



# Spot Check Evaluation

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## **1. Introduction Section**

The original model (FCC ID: IHDT56XP1) and the variant model (FCC ID: IHDT56XP2) has identical PCB layout, antenna, SW implementation for GSM/WCDMA/LTE. Based on their similarity, the FCC Part 22, 24, 27 (equipment class: PCS) test data issued test data of IHDT56XP2 references the test data of IHDT56XP1.

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID (FCC ID: IHDT56XP2).



## 2. Difference Section

The original model (FCC ID: IHDT56XP1) and the variant model (FCC ID: IHDT56XP2) has identical PCB layout, antenna, SW implementation for GSM/WCDMA/LTE. Based on their similarity, the FCC Part 22, 24, 27 (equipment class: PCS) test data issued test data of IHDT56XP2 references the test data of IHDT56XP1

Cellular transmitter RF components are different in IHDT56XP2, to support capability for different cellular bands.

The product specification is outlined in the following table:

| FCC ID        |   |                                   | IHDT56XP1  | IHDT56XP2         |
|---------------|---|-----------------------------------|--|-------------------|
| Wireless Tech | Mode                                    |                                   | Frequency (MHz)  |                   |
| GSM           | GSM Voice<br>GPRS (GMSK)<br>EDGE (8PSK) | Multi-Slot<br>Class 12<br>DTM: No | 850/1900   | 850/1900          |
| UMTS          | AMR/RCM12.2Kbps<br>HSDPA/HSUPA/DC-HSDPA |                                   | B5/B4/B2   | B5/B4/B2          |
| CDMA2000      | QPSK<br>8PSK                            |                                   | BC0/BC1/BC10   | N/A               |
| LTE (FDD)     | QPSK<br>16QAM                           |                                   | B2/4/5/7/12/13/17/25/26/38/<br>41/66                                   | B2/4/5/7/12/17/66 |
| Wi-Fi         | 11b/11g/11n(HT20)                       |                                   | 2412-2462  |                   |
|               | 11a/11n(HT20)/11n(HT40)                 |                                   | 5180-5240<br>5260-5320<br>5500-5700<br>5745-5825<br>*5600-5650 notched |                   |
| Bluetooth     | V4.2 LE                                 |                                   | 2402-2480 MHz  |                   |



### 3. Spot Check Verification Data Section

Summary of the spot check:

| Test Item                     | Mode                   | IHDT56XP1 Worst Result             | IHDT56XP2 Worst Result             | Difference (dB) |
|-------------------------------|------------------------|------------------------------------|------------------------------------|-----------------|
| Average Conducted Power (dBm) | GSM 850                | 33.33                              | 33.20                              | 0.13            |
|                               | EDGE 850               | 26.83                              | 26.93                              | -0.1            |
|                               | GSM 1900               | 29.80                              | 29.82                              | -0.02           |
|                               | EDGE 1900              | 25.92                              | 25.90                              | 0.02            |
|                               | UMTS B2 (RMC 12.2Kbps) | 23.10                              | 23.16                              | -0.06           |
|                               | UMTS B4 (RMC 12.2Kbps) | 23.15                              | 22.91                              | 0.24            |
|                               | UMTS B5 (RMC 12.2Kbps) | 23.26                              | 23.45                              | -0.19           |
|                               | LTE B2 (FDD - QPSK)    | 22.46                              | 23.10                              | -0.64           |
|                               | LTE B4 (FDD - QPSK)    | 22.95                              | 23.30                              | -0.35           |
|                               | LTE B5 (FDD - QPSK)    | 23.19                              | 23.40                              | -0.21           |
|                               | LTE B7 (FDD - QPSK)    | 23.14                              | 23.42                              | -0.28           |
|                               | LTE B12 (FDD - QPSK)   | 23.32                              | 23.42                              | -0.1            |
|                               | LTE B17 (FDD - QPSK)   | 23.20                              | 23.32                              | -0.12           |
|                               | LTE 66 (FDD - QPSK)    | 22.92                              | 23.09                              | -0.17           |
|                               | IMEI of test sample    | 355569090014734<br>355569090014213 | 355570090015416<br>355570090015424 |                 |
| Test date                     | 2018/09/21~2018/10/06  | 2018/09/28                         |                                    |                 |

**Conclusion:**

Radiated spurious emission test against the variant model for non-cellular part based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result (power levels measured are within 1dB, and are compliance with the limits), the test data from the original model is representative for the variant model.



## 4. Reference detail Section

| Rule Part     | Equipment Class | Wireless Technology | Band                      | Reference FCC ID | Type Grant/Permissive Change | Reference Report Title | Reference Application | Reference Report Sections |
|---------------|-----------------|---------------------|---------------------------|------------------|------------------------------|------------------------|-----------------------|---------------------------|
| Part 22.24.27 | PCS             | GSM/WCDMA           | GSM 850/1900 WCDMA B2/4/5 | IHDT56XP1        | Original Grant               | FCC RF Test Report     | IHDT56XP2             | Part 22.24.27 (FG890804A) |
|               |                 | LTE                 | B2/4/5/7/12/17/66         | IHDT56XP1        | Original Grant               | FCC RF Test Report     | IHDT56XP2             | Part 22.24.27 (FG890804C) |

End of this report