



31 July, 2012

**Chung Mei Industries Limited
11th Floor Chung Mei Centre, 15B Hing Yip Street ,
Kwun Tong Kowloon Hong Kong**

Dear Mr. Jing Hua Liu,

**Enclosed you will find your file copy of a Part 15 Certification (FCC ID:
N67-782019-R-F).**

**For your reference, TCB will normally take another 5 days for reviewing the
report. Approval will then be granted when no query is sorted.**

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn Xing", with a long horizontal stroke extending to the right.

Shawn Xing

Enclosure



Chung Mei Industries Limited

Application
For
Certification
(FCC ID: N67-782019-R-F)

Superheterodyne Receiver

Sample Description: Bed Fan with Wireless Remote
Model: SKU 782019, E1212

SZ12060224-1
Billy Li
31 July, 2012

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
- This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results referenced from this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.
- For Terms And Conditions of the services, it can be provided upon request.
- The evaluation data of the report will be kept for 3 years from the date of issuance.

TRF no.: FCC 15C_RX_b
FCC ID: N67-782019-R-F

Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch
6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China
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INTERTEK TESTING SERVICES

LIST OF EXHIBITS

INTRODUCTION

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MEASUREMENT/TECHNICAL REPORT

Chung Mei Industries Limited - MODEL: SKU 782019, E1212
FCC ID: N67-782019-R-F

This report concerns (check one:) Original Grant ☒ Class II Change ☐

Equipment Type: CYY – Communications Receiver used w/Pt 15 Transmitter

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes ☐ No ☒

If yes, defer until:
date

Company Name agrees to notify the Commission by:
date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes ☐ No ☒

If no, assumed Part 15, Subpart B for unintentional radiator - the new 47 CFR [10-1-10 Edition] provision.

Report prepared by:

Shawn Xing
Intertek Testing Services Shenzhen Ltd.
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List of attached file

Exhibit type	File Description	filename
Test Report	Test Report	report.pdf
Operation Description	Technical Description	descri.pdf
Test Setup Photo	Radiated Emission	radiated photos.pdf
Test Setup Photo	Conducted Emission	conducted photos.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Letter of Agency	agency.pdf

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EXHIBIT 1

GENERAL DESCRIPTION

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1.0 **General Description**

1.1 Product Description

The equipment under test (EUT) is a receiver for a Bed Fan with Wireless Remote operating at 315 MHz. The EUT is power by AC 120~230V, 50/60Hz 18W. The EUT will emit an audible beep or shake from vibes when it received a signal from the transmitter.

Antenna Type: Integral antenna

We tested the Bed Fan with Wireless Remote, Model: SKU 782019, to determine if it was in compliance with the relevant FCC rules as marked on the Test Results Summary.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

The model: E1212 is the same as the Model SKU 782019 except the model no. for business purpose

1.2 Related Submittal(s) Grants

This is a single application for certification of a receiver. The transmitter, associated with this receiver, has FCC ID: N67-782019-R and has been filed before.

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1.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4: 2009. Radiated emission measurement was performed in Semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

1.4 Test Facility

Conducted Emission test and Radiated Emission test were subcontracted to Compliance Certification Services (Shenzhen) Inc. located at No.10-1Mingkeda Logistics Park, No.18 Huanguan South RD. Guanlan Town, Baoan District Shenzhen China. This test facility and site measurement data have been fully placed on file with the FCC, test firm registration number is 441872.

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EXHIBIT 2

SYSTEM TEST CONFIGURATION

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2.0 **System Test Configuration**

2.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it), and in the confines as outlined in ANSI C63.4: 2009.

The device is power by AC 120V/60Hz when testing.

There are two alternative motors that can be used in the EUT, models are: SM8025SH, JD8025HS, the data in this report is for JD8025HS, since it's the worse case of the two.

There are two alternative adaptors that can be used for the fan, models are: YJS03-1201400U, MTP181UL-120150, the data in this report is for YJS03-1201400U, since it's the worse case of the two.

For maximizing emissions, the EUT was rotated through 360°, the antenna height was varied from 1 meter to 4 meters above the ground plane, and the antenna polarization was changed. The step by step procedure for maximizing emissions led to the data reported in Exhibit 3.0.

The rear of unit shall be flushed with the rear of the table.

The equipment under test (EUT) was configured for testing in a typical fashion (as a customer would normally use it). The EUT was placed on turntable, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes.

The frequency range from 30MHz to 2GHz was searched for spurious emissions from the device. Only those emissions reported were detected. All other emissions were at least 20 dB below the applicable limits.

2.2 EUT Exercising Software

There was no special software to exercise the device. Once the unit is powered up, it received continuously.

2.3 Special Accessories

N/A.

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2.4 Equipment Modification

Any modifications installed previous to testing by Chung Mei Industries Limited will be incorporated in each production model sold/leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd Kejiyuan Branch.

2.5 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

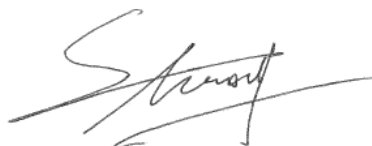
2.6 Support Equipment List and Description

A controller with FCC ID: N67-782019-R.

All the items listed under section 2.0 of this report are

Confirmed by:

*Shawn Xing
Manager
Intertek Testing Services Shenzhen Ltd Kejiyuan Branch.
Agent for Chung Mei Industries Limited*



Signature

18 April, 2012

Date

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EXHIBIT 3

EMISSION RESULTS

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3.0 Emission Results

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

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3.1 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF - AG$$

where FS = Field Strength in dB μ V/m
 RA = Receiver Amplitude (including preamplifier) in dB μ V
 CF = Cable Attenuation Factor in dB
 AF = Antenna Factor in dB
 AG = Amplifier Gain in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:

$$FS = RR + LF$$

where FS = Field Strength in dB μ V/m
 $RR = RA - AG$ in dB μ V
 $LF = CF + AF$ in dB

Assume a receiver reading of 52.0 dB μ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB are added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

$RA = 52.0$ dB μ V/m	
$AF = 7.4$ dB	$RR = 23.0$ dB μ V
$CF = 1.6$ dB	$LF = 9.0$ dB
$AG = 29.0$ dB	
$FS = RR + LF$	
$FS = 23 + 9 = 32$ dB μ V/m	

Level in μ V/m = Common Antilogarithm $[(32 \text{ dB}\mu\text{V/m})/20] = 39.8 \mu\text{V/m}$

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3.2 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at
34.850 MHz

For electronic filing, the worst case radiated emission configuration photographs are saved with filename: radiated photos.doc.

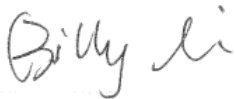
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3.3 Radiated Emission Data

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Judgement: Passed by 3.92 dB

TEST PERSONNEL:



Signature

Billy Li, Supervisor
Typed/Printed Name

27 July, 2012
Date

INTERTEK TESTING SERVICES

Applicant: Chung Mei Industries Limited
Date of Test: 27 July, 2012
Model: SKU 782019
Test Mode: Receive

Result Table
FCC Class B Radiated Emissions: 30MHz-1GHz

Polarization	Frequency (MHz)	Reading (dBμV)	Correction factor (dB/m)	Net at 3m (dBμV/m)	QP Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	34.8500	50.00	-13.92	36.08	40.00	-3.92
Horizontal	107.6000	54.16	-21.45	32.71	43.50	-10.79
Horizontal	151.2500	51.16	-21.39	29.77	43.50	-13.73
Vertical	63.9500	55.76	-23.21	32.55	40.00	-7.45
Vertical	109.2167	55.87	-21.12	34.75	43.50	-8.75
Vertical	207.8333	49.33	-21.32	28.01	43.50	-15.49

FCC Class B Radiated Emissions: 1GHz-2GHz

Polarization	Frequency (MHz)	Reading (dBμV)	Correction factor (dB/m)	Net at 3m (dBμV/m)	AV Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	1161.6667	50.12	-8.48	41.64	54.00	-12.36
Horizontal	1240.0000	50.63	-7.95	42.68	54.00	-11.32
Horizontal	1385.0000	48.36	-7.24	41.12	54.00	-12.88
Vertical	1088.3333	48.99	-9.12	39.87	54.00	-14.13
Vertical	1231.6667	48.76	-7.99	40.77	54.00	-13.23
Vertical	1385.0000	47.94	-7.24	40.70	54.00	-13.30

- NOTES: 1. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
2. Negative sign in the column shows value below limit.
3. All emissions below 1000MHz are below the QP limit and all emissions above 1000MHz are below the AV limit.
4. Peak detector was used when the frequency above 1000MHz.
5. Horn antenna was used for the emission above 1000MHz.

Test Engineer: Billy Li

TRF no.: FCC 15C_RX_b
FCC ID: N67-782019-R-F

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3.4 Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration
at
0.190 MHz

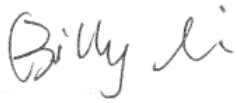
For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

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3.5 Conducted Emission Data

Judgement: Passed by 2.5 dB margin

TEST PERSONNEL:



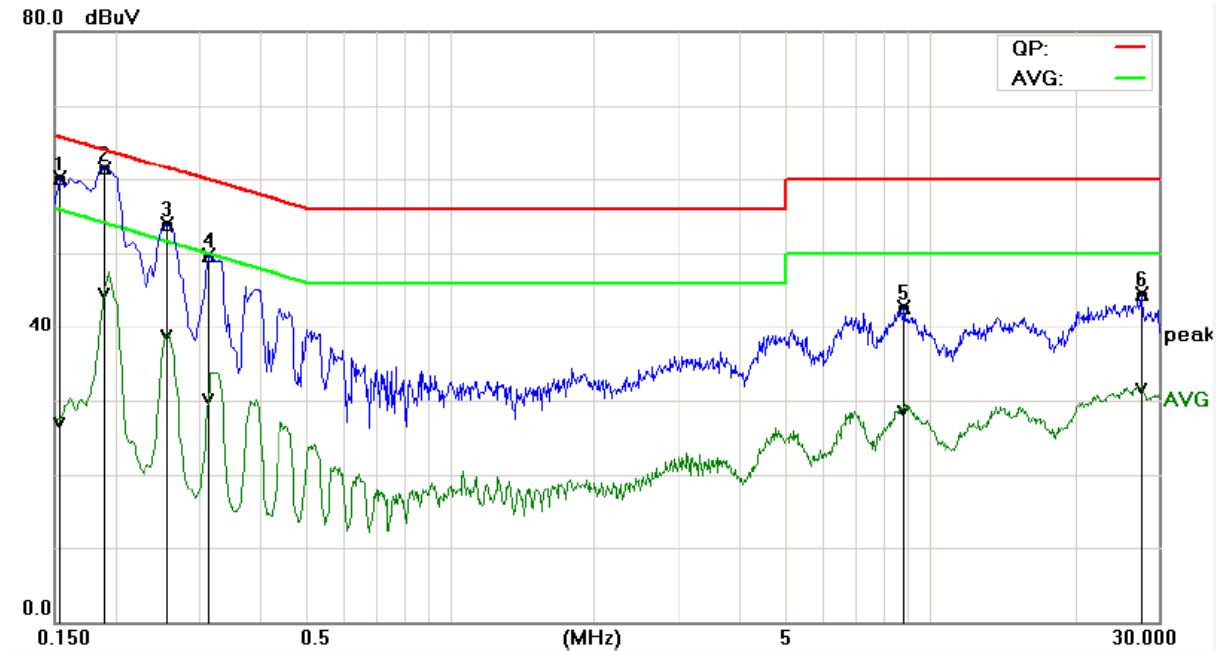
Billy Li, Supervisor
Typed/Printed Name

18 April, 2012
Date

INTERTEK TESTING SERVICES

Applicant: Chung Mei Industries Limited
Date of Test: 18 April, 2012
Model: SKU 782019
Test Mode: Receive

Conducted Emission Test - FCC



L line:

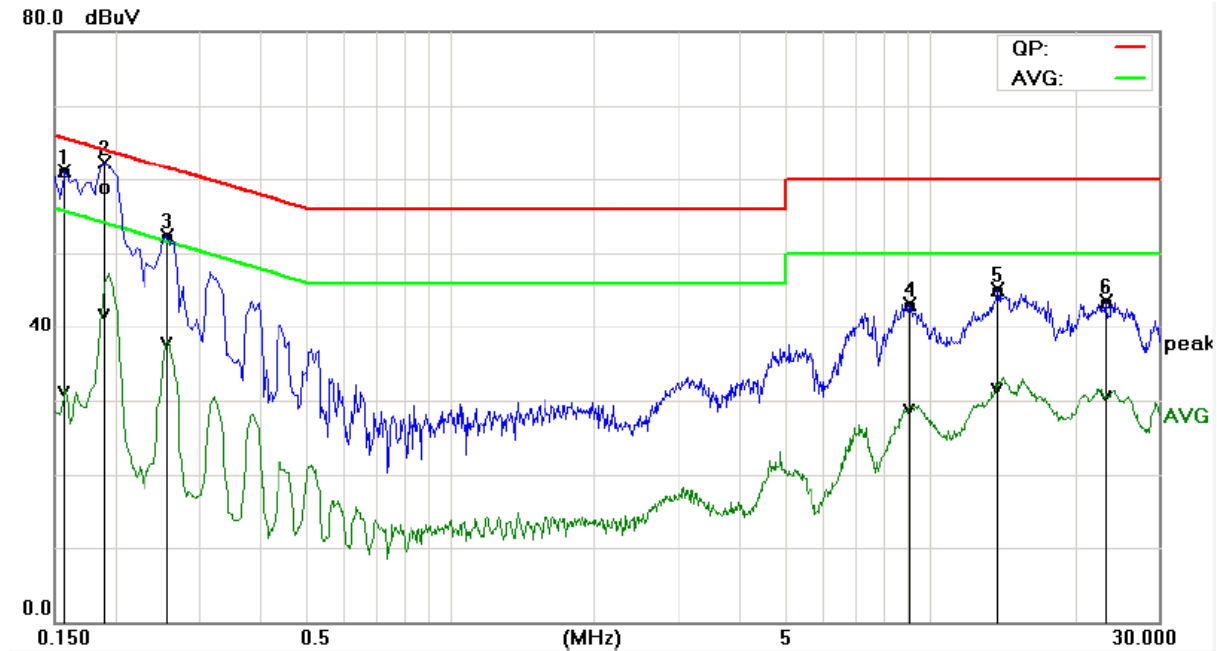
Frequency MHz	Quasi-Peak		Average	
	Disturbance Level dBuV	Permitted limit dBuV	Disturbance Level dBuV	Permitted limit dBuV
0.1539	60.1	65.8	27.3	55.8
0.1900	61.5	64.0	45.0	54.0
0.2580	54.0	61.5	39.2	51.5
0.3140	49.7	59.9	30.5	49.9
8.8380	42.7	60.0	29.0	50.0
27.5820	44.5	60.0	31.9	50.0

Test Engineer: Billy Li

INTERTEK TESTING SERVICES

Applicant: Chung Mei Industries Limited
 Date of Test: 18 April, 2012
 Model: SKU 782019
 Test Mode: Receive

Conducted Emission Test - FCC



N line:

Frequency MHz	Quasi-Peak		Average	
	Disturbance Level dBuV	Permitted limit dBuV	Disturbance Level dBuV	Permitted limit dBuV
0.1580	61.1	65.6	31.5	55.6
0.1878	58.9	64.1	42.0	54.1
0.2580	52.2	61.5	38.2	51.5
9.0740	43.1	60.0	29.1	50.0
13.8980	45.1	60.0	31.9	50.0
23.2860	43.4	60.0	31.0	50.0

Test Engineer: Billy Li

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EXHIBIT 4

EQUIPMENT PHOTOGRAPHS

INTERTEK TESTING SERVICES

4.0 Equipment Photographs

For electronic filing, the photographs are saved with filename: external photos.doc and internal photos.doc.

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EXHIBIT 5

PRODUCT LABELLING

INTERTEK TESTING SERVICES

5.0 **Product Labelling**

For electronics filing, the FCC ID label artwork and the label location are saved with filename: label.pdf.

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EXHIBIT 6

TECHNICAL SPECIFICATIONS

INTERTEK TESTING SERVICES

6.0 Technical Specifications

For electronic filing, the block diagram and schematic of the tested EUT are saved with filename: block.pdf and circuit.pdf respectively.

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EXHIBIT 7

INSTRUCTION MANUAL

INTERTEK TESTING SERVICES

7.0 Instruction Manual

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

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EXHIBIT 8

MISCELLANEOUS INFORMATION

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8.0 Miscellaneous Information

This miscellaneous information includes emission measuring procedure.

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8.1 Emissions Test Procedures

The following is a description of the test procedure used by Intertek Testing Services in the measurements of computer peripheral operating under Part 15, Subpart B rules.

The test set-up and procedures described below are designed to meet the requirements of ANSI C63.4: 2009.

The computer peripheral equipment under test (EUT) is placed on a wooden turntable which is four feet in diameter and approximately one meter in height above the ground plane. During the radiated emissions test, the turntable is rotated and any cables leaving the EUT are manipulated to find the configuration resulting in maximum emissions. The antenna height and polarization are varied during the testing to search for maximum signal levels. The height of the antenna is varied from one to four meters.

Detector function for radiated emissions is in QP mode from the frequency band 30MHz to 1GHz with RBW setting is 120kHz. Above 1GHz, Detector function for radiated emissions is in peak mode with RBW setting is 1MHz. Detector function for conducted emissions are in QP & AV mode and IFBW setting is 9kHz from the frequency band 150kHz to 30MHz.

For radiated emission, the frequency range scanned is 30MHz to 2GHz. For line-conducted emissions, the range scanned is 150kHz to 30MHz.

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8.1 Emissions Test Procedures (cont'd)

The EUT is warmed up for 15 minutes prior to the test.

AC power to the unit is varied from 85% to 115% nominal and variation in the fundamental emission field strength is recorded. If battery powered, a new, fully charged battery is used.

Conducted measurements were made as described in ANSI C63.4: 2009.

The IF bandwidth used for measurement of radiated signal strength was 100 kHz or greater when frequency is below 1000 MHz.

Measurements are normally conducted at a measurement distance of three meters. All measurements are extrapolated to three meters using inverse scaling, unless otherwise reported. Measurements taken at a closer distance are so marked.

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EXHIBIT 9

TEST EQUIPMENT LIST

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9.0 Test Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	19-Mar-12	19-Mar-13
BiConiLog Antenna	SCHAFFNER	CBL6143	5082	03-Jun-11	03-Jun-12
Amplifier	MITEQ	AM-1604-3000	1411843	18-Mar-12	18-Mar-13
Anechoic Chamber	SAEMC	9*6*6M	966(2)	07-Mar-12	07-Mar-13
Active Loop Antenna	A、R、A	PLA-1030/B	1029	19-Mar-12	19-Mar-13
EMI TEST RECEIVE	ROHDE&SCH WARZ	ESCI	100783	19-Mar-12	19-Mar-13
LISN	SCHAFFNER	NNB42	2001/001	26-May-11	26-May-12
Horn Antenna	SCHWARZBE CK	BBHA9120	D286	17-Mar-12	17-Mar-13