

Federal Communication Commission Equipment Authorization Division, Application Processing Branch 7435 Oakland Mills Road Columbia, MD 21048

May 30, 2014

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Herewith we confirm that the transmitter emissions from the product:

FCC ID Number Trade Name/Model

KWCRF Roger Focus

is in compliance with the exposure limits for maximum permissible exposure specified in §1.1310, §1.1307(b)(1) and (2), §2.1093(c) of 47 C.F.R. and are categorically excluded from routine RF evaluation. Furthermore, according to section 4.3.1 of the FCC guidance for RF exposure evaluation of mobile and portable devices (KDB publication 447498 D01 General RF exposure guidance) standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or simulation, is not required when the corresponding SAR Exclusion Threshold condition is satisfied. The above mentioned product, which is subject to this Equipment Authorization Filing, is a portable device as defined in §2.1093(b) of 47 CFR, operates in the frequency range 2.402-2.481 GHz with maximum conducted output power 0.03 mW (conducted power measurement results are enclosed as excerpt from Report No: 13-M0-0447.10 issued by Montena EMC on April 21, 2014). Following the formula in section 4.3.1 (1) for the range 100 MHz to 6 GHz and using the most conservative separation distance of 5 mm we obtain a result of 0.01 which is lower than the 1-g SAR test exclusion threshold. Therefore, the above mentioned product qualifies for SAR test exclusion and in lieu of SAR report we are submitting this statement of justification and compliance.

Should you have further questions, please do not hesitate to contact us.

Sincerely,

Neviana Nikoloski

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Phone +41 26 672 96 72 Fax +41 26 672 35 11 Page 16 / 37 No.: 13-MO-0447.10

8.2 Effective radiated power (conducted)

Introduction: The effective radiated power is the power radiated by the antenna of an interrogator in

its direction of maximum gain under specified conditions of measurement.

For EUT's with integral antenna the variations of the conducted power under extreme conditions are measured and expressed relatively to the measurements of the radiated

measurement.

Test site: \square semi-anechoic chamber (foam) \square open test site

☐ semi-anechoic chamber (ferrites) ☑ laboratory

Meas. uncertainty: 9 kHz - 3 GHz: $\pm 1 \text{ dB}$

3 GHz - 6.7 GHz: ± 2.1 dB 6.7 GHz - 13.2 GHz: ± 2.6 dB 13.2 GHz - 19 GHz: ± 2.8 dB 19 GHz - 26.5 GHz: ± 3 dB

Test method: Measurement of the conducted power on the antenna connector or a test fixture.

Limit: 10 mW e.i.r.p. (Generic use, 2 400 MHz to 2 483,5 MHz band)

Test set-up:





Remarks: ---

Test equipment:

| Tool oquipinoni. | | | | | | | |
|-----------------------|----------------|----------------|----------------|----------------|---------|---------|---------|
| Spectrum analyser | □ 88-14 | ≥ 02-06 | □ 03-45 | □ 05-39 | □ 07-53 | □ 10-70 | |
| HF-wattmeter | □ 95-97 | □ 01-15 | □ 01-17 | □ 03-12 | □ 04-96 | □ 05-20 | □ 05-73 |
| Thermocouple detector | □ 92-03 | □ 05-74 | □ 05-88 | □ 07-03 | □ 09-03 | □ 09-04 | □ 10-27 |
| Diode detector | □ 99-26 | □ 99-27 | | | | | |
| Oscilloscope | □ 90-14 | □ 93-85 | □ 93-86 | □ 01-20 | □ 04-06 | □ 04-50 | □ 05-22 |
| Multimeter | ⋈ 08-17 | □ 90-38 | □ 92-25 | □ 94-51 | □ 95-93 | □ 02-03 | □ 03-22 |
| Power supply | □ 99-04 | ≥ 99-07 | □ 06-62 | | | | |
| Temperature chamber | ⋈ 06-66 | | | | | | |
| Temperature probe | □ 91-11 | □ 03-05 | □ 05-34 | ≥ 08-03 | | | |
| Frequency generator | □ 88-23 | □ 00-42 | □ 03-39 | □ 04-03 | □ 04-89 | □ 05-78 | □ 07-02 |
| Cables | □ 06-00 | □ 06-01 | ≥ 11-45 | | | | |

| | Result: | ⋈ pass | ☐ fail | □ not applicable | □ not tested |
|--|---------|---------------|--------|------------------|--------------|
|--|---------|---------------|--------|------------------|--------------|

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Results of the test

Client: Phonak Communications AG

Equipment: Roger Focus

Operating mode: Max. power, special communication test mode, modulated

 $T_{on} = 0.184 \text{ ms}; T = 5.00 \text{ ms}$

Cables connected: ---

Remarks: Referenced to the effective radiated power under normal conditions (see § 8.1)

Measured on temporary antenna connector with analyser

(Peak detector sweep, 1001 pts, RBW = VBW = 1 MHz, ST = 30 s).

External power supply on temporary battery connector.

| f [GHz] | Temp [°C] | U [VDC] | Peak cond. value [dBm] | | EIRP calculated Lim [dBm] [mW] [dBn | | Remarks | Pass Yes No | |
|------------|--------------|------------|------------------------------|--------|-------------------------------------|----|-----------------------------|----------------|--|
| 2.402 | 25 | 1.20 | -0.84 | -18.03 | 0.016 | 10 | EIRP value taken from § 8.1 | × | |
| | -11 | 1.00 | -0.01 | -17.19 | 0.019 | 10 | | × | |
| | -11 | 1.50 | 0.03 | -17.16 | 0.019 | 10 | | × | |
| | 60 | 1.00 | -1.77 | -18.96 | 0.013 | 10 | | × | |
| | | 1.50 | -1.78 | -18.97 | 0.013 | 10 | | × | |
| 2.440 | 25 | 1.20 | -0.65 | -15.53 | 0.028 | 10 | EIRP value taken from § 8.1 | × | |
| | -11 | 1.00 | 0.06 | -14.82 | 0.033 | 10 | | × | |
| | | 1.50 | 0.07 | -14.81 | 0.033 | 10 | | × | |
| | 60 | 1.00 | -1.76 | -16.64 | 0.022 | 10 | | × | |
| | | 1.50 | -1.76 | -16.64 | 0.022 | 10 | | × | |
| 2.480 | 25 | 1.20 | -0.99 | -18.17 | 0.015 | 10 | EIRP value taken from § 8.1 | × | |
| | -11 | 1.00 | -0.42 | -17.60 | 0.017 | 10 | | × | |
| | | 1.50 | -0.35 | -17.53 | 0.018 | 10 | | × | |
| | 60 | 1.00 | -2.22 | -19.40 | 0.011 | 10 | | × | |
| | | 1.50 | -2.16 | -19.34 | 0.012 | 10 | | × | |

Place and date of test: Operator: Rossens, April 9, 2014

B. Itzcovich