Certification Exhibit

FCC ID: SAK40020000

FCC Rule Part: 15.247

TÜV SÜD Project Number: 16-2053

Manufacturer: Walter Kidde Portable Equipment Inc.
Model: 40020000

RF Exposure

General Information:

Applicant: Walter Kidde Portable Equipment, Inc.
Device Category: Mobile
Environment: General Population/Uncontrolled Exposure

The 40020000 is collocated and transmits simultaneously with the VPR9XYLND radio FCC ID: 2AB7YVPR9XYLN.

Technical Information:

Table 1: Technical Information

	Device 1 Details (Walter Kidde Portable Equipment, Inc., WLAN, 4002000, FCC ID: SAK40020000)	***Device 2 Details (Viper Design, LLC, 900 MHz ISM, VPR9XYLND, FCC ID: 2AB7YVPR9XYLN)***
Frequency Band(s) (MHz)	2412 - 2462	915.3 - 927.3 MHz
Antenna Type(s)	PCB Flex Antenna	Wire Antenna
Antenna Gain (dBi)	3.0	2.2
Conducted Power (dBm)	23.14	-1.85
Conducted Power (mW)	206.06	0.65
Maximum Peak EIRP (mW)	411.15	1.08
Maximum Peak ERP (mW)	250.61	0.66

MPE Calculation:

The Power Density (mW/cm^2) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW)
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Table 2: MPE Calculation (Including Collocated Devices)

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm^2)	Radio
2412	23.14	1.00	206.06	3.0	1.995	20	0.082	A
915.2	-1.85	0.61	0.65	2.2	1.660	20	0.000	B

Note: Where applicable, the highest antenna gain/RF output power is used to represent the overall worst configuration.

Summation of MPE ratios – Simultaneous Transmissions

This device contains multiple transmitters which can operate simultaneously; therefore, the maximum RF exposure is determined by the summation of MPE ratios. The limit is such that the summation of MPE ratios is ≤ 1.0.

Table 3: Summation of MPE Ratios

	Scenario
Radio A	x
Radio B	x
Radio A MPE Ratio	0.081795638
Radio B MPE Ratio	0.000353432
MPE Ratio Summation:	0.08214907