

# FCC RADIO TEST REPORT FCC ID: 2ADJW-HS-3

**Product**: Portable communication setting terminal

Trade Name: N/A

Model Name: HS-3

Serial Model: N/A

**Report No.**: NTEK-2014NT0918444F

# **Prepared for**

Creative Distribution Automation Co., Ltd.

The 4th floor, Building No.3, No.8 Chuangye Road, Shangdi, Haidian, Beijing, 100085 China

# Prepared by

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# **TEST RESULT CERTIFICATION**

Report No.: NTEK-2014NT0918444F

Road, Shangdi

Road, Shangdi

• •	Creative Distribution Automation Co., Ltd.					
Address:	The 4th floor, Building No.3, No.8 Chuangye Road, Shangd Haidian, Beijing, 100085 China					
Manufacture's Name	Creative Distribution Automation Co., Ltd.					
	The 4th floor, Building No.3, No.8 Chuangye Road, Shangd Haidian, Beijing, 100085 China					
Product description						
Product name:	Portable communication setting terminal					
Model and/or type reference :	HS-3					
Serial Model:	N/A					
Rating(s):	DC 3.7V					
Standards:	FCC Part15.249: 01 Oct. 2013					
Test procedure	ANSI C63.4-2003					
	is been tested by NTEK, and the test results show that the n compliance with the FCC requirements. And it is applicable only n the report.					
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•	vised by NTEK, personal only, and shall be noted in the revision of					
the document.						
Date of Test						
Date (s) of performance of tests  Date of Issue						
Test Result						
rest Result						
Testing Engine	eer: Danny Grany					
	Denny Huang					
Technical Man	nager : Brown ln					
	(Brown Lu)					
Authorized Sig						
	(Bill Yao)					



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# 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C (15.249)					
Standard Section	Test Item	Judgment	Remark		
15.207	Conducted Emission	N/A			
15.203	Antenna Requirement	Pass			
15.249	Radiated Spurious Emission	Pass			
15.205	Band Edge Emission	Pass			
15.249	Occupied Bandwidth	Pass			



#### 1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd

Add.: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District,

Shenzhen P.R. China.

FCC FRN Registration No.:238937; IC Registration No.:9270A-1

CNAS Registration No.:L5516

#### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately 95 % •

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%



# 2. GENERAL INFORMATION

#### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Portable communication setting terminal			
Trade Name	N/A			
Model Name	HS-3			
Serial Model	N/A			
Model Difference	N/A			
Product Description	Operation Frequency: Modulation Type: Antenna Designation: Antenna Gain(Peak)  Based on the application exhibited in User's Manu	2403.375MHz-2479.750MHz 2-FSK Ceramic Antenna 1.5 dBi  n, features, or specification ual, the EUT is considered as an More details of EUT technical er to the User's Manual.		
Channel List	Please refer to the Note 2.			
Adapter	N/A			
Battery	DC 3.7V,2100mAh			

#### Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



2.

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2403.375	16	2429.375	31	2455.375
02	2405.500	17	2431.000	32	2457.000
03	2406.625	18	2432.625	33	2458.625
04	2408.250	19	2434.250	34	2460.250
05	2409.875	20	2435.875	35	2461.875
06	2411.500	21	2437.500	36	2463.500
07	2413.125	22	2439.125	37	2465.125
08	2414.750	23	2440.750	38	2466.750
09	2416.375	24	2442.375	39	2468.375
10	2419.625	25	2445.625	40	2471.625
11	2421.250	26	2447.250	41	2473.250
12	2422.875	27	2448.875	42	2474.875
13	2424.500	28	2450.500	43	2476.500
14	2426.125	29	2452.125	44	2478.125
15	2427.750	30	2453.750	45	2479.750

3

# Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	Ceramic Antenna	N/A	1.5	Antenna



#### 2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Link Mode
Mode 2	TX CH 01
Mode 3	TX CH 23
Mode 4	TX CH 45

For Radiated Emission				
Final Test	Description			
Mode	Description			
Mode 1	Link Mode			
Mode 2	TX CH 01			
Mode 3	TX CH 23			
Mode 4	TX CH 45			

#### Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The EUT use new battery.



	DI 001/ DI0		THE CONTROLLS		<u> </u>
2.3	BLOCK DIG	IRAM SHOWING	THE CONFIGURA	ALION OF SY:	SIEM IESIED

Radiated Spurious Emission Test

E-1 EUT



## 2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Portable communication setting terminal	N/A	HS-3	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

#### Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in <code>"Length\_"</code> column.



## 2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

**Radiation Test equipment** 

	anon root oquipino				
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	E4407B	160400005	Jul. 06. 2015
2	Test Receiver	R&S	ESPI	101318	Jul. 06. 2015
3	Bilog Antenna	TESEQ	CBL6111D	31216	Jul. 06. 2015
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	Jul. 06. 2015
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	Jul. 06. 2015
6	Horn Antenna	EM	EM-AH-10180	2011071402	Jul. 06. 2015
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	Jul. 06. 2015
8	Amplifier	EM	EM-30180	060538	Jul. 06. 2015
9	Loop Antenna	ARA	PLA-1030/B	1029	Jul. 06. 2015
10	Power Meter	R&S	NRVS	100696	Jul. 06. 2015

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**Conduction Test equipment** 

COIN	Conduction Test equipment						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Test Receiver	R&S	ESCI	101160	Jul. 06. 2015		
2	LISN	R&S	ENV216	101313	Jul. 06. 2015		
3	LISN	EMCO	3816/2	00042990	Jul. 06. 2015		
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	Jul. 06. 2015		
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	Jul. 06. 2015		
6	Absorbing clamp	R&S	MOS-21	100423	Jul. 06. 2015		



## 3. ANTENNA REQUIREMENT

#### 3.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 3.2 EUT ANTENNA

The	EUT	antenna is	Ceramic A	Antenna.	it compl	y with t	the stan	dard	requirement	
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## 3.3 CONDUCTED EMISSION MEASUREMENT

## 3.3.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

	Class A	(dBuV)	Class B	(dBuV)	Standard
FREQUENCY (MHz)	Quasi-peak	Average	Quasi-peak	Average	Standard
0.15 -0.5			66 - 56 *	56 - 46 *	CISPR
0.50 -5.0			56.00	46.00	CISPR
5.0 -30.0			60.00	50.00	CISPR

0.15 -0.5		66 - 56 *	56 - 46 *	LP002.
0.50 -5.0		56.00	46.00	LP002.
5.0 -30.0		60.00	50.00	LP002.

#### Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting		
Attenuation	10 dB		
Start Frequency	0.15 MHz		
Stop Frequency	30 MHz		
IF Bandwidth	9 kHz		



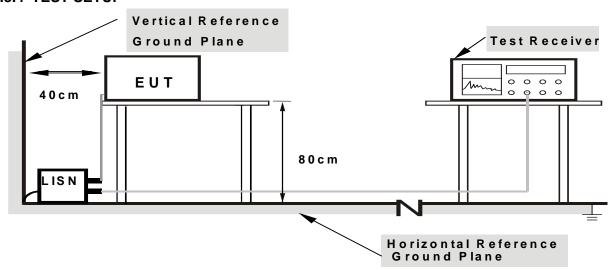
#### 3.3.2 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 3.3.3 DEVIATION FROM TEST STANDARD

No deviation

#### 3.3.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes



# 3.2.5 TEST RESULT

IFUI :	Portable communication setting terminal	Model Name. :	HS-3
Temperature :	<b>26</b> ℃	Relative Humidity:	54%
Pressure :	1010hPa	Phase :	N/A
Test Voltage :	N/A	Test Mode:	N/A

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#### 3.4 RADIATED EMISSION MEASUREMENT

### **3.4.1 Radiated Emission Limits** (FCC 15.209)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
Frequency (MHz)	Limit (dBuV)	
30~88	40	3
88~216	43.5	3
216~960	46	3
960 -10000	54.00	3

#### Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).
- (3) \*Note: This is the limit for the fundamental frequency.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

#### 3.4.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.



- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos. Note:

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Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
	Peak	1 MHz	1 MHz
Above 1000	Peak	1 MHz	10 Hz

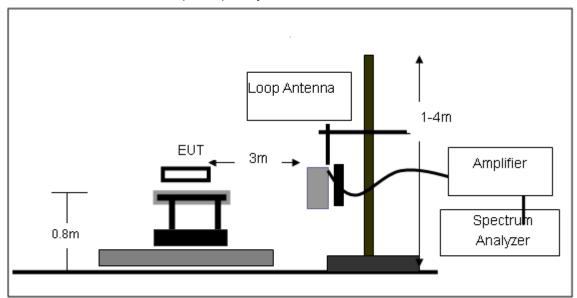
#### 3.4.3 DEVIATION FROM TEST STANDARD

No deviation



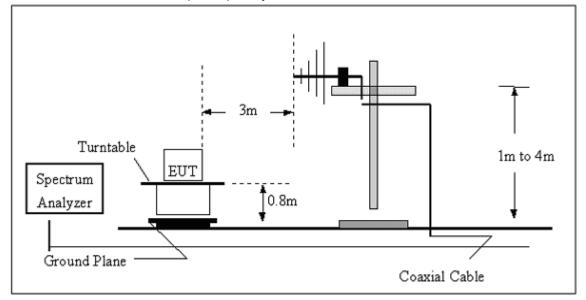
## 3.4.4 TEST SETUP

(A) Radiated Emission Test-Up Frequency Below 30MHz



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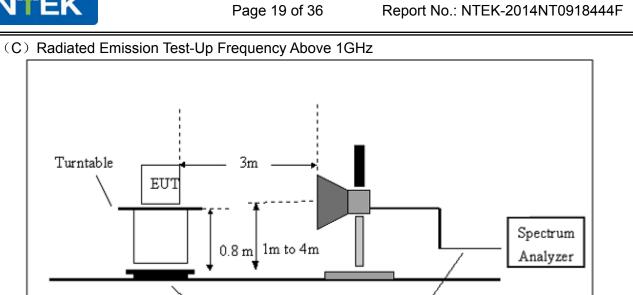
(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



Coaxial Cable



Ground Plane





## 3.4.5 TEST RESULTS (BLOW 30MHz)

EUT:	Portable communication setting terminal	Model Name. :	HS-3
Temperature :	20 ℃	Relative Humidtity:	48%
Pressure :	1010 hPa	Test Voltage :	
Test Mode :	TX	Polarization :	

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Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
				PASS
			1	PASS

#### NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =20 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.



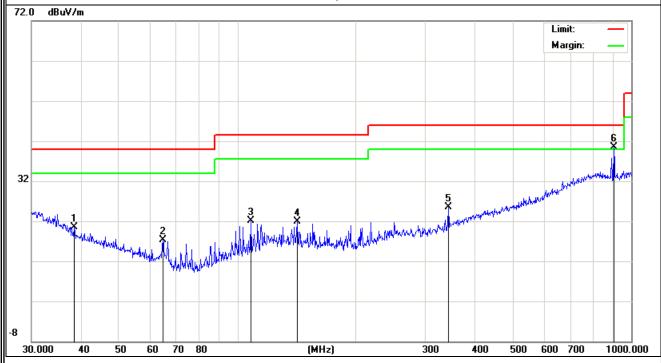
# **3.4.6 TEST RESULTS (BETWEEN 30 – 1000 MHZ)**

H-U11 .	Portable communication setting terminal	Model Name :	HS-3
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
38.4808	5.99	14.49	20.48	40.00	-19.52	QP
64.6594	10.50	6.78	17.28	40.00	-22.72	QP
108.2667	12.39	9.78	22.17	43.50	-21.33	QP
141.8262	10.69	11.23	21.92	43.50	-21.58	QP
343.1800	9.64	15.95	25.59	46.00	-20.41	QP
903.3093	13.53	27.03	40.56	46.00	-5.44	QP

#### Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.





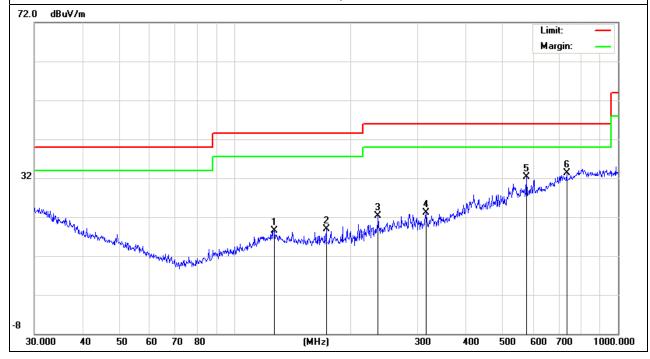
H-111 .	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX	Polarization :	Horizontal

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Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
126.7723	6.45	11.96	18.41	43.50	-25.09	QP
173.205	8.36	10.58	18.94	43.50	-24.56	QP
236.6447	8.99	13.26	22.25	46.00	-23.75	QP
315.4806	8.33	14.80	23.13	46.00	-22.87	QP
576.6443	10.33	21.91	32.24	46.00	-13.76	QP
734.4913	7.61	25.70	33.31	46.00	-12.69	QP

#### Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.





# 3.4.7 TEST RESULTS (ABOVE 1000 MHZ)

H-111 .	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2403.375MHz	Polarization :	Horizontal

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Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2403.458	102.01	-7.74	94.27	114.00	-19.73	peak
2403.458	93.07	-7.74	85.33	94.00	-8.67	AVG
4806.523	55.46	1.78	57.24	74.00	-16.76	peak
4806.523	45.44	1.78	47.22	54.00	-6.78	AVG

<sup>1.</sup> Factor = Antenna Factor + Cable Loss – Pre-amplifier.



IFUI.	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2403.375MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2403.541	101.84	-7.74	94.10	114.00	-19.90	peak
2403.541	92.37	-7.74	84.63	94.00	-9.37	AVG
4806.932	54.83	1.79	56.62	74.00	-17.38	peak
4806.932	44.74	1.79	46.53	54.00	-7.47	AVG

<sup>1.</sup> Factor = Antenna Factor + Cable Loss – Pre-amplifier.



H-U11 .	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2440.750MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2440.522	102.02	-7.68	94.34	114.00	-19.66	peak
2440.522	92.73	-7.68	85.05	94.00	-8.95	AVG
4881.623	54.26	1.82	56.08	74.00	-17.92	peak
4881.623	44.69	1.82	46.51	54.00	-7.49	AVG

<sup>1.</sup> Factor = Antenna Factor + Cable Loss – Pre-amplifier.



IFUI.	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2440.750MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2440.728	102.90	-7.68	95.22	114.00	-18.78	peak
2440.728	92.20	-7.68	84.52	94.00	-9.48	AVG
4881.652	55.27	1.82	57.09	74.00	-16.91	peak
4881.652	45.45	1.82	47.27	54.00	-6.73	AVG

<sup>1.</sup> Factor = Antenna Factor + Cable Loss – Pre-amplifier.



H-111 .	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2479.750MHz	Polarization :	Horizontal

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Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2479.856	101.65	-7.54	94.11	114.00	-19.89	peak
2479.856	92.58	-7.54	85.04	94.00	-8.96	AVG
4959.623	55.82	2.00	57.82	74.00	-16.18	peak
4959.623	45.03	2.00	47.03	54.00	-6.97	AVG

<sup>1.</sup> Factor = Antenna Factor + Cable Loss – Pre-amplifier.



IFUI.	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2479.750MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2479.845	101.76	-7.54	94.22	114.00	-19.78	peak
2479.845	92.65	-7.54	85.11	94.00	-8.89	AVG
4959.654	54.40	2.00	56.40	74.00	-17.60	peak
4959.654	44.74	2.00	46.74	54.00	-7.26	AVG

<sup>1.</sup> Factor = Antenna Factor + Cable Loss – Pre-amplifier.



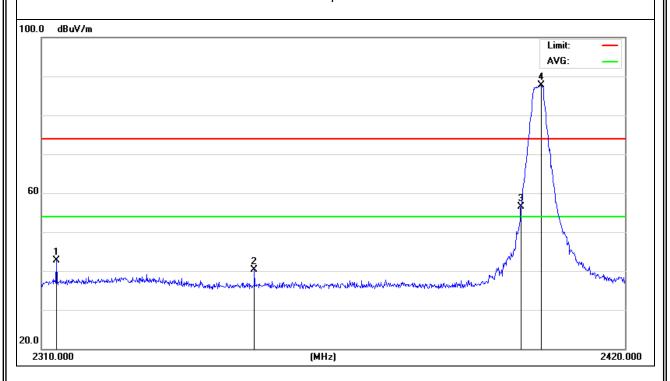
# 3.4.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

HUI.	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2403.375MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2312.86	50.54	-7.77	42.77	74.00	-31.23	peak
2312.86	40.22	-7.77	32.45	54.00	-21.55	AVG
2349.60	48.36	-8.12	40.24	74.00	-33.76	peak
2349.60	38.64	-8.12	30.52	54.00	-23.48	AVG
2400.00	64.15	-7.74	56.41	74.00	-17.59	peak
2400.00	54.12	-7.74	46.38	54.00	-7.62	AVG
2403.94	95.49	-7.74	87.75	114.00	-26.25	peak
2403.94	85.49	-7.74	77.75	94.00	-16.25	AVG

#### Remark:

Factor = Antenna Factor + Cable Loss - Pre-amplifier.





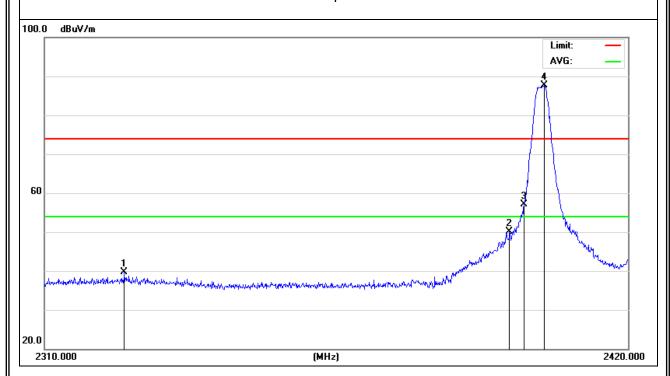
EUT:	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2403.375MHz	Polarization :	Vertical

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Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2324.85	47.53	-7.88	39.65	74.00	-34.35	peak
2324.85	38.69	-7.88	30.81	54.00	-23.19	AVG
2397.34	57.91	-7.77	50.14	74.00	-23.86	peak
2397.34	48.14	-7.77	40.37	54.00	-13.63	AVG
2400.00	64.83	-7.74	57.09	74.00	-16.91	peak
2400.00	55.03	-7.74	47.29	54.00	-6.71	AVG
2403.94	95.39	-7.74	87.65	114.00	-26.35	peak
2403.94	85.44	-7.74	77.70	94.00	-16.3	AVG

## Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.





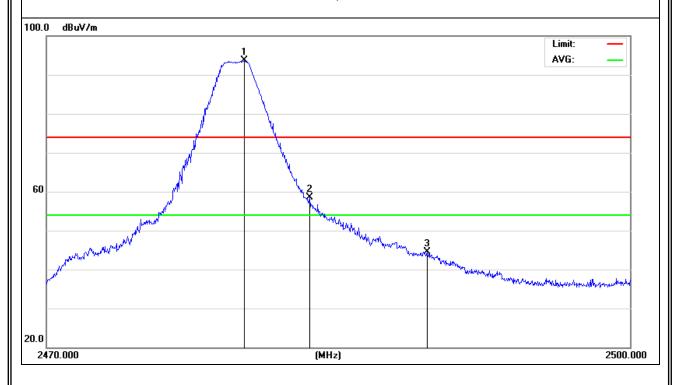
EUT:	Portable communication setting terminal	Model Name :	HS-3
Temperature :	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2479 750MHz	Polarization :	Horizontal

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Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2480.140	101.24	-7.54	93.70	114.00	-20.30	peak
2480.140	91.23	-7.54	83.69	94.00	-10.31	AVG
2483.500	66.00	-7.53	58.47	74.00	-15.53	peak
2483.500	56.25	-7.53	48.72	54.00	-5.28	AVG
2489.530	51.91	-7.50	44.41	74.00	-29.59	peak
2489.530	42.09	-7.50	34.59	54.00	-19.41	AVG

#### Remark<sup>1</sup>

Factor = Antenna Factor + Cable Loss – Pre-amplifier.





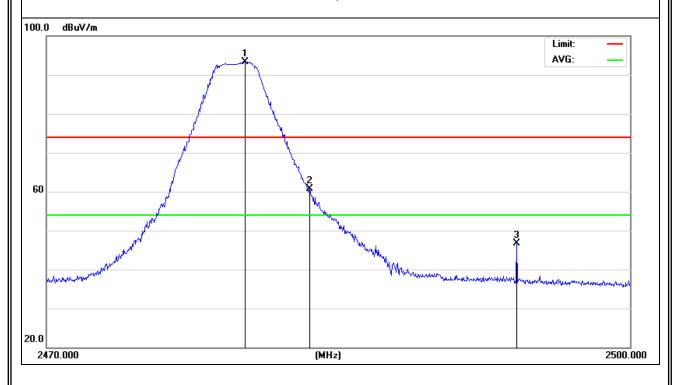
EUT:	Portable communication setting terminal	Model Name :	HS-3
Temperature :	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2479.750MHz	Polarization :	Vertical

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Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Domork
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Remark
2480.200	100.84	-7.54	93.30	114.00	-20.70	peak
2480.200	90.96	-7.54	83.42	94.00	-10.58	AVG
2483.500	68.20	-7.53	60.67	74.00	-13.33	peak
2483.500	59.14	-7.53	51.61	54.00	-2.39	AVG
2494.180	54.19	-7.50	46.69	74.00	-27.31	peak
2494.180	44.28	-7.50	36.78	54.00	-17.22	AVG

#### Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.





#### 4. BANDWIDTH TEST

#### **4.1 TEST PROCEDURE**

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below, b. Spectrum Setting : RBW= 100KHz, VBW≧RBW, Sweep time = Auto.

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#### **4.2 DEVIATION FROM STANDARD**

No deviation.

#### 4.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER



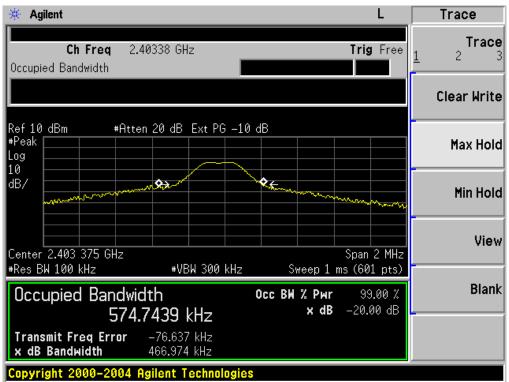
#### **4.4 TEST RESULTS**

HUI .	Portable communication setting terminal	Model Name :	HS-3
Temperature :	<b>26</b> ℃	Relative Humidity:	53%
Pressure :	1020 hPa	Test Power :	DC 3.7V
Test Mode :	TX		

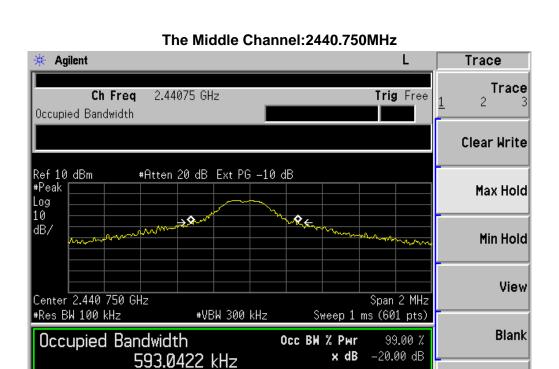
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Frequency	20 dBc Bandwidth	99% Bandwidth	
(MHz)	(MHz)	(MHz)	
2403.375	0.467	0.575	
2440.750	0.564	0.593	
2479.750	0.529	0.512	

#### The Lowest Channel:2403.375MHz







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#### The HIGH Channel: 2479.750MHz

-31.561 kHz

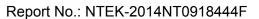
564.421 kHz

Transmit Freq Error

x dB Bandwidth



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# **5. EUT TEST PHOTO**



