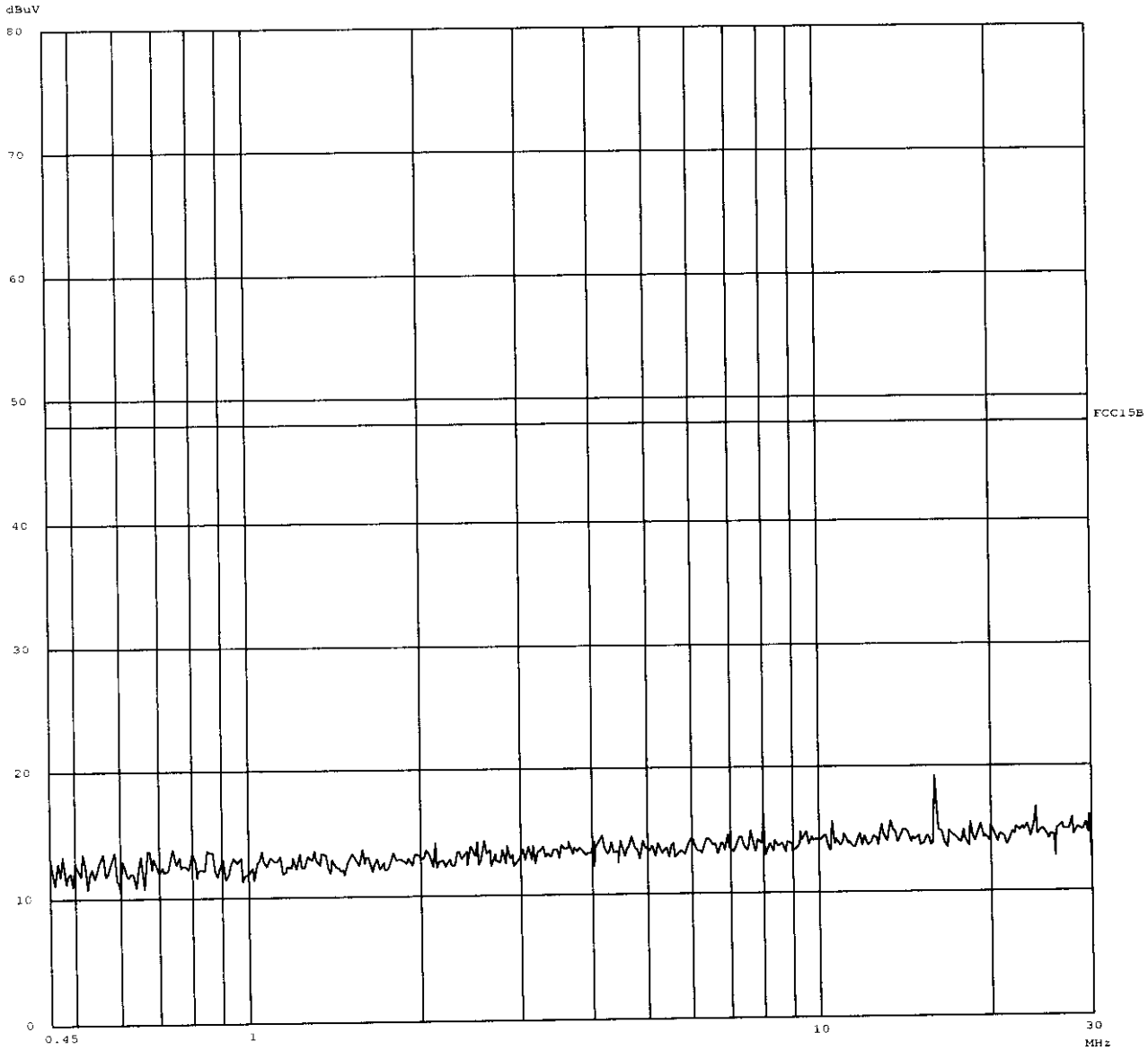
Report No.: 9800762
Charging Mode

Tested By:Hong, Report No.:9800762
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Transducer No.	Start	Stop	Name
3	9k	30M	EI078

Final Measurement: x QP
Meas Time: 1 s
Subranges: 16
Acc Margin: 20dB



Ctrl. No.: N/A

FCC ID: LBBFF915

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : Charging

Date of Test: March 14, 1998

Table 9, Base Unit

Conducted Emissions

Report No.: 98:0762
Charging Mode

Tested By:Hong, Report No.:9800762
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Final Measurement Results:

no Results

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : Stand by

Date of Test: March 14, 1998

Graph 3, Base Unit

Conducted Emissions

Intertek Testing Services
ETL Testing Laboratories

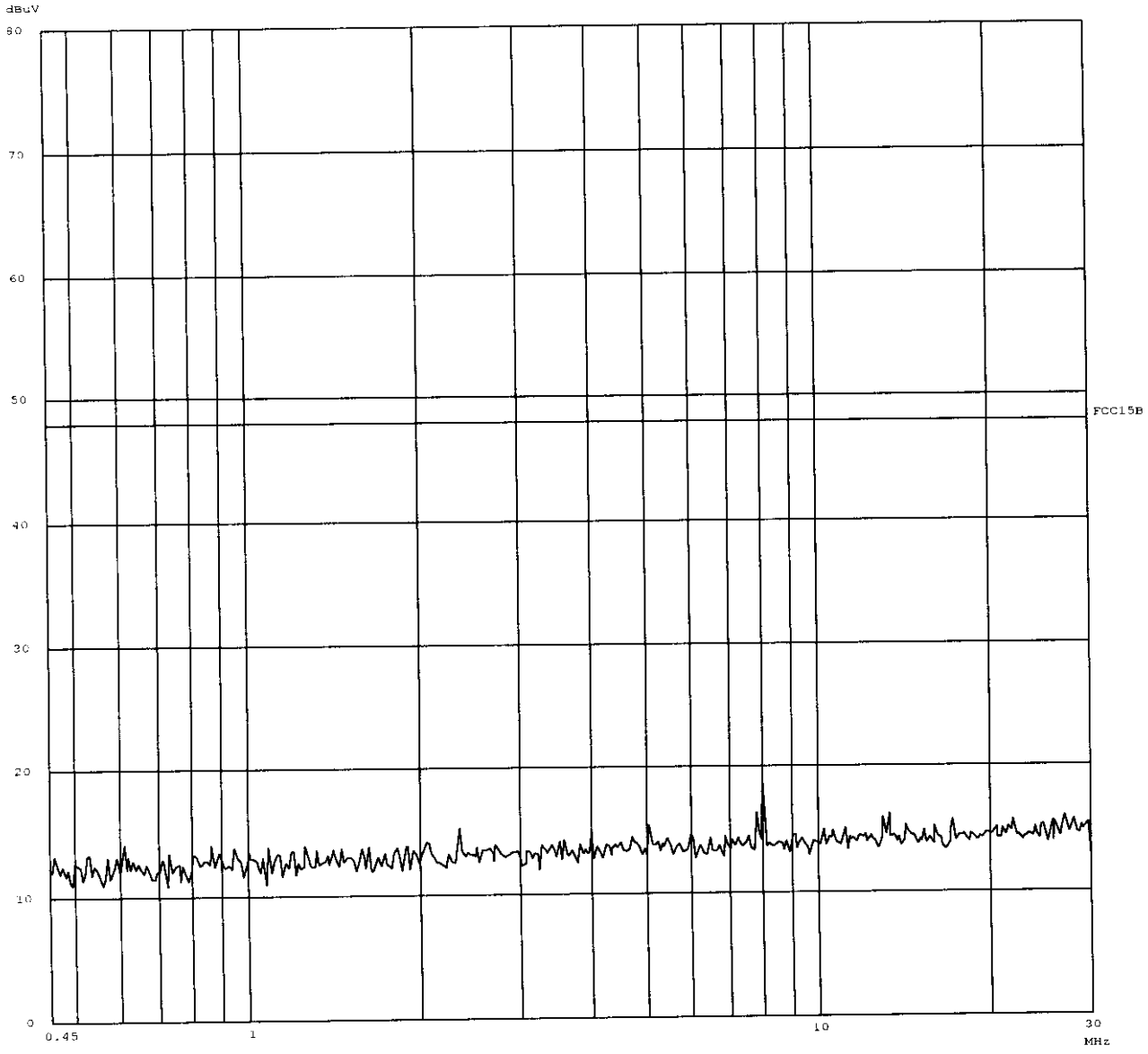
Report No.: 9800762
Standby Mode

Tested By:Hong, Report No.:9800762
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Transducer No.	Start	Stop	Name
3	9k	30M	EI078

Final Measurement: x QP
Meas Time: 1 s
Subranges: 16
Acc Margin: 20dB



Ctrl. No.: N/A

FCC ID: LBBFF915

Company: Continental Conair Limited
Model: FF915(XXX)
Mode : Stand by

Date of Test: March 14, 1998

Table 10, Base Unit

Conducted Emissions

Report No.: 9800762
Standby Mode

Tested By:Hong, Report No.:9800762
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Final Measurement Results:

no Results

Ctrl. No.: N/A

FCC ID: LBBFF915

EXHIBIT 4
EQUIPMENT PHOTOGRAPHS