



FCC TEST REPORT

Applicant	: IFLYTEK CO.,LTD
Address	: West Wangjiang Rd.666,Hefei,Anhui, China
Manufacturer	: IFLYTEK CO.,LTD
Address	: West Wangjiang Rd.666,Hefei,Anhui, China
Equipment	: iflytek translating machine
Model No.	: Easy trans600
FCC ID	: 2AMI5-EASYTRANS-600
Test Period	: Jun.05,2017~ Jun.18, 2017

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of **CerpPASS Technology Corp.** the test report shall not be reproduced except in full.

I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **FCC CFR Title 47 Part 2, TIA/EIA 603-C, FCC Part22 Subpart H, FCC Part24 Subpart E** and the energy emitted by this equipment was **passed**.

Prepared By:

Kerry Zhou

Approved by:

Miro Chueh (EMC/RF Manager)

Laboratory Accreditation:

CerpPASS Technology Corporation Test Laboratory

NVLAP LAB Code:	200954-0
TAF LAB Code:	1439

CerpPASS Technology (SuZhou) Co., Ltd.

NVLAP LAB Code:	200814-0
CNAS LAB Code:	L5515



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History of this Test Report

Report No.	Version	Issue Date	Description
SEFI1705161	Rev 01	Jun.23, 2017	Original.

**1. Report of Measurements and Examinations****For WCDMA Band II (FCC Part 22 Subpart E)**

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033	< 2 Watts	Pass
	§2.1046		
	§24.232		
Equivalent Isotropic Radiated Power	§24.232	< 2 Watts	Pass
Modulation characteristics	§2.1047	N/A	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§27.238	< -13dBm	Pass
Field Strength of Spurious Radiation	§2.1053	< -13dBm	Pass
	§24.238		
Frequency Stability Under Temperature & Voltage Variations	§2.1055	< 2.5 ppm	Pass
	§24.235		

For WCDMA Band V (FCC Part 22 Subpart H)

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033	< 7 Watts	Pass
	§2.1046		
	§22.913		
Equivalent Isotropic Radiated Power	§22.913	< 7 Watts	Pass
Modulation characteristics	§2.1047	N/A	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§22.917	< -13dBm	Pass
Field Strength of Spurious Radiation	§2.1053	< -13dBm	Pass
	§§22.917		
Frequency Stability Under Temperature & Voltage Variations	§2.1055	< 2.5 ppm	Pass
	§22.335		

**For CDMA 2000 1X BC0/CDMA 2000 1XEVD0 BC0 (FCC Part 22 Subpart H & Part 2)**

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033	< 7 Watts	Pass
	§2.1046		
	§22.913		
Equivalent Isotropic Radiated Power	§22.913	< 7 Watts	Pass
Modulation characteristics	§2.1047	N/A	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§22.917	< -13dBm	Pass
Field Strength of Spurious Radiation	§2.1053	< -13dBm	Pass
	§22.917		
Frequency Stability Under Temperature & Voltage Variations	§2.1055 §22.335	< 2.5 ppm	Pass



2. General Info

2.1 Description of EUT

Product name	iflytek translating machine	
Model No.	Easy trans600	
Power supply	Model:	XHY050100UCA
	Input:	100~240V AC 50/60Hz 0.2A MAX
	Output:	5V $\overline{\text{---}}$ 1.0A



2.2 Description of wireless module

Product Name	iflytek translating machine
Model No.	Easy trans600
EUT Voltage	Low: 3.4V, High: 4.2V, Normal: 3.65V
3G	
Support Band	WCDMA Band 2/WCDMA Band 5
Uplink	WCDMA Band 2: 1850~1910MHz WCDMA Band 5: 824~849MHz
Downlink	WCDMA Band 2: 1930~1990MHz WCDMA Band 5: 869~894MHz
Type of modulation	QPSK for Uplink
Antenna Type	PCB
Antenna Gain	Band 2: -3.96dBi Band 5: -5.24dBi

Note: For more details, please refer to the EUT User manual.

2.3 The Worst Case Configuration

Test Mode
Mode 1: WCDMA Band II Link
Mode 2: WCDMA Band V Link

Note:

1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. For the ERP/EIRP and radiated emission test, every axis (X, Y, Z) was verified, and show the worst result on this report.
3. The maximum power level of RMC 12.2Kbps Mode for WCDMA band V & II, only these modes were used for all tests.

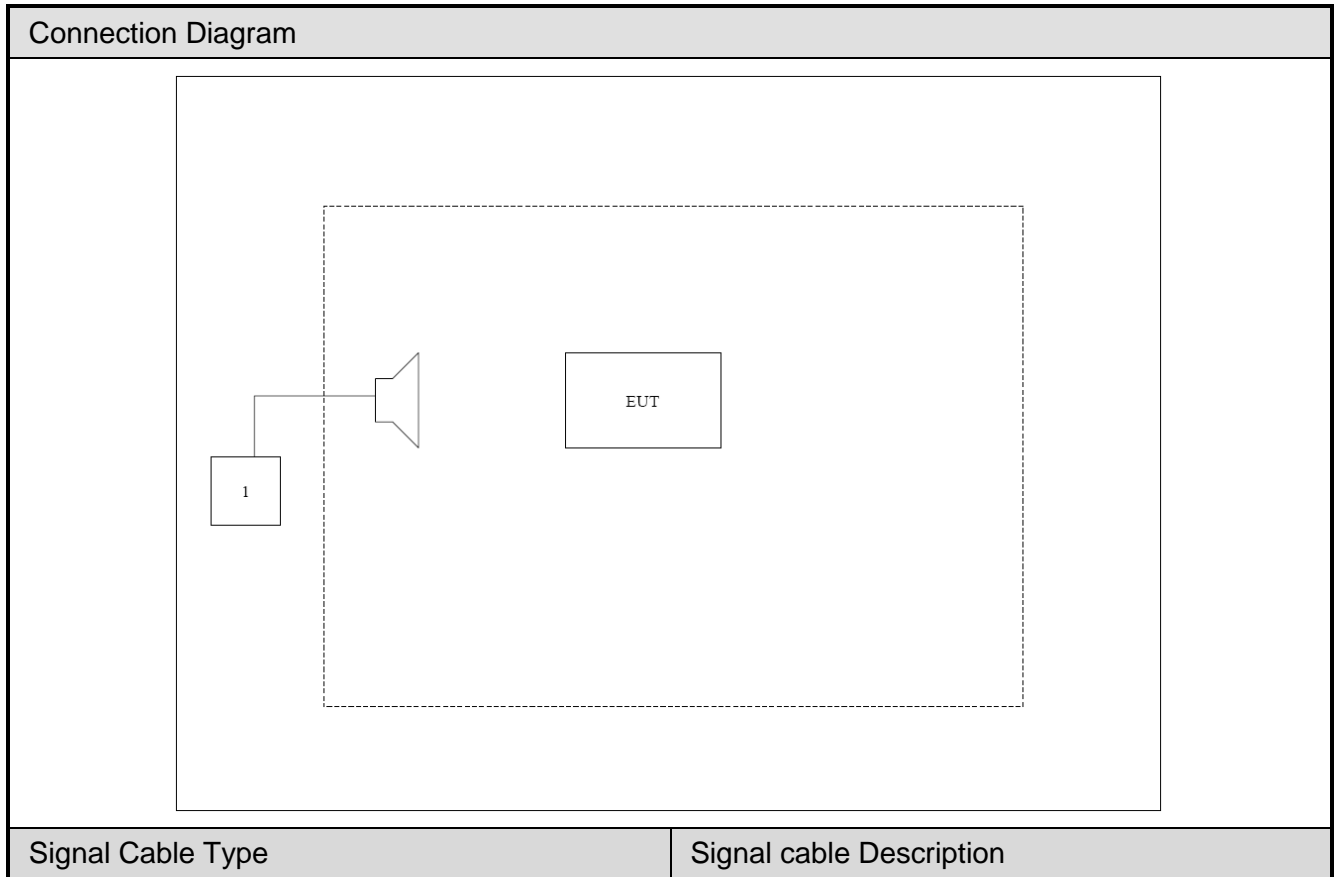
2.4 EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	EUT Communicate with CMW500, then select channel to test.



2.5 Support equipment

Number	Product	Manufacturer	Model No.	Serial No.
1	Wideband Radio Communication Tester	R&S	CMW500	102313





3. General Information of Test Site

3.1 Information of Test Site

Test Site	CerpPASS Technology(Suzhou) Co., Ltd.
Test Site Location	No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China
NVLAP LAB Code	200814-0
FCC Registration Number	916572, 331395
IC Registration Number	7290A-1, 7290A-2
VCCI Registration Number	T-1945 for Telecommunication Test C-2919 for Conducted emission test R-2670 for Radiated emission test below 1GHz G-227 for Radiated emission test above 1GHz

3.2 Measuring Equipment

RF Conducted Measuring Equipment-AC104					
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
Peak Power Sensor	Boonton	55006	9778	2017.06.08	2018.06.07
Series Power Meter	ANRITSU	ML2495A	1224005	2017.03.27	2018.03.26
Wideband Radio Communication Tester	R&S	CMW500	102313	2016.08.31	2017.08.30
Spectrum Analyzer	N9010A	Agilent	MY53400169	2015.11.11	2016.11.11
Spectrum Analyzer	E4407B	Agilent	MY44211883	2016.10.15	2017.10.14
Temperature/Humidity Meter	Zhicheng	ZC1-11	CEP-TH-003	2017.03.31	2018.03.30

AC Conducted Emission Measuring Equipment-SR101					
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
EZ-EMC	Fala	Ver CT3A1	N/A	N/A	N/A
EMI Test Receiver	R&S	ESCI	100565	2017.03.26	2018.03.25
Artificial-Mains-Network	R&S	ESH2-Z5	100182	2016.08.31	2017.08.30
Line Impedance Stabilization Network	FCC	FCC-LISN-50-200-2-02	112087	2016.08.31	2017.08.30
Temperature/Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2017.03.29	2018.03.28



Radiated Measuring Equipment-AC102					
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
Loop Antenna	R&S	HFH2-Z2	100150	2016.08.31	2017.08.30
Bilog Antenna	Sunol Science	JB1	A072414-1	2017.04.16	2018.04.15
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2016.07.16	2017.07.15
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	9170-348	2017.05.07	2018.05.06
Preamplifier	HP	8447F	3113A05582	2017.03.26	2018.03.25
Preamplifier	EMCI	EMC-051835	980085	2016.09.06	2017.09.05
Preamplifier	COM-POWER	PA-840	711885	2017.03.26	2018.03.25
Wideband Radio Communication Tester	R&S	CMW500	102313	2016.08.31	2017.08.30
EMI Test Receiver	R&S	ESCI-3	101183	2016.06.29	2017.06.28
Spectrum Analyzer	N9010A	Agilent	MY53400169	2016.11.11	2017.11.11
Spectrum Analyzer	R&S	FS040	100324	2017.03.26	2018.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2017.03.31	2018.03.30

3.3 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

RF Conducted Measurement

Test Item	Uncertainty	Limit
Radio Frequency	$\pm 8.7 \times 10^{-7}$	$\pm 1 \times 10^{-5}$
RF output power, conducted	$\pm 0.63\text{dB}$	$\pm 1.5\text{dB}$
Power density, conducted	$\pm 1.21\text{dB}$	$\pm 3\text{dB}$
Unwanted emissions, conducted	30-1000MHz	$\pm 0.51\text{dB}$
	1-25GHz	$\pm 0.67\text{dB}$
All emissions, radiated	30-1000MHz	$\pm 2.28\text{dB}$
	1-25GHz	$\pm 2.59\text{dB}$
Temperature	$\pm 0.8^\circ\text{C}$	$\pm 1^\circ\text{C}$
Humidity	$\pm 3\%$	$\pm 5\%$
DC and low frequency voltages	$\pm 3\%$	$\pm 3\%$



AC Conducted Measurement

Measurement	Frequency	Uncertainty
Conducted emissions(LINE)	9KHz-30MHz	+/- 0.7738 dB
Conducted emissions(NEUTRAL)	9KHz-30MHz	+/- 0.7886 dB
Conducted emissions(10Mbps)	150KHz-30MHz	+/- 1.3013dB
Conducted emissions(100Mbps)	150KHz-30MHz	+/- 1.3197 dB
Conducted emissions(1000Mbps)	150KHz-30MHz	+/- 1.2987 dB

Radiated Measurement

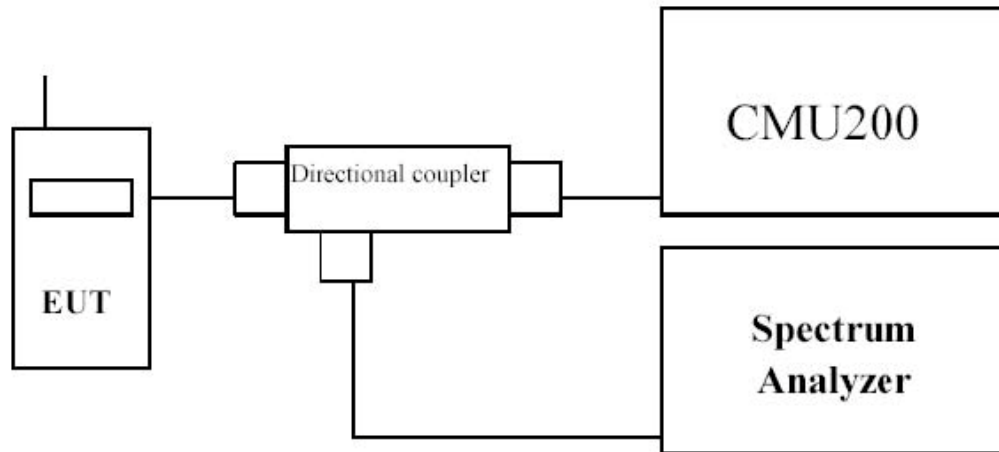
Measurement	Polarity	Frequency	Uncertainty
Radiated emissions	Horizontal	below 1GHz	+/- 3.8936 dB
	Vertical	below 1GHz	+/- 3.8928 dB
	Horizontal	above 1GHz	+/- 5.18858dB
	Vertical	above 1GHz	+/- 5.18928 dB



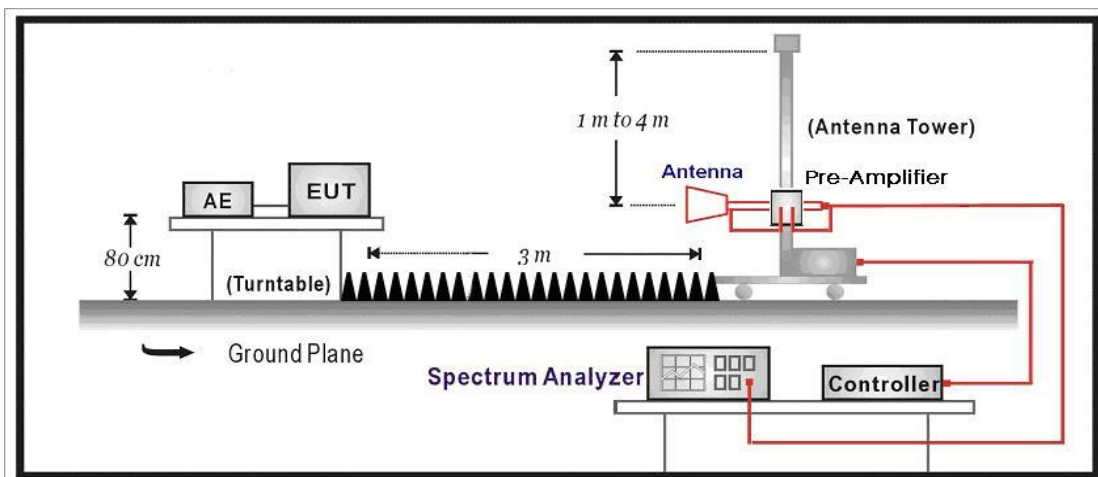
4. Maximum Output Power and Effective Isotropic Radiated Power Measurement

4.1 Test Setup

Conducted Power Measurement:



Radiated Power Measurement:



4.2 Test Procedure

For Conducted Power Measurement:

- The RF output of the transmitter was connected to base station simulator.
- The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement..
- Set EUT at maximum average power by base station simulator.
- Measure lowest, middle, and highest channels for each bandwidth and different modulation.

For Effective Isotropic Radiated Power Measurement:

Radiated Power Measurement:

- The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.
- The test antenna shall be oriented initially for vertical polarization and shall be chosen to



correspond to the frequency of the transmitter

- c) The output of the test antenna shall be connected to the measuring receiver.
- d) The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.
- e) The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- f) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- g) The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- h) The maximum signal level detected by the measuring receiver shall be noted.
- i) The transmitter shall be replaced by a substitution antenna.
- j) The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
- k) The substitution antenna shall be connected to a calibrated signal generator.
- l) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- m) The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
- n) The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
- o) The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.
- p) The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.
- q) Test site anechoic chamber refer to ANSI C63.4: 2009.

**4.3 Test Result**

Product	iflytek translating machine		
Test Item	Maximum Output Power		
Date of Test	2017/06/11	Test Site	AC102

WCDMA/HSDPA/HSUPA/HSPA+

Mode	3GPP Subtest	Band II (1900MHz) Channel			MPR
		Conducted Power (dBm)			
		9262	9400	9538	
WCDMA R99	1	22.89	22.94	22.88	N/A
Rel5 HSDPA	1	22.57	22.63	22.59	0
	2	22.32	22.42	22.41	0
	3	22.14	22.25	22.23	0.5
	4	22.04	22.13	22.08	0.5
Rel6 HSUPA	1	21.84	21.95	21.91	0.0
	2	20.04	20.15	20.06	2.0
	3	21.48	21.58	21.51	1.0
	4	20.06	20.17	20.09	2.0
	5	21.72	21.83	21.76	0.0
Rel7 HSPA+	1	21.85	21.98	21.93	N/A

Note: The maximum PAR for WCDMA Band II is 8.5dB less than 13 dB.

Mode	3GPP Subtest	Band V (850MHz) Channel			MPR
		Conducted Power (dBm)			
		4132	4182	4233	
WCDMA R99	1	23.53	23.44	23.44	N/A
Rel5 HSDPA	1	23.38	23.34	23.35	0
	2	23.32	23.31	23.29	0
	3	22.79	22.73	22.71	0.5
	4	22.75	22.71	22.70	0.5
Rel6 HSUPA	1	22.67	22.65	22.63	0.0
	2	20.64	20.63	20.61	2.0
	3	21.67	21.62	21.59	1.0
	4	20.69	20.63	20.58	2.0
	5	22.64	22.61	22.58	0.0
Rel7 HSPA+	1	21.99	21.93	21.89	N/A

Note: All conducted measurements are based on a RMS detector.



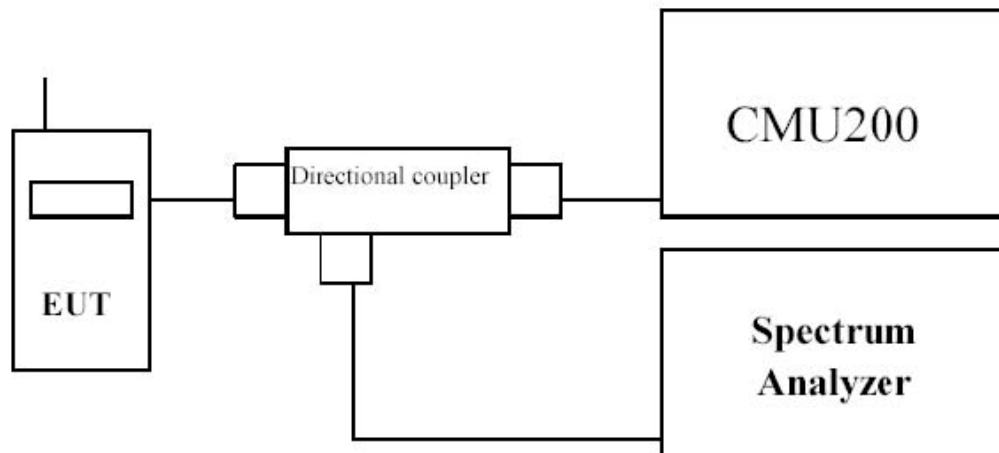
Product	iflytek translating machine		
Test Item	Effective Isotropic Radiated Power		
Date of Test	2017/06/11	Test Site	AC102

WCDMA Band 2	QPSK	1852.4	19.77	H
		1880.0	19.62	H
		1907.6	19.80	H
		1852.4	20.62	V
		1880.0	20.77	V
		1907.6	20.81	V
WCDMA Band 5	QPSK	826.4	17.41	H
		836.4	17.19	H
		846.6	17.28	H
		826.4	18.89	V
		836.4	18.56	V
		846.6	18.75	V



5. Modulation Characteristic

5.1 Test Setup



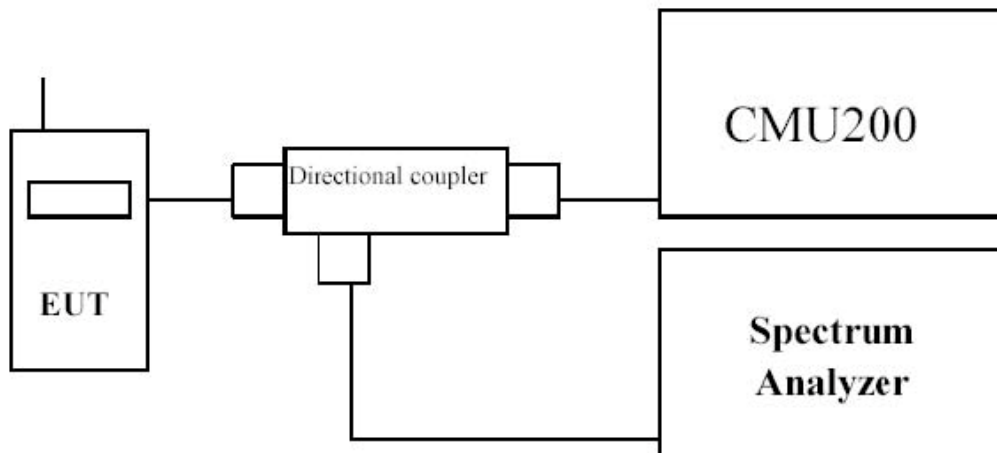
5.2 Test Result

The modulation of GSM/WCDMA was verified and confirmed compliance with requirement.



6. Occupied Bandwidth

6.1 Test Setup



6.2 Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The 99% occupied bandwidth and 26 dB bandwidth of the low & middle & high channel for the highest RF powers were measured.



6.3 Test Result

Product	iflytek translating machine		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: WCDMA Band II Link		
Date of Test	2017/06/12	Test Site	AC102

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
9262	1852.4	4637.0	4156.8
9400	1880.0	4623.0	4155.2
9538	1907.6	4626.0	4145.2

Figure Channel 9262 (1852.40MHz)

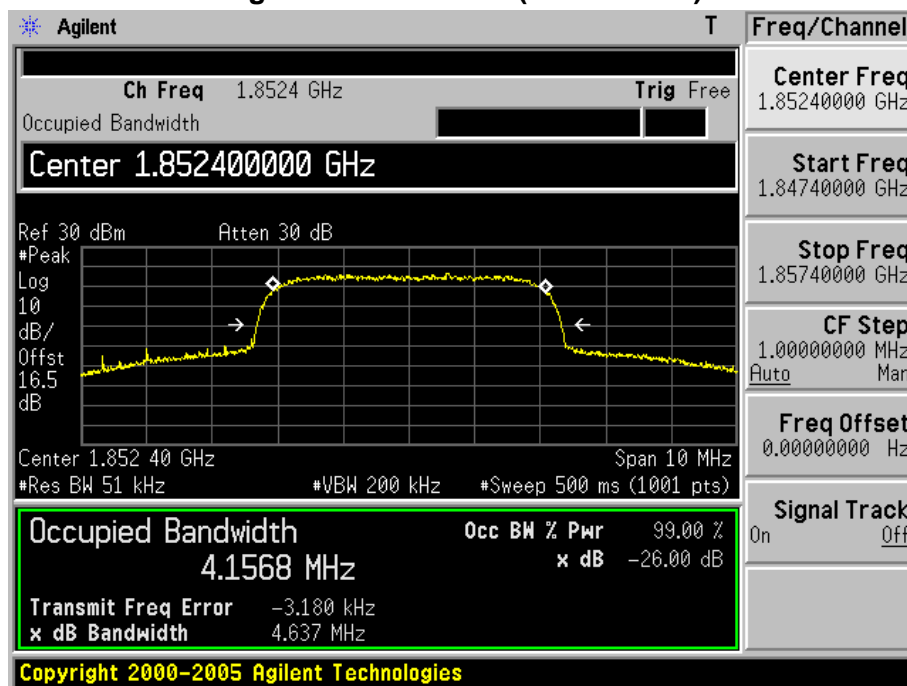




Figure Channel 9400 (1880.0MHz)

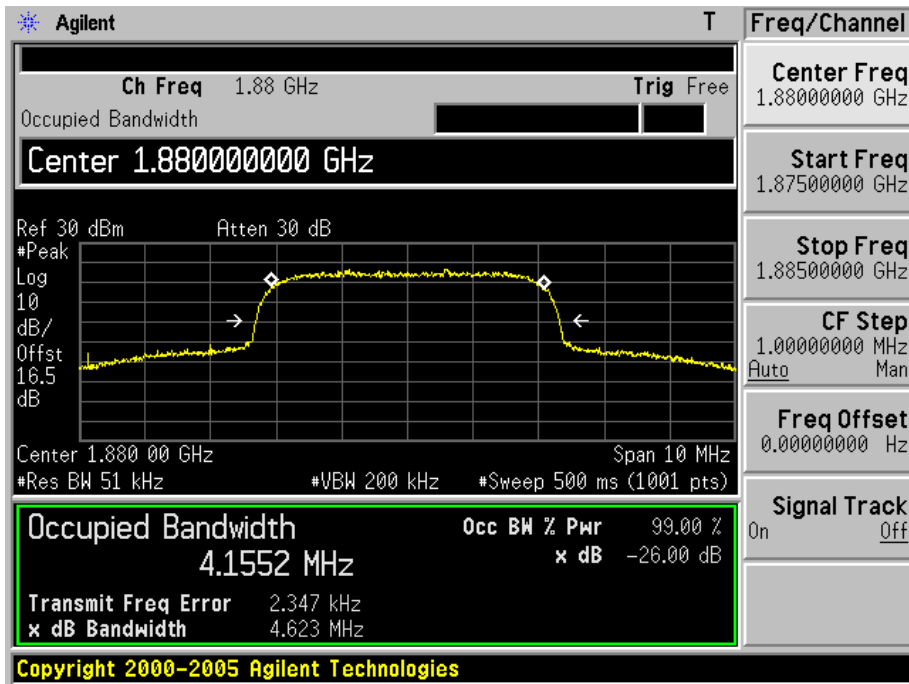
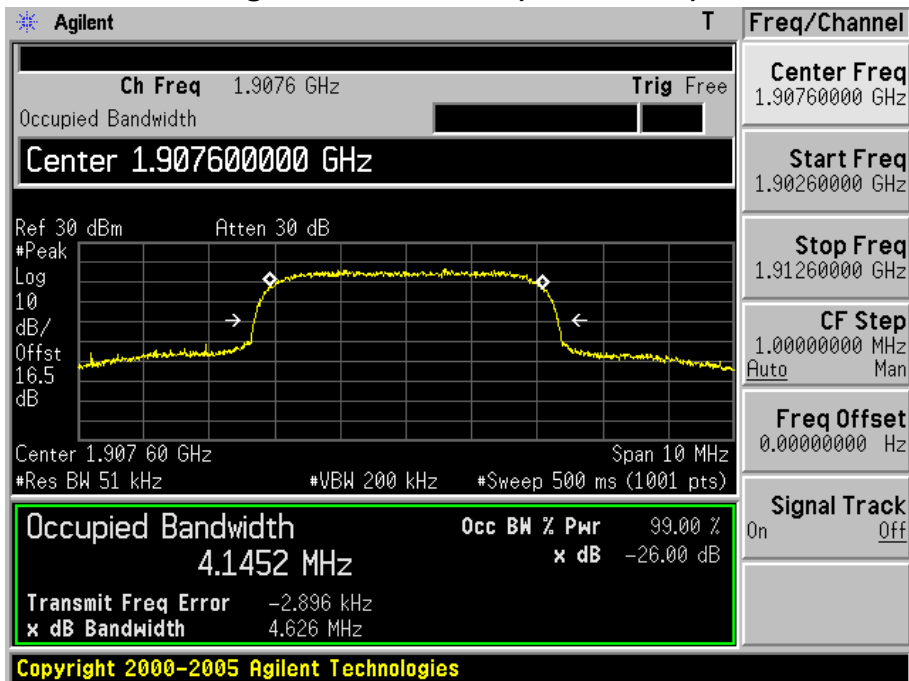


Figure Channel 9538 (1907.60MHz)





Product	iflytek translating machine		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2: WCDMA Band V Link		
Date of Test	2017/06/12	Test Site	AC102

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
4132	826.4	4621.0	4150.3
4182	836.4	4617.0	4149.2
4233	846.6	4618.0	4148.0

Figure Channel 4132 (826.40MHz)

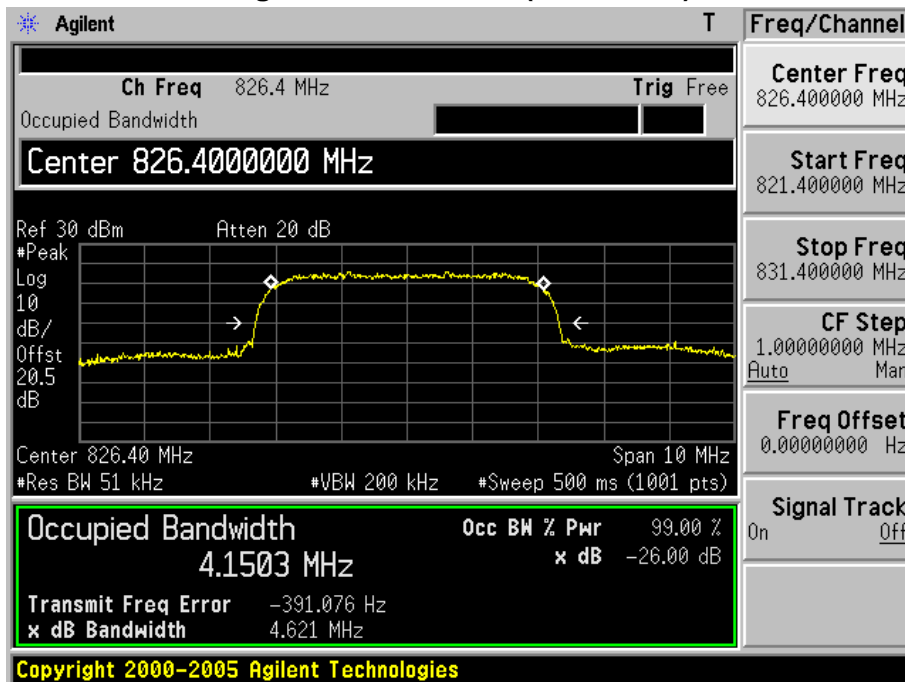




Figure Channel 4182 (836.40MHz)

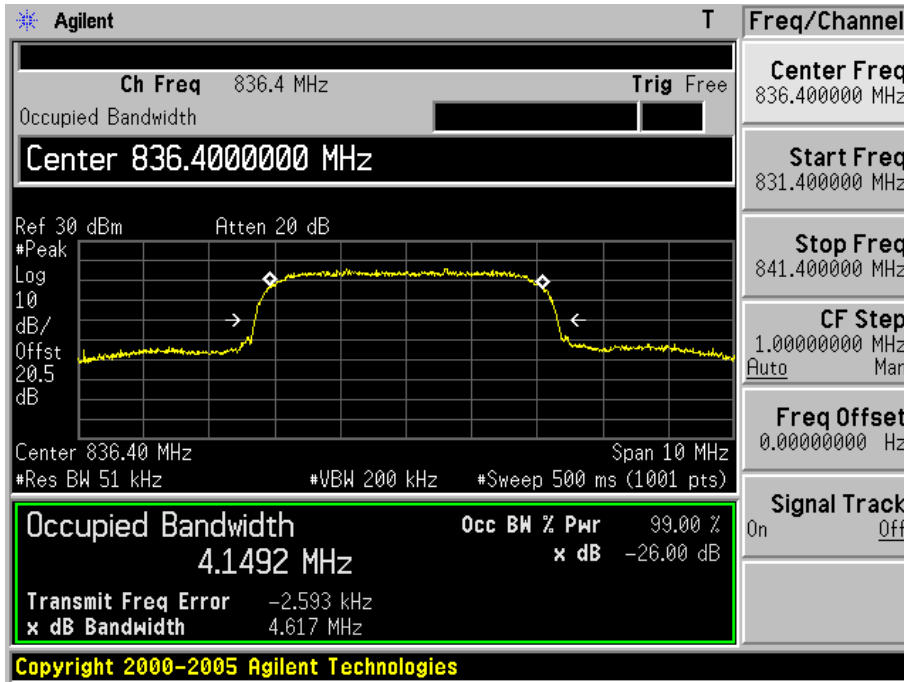
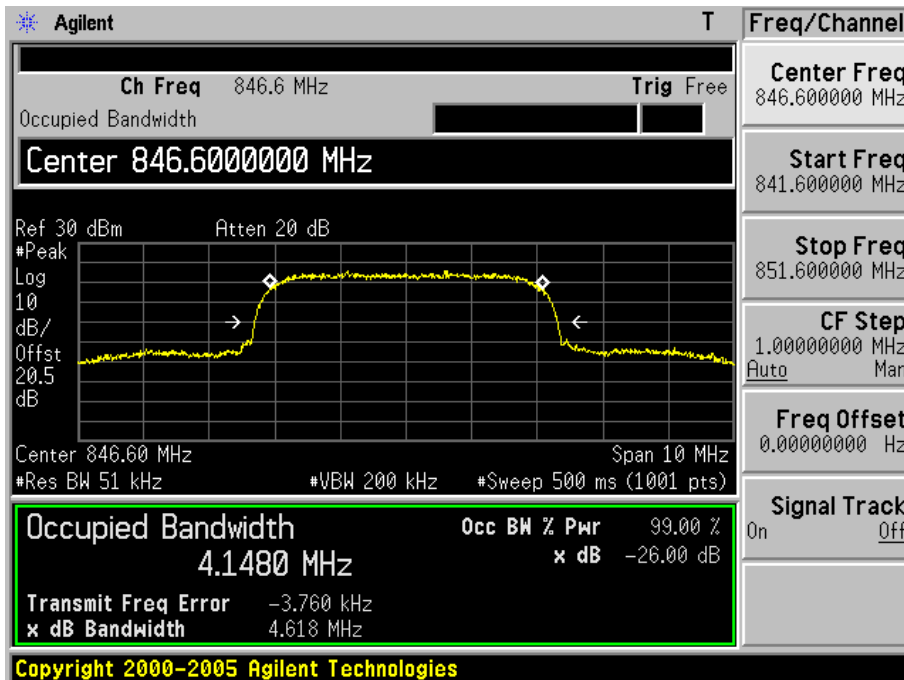


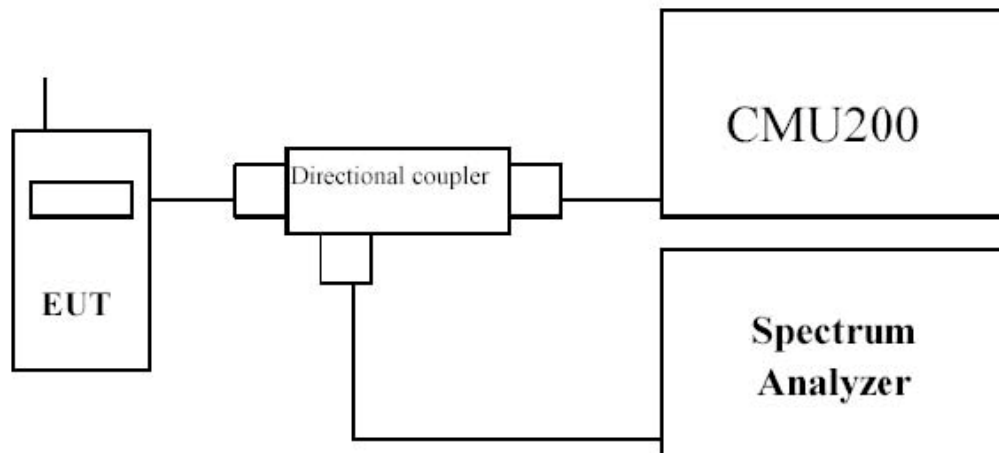
Figure Channel 4233(846.60MHz)





7. Conducted Band Edge

7.1 Test Setup



7.2 Test Procedure

1. The EUT was connected to spectrum analyzer and System Simulator via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The conducted spurious emission for the whole frequency range was taken.
4. In the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.



7.3 Test Result

Product	iflytek translating machine		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: WCDMA Band II Link		
Date of Test	2017/06/11	Test Site	AC102

Figure Channel 9262 (1852.40MHz)

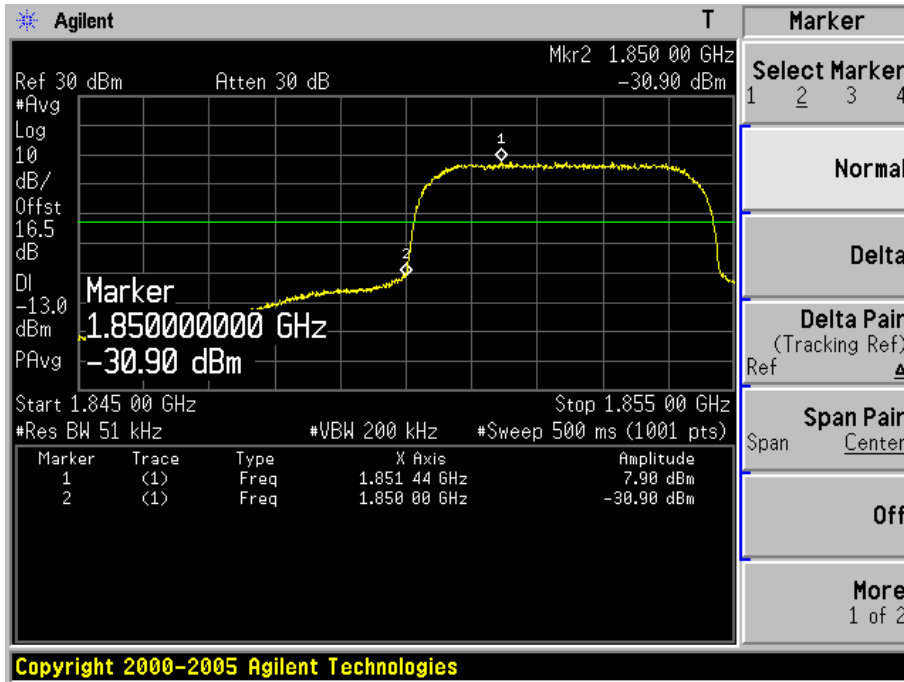
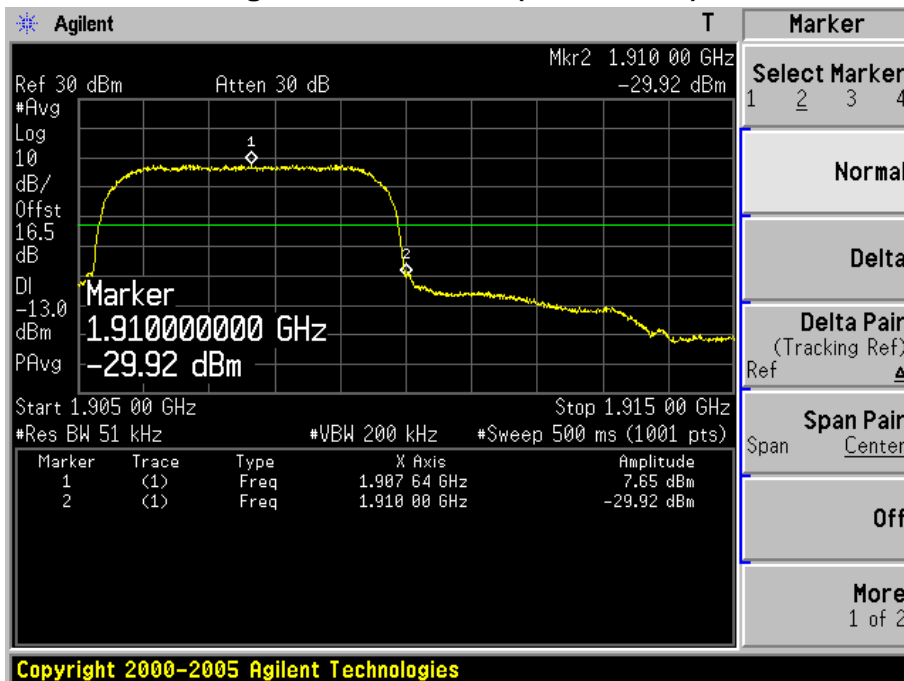


Figure Channel 9538 (1907.60MHz)





Product	iflytek translating machine		
Test Item	Conducted Band Edge		
Test Mode	Mode 2: WCDMA Band V Link		
Date of Test	2017/06/11	Test Site	AC102

Figure Channel 4132 (826.40MHz)

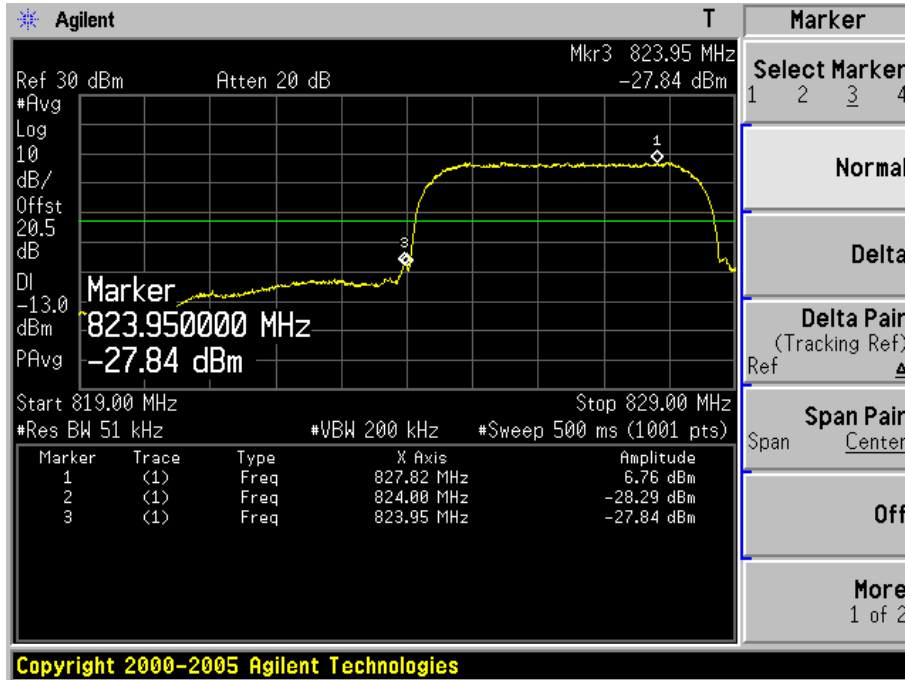
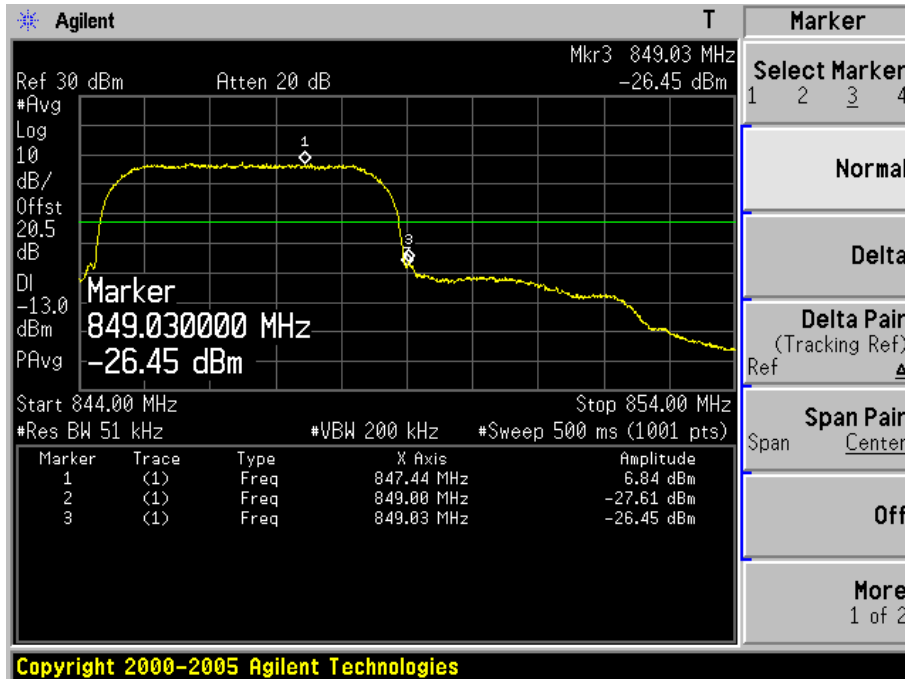


Figure Channel 4233 (846.60MHz)

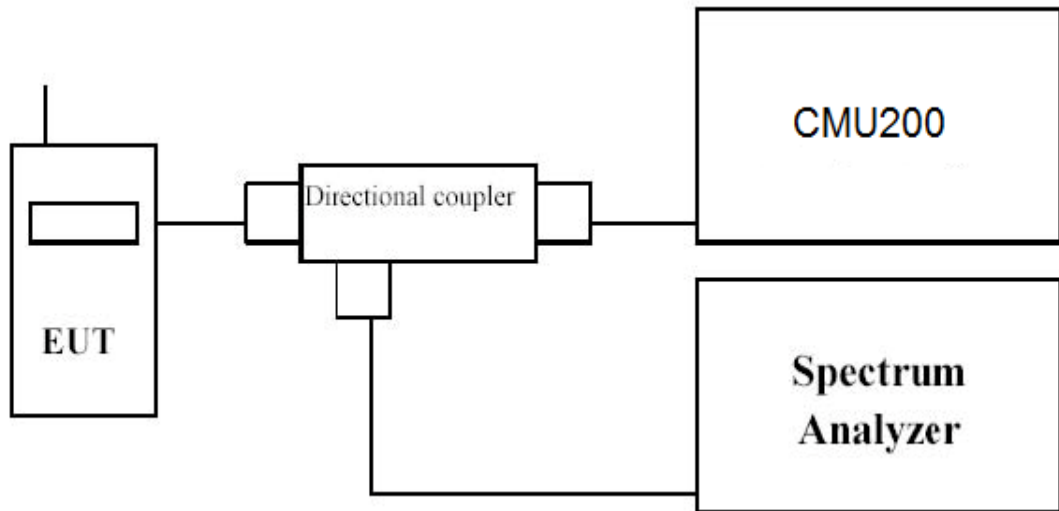




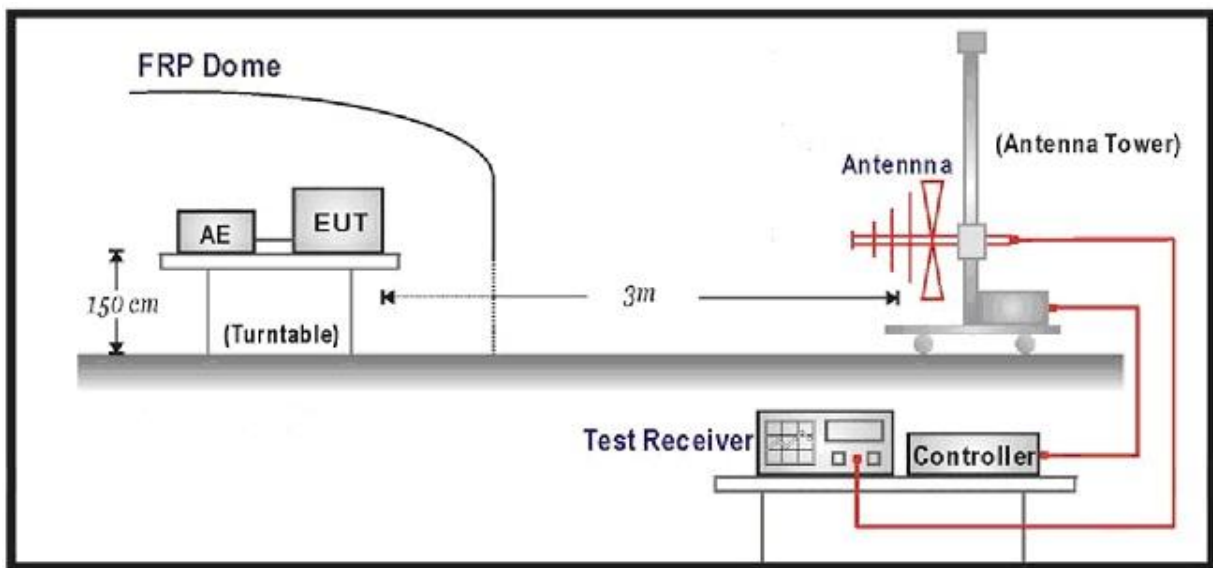
8. Spurious Emission

8.1 Test Setup

Conducted Spurious Measurement: below 1GHz

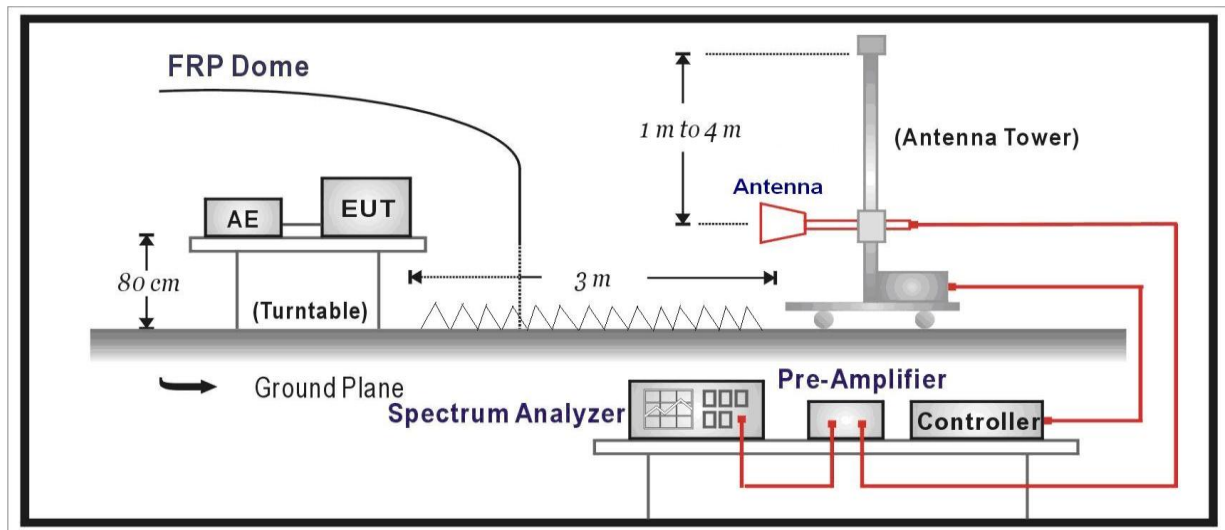


Radiated Spurious Measurement: below 1GHz





Radiated Spurious Measurement: above 1GHz



8.2 Test Procedure

Conducted Spurious Measurement:

- Place the EUT on a bench and set it in transmitting mode.
- Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMU200 by a Directional Couple.
- EUT Communicate with CMU200, then select a channel for testing.
- Add a correction factor to the display of spectrum, and then test.
- The resolution bandwidth of the spectrum analyzer was set at 1 MHz, sufficient scans were taken to show the out of band Emission if any up to 10th harmonic.

Radiated Spurious Measurement:

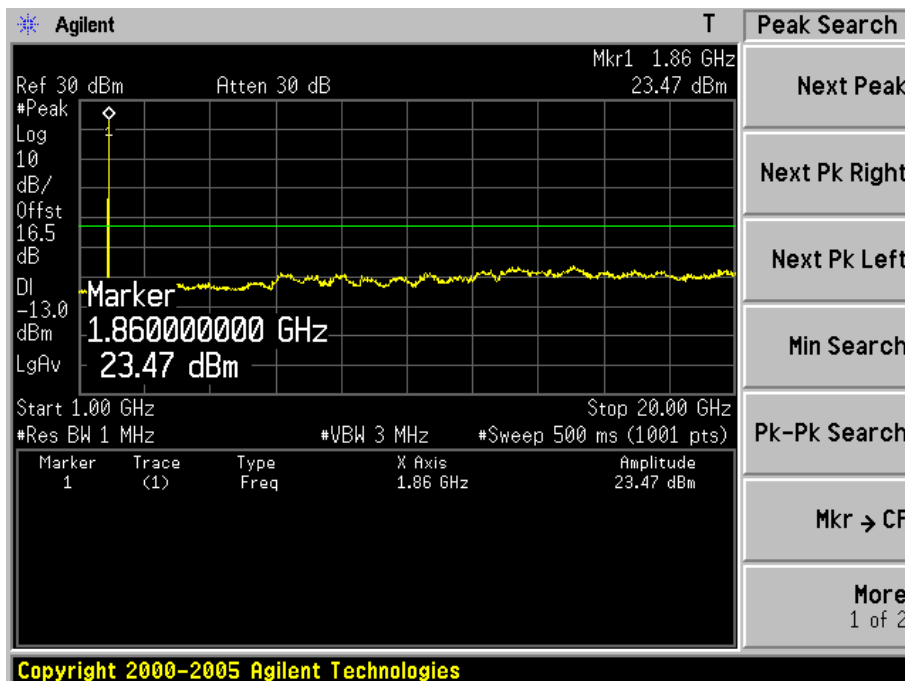
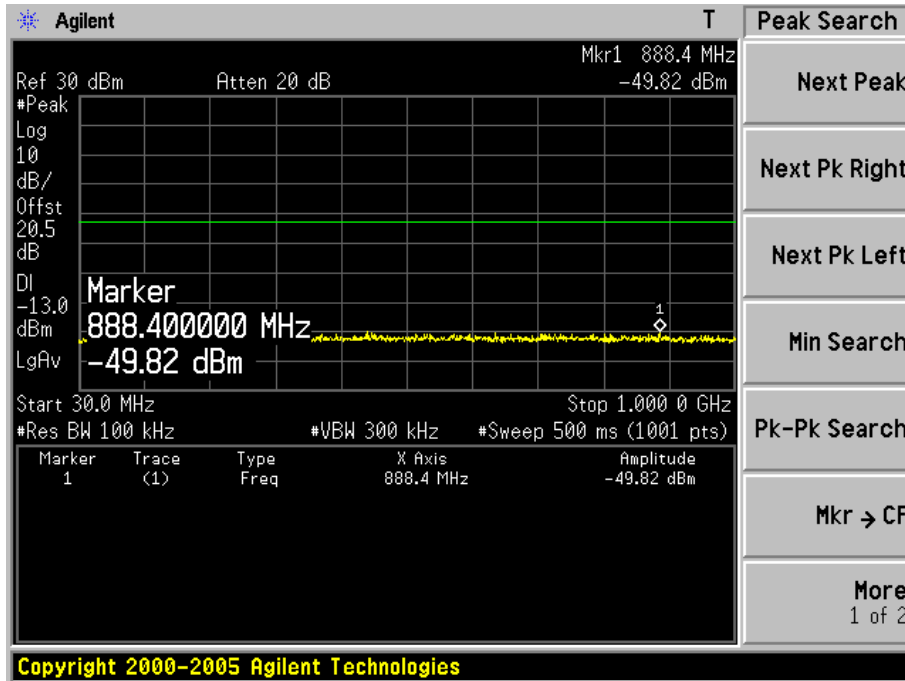
- The EUT was placed on a rotatable wooden table with 1.5 meter above ground.
- The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
- The table was rotated 360 degrees to determine the position of the highest spurious emission.
- The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
- Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 1MHz, Sweep 500ms, Taking the record of maximum spurious emission.
- A horn antenna was substituted in place of the EUT and was driven by a signal generator.
- Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- Taking the record of output power at antenna port
- Repeat step 7 to step 8 for another polarization. I receiver.
- $EIRP = SG - \text{Cable loss} + \text{Antenna Gain}$



8.3 Test Result

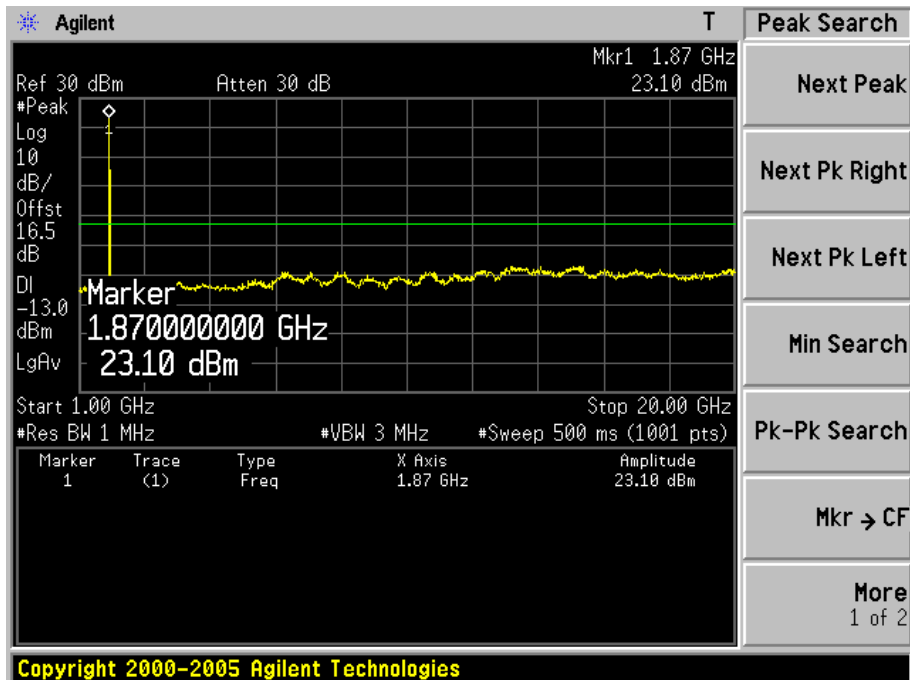
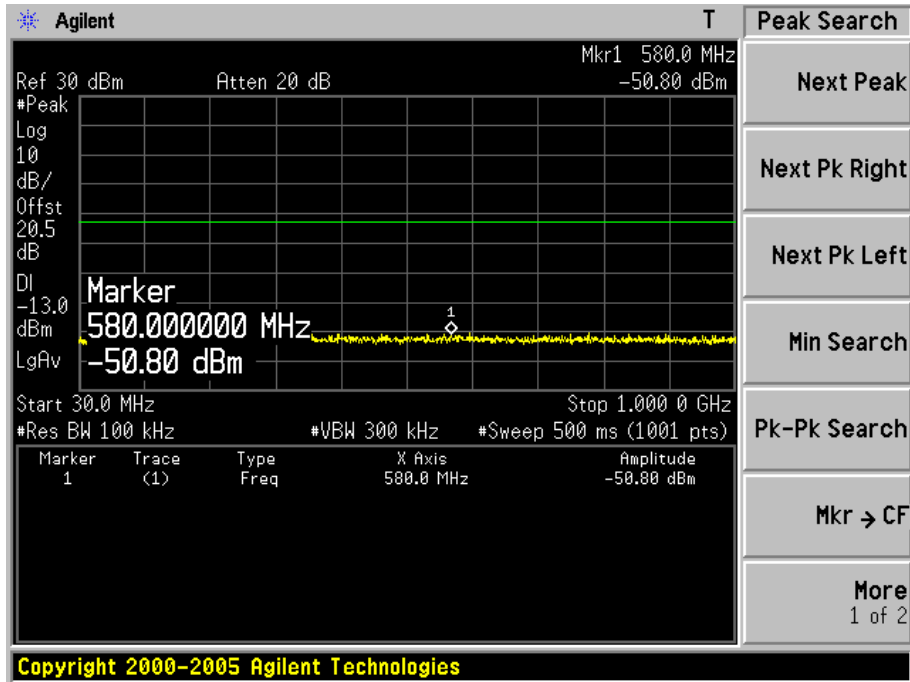
Product	iflytek translating machine		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: WCDMA Band II Link		
Date of Test	2017/06/11	Test Site	TR8

Low Channel 9262(1852.40MHz)



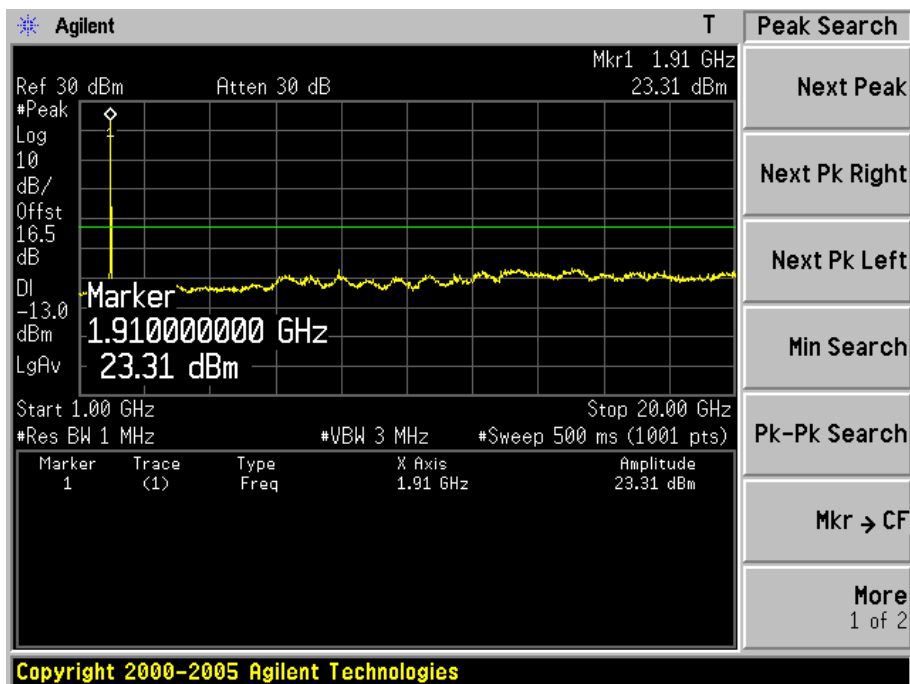
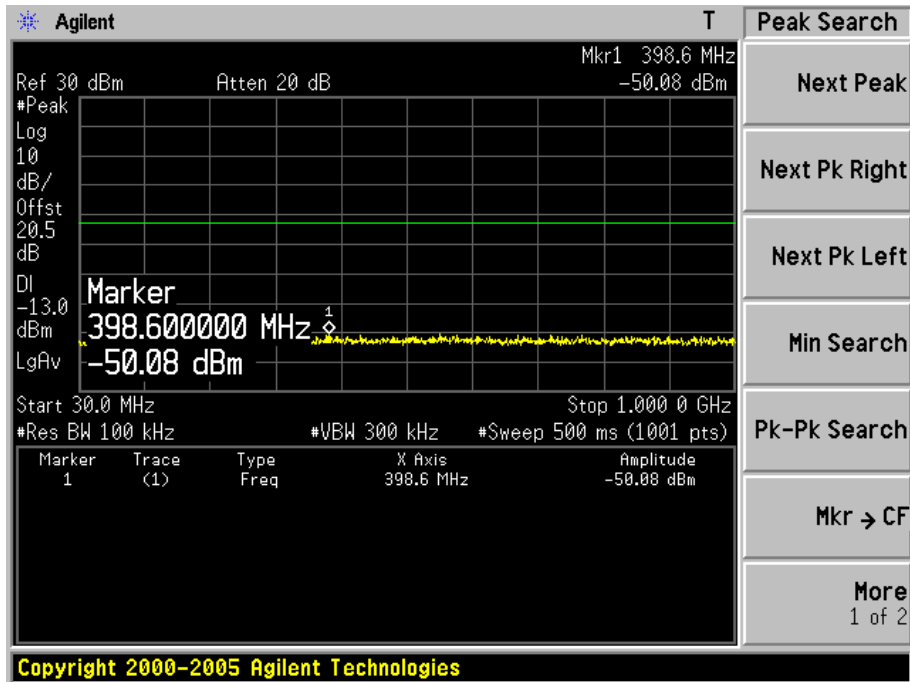


Mid Channel 9400(1880.00MHz)





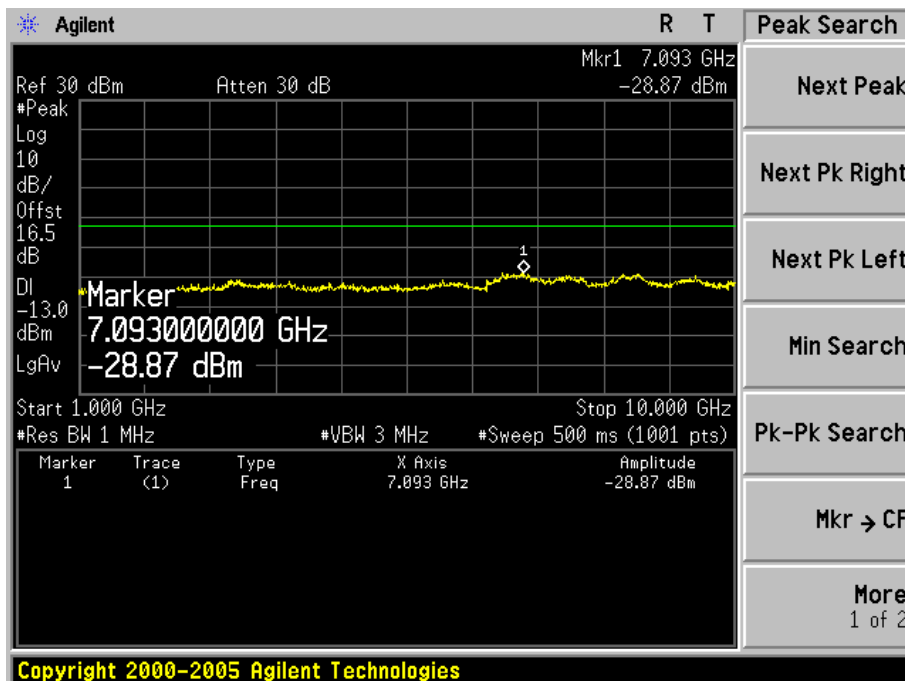
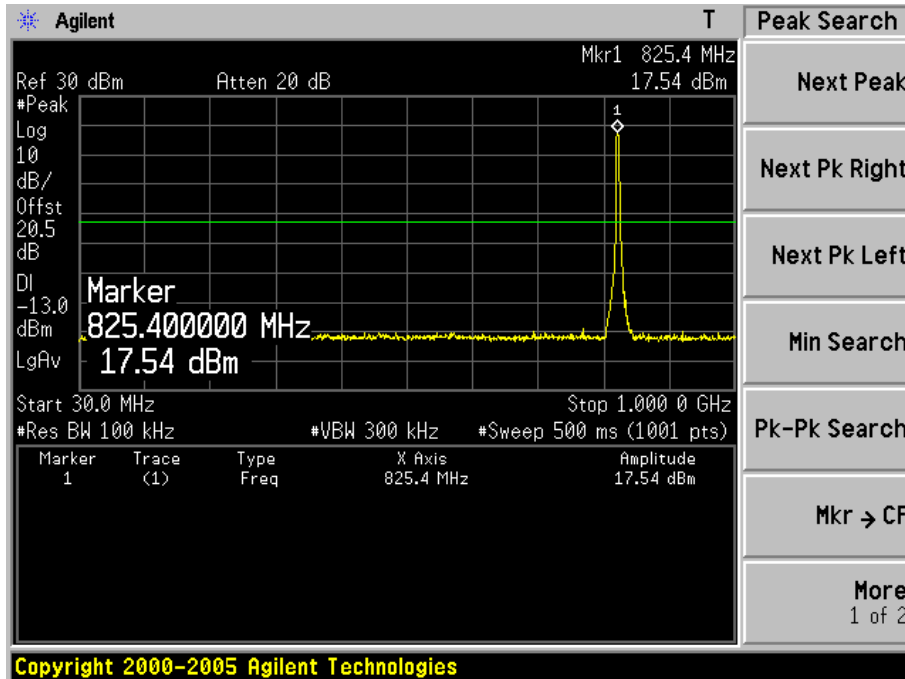
High Channel 9538(1907.60MHz)





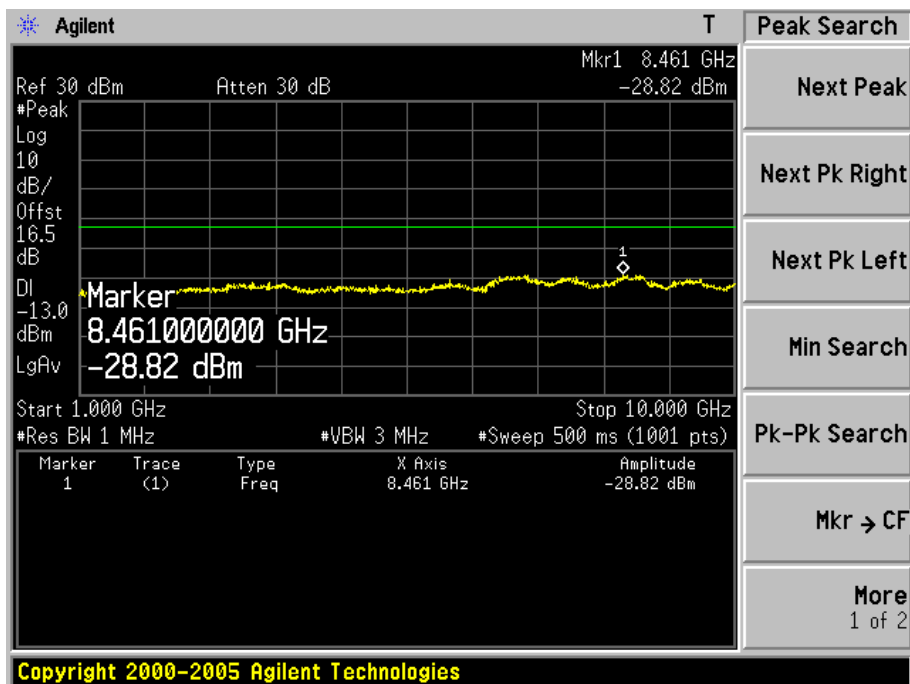
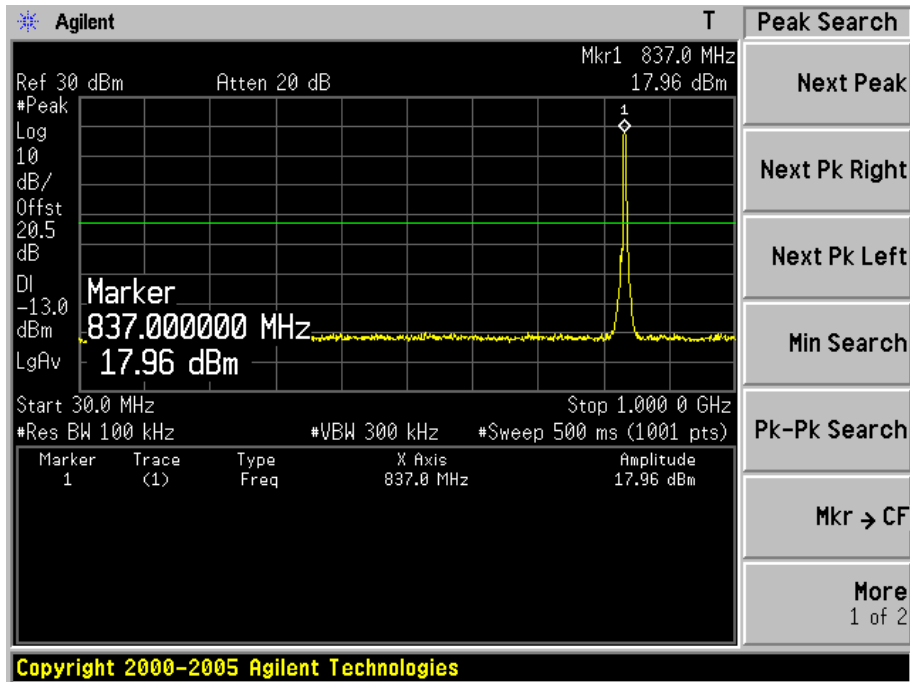
Product	iflytek translating machine		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 2: WCDMA Band V Link		
Date of Test	2017/06/11	Test Site	TR8

Low Channel 4132(826.40MHz)



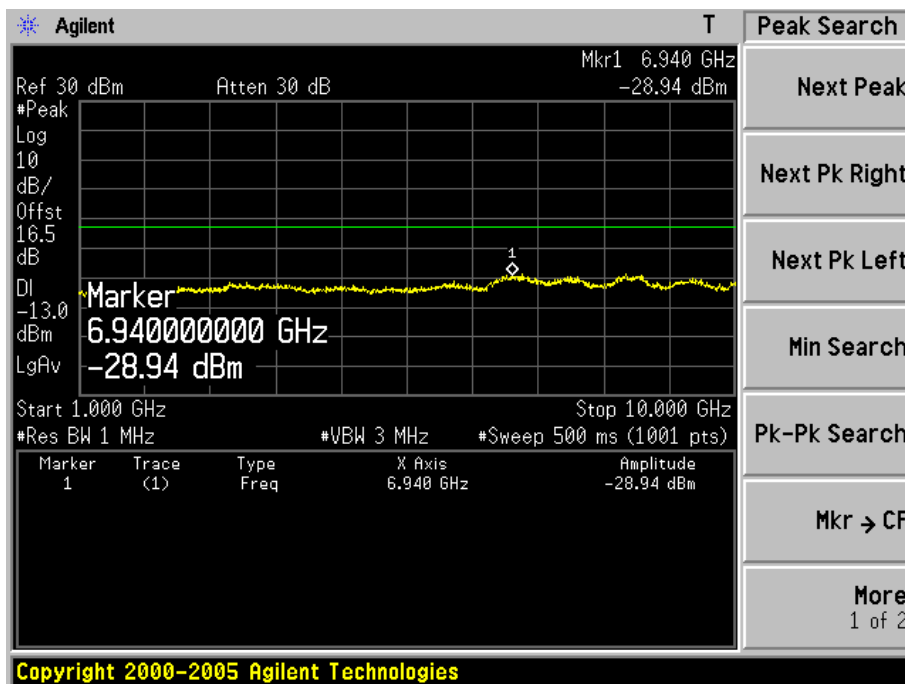
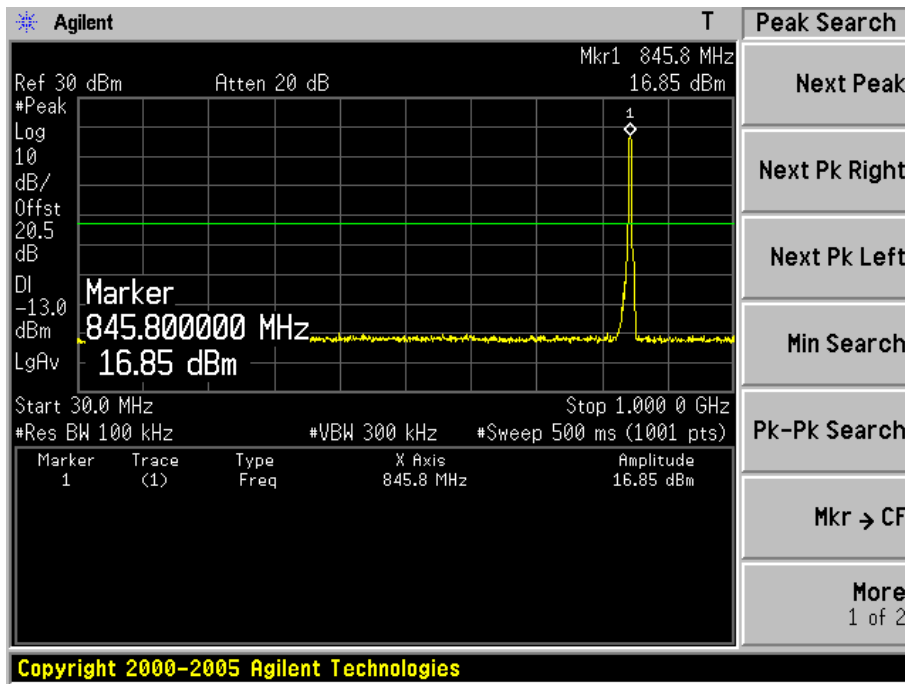


Mid Channel 4182(836.40MHz)





High Channel 4233(846.60MHz)





Product	iflytek translating machine		
Test Item	Radiated Spurious Emission		
Test Mode	Mode5: WCDMA Band II Link		
Date of Test	2014/11/21	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 9262 (1852.40MHz)								
3704.80	-49.72	V	-45.41	4.78	12.69	-37.50	-13.00	-24.50
5557.20	-59.18	V	-50.48	4.82	13.15	-42.15	-13.00	-29.15
3704.80	-45.73	H	-41.34	4.78	12.69	-33.43	-13.00	-20.43
5557.20	-59.64	H	-51.30	4.82	13.15	-42.97	-13.00	-29.97
Middle Channel 9400 (1880.00MHz)								
3760.00	-44.78	V	-40.18	5.03	12.72	-32.49	-13.00	-19.49
5640.00	-59.31	V	-50.78	5.93	13.14	-43.57	-13.00	-30.57
3760.00	-38.95	H	-34.45	5.03	12.72	-26.76	-13.00	-13.76
5640.00	-60.82	H	-50.77	5.93	13.14	-43.56	-13.00	-30.56
High Channel 9538 (1907.60MHz)								
3815.20	-41.91	V	-37.00	5.03	12.73	-29.30	-13.00	-16.30
5722.80	-58.50	V	-50.26	4.87	13.11	-42.02	-13.00	-29.02
3815.20	-40.14	H	-35.40	5.03	12.73	-27.70	-13.00	-14.70
5722.80	-57.50	H	-48.92	4.87	13.11	-40.68	-13.00	-27.68



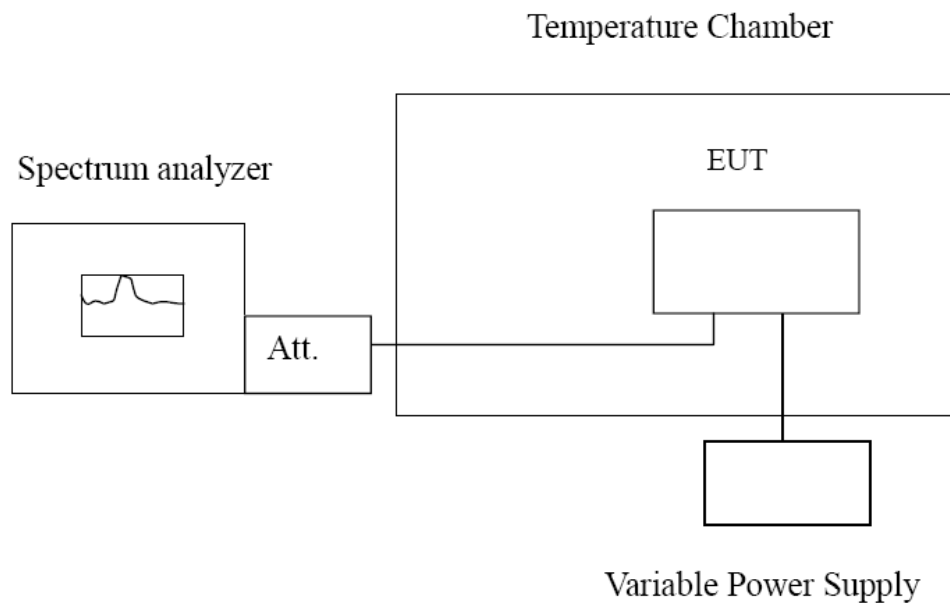
Product	iflytek translating machine		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 2: WCDMA Band V Traffic		
Date of Test	2014/11/21	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 4132 (826.40MHz)								
1654.50	-50.53	V	-52.30	3.28	9.75	-45.83	-13.00	-32.83
2479.20	-57.42	V	-53.07	4.10	10.48	-46.69	-13.00	-33.69
1654.50	-49.80	H	-51.55	3.28	9.75	-45.08	-13.00	-32.08
2479.00	-63.30	H	-57.75	4.10	10.48	-51.37	-13.00	-38.37
Middle Channel 4182 (836.40MHz)								
1671.50	-51.68	V	-53.24	3.32	9.95	-46.61	-13.00	-33.61
2513.00	-62.75	V	-56.86	4.31	10.62	-50.55	-13.00	-37.55
1671.50	-47.45	H	-49.31	3.32	9.95	-42.68	-13.00	-29.68
2513.00	-63.23	H	-57.49	4.31	10.62	-51.18	-13.00	-38.18
High Channel 4233 (846.60MHz)								
1697.00	-47.45	V	-49.39	3.35	10.06	-42.68	-13.00	-29.68
2539.80	-63.23	V	-57.60	3.91	10.33	-51.18	-13.00	-38.18
1697.00	-47.02	H	-48.72	4.19	10.68	-42.23	-13.00	-29.23
2538.50	-64.75	H	-59.31	4.33	10.79	-52.85	-13.00	-39.85



9. Frequency Stability Under Temperature & Voltage Variations

9.1 Test Setup



9.2 Test Procedure

Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

**9.3 Test Result**

Product	ifylytek translating machine		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: WCDMA Band II Link		
Date of Test	2017/06/12	Test Site	AC102

Frequency Stability under Temperature

Temperature Interval (°C)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	1880.00	26	± 4700
-20	1880.00	30	± 4700
-10	1880.00	25	± 4700
0	1880.00	34	± 4700
10	1880.00	28	± 4700
20	1880.00	35	± 4700
30	1880.00	43	± 4700
40	1880.00	77	± 4700
50	1880.00	-6	± 4700

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.200	1880.00	20	± 4700
3.650	1880.00	-10	± 4700
3.400	1880.00	29	± 4700



Product	iflytek translating machine		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 2: WCDMA Band V Link		
Date of Test	2017/06/12	Test Site	AC102

Frequency Stability under Temperature

Temperature Interval (°C)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	836.40	19	± 2091
-20	836.40	45	± 2091
-10	836.40	-33	± 2091
0	836.40	41	± 2091
10	836.40	23	± 2091
20	836.40	35	± 2091
30	836.40	47	± 2091
40	836.40	50	± 2091
50	836.40	-47	± 2091

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.200	836.40	-64	± 2091
3.650	836.40	44	± 2091
3.400	836.40	29	± 2091

The End