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SAR EXEMPTION REPORT

Manufacturer: Zehnder America
6 Merrill Industrial Drive, Suite 7
Hampton, New Hampshire 03842
United States of America

Applicant: Same as Above

Product Name: ZEHNDER COMFOAIR Q VENTILATION UNIT

Product Description: Heat recovery ventilation unit

Model(s): CAQ600 HRV*

**Denotes actual model tested as worst-case representative of product family that includes models CAQ350 HRV, CAQ350 ERV, ComfoAir Q350 SI TR, ComfoAir Q350 SI TR ERV; CAQ450 HRV, CAQ450 ERV, ComfoAir Q450 SI TR, ComfoAir Q450 SI TR ERV; CAQ600 HRV, CAQ600 ERV, ComfoAir Q600 SI ST, ComfoAir Q600 SI TR ERV.*

(CA=ComfoAir; SI=System International; ST=Straight Top; TR=Trapezoidal Top)

FCC ID: 2A8X810019160

Standard(s):

- KDB447498 D04 Interim General RF Exposure Guidance v01
- FCC Rule Part 1.1307(b)(3)(i)(a)



Report Constructed by:

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1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

1.2 Document History

Document Number	Description	Issue Date	Approved By
F2P27814A-C1-02E	First Issue	2023-10-25	K. Littell



2 SUMMARY OF RESULTS

	Standard(s)	Results
SAR Exemption	- KDB447498 D04 Interim General RF Exposure Guidance v01 - FCC Rule Part 1.1307(b)(3)(i)(a)	Complies

Modifications Made to the Equipment
None



3 ENGINEERING STATEMENT

This report has been prepared on behalf of Zehnder America, to provide documentation for the SAR Exemption herein. This equipment has been tested and found to comply with the SAR Exemption levels listed in FCC Rule Part 1.1307(b)(3)(i)(a).

(3) Determination of exemption.

(i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);”

The minimum distance from the antenna used inside of the ZEHNDER COMFOAIR Q VENTILATION UNIT, is 5mm. The maximum Field Strength of the transmitter was 86.4dB μ V/m at 3m which converts to -8.13 dBm, or 0.154mW, which is well below the exemption limit of 1mW.

$$P(\text{dBm}) = E(\text{dB}\mu\text{V}/\text{m}) + 20\text{LOG}(d) - G - 104.77$$
$$86.4 + 9.542425 + 0.7 - 104.77 = -8.13$$

$$P(\text{dBm}) = -8.13 \text{ which is } 0.154\text{mW}$$



4 EUT INFORMATION AND DATA

4.1 Equipment Under Test:

Product: **ZEHNDER COMFOAIR Q VENTILATION UNIT**
Model(s): **CAQ600 HRV***

**Denotes actual model tested as worst-case representative of product family that includes models CAQ350 HRV, CAQ350 ERV, ComfoAir Q350 SI TR, ComfoAir Q350 SI TR ERV; CAQ450 HRV, CAQ450 ERV, ComfoAir Q450 SI TR, ComfoAir Q450 SI TR ERV; CAQ600 HRV, CAQ600 ERV, ComfoAir Q600 SI ST, ComfoAir Q600 SI TR ERV.*

(CA=ComfoAir; SI=System International; ST=Straight Top; TR=Trapezoidal Top)

Serial No.: 1207004653
Firmware: RFModuleUS_US_fcc_v0.03.hex
Hardware: V0.1
FCC ID: 2A8X810019160
Wireless Device: Systec 925 MHz Radio, Model RF PCB CAQ, s/n W5505IASC120

Radiated spurious emissions measurements performed on model CAQ350 HRV, s/n 1207005536 and model CAQ450 HRV, s/n 004056772504.

4.2 Trade Name:
Zehnder America

4.3 Power Supply:
220V/60 Hz

4.4 Applicable Rules:
KDB447498

4.5 Antenna:
WE-MCA Multilayer Chip Antenna Peak -0.7dBi gain

4.6 Accessories: None

4.7 Cables:

Cable Function	Length	Shielded (Yes/No)
AC Mains	>3m	No