# LugTrack, LLC.

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**Date: January 19, 2018** 

# **Product Equality Declaration**

We, LugTrack, LLC., declare on our sole responsibility for the differences between initially

FCC-certified product:

FCC ID: 2AFPZ-TGL001

**BRAND NAME: TUMI** 

MODEL NAME: 014341D

MARKETING NAME: TUMI Global Locator

and the current product:

FCC ID: 2AFPZ-TGL001

BRAND NAME: "TUMI" or "SAMSONITE" or "MONTBLANC"

MODEL NAME: "014341D" or "110548-1090" or "110574-1090" or "110620-1090" or

"LTCS1"

MARKETING NAME: "TUMI Global Locator" or "Samsonite Track&Go"

which are listed as below:

1. Change of RAM

Description:

Original component defined and used on the first risk batch production as during certification, namely, ELPIDA with p.n. B4432BAPA-8D-F had to be substituted by the market equivalent comeponent by LEAHKINN with p.n KPN005DS-ZHw1.

The LEAHKINN product is equivalent in terms of layout, performance and electrical specs:

512Mb LP-DDR2

Density: 4G bits

Organization 16M words  $\times$  32 bits  $\times$  8 banks

Package: 168-ball FBGA

Package size:  $12.0 \text{mm} \times 12.0 \text{mm}$ 

Power supply: VDD1 = 1.70V to 1.95V

#### Cause:

ELPID Memory failure and relative obsolescence and lack of availability of their market led to the selection of a pin to pin compatible solution which was found in the LEAHKINN RAM. The new component has been tested internally and as there has not been any PCBA rerouting, no Software adaptation/modification, seen the exact "characteristics" of both components, we can declare the component has no impact in the overall device RF or power management nor electrical safety.

### 2. Change of ROM

Description:

Longsys FORESEE eMMC NCEFES88-04G eMMC ROM has been substituted with the equivalent component FORESEE NCEMAD7B-08G provided by the same Manufacturer but with upgraded storage capacity from 4GB to 8GB.

#### Cause:

Shenzhen based Longsys Technology has stopped producing the 04GB eMMC ROM components FORESEE NCEFES86-04G and actually the 4GB eMMC chips in general as the market is requiring a higher minimum storage standard, which is now 8 GB. To be able to produce our device we had to adapt to market decisions and switch to the upgraded version of the same vendor.

The component does not have any difference in the logic, layout nor electrical characteristics. The substitution did not impact the PCBA layout nor the SW hence non impact in the overall RF and power management.

### 3. Change of RF amplifier:

SKY77592 is a transmit and receive Front End Module (FEM) that has the same function and electrical parameters characteristics of the VANCHIP VC7590-21.

Cause:

Limited availability during supply management

## 4. Visual change of USB daughter board:

slight visual difference and removal of a not used IC.

Cause:

industrialization of a sample used for certification purposes only, gerber files prove the routing is exactly the same.

## 5. WIFI and main RF antenna change.

Description:

Copper trace modification.

Cause:

the antenna was changed to adapt to 3GPP / ATT&T standard of TRP and TIS, the copper traces are sligthly different in shape but the values are inside the parameters as confirmed by the result testing from PTCRB OTA.

Except for those mentioned above, the remaining parts are identical. Should you have any questions or comments regarding this matter, please have my best attention.

Sincerely yours,

Davide Fattor

Project Manager

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