

**FCC - TEST REPORT**

Report Number : **60.792.19.005.01E01** Date of Issue : July 9, 2019

Model : HG05124A-US-RX, HG05124B-US-RX

Product Type : WIRELESS WEATHER STATION

Applicant : Lidl US, LLC

Address : 3500 S Clark Street, ARLINGTON VA 22202

Production Facility : PUTIAN DIOR INDUSTRIAL CO., LTD.

Address : Linan Industrial Area, Xianyou County, Putian, Fujian, China

Test Result : ☒ **Positive** ☐ **Negative**

Total pages  
including  
Appendices : 15

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
Building 12&13, Zhiheng Wisdomland Business Park,  
Nantou Checkpoint Road 2, Nanshan District,  
518052 Shenzhen, CHINA  
FCC Registration Number :514049

Telephone: 86 755 8828 6998

Fax: 86 755 8828 5299

### 3 Description of the Equipment Under Test

#### Description of the Equipment Under Test

Product: WIRELESS WEATHER STATION

Model no.: HG05124A-US-RX, HG05124B-US-RX

FCC ID: 2AJ9O-HG05124RX

Rating  
1. Adapter power source:100-240V AC 50/60Hz input, 5V DC, 500mA output  
2. Battery power source:3V DC (2 x 1.5V AA battery)

Remark: 433.92MHz (Rx)

#### Auxiliary Equipment Used during Test:

| DESCRIPTION | MANUFACTURER | MODEL NO.(SHIELD) | S/N(LENGTH) |
|-------------|--------------|-------------------|-------------|
| --          | --           | --                | --          |

## 4 Summary of Test Standards

| Test Standards                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| FCC Part 15 Subpart B 10-1-18 Edition<br>Federal Communications Commission, PART 15 — Radio Frequency Devices,<br>Subpart B — Unintentional Radiators |

All the tests were performed using the procedures from ANSI C63.4(2014).

## 5 Summary of Test Results

| Emission Tests                                              |       |                                     |                          |                          |
|-------------------------------------------------------------|-------|-------------------------------------|--------------------------|--------------------------|
| FCC Part 15 Subpart B                                       |       |                                     |                          |                          |
| Test Condition                                              | Pages | Test Result                         |                          |                          |
|                                                             |       | Pass                                | Fail                     | N/A                      |
| FCC Title 47 Part 15.109<br>Radiated Emission 30MHz-1000MHz | 8-11  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| FCC Title 47 Part 15.107<br>Conduct Emission 150kHz-30MHz   | 12-13 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| System Measurement Uncertainty                                      |                                          |
|---------------------------------------------------------------------|------------------------------------------|
| Items                                                               | Extended Uncertainty                     |
| Uncertainty for Radiated Emission in 3m chamber<br>30MHz-1000MHz    | Horizontal: 4.91dB;<br>Vertical: 4.89dB; |
| Uncertainty for Conducted Emission at AC Power Line<br>150kHz-30MHz | 3.21dB                                   |

## 6 General Remarks

### Remarks

Client informs that the **HG05124B-US-RX** have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction with **WIRELESS WEATHER STATION, HG05124A-US-RX**. The difference lies only on the different color of the different models. (Client's conformation letter shown at appendix A)

EMC Tests were performed on model: **HG05124A-US-RX**.

This submittal(s) (test report) is intended for **FCC ID: 2AJ90-HG05124RX**, complies with Section 15.107, 15.109 of the FCC Part 15, Subpart B rules.

### SUMMARY:

- All tests according to the regulations cited on page 6 were

■ - Performed

□ - **Not** Performed

- The Equipment Under Test

■ - **Fulfills** the general approval requirements.

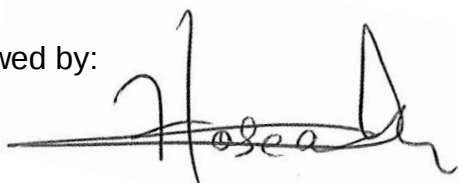
□ - **Does not** fulfill the general approval requirements.

Sample Received Date: May 29, 2019

Testing Start Date: June 6, 2019

Testing End Date: June 19, 2019

Reviewed by:



Hosea CHAN  
EMC Project Engineer

Prepared by:



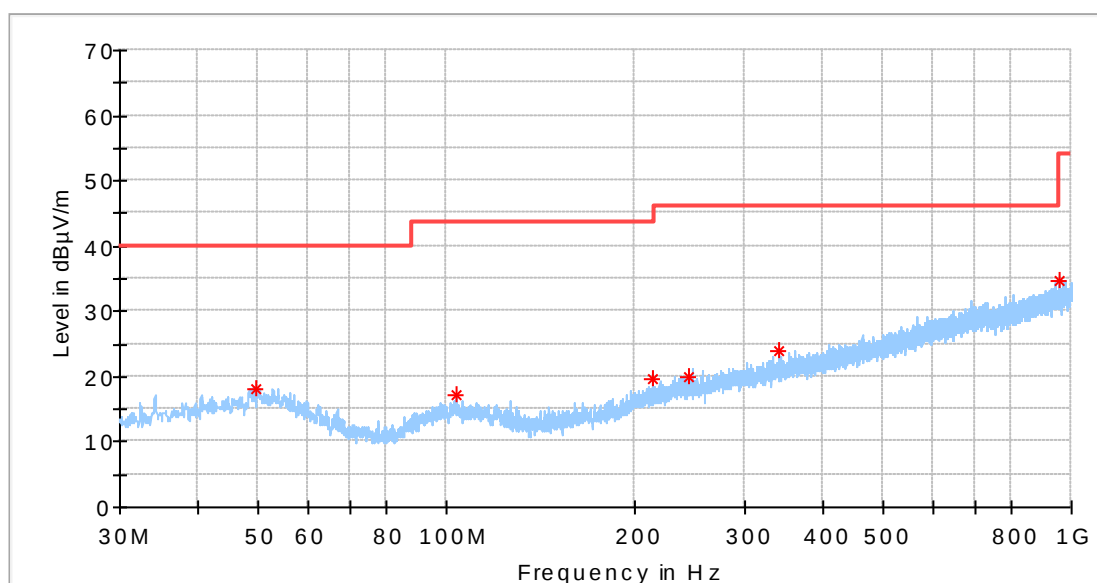
Eric LI  
EMC Senior Project Engineer

## 7 Emission Test Results

### 7.1 Radiated Emission

EUT: HG05124A-US-RX  
 Op Condition: 433MHz Rx mode  
 Test Specification: FCC 15.109  
 Comment: 3V DC, Antenna: Horizontal

Test Result

☒ Passed☐ Not Passed

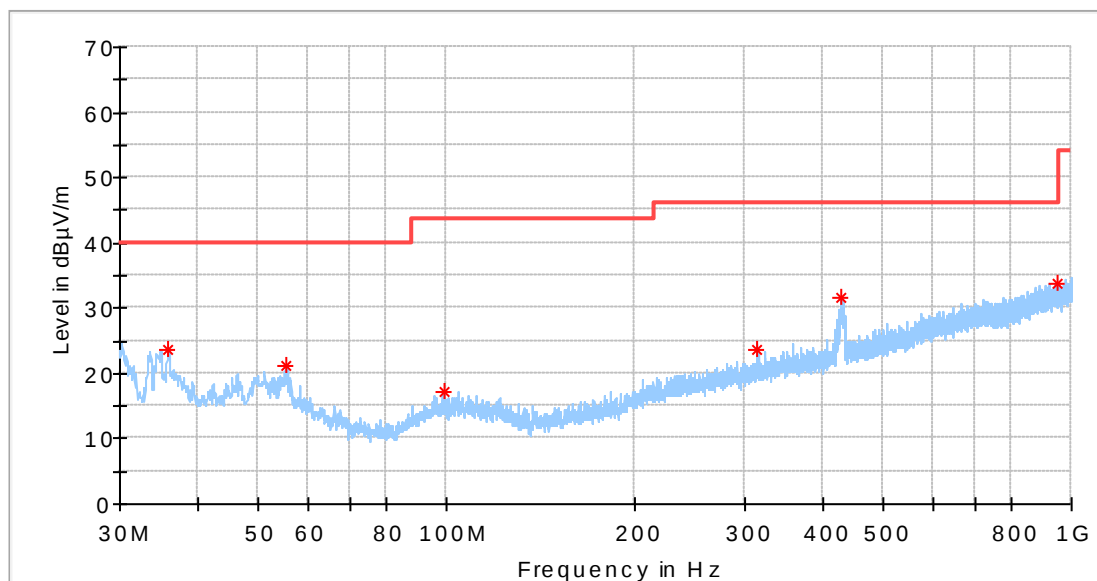
| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Corr. (dB) |
|-----------------|------------------|----------------|-------------|------------|
| 49.460625       | 18.18            | 40.00          | -21.82      | 18.1       |
| 103.901875      | 17.16            | 43.50          | -26.34      | 15.7       |
| 213.996875      | 19.64            | 43.50          | -23.86      | 17.0       |
| 244.491250      | 19.97            | 46.00          | -26.03      | 18.2       |
| 341.127500      | 23.86            | 46.00          | -22.14      | 21.0       |
| 953.500625      | 34.76            | 46.00          | -11.24      | 30.8       |

## Radiated Emission

EUT: HG05124A-US-RX  
 Op Condition: 433MHz Rx mode  
 Test Specification: FCC 15.109  
 Comment: 3V DC, Antenna: Vertical

### Test Result

☒ Passed  
☐ Not Passed

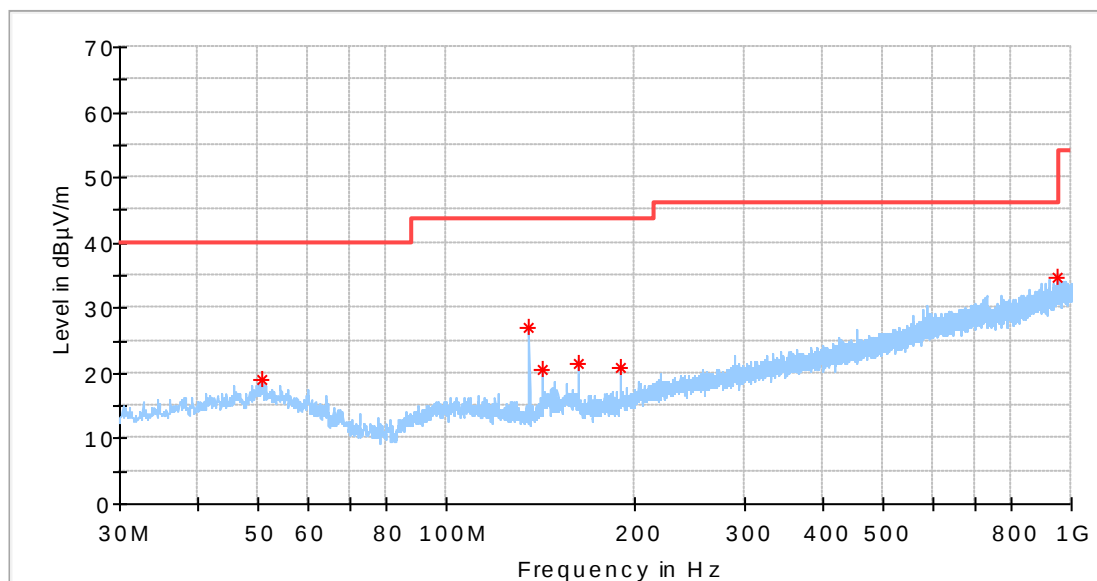


| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Corr. (dB) |
|-----------------|------------------|----------------|-------------|------------|
| 35.880625       | 23.54            | 40.00          | -16.46      | 15.2       |
| 55.462500       | 21.12            | 40.00          | -18.88      | 17.0       |
| 98.870000       | 17.04            | 43.50          | -26.46      | 15.7       |
| 312.815625      | 23.68            | 46.00          | -22.32      | 20.3       |
| 428.063750      | 31.75            | 46.00          | -14.25      | 22.7       |
| 946.468125      | 33.80            | 46.00          | -12.20      | 30.7       |

## Radiated Emission

EUT: HG05124A-US-RX  
 Op Condition: 433MHz Rx mode  
 Test Specification: FCC 15.109  
 Comment: 120V AC, Antenna: Horizontal

Test Result  
☒ Passed  
☐ Not Passed



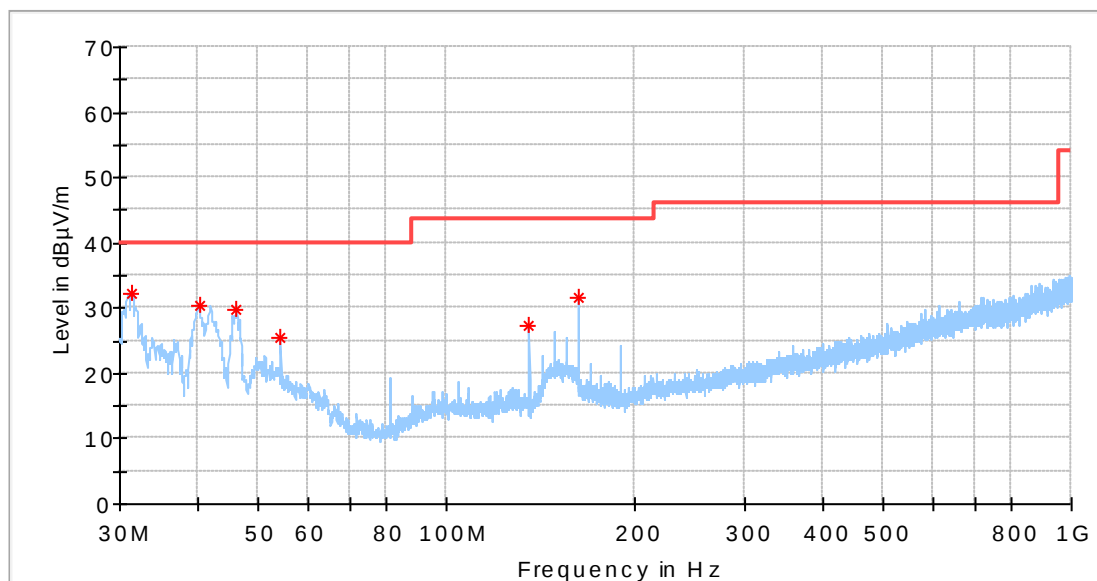
| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Corr. (dB) |
|-----------------|------------------|----------------|-------------|------------|
| 50.733750       | 19.02            | 40.00          | -20.98      | 18.0       |
| 135.669375      | 27.05            | 43.50          | -16.45      | 13.4       |
| 142.459375      | 20.67            | 43.50          | -22.83      | 13.3       |
| 162.768750      | 21.51            | 43.50          | -21.99      | 14.2       |
| 189.928750      | 20.86            | 43.50          | -22.64      | 15.2       |
| 948.105000      | 34.58            | 46.00          | -11.42      | 30.8       |

## Radiated Emission

EUT: HG05124A-US-RX  
 Op Condition: 433MHz Rx mode  
 Test Specification: FCC 15.109  
 Comment: 120V AC, Antenna: Vertical

### Test Result

☒ Passed  
☐ Not Passed

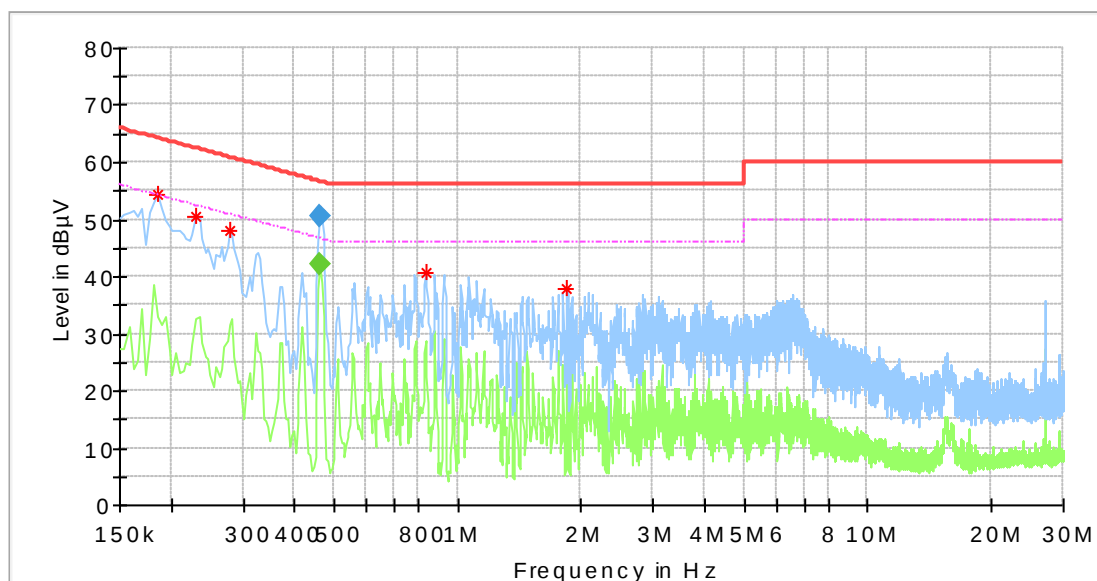


| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Corr. (dB) |
|-----------------|------------------|----------------|-------------|------------|
| 31.394375       | 32.37            | 40.00          | -7.63       | 14.2       |
| 40.185000       | 30.32            | 40.00          | -9.68       | 16.2       |
| 46.126250       | 29.65            | 40.00          | -10.35      | 17.5       |
| 54.250000       | 25.56            | 40.00          | -14.44      | 17.2       |
| 135.669375      | 27.42            | 43.50          | -16.08      | 13.4       |
| 162.829375      | 31.66            | 43.50          | -11.84      | 14.2       |

## 7.2 Conducted Emission

EUT: HG05124A-US-RX  
 Op Condition: 433MHz Rx mode  
 Test Specification: FCC15.107  
 Comment: 120V AC, L Line

Test Result

☒ Passed☐ Not Passed

| Frequency (MHz) | MaxPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------------|
| 0.186000        | 54.34          | ---            | 64.21        | -9.87       | 10.2       |
| 0.230000        | 50.54          | ---            | 62.45        | -11.91      | 10.2       |
| 0.278000        | 48.00          | ---            | 60.88        | -12.87      | 10.2       |
| 0.461500        | 50.94          | ---            | 56.66        | -5.72       | 10.3       |
| 0.834000        | 40.80          | ---            | 56.00        | -15.20      | 10.3       |
| 1.850000        | 37.72          | ---            | 56.00        | -18.28      | 10.3       |

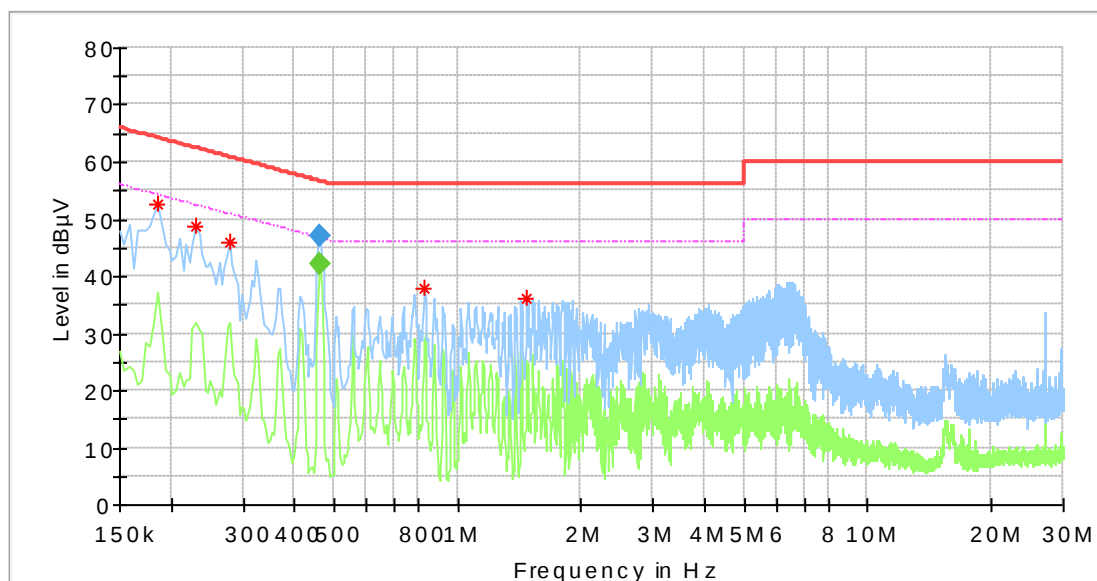
### Final\_Result

| Frequency (MHz) | QuasiPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Corr. (dB) |
|-----------------|------------------|----------------|--------------|-------------|------------|
| 0.461500        | ---              | 42.04          | 46.67        | -4.63       | 10.3       |
| 0.461500        | 50.56            | ---            | 56.67        | -6.11       | 10.3       |

## Conducted Emission

EUT: HG05124A-US-RX  
 Op Condition: 433MHz Rx mode  
 Test Specification: FCC15.107  
 Comment: 120V AC, N Line

Test Result  
☒ Passed  
☐ Not Passed



| Frequency (MHz) | MaxPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------------|
| 0.186000        | 52.47          | ---            | 64.21        | -11.74      | 10.2       |
| 0.230000        | 48.64          | ---            | 62.45        | -13.80      | 10.2       |
| 0.278000        | 46.10          | ---            | 60.88        | -14.78      | 10.2       |
| 0.461500        | 47.49          | ---            | 56.66        | -9.17       | 10.3       |
| 0.830000        | 37.76          | ---            | 56.00        | -18.24      | 10.3       |
| 1.474000        | 36.29          | ---            | 56.00        | -19.71      | 10.3       |

### Final\_Result

| Frequency (MHz) | QuasiPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Corr. (dB) |
|-----------------|------------------|----------------|--------------|-------------|------------|
| 0.461500        | ---              | 42.03          | 46.67        | -4.64       | 10.3       |
| 0.461500        | 46.88            | ---            | 56.67        | -9.79       | 10.3       |

## 8 Test Equipment List

### Radiated emission Test

| DESCRIPTION                         | MANUFACTURER    | MODEL NO. | SERIAL NO.      | CAL. DUE DATE |
|-------------------------------------|-----------------|-----------|-----------------|---------------|
| EMI Test Receiver                   | Rohde & Schwarz | ESR 26    | 101269          | 2019-7-6      |
| Trilog Super Broadband Test Antenna | Schwarzbeck     | VULB 9163 | 707             | 2019-6-28     |
| Horn Antenna                        | Rohde & Schwarz | HF907     | 102294          | 2019-6-28     |
| Pre-amplifier                       | Rohde & Schwarz | SCU 18    | 102230          | 2019-7-6      |
| Signal Generator                    | Rohde & Schwarz | SMY01     | 839369/005      | 2019-7-6      |
| Attenuator                          | Agilent         | 8491A     | MY39264334      | 2019-7-6      |
| 3m Semi-anechoic chamber            | TDK             | 9X6X6     | ----            | 2020-7-7      |
| Test software                       | Rohde & Schwarz | EMC32     | Version 9.15.00 | N/A           |

### Conducted Emission Test

| DESCRIPTION        | MANUFACTURER      | MODEL NO.       | SERIAL NO.     | CAL. DUE DATE |
|--------------------|-------------------|-----------------|----------------|---------------|
| EMI Test Receiver  | Rohde & Schwarz   | ESR 3           | 101782         | 2019-7-6      |
| LISN               | Rohde & Schwarz   | ENV4200         | 100249         | 2019-7-6      |
| LISN               | Rohde & Schwarz   | ENV432          | 101318         | 2019-7-6      |
| LISN               | Rohde & Schwarz   | ENV216          | 100326         | 2019-7-6      |
| ISN                | Rohde & Schwarz   | ENY81           | 100177         | 2019-7-6      |
| ISN                | Rohde & Schwarz   | ENY81-CA6       | 101664         | 2019-7-6      |
| High Voltage Probe | Rohde & Schwarz   | TK9420(VT94 20) | 9420-584       | 2019-6-30     |
| RF Current Probe   | Rohde & Schwarz   | EZ-17           | 100816         | 2019-6-30     |
| Attenuator         | Shanghai Huaxiang | TS2-26-3        | 080928189      | 2019-7-6      |
| Test software      | Rohde & Schwarz   | EMC32           | Version9.15.00 | N/A           |

## 9 Appendix A - General Product Information

### Declaration letter of model difference

To: TÜV SÜD HKG Ltd.

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Attention:

From:

Date: 18-Jul, 2019

Fax No:

Total Page (Cover Included): 1

#### Declaration Letter

Subject:

We:

Officially notify TÜV SÜD HKG Ltd. that the HG05124B-US have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction, with Wireless weather station, HG05124A-US. The difference lies only in color and model of the different models.

<<Additional Model >>: HG05124B-US

<<Main Test Model >>: HG05124A-US

<<Product>>: Wireless weather station

Applicant: Lidl US, LLC

18-Jul, 2019  
(Date)



(Applicant's authorized signature and company Chop)