

## **Product Equality Declaration**

Date: February 25, 2020

We, HMD Global Oy declare on our sole responsibility for the product of TA-1234, TA-1229, the detail differences as below:

## 1. Frequency band difference

| Frequency ba | nd difference                    |                                  |
|--------------|----------------------------------|----------------------------------|
| SKU          | SKU1 DS                          | SKU2 SS                          |
| Model        | TA-1234                          | TA-1229                          |
| SIM slot     | Double SIM                       | Single SIM                       |
| GSM 850      | 824 - 849 MHz, 869 - 894 MHz     | 824 - 849 MHz, 869 - 894 MHz     |
| GSM 900      | 880 - 915 MHz, 925 - 960 MHz     | 880 - 915 MHz, 925 - 960 MHz     |
| GSM 1800     | 1710 - 1785 MHz, 1805 - 1880 MHz | 1710 - 1785 MHz, 1805 - 1880 MHz |
| GSM 1900     | 1850 - 1910 MHz, 1930 - 1990 MHz | 1850 - 1910 MHz, 1930 - 1990 MHz |
| WCDMA 1      | 1920 – 1980 MHz, 2110 – 2170 MHz | 1920 – 1980 MHz, 2110 – 2170 MHz |
| WCDMA 2      | 1850 – 1910 MHz, 1930 – 1990 MHz | 1850 – 1910 MHz, 1930 – 1990 MHz |
| WCDMA 4      | /                                | 1710 – 1755 MHz, 2110 – 2155 MHz |
| WCDMA 5      | 824 - 849 MHz, 869 - 894 MHz     | 824 - 849 MHz, 869 - 894 MHz     |
| WCDMA 8      | 880 - 915 MHz, 925 - 960 MHz     | 880 - 915 MHz, 925 - 960 MHz     |
| LTE 1        | 1920 – 1980 MHz, 2110 – 2170 MHz | 1920 – 1980 MHz, 2110 – 2170 MHz |
| LTE 2        | /                                | 1850 – 1910 MHz, 1930 – 1990 MHz |
| LTE 3        | 1710 – 1785 MHz, 1805 – 1880 MHz | 1710 – 1785 MHz, 1805 – 1880 MHz |
| LTE 4        | /                                | 1710 – 1755 MHz, 2110 – 2155 MHz |
| LTE 5        | 824 - 849 MHz, 869 - 894 MHz     | 824 - 849 MHz, 869 - 894 MHz     |
| LTE 7        | 2500 - 2570 MHz, 2620 – 2690 MHz | 2500 - 2570 MHz, 2620 – 2690 MHz |
| LTE 8        | 880 - 915 MHz, 925 - 960 MHz     | 880 - 915 MHz, 925 - 960 MHz     |
| LTE 12       | /                                | 699 – 716 MHz, 729 – 746 MHz     |
| LTE 17       | /                                | 704 – 716 MHz, 734 – 746 MHz     |
| LTE 13       | /                                | 777– 787 MHz, 746 – 756 MHz      |
| LTE 20       | 832 – 862 MHz, 791 – 821 MHz     | /                                |
| LTE 28       | 703 – 748 MHz, 758 – 803 MHz     | 703 – 748 MHz, 758 – 803 MHz     |
| LTE 38       | 2570 – 2620 MHz                  | 2570 – 2620 MHz                  |
| LTE 40       | 2300 – 2400 MHz                  | <u>/</u>                         |
| LTE 41       | 2535 – 2655 MHz                  | <u>/</u>                         |
| LTE 66       | I                                | 1710 – 1780 MHz, 2110–2180       |
| LTE 38       | Z                                |                                  |
| WLAN         | 2.4G/5G                          | 2.4G/5G                          |
| Bluetooth    | 2402-2480 MHz                    | 2402-2480 MHz                    |

NFC 13.56 MHZ 13.56 MHZ

## 2. Board difference

| SKU                     |                     | SKU1 DS  | SKU2 SS              |  |
|-------------------------|---------------------|--|----------------------|--|
| N                       | 1odel               | TA-1234  | TA-1229              |  |
| WWAN                    | IC                  | SM-6125  |                      |  |
|                         | Component<br>on PCB | See part 3: Band circuit difference for details. |                      |  |
|                         | Antenna             | Same   | Same across all SKUs |  |
| ВТ                      | IC                  | WCN3950  |                      |  |
|                         | Component on PCB    | Same across all SKUs                             |                      |  |
|                         | Antenna             | Same across all SKUs                             |                      |  |
| WLAN<br>2.4GHz/5G<br>Hz | IC                  | WCN3950  |                      |  |
|                         | Component<br>on PCB | Same across all SKUs                             |                      |  |
|                         | Antenna             | Same across all SKUs                             |                      |  |

## 3. Band circuit difference

| SKU                   | SKU1 DS     | SKU2 SS   |  |
|-----------------------|-------------|---|--|
| Model                 | TA-1234     | TA-1229   |  |
| B1 Duplexer(1814)     | Same across | Same across                                       |  |
| B2 Duplexer(1814)     |             | Use Duplexer SAYEY1G88BA0B0A for GSM900 and band2 |  |
| B3 Duplexer(1814)     | Same across | Same across                                       |  |
| B4 Duplexer(1814)     | Same across | Same across                                       |  |
| B5 Duplexer(1814)     | Same across | Same across                                       |  |
| B7 Duplexer(1814)     | Same across | Same across                                       |  |
| B8 Duplexer(1814)     | Same across | Same across                                       |  |
| B12/17 Duplexer(1814) | Same across | Same across                                       |  |
| B20 Duplexer(1814)    | Same across | Same across                                       |  |
| B28A Duplexer(1814)   | Same across | Same across                                       |  |
| B28B Duplexer(1814)   | Same across | Same across                                       |  |
| B40 TRX_SAW           | Same across | Same across                                       |  |
| B40 DRX SAW           | Same across | Same across                                       |  |
| B38/41 TRX SAW        | Same across | Same across                                       |  |
| B38/41 DRX SAW        | Same across | Same across                                       |  |
| B1&3 DRx SAW          | Same across | Same across                                       |  |
| B2 DRx SAW            | Same across | Same across                                       |  |
| B5 DRx SAW            | Same across | Same across                                       |  |
| B7 DRx SAW            | Same across | Same across                                       |  |
| B8 DRX SAW            | Same across | Same across                                       |  |

| B20 DRX SAW | Same across | Same across |  |
|-------------|-------------|-------------|--|
| B28 DRX SAW | Same across | Same across |  |

- 4. HW section
- RF trace: same across SKUs.
- PCB layout: same across SKUs.
- PCBA: for any DS/SS models under the same SKU the same PCBA will be used. For example, SKU1 DS/SS will share the same PCBA and the only difference is that SS model will have only one SIM slot. PCBA of each SKU is unique because the RF components will differ from SKU to SKU.
- WLAN/BT/GPS/Diversity antenna type, antenna pattern, antenna location, antenna matching value and chipset: Same across all SKUs

Except listings above, the others are all the same.

Should you have any questions or comments regarding this matter, please have my best attentions.

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