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Dates of Tests: May 08 ~ 10, 2007 Test Report S/N: LR500190705E Test Site: LTA CO., LTD.

CERTIFICATIO OF COMPLIANCE

FCC ID.

APPLICANT

VASEBT100

eb Corp.

FCC Classification : Licensed Transmitter (PCB)

Manufacturing Description: Driver's Console

Manufacturer : eb Corp.

Manufacturer (RF Module) : Siemens AG (FCC ID:QIPMC56)

Model name : EBT-100

Test Device Serial No.: : Identical prototype
Rule Part(s) : \$24(E), \$22(H), \$2

TX Frequency Range : 824.2 ~ 848.8 MHz (GSM850)/1850.2 ~ 1909.8 MHz (PCS1900)

RX Frequency Range : 869.2 ~ 893.8 MHz (GSM850)/1930.2 ~ 1989.8 MHz (PCS1900)

RF Output Power : GSM850 (33dBm: Level 5) / PCS1900 (30dBm: Level 0)

This test report is issued under the authority of:

The test was supervised by:

Dong -Min JUNG, Technical Manager

Kyung-Taek LEE, Test Engineer

This test result only responds to the tested sample. It is not allowed to copy this report even partly without the allowance of the test laboratory. This report must not be used by the applicant to claim product endorsement by any agency.

NVLAP

NVLAP LAB Code.: 200723-0

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1. General information's

1-1 Test Performed

Company name : LTA Co., Ltd.

Address : 243, Jubug-ri, Yangji-Myeon, Youngin-Si, Kyunggi-Do, Korea. 449-822

Web site : http://www.ltalab.com
E-mail : chahn@ltalab.com
Telephone : +82-31-323-6008
Facsimile +82-31-323-6010

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competents of calibration and testing laboratory".

1-2 Accredited agencies

LTA Co., Ltd. is approved to perform EMC testing by the following agencies:

Agency	Country	Accreditation No.	Validity	Reference
NVLAP	U.S.A	200723-0	2007-09-30	ECT accredited Lab.
RRL	KOREA	KR0049	2007-07-13	EMC accredited Lab.
FCC	U.S.A	610755	2008-03-28	FCC filing
VCCI	JAPAN	R2133, C2307	2008-06-22	VCCI registration
IC	CANADA	IC5799	2008-04-23	IC filing

2. Information's about test item

2-1 Client & Manufacturer

Company name : eb Corp.

Address : 14th Fl., HIGH-END TOWER, 235-2, Guro-Dong, Guro-Ku, Seoul, Korea

Tel / Fax : +82.2.6220.3085 / +82.2.6220.5001

2-2 Equipment Under Test (EUT)

Trade name : Driver's Console

Model name : EBT-100

Serial number : Identical prototype

Date of receipt : April 10, 2007

EUT condition : Pre-production, not damaged

GSM Module : Siemens AG (FCC ID: QIPMC56)

Identification mark: 0682

Antenna type : GSM850/PCS1900 DUAL HELICAL ANTENNA

Gain: -3dBi for GSM850, Gain:-5dBi for PCS1900

RF output power : GSM850 (33dBm: Level 5) / PCS1900 (30dBm: Level 0)

Modulation : GMSK, 8PSK Temperature range : $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$

Power Source : DC/DC Converter: Input 24VDC, Output 12VDC/5VDC/3.3VDC

2-3 Tested frequency

Frequency	Ch.	GSM 850	Ch	PCS1900
Middle frequency (MHz)	190	836.6	661	1880.0

2.4 Test conditions

Temperature	: +15~35 ℃	Humidity	: 30~65 %RH		
Pressure	: 860~1030 mbar Operating mode : Air link mode				
GSM850	A communication link is established between the mobile station and the test simulator.				
	The transmitter is operated at its maximum rated output power: 33 dBm (power				
	class 4 = power control level 5)				
PCS1900	A communication link is established between the mobile station and the test simulator.				
	The transmitter is operated at its maximum rated out put power: 30 dBm (power				
	class 1 = power control level 0)				

3. Test Report

3.1 Summary of tests

Parameter Limit	Status
Condition	(note 1)

I. FCC Part Section(s)

GSM 850/1900 Terminal equipment (MC56) is certified by FCC(FCC ID: QIPMC56).

Refer to the test report of FCC ID:QIPMC56.

II. Additional items						
15.209 /109 Field Strength of Harmonics - Radiated C						
15.207	AC Conducted Emissions EN 55022		Line Conducted	С		
Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable						
<u>Note 2</u> : The data in this test report are traceable to the national or international standards.						

The sample was tested according to the following specification:

ANSI C-63.4-2003

3.2 Technical Characteristics Test

3.2.1 Field Strength

Procedure:

The EUT was placed on a 0.8m high wooden table inside a shielded enclosure. An antenna was placed near the EUT and measurements of frequencies and amplitudes of field strengths were recorded for reference during final measurements. For final radiated testing, measurements were performed in OATS. Measurements were performed with the EUT oriented in 3 orthogonal axis and rotated 360 degrees to determine worst-case orientation for maximum emissions.

The spectrum analyzer is set to:

Center frequency = the worst channel

Frequency Range = $30 \text{ MHz} \sim 10^{\text{th}}$ harmonic.

 $RBW = 100 \text{ kHz} (30 \text{MHz} \sim 1 \text{ GHz})$ $VBW \geq RBW$

= 1 MHz $(1 \text{ GHz} \sim 10^{\text{th}} \text{ harmonic})$

Span = 100 MHz Detector function = Quasi-peak

Trace = \max hold Sweep = auto

Measurement Data: Complies

→ No other emissions were detected are a level greater than 20dB below limit.

Minimum Standard: FCC Part 15.209(a)

Frequency (MHz)	Limit (uV/m) @ 3m
30 ~ 88	100 **
88 ~ 216	150 **
216 ~ 960	200 **
Above 960	500

^{**} Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

Minimum Standard: FCC Part 15.109

Frequency (MHz)	Limit (uV/m) @ 10m
30 ~ 88	90
88 ~ 216	150
216 ~ 960	210
Above 960	300

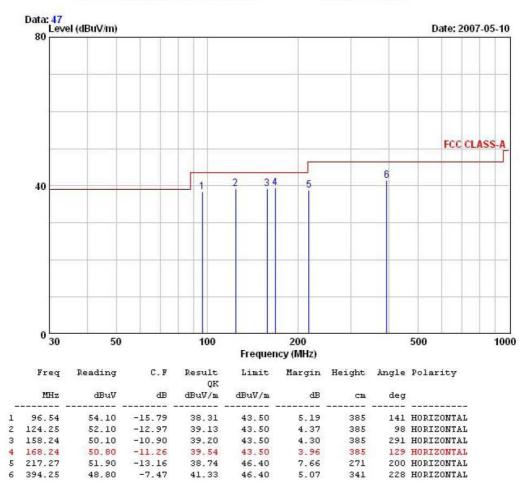
1. Measurement Data:



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EUT/Model No.: EBT-100 TEST MODE: GSM850 mode

Temp Humi : 18 / 48 Tested by: B. S. KIM



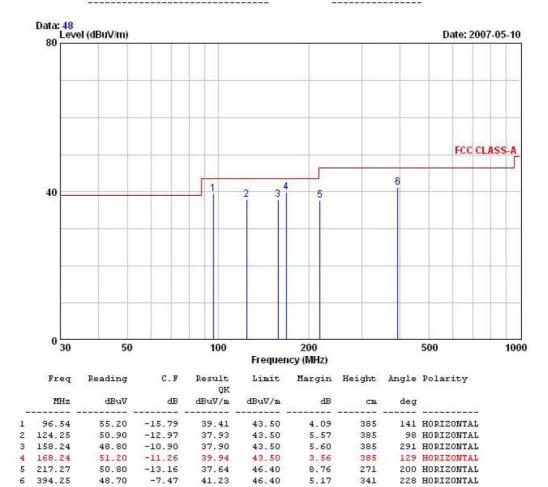
Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain



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EUT/Model No.: EBT-100 TEST MODE: GSM1900 mode

Temp Humi : 18 / 48 Tested by: B. S. KIM

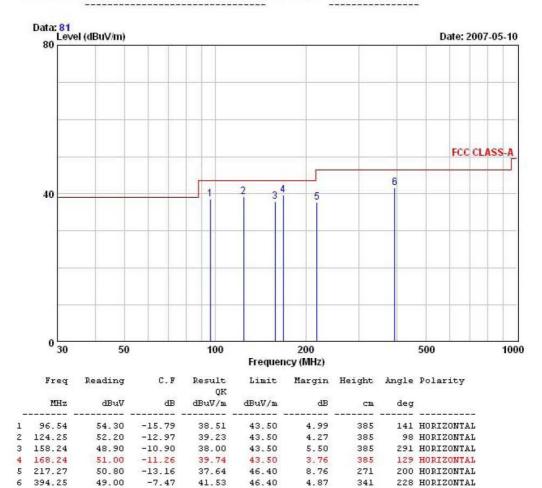


Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain



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EUT/Model No.: EBT-100 TEST MODE: GSM850 + WLAN mode
Temp Humi : 18 / 48 Tested by: B. S. KIM



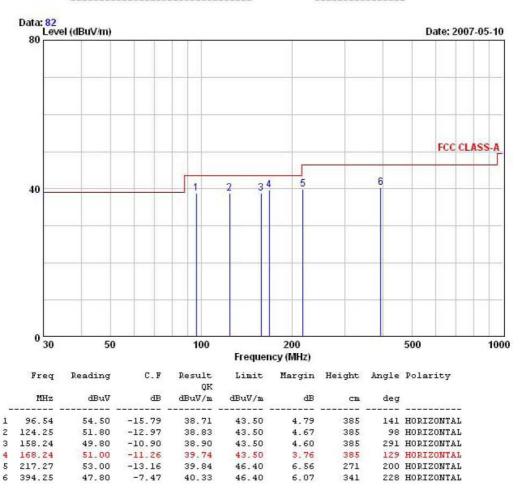
Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain



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EUT/Model No.: EBT-100 TEST MODE: GSM1900 + WLAN mode

Temp Humi : 18 / 48 Tested by: B. S. KIM



Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

3.2.2 AC Conducted Emissions

Procedure:

The conducted emissions are measured in the shielded room with a spectrum analyzer in peak hold. While the measurement, EUT had its hopping function disabled at the middle channels in line with Section 15.31(m). Emissions closest to the limit are measured in the quasi-peak mode (QP) with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation and Exerciser operation. The highest emissions relative to the limit are listed.

Measurement Data: Complies

- See next pages for actual measured spectrum plots.
- No emissions were detected at a level greater than 10dB below limit.

Minimum Standard: FCC Part 15.207(a)/EN 55022

Class B

Frequency Range	quasi-peak	Average	
0.15 ~ 0.5	66 to 56 *	56 to 46 *	
0.5 ~ 5	56	46	
5 ~ 30	60	50	

^{*} Decreases with the logarithm of the frequency

Class A

Frequency Range	quasi-peak	Average	
0.15 ~ 0.5 MHz	79 dBuV	66 dBuV	
0.5 ~ 30 MHz	73 dBuV	60 dBuV	

AC Conducted Emissions -GSM850 mode

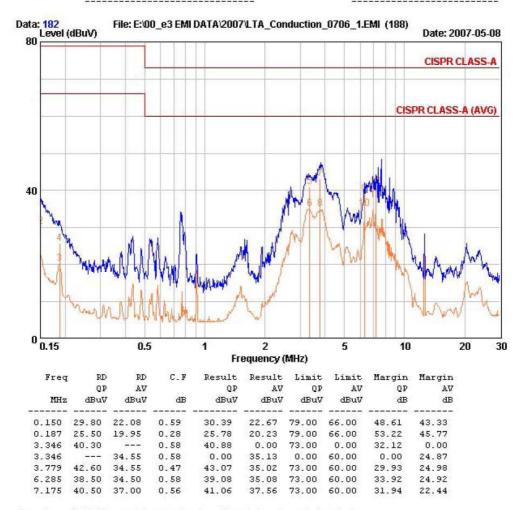


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EUT / Model No. : EBT-100 Phase : LINE

Test Mode : GSM850 mode Test Power : 120 / 60

Temp./Humi. : 25 / 44 Test Engineer : B.S.KIM



AC Conducted Emissions -GSM850 mode

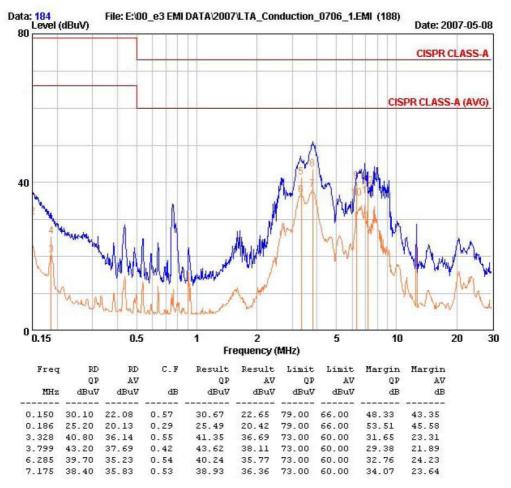


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EUT / Model No. : EBT-100 Phase : NEUTRAL

Test Mode : CSM850 mode Test Power : 120 / 60

Temp./Humi. : 25 / 44 Test Engineer : B.S.KIM



AC Conducted Emissions -Line: PCS1900 mode

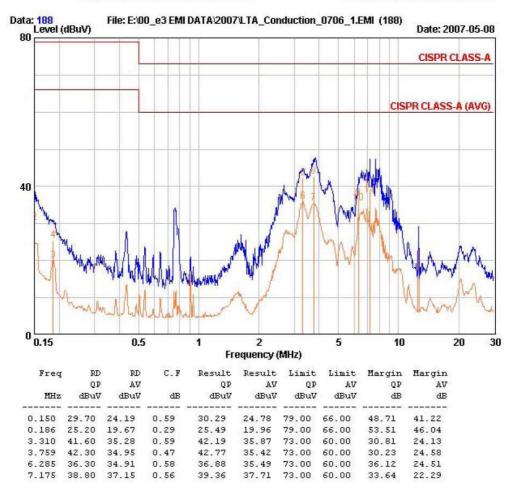


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EUT / Model No. : EBT-100 Phase : LINE

Test Mode : GSM1900 mode Test Power : 120 / 60

Temp./Humi. : 25 / 44 Test Engineer : B.S.KIM



AC Conducted Emissions -Neutral: PCS1900 mode

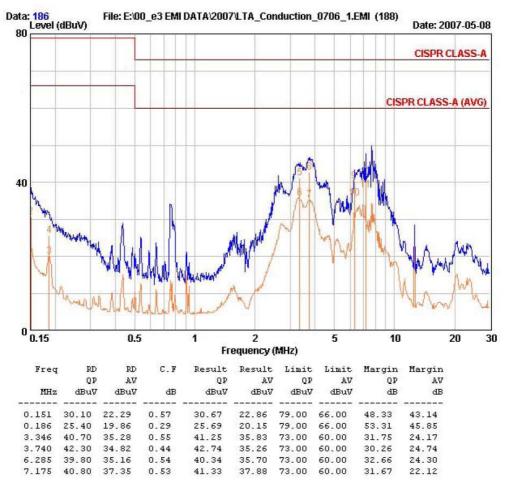


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EUT / Model No. : EBT-100 Phase : NEUTRAL

Test Mode : GSM1900 mode Test Power : 120 / 60

Temp./Humi. : 25 / 44 Test Engineer : B.S.KIM



AC Conducted Emissions - GSM850 + WLAN - Line

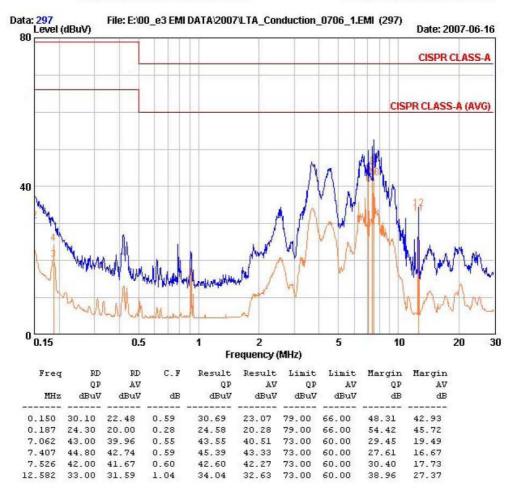


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EUT / Model No. : EBT-100 Phase : LINE

Test Mode : GSM850 + WLAN mode Test Power : 120 / 60

Temp./Humi. : 24 / 41 Test Engineer : B.S.KIM



AC Conducted Emissions – GSM850 + WLAN - Neutral

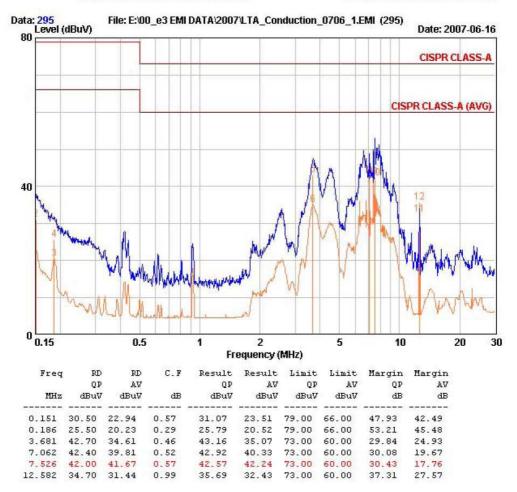


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EUT / Model No. : EBT-100 Phase : NEUTRAL

Test Mode : GSM850 + WLAN mode Test Power : 120 / 60

Temp./Humi. : 24 / 41 Test Engineer : B.S.KIM



AC Conducted Emissions - PCS1900 + WLAN - Line

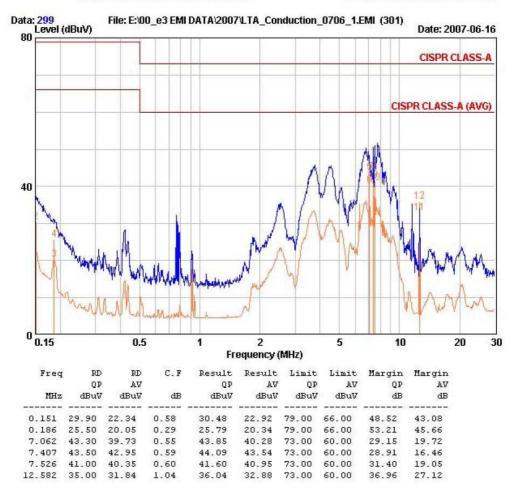


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EUT / Model No. : EBT-100 Phase : LINE

Test Mode : GSM1900 + WLAN mode Test Power : 120 / 60

Temp./Humi. : 24 / 41 Test Engineer : B.S.KIM



AC Conducted Emissions - PCS1900 + WLAN - Neutral

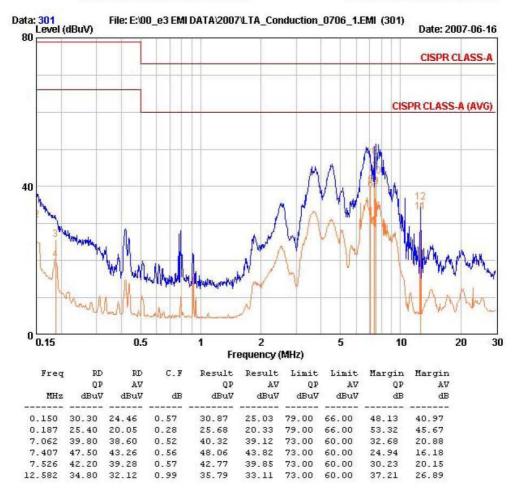


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EUT / Model No. : EBT-100 Phase : NEUTRAL

Test Mode : GSM1900 + WLAN mode Test Power : 120 / 60

Temp./Humi. : 24 / 41 Test Engineer : B.S.KIM



APPENDIX

TEST EQUIPMENT USED FOR TESTS

	Description	Model No.	Serial No.	Manufacturer	Next Cal. Date
1	Spectrum Analyzer	8594E	3649A03649	НР	Apr-08
2	Signal Generater	8648C	3623A02597	НР	Apr-08
3	Attenuator (3dB)	8491A	37822	НР	Nov-07
4	Attenuator (10dB)	8491A	63196	НР	Nov-07
5	EMI Test Receiver	ESVD	843748/001	R&S	Jan-08
6	LISN	KNW-407	8-1430-1	Kyoritsu	Jan-08
7	Two-Line V-Network	ESH3-Z5	893045/017	R&S	Jan-08
8	RF Amplifier	8447D	2949A02670	НР	Jan-08
9	RF Amplifier	8447D	2439A09058	НР	Jan-08
10	RF Amplifier	8449B	3008A02126	НР	Apr-09
11	Test Receiver	ESHS10	828404009	R&S	Jan-08
12	TRILOG Antenna	VULB 9160	9160-3212	SCHWARZBECK	Jul-07
13	LogPer. Antenna	VULP 9118	9118 A 401	SCHWARZBECK	Apr-09
14	Biconical Antenna	BBA 9106	VHA 9103-2315	SCHWARZBECK	Apr-09
15	Horn Antenna	3115	00055005	ETS LINDGREN	Mar-09
16	Horn Antenna	BBHA 9120D	0499	Schwarzbeck	Jun-07
17	Dipole Antenna	VHA9103	2116	Schwarzbeck	Nov-07
18	Dipole Antenna	VHA9103	2117	Schwarzbeck	Nov-07
19	Dipole Antenna	UHA9105	2261	Schwarzbeck	Nov-07
20	Dipole Antenna	UHA9105	2262	Schwarzbeck	Nov-07
21	Spectrum Analyzer	8591E	3649A05888	НР	Jan-08
22	Spectrum Analyzer	8563E	3425A02505	НР	Apr-08
23	Hygro-Thermograph	THB-36	0041557-01	ISUZU	Feb-08
24	Splitter (SMA)	ZFSC-2-2500	SF617800326	Mini-Circuits	Jun-07
25	RF Switch	MP59B	6200414971	ANRITSU	Jun-07
26	RF Switch	MP59B	6200438565	ANRITSU	Jun-07
27	Power Divider	11636A	6243	НР	Nov-07
28	DC Power Supply	6622A	3448A03079	НР	Oct-07
29	Attenuator (30dB)	11636A	6243	НР	Nov-07
30	Frequency Counter	5342A	2826A12411	НР	Apr-08
31	Power Meter	EPM-441A	GB32481702	НР	Apr-08
32	Power Sensor	8481A	2702A64048	НР	Apr-08
33	Audio Analyzer	8903B	3729A18901	НР	Nov-07
34	Modulation Analyzer	8901B	3749A05878	НР	Nov-07
35	TEMP & HUMIDITY Chamber	YJ-500	L05022	JinYoung Tech	Oct-07
36	LOOP-ANTENNA	FMZB 1516	151602/94	SCHWARZBECK	Mar-09