

EXHIBIT 4

Test Report

Test Report

ACS-F98023

APPLICATION FOR CERTIFICATION

On Behalf of
Perfect Toys International Co., Ltd.
Ford Mustang

Model : 14860

Prepared for : Perfect Toys International Co., Ltd.
2/F., Block 3, Wah Lai Industrial Centre,
10-14 Kwei Tei Street,
Fo Tan, Shatin, New Territories, Hong Kong

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
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Report Number : ACS-F98023
Date of Test : Jul. 08 / 12, 1998
Date of Report : Jul. 13, 1998

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T2K 73-ED49

TEST REPORT CERTIFICATION

Applicant : Perfect Toys International Co., Ltd.
 Manufacturer : Xian Hao Electric Appliances & Toys Co., Ltd.
 FCC ID : JHP3TUST-860TX
 Receiver : 8*1.5V DC Batteries , 30 cm length antenna built-in
 EUT Description : Ford Mustang
 (A) MODEL NO. : 14860
 (B) SERIAL NO. : N/A
 (C) POWER SUPPLY : DC 9V battery, 40 cm length antenna built-in

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C October 1997 & FCC / ANSI C63.4-1992

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions.

The measurement results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Date of Test : Jul. 08 / 12, 1998

Prepared by : Katherine Ge 7/16
(KATHERINE GE)

Project Engineer : Martin Lu 7/16
(MARTIN LU)
For and on behalf of
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Approve & Authorized Signer : Leon Lin 7/16/98
..... (LEON LIN)
Authorized Signature(s)

1. GENERAL INFORMATION

1.1. Description of Device (EUT) ~~TX 3 27.0488 MHz~~

Description	:	Ford Mustang
FCC ID	:	JHP3TUST-860TX
Model Number	:	14860
Applicant	:	Perfect Toys International Co., Ltd. 2/F., Block 3, Wah Lai Industrial Centre, 10-14 Kwei Tei Street, Fo Tan, Shatin, New Territories, Hong Kong
Manufacturer	:	Xian Hao Electric Appliances & Toys Co., Ltd. Tian Xin Management Zone, Huang Jiang, Dongguan, Guangdong, P. R. C.
Date of Test	:	Jul. 08 / 12, 1998

1.2. Description of Test Facility

Site Description	:	
3 meter Anechoic chamber	:	Certificated by FCC, U.S.A Aug. 18, 1997
3 and 10 meter open site	:	Certificated by FCC, U.S.A Feb. 13, 1998
EMC Lab.	:	Certificated by TUV Rheinland Taiwan Dec. 05, 1995
	:	Certificated by COMMERCE, New Zealand May. 19, 1997
	:	Certificated by NEMKO, Norway Feb. 28, 1998
Name of Firm	:	Audix Technology (Shenzhen) Co., Ltd.
Site Location	:	No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

2. POWER LINE CONDUCTED MEASUREMENT

According to Paragraph (f) of FCC Part 15 Section 15.107, measurement to demonstrate compliance with the conducted emission limits are not required for devices which only employ battery power for operation and which do not operate from AC power lines or contain provisions for operation while connected to AC power lines.

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipments are used during the radiated emission measurement:

3.1.1. In Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	HP	85422E	3625A00181	Jun. 07, 98	1 Year
2.	Amplifier	HP	8447D	2944A07794	Jun. 07, 98	1/2 Year
3.	Bilog Antenna	Chase	CBL6112A	2176	Sep. 26, 97	1 Year
4.	Computer	N/A	N/A	N/A	N/A	N/A
5.	Printer	NEC	P3800	568101448	N/A	N/A

3.2. Block Diagram of Test Setup

3.2.1. Test Setup Block Diagram of the EUT

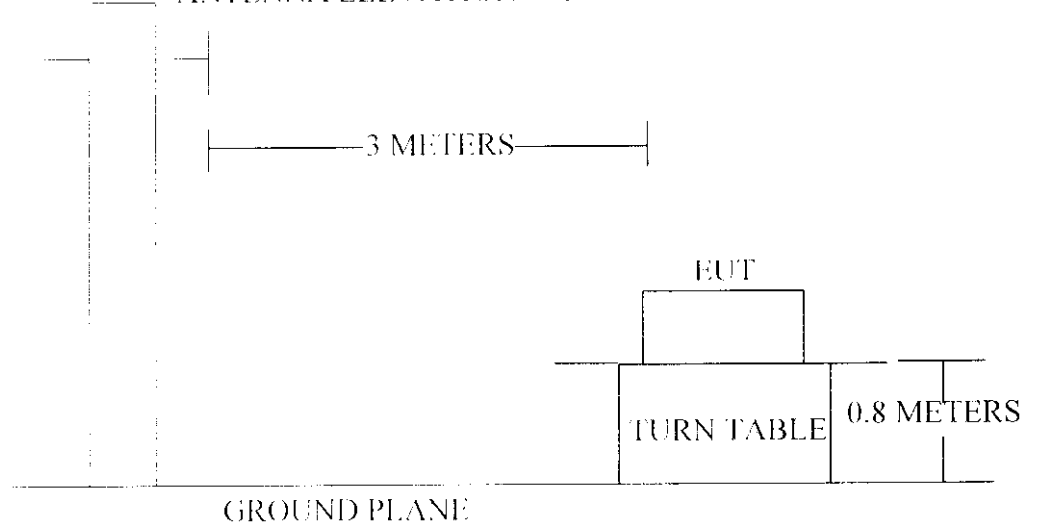
Ford Mustang

(EUT)

3.2.2. Open Site Test Setup Diagram

ANTENNA TOWER

ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



3.3. Radiation Limit (Section 15.109)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS dB(μV)/m
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

- Remark :
- (1) Emission level (dB(μV)/m) = 20 log Emission level (μV/m)
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) Distance refers to the distance in meters between the measuring instrument, antenna and the closed point of any part of the device or system.
 - (4) The Radiated Emissions Limit of Fundament Frequency 27.1488 MHz is 80 dB(μV)/m at 3 meters distance. (Section 15.227)
 - (5) The spurious frequency shall not exceed the section 15.109 limit as above.

3.4. EUT Configuration on Measurement

The following equipments are installed on Radiated Emission Measurement to meet the Commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. Ford Mustang

Model Number	:	14860
Serial Number	:	N/A
FCC ID	:	JHP3TUST-860TX
Receiver	:	8*1.5V DC Batteries , 30 cm length antenna built-in
Manufacturer	:	Xian Hao Electric Appliances & Toys Co., Ltd.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown on Section 3.2..

3.5.2. Let the EUT work in test modes (Lie / Side / Stand) and measure it.

3.6. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) and dipole antenna are used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-1992 on radiated emission measurement.

The bandwidth setting on the field strength meter (R & S Test Receiver ESVS 20) is set at 120KHz.

The frequency range from 30MHz to 1000MHz is checked.

The following three test modes are measured within Anechoic Chamber, all the test results are listed in Section 3.7, and all the scanning waveform are attached within Appendix I, which include:

- (1) Lie
- (2) Side
- (3) Stand

3.7. Radiated Emission Noise Measurement Results.

PASS.

The frequency range from 30MHz to 1000MHz and fundamnet frequency 27.1488 MHz is investigated. Please see the following pages.

Date of Test :	Jul. 12, 1998	Temperature :	27 °C
EUT :	Ford Mustang	Humidity :	60%
Model No. :	14860	Operation Mode :	Lie

Freq. MHz	Antenna Factor dB	Average Factor -dB	Cable Loss dB	Meter Reading Horizontal dB	Emission Level Horizontal dBμV/m	Limit dBμV/m	Over Limi dBμV/
81.8400	8.65	--	1.60	9.89	20.14	40.00	-19.86
108.8400	12.77	--	1.87	5.64	20.27	43.50	-23.23
27.1488	19.49	13.65	0.90	47.85	54.59	80.00	-25.41

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading + Average Factor.

Date of Test :	Jul. 12, 1998	Temperature :	27 °C
EUT :	Ford Mustang	Humidity :	60%
Model No. :	14860	Operation Mode :	Lie

Freq. MHz	Antenna Factor dB	Average Factor -dB	Cable Loss dB	Meter Reading Vertical dB	Emission Level Vertical dBμV/m	Limit dBμV/m	Over Limi dBμV/
37.2900	10.30	--	1.02	6.43	17.75	40.00	-22.25
66.9900	6.99	--	1.43	9.45	17.87	40.00	-22.13
27.1488	12.87	13.65	0.90	52.57	52.69	80.00	-27.31

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading + Average Factor.

Date of Test :	Jul. 12, 1998	Temperature :	27 °C
EUT :	Ford Mustang	Humidity :	60%
Model No. :	14860	Operation Mode :	Side

Freq.	Antenna	Average	Cable	Meter Reading	Emission Level	Limit	Over
MHz	Factor	Factor	Loss	Horizontal	Horizontal		Limi
	dB	-dB	dB	dB	dBμV/m	dBμV/m	dBμV/
81.4800	8.65	--	1.60	15.42	25.67	40.00	-14.33
108.8400	12.77	--	1.87	6.65	21.28	43.50	-22.22
27.1488	19.49	13.65	0.90	48.48	55.22	80.00	-24.78

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading +
Average Factor.

Date of Test :	Jul. 12, 1998	Temperature :	27 °C
EUT :	Ford Mustang	Humidity :	60%
Model No. :	14860	Operation Mode :	Side

Freq.	Antenna	Average	Cable	Meter Reading	Emission Level	Limit	Over
MHz	Factor	Factor	Loss	Vertical	Vertical		Limi
	dB	-dB	dB	dB	dBμV/m	dBμV/m	dBμV/
57.5400	5.25	--	1.31	6.03	12.59	40.00	-27.41
116.1300	12.21	--	1.90	-1.03	13.07	43.50	-30.43
27.1488	12.87	13.65	0.90	53.15	53.27	80.00	-26.73

Remark: 1. All readings are Quasi-Peak values

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading +
Average Factor.

Date of Test :	Jul. 12, 1998	Temperature :	27 °C
EUT :	Ford Mustang	Humidity :	60%
Model No. :	14860	Operation Mode :	Stand

Freq.	Antenna Factor	Average Factor	Cable Loss	Meter Reading Horizontal	Emission Level Horizontal	Limit	Over Limi
MHz	dB	-dB	dB	dB	dBμV/m	dBμV/m	dBμV/
30.0700	19.49	--	0.90	-3.45	16.94	40.00	-23.06
221.4300	10.26	--	2.71	1.72	14.69	46.00	-31.31
27.1488	19.49	13.65	0.90	48.51	55.25	80.00	-24.75

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading + Average Factor.

Date of Test :	Jul. 12, 1998	Temperature :	27 °C
EUT :	Ford Mustang	Humidity :	60%
Model No. :	14860	Operation Mode :	Stand

Freq.	Antenna Factor	Average Factor	Cable Loss	Meter Reading Vertical	Emission Level Vertical	Limit	Over Limi
MHz	dB	-dB	dB	dB	dBμV/m	dBμV/m	dBμV/
30.0500	12.87	--	0.90	11.95	25.71	40.00	-14.29
61.5900	5.81	--	1.35	12.51	19.67	40.00	-20.33
27.1488	12.87	13.65	0.90	53.67	53.79	80.00	-26.21

Remark: 1. All readings are Quasi-Peak values

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading + Average Factor.

Test 30-1049

4. MEASURED BANDWIDTH

The plot on the following page shows the fundamental frequency is 27.1488MHz when modulated. From the plot, the emission is observed within the band 26.96MHz to 27.28MHz. The unit meets the FCC bandwidth requirements.

Please see the attached waveform.

08:39:22 18 JUL 1998

MARKER
27.1488 MHz
73.11 dBμV

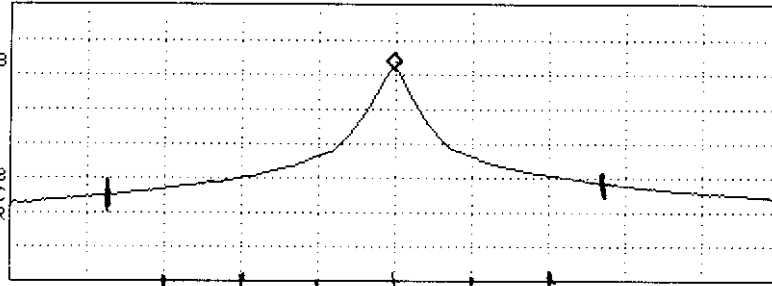
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 27.1488 MHz
73.11 dBμV

MARKER
NORMAL

LOG REF 92.0 dBμV

10
dB/
ATN
10 dB

MA SB
SC FC
CORR



CENTER 27.1500 MHz #IF BW 10 kHz #AVG BW 1 MHz SPAN 500.0 kHz
#SWP 30.0 msec

MARKER
Δ

MARKER
AMPTD

SELECT
1 2 3 4

MARKER 1
ON OFF

More
1 of 3

5. CALCULATION OF AVERAGE FACTOR

Averaging factor in dB = $20 \log (\text{duty cycle})$

The specification for output field strengths in accordance with of the FCC rules specify measurements with an average detector. During testing, a spectrum analyzer incorporating a peak detector was used. Therefore, a reduction factor can be applied to the resultant peak signal level and compared to the limit for measurement instrumentation incorporating an average detector.

The time period over which the duty cycle is measured is 15 milliseconds, or the repetition cycle, whichever is a shorter time frame. The worst case (highest percentage on) duty cycle is used for the calculation. The duty cycle is measured by placing the spectrum analyzer in zero scan (receiver mode) and linear mode at maximum bandwidth (1 MHz).

A plot of the worst-case duty cycle as detected in this manner are included in the following pages.

The duty cycle is simply the on-time divided by the period:

The duration of one cycle = 0.787 ms

Effective period of the cycle = 3.787 ms

$DC = 0.787\text{ms} / 3.787\text{ms} = 0.20782$

Therefore, the averaging factor is found by $20 \log_{10} 0.20782 = -13.65 \text{ dB}$

Please see the attached waveform.

FOCID: JHP 37431-860IX

20:27:15 08 JUL 1998

MARKER Δ
787.00 μ sec
-.12 dB

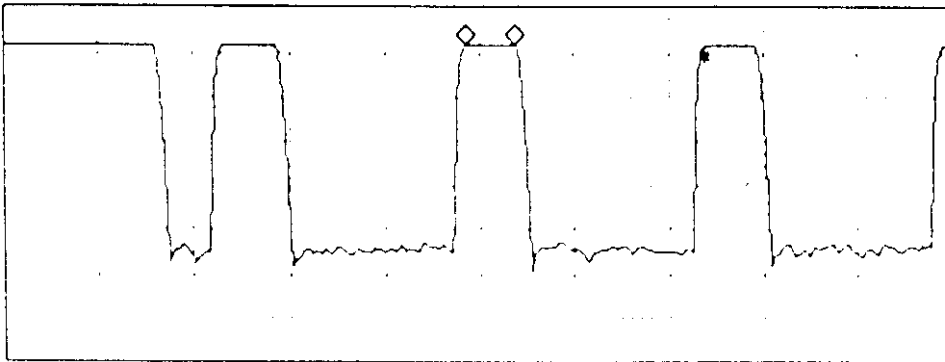
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKRA 787.00 μ sec
-.12 dB

MARKER
NORMAL

LOG REF 79.0 dB μ V

10
dB/
ATH
10 dB

VA SB
SC FC
CORR



MARKER
 Δ

MARKER
AMPTD

SELECT
1 2 3 4

MARKER 1
ON OFF

More
1 of 3

20:28:25 08 JUL 1998

MARKER Δ
3.7870 msec
.00 dB

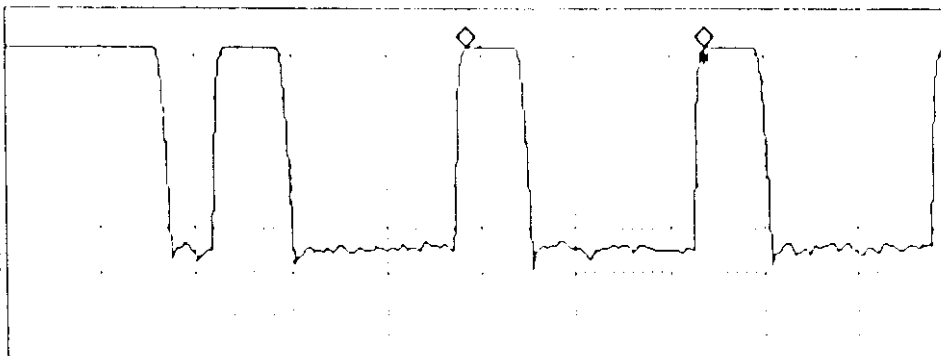
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKRA 3.7870 msec
.00 dB

MARKER
NORMAL

LOG REF 79.0 dB μ V

10
dB/
ATH
10 dB

VA SB
SC FC
CORR



MARKER
 Δ

MARKER
AMPTD

SELECT
1 2 3 4

MARKER 1
ON OFF

More
1 of 3

APPENDIX I

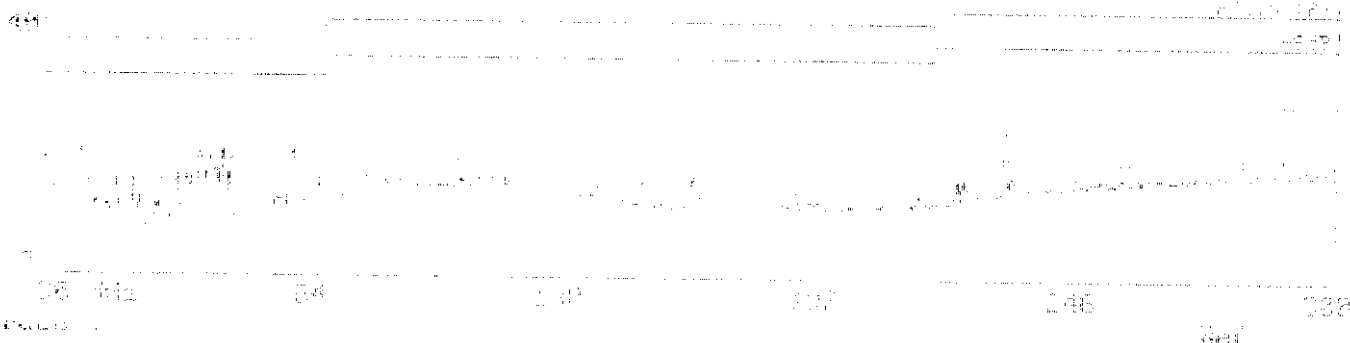
Serial 13 File: 00000000000000000000
JAN 01 1990 ACS Standard Chamber

Serial 01 File: 00000000000000000000
JAN 01 1990 AUDIX Technology (Shenzhen) Co., Ltd.



Serial 13 File: 00000000000000000000
JAN 01 1990 ACS Standard Chamber

Serial 01 File: 00000000000000000000
JAN 01 1990 AUDIX Technology (Shenzhen) Co., Ltd.



Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Date: 07-30-1999 Time: 19:54:12
GRIFF Technology (Singapore) Co., Ltd.

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Date: 07-30-1999 Time: 19:54:12
GRIFF Technology (Singapore) Co., Ltd.

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

Search for: [Empty] Perfect OK!
Status: 100% Solved (0/0)

SECRET

1982-1983, 1983-1984, 1984-1985, 1985-1986, 1986-1987, 1987-1988, 1988-1989, 1989-1990, 1990-1991, 1991-1992, 1992-1993, 1993-1994, 1994-1995, 1995-1996, 1996-1997, 1997-1998, 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002-2003, 2003-2004, 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024, 2024-2025, 2025-2026, 2026-2027, 2027-2028, 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, 2034-2035, 2035-2036, 2036-2037, 2037-2038, 2038-2039, 2039-2040, 2040-2041, 2041-2042, 2042-2043, 2043-2044, 2044-2045, 2045-2046, 2046-2047, 2047-2048, 2048-2049, 2049-2050, 2050-2051, 2051-2052, 2052-2053, 2053-2054, 2054-2055, 2055-2056, 2056-2057, 2057-2058, 2058-2059, 2059-2060, 2060-2061, 2061-2062, 2062-2063, 2063-2064, 2064-2065, 2065-2066, 2066-2067, 2067-2068, 2068-2069, 2069-2070, 2070-2071, 2071-2072, 2072-2073, 2073-2074, 2074-2075, 2075-2076, 2076-2077, 2077-2078, 2078-2079, 2079-2080, 2080-2081, 2081-2082, 2082-2083, 2083-2084, 2084-2085, 2085-2086, 2086-2087, 2087-2088, 2088-2089, 2089-2090, 2090-2091, 2091-2092, 2092-2093, 2093-2094, 2094-2095, 2095-2096, 2096-2097, 2097-2098, 2098-2099, 2099-2100, 2100-2101, 2101-2102, 2102-2103, 2103-2104, 2104-2105, 2105-2106, 2106-2107, 2107-2108, 2108-2109, 2109-2110, 2110-2111, 2111-2112, 2112-2113, 2113-2114, 2114-2115, 2115-2116, 2116-2117, 2117-2118, 2118-2119, 2119-2120, 2120-2121, 2121-2122, 2122-2123, 2123-2124, 2124-2125, 2125-2126, 2126-2127, 2127-2128, 2128-2129, 2129-2130, 2130-2131, 2131-2132, 2132-2133, 2133-2134, 2134-2135, 2135-2136, 2136-2137, 2137-2138, 2138-2139, 2139-2140, 2140-2141, 2141-2142, 2142-2143, 2143-2144, 2144-2145, 2145-2146, 2146-2147, 2147-2148, 2148-2149, 2149-2150, 2150-2151, 2151-2152, 2152-2153, 2153-2154, 2154-2155, 2155-2156, 2156-2157, 2157-2158, 2158-2159, 2159-2160, 2160-2161, 2161-2162, 2162-2163, 2163-2164, 2164-2165, 2165-2166, 2166-2167, 2167-2168, 2168-2169, 2169-2170, 2170-2171, 2171-2172, 2172-2173, 2173-2174, 2174-2175, 2175-2176, 2176-2177, 2177-2178, 2178-2179, 2179-2180, 2180-2181, 2181-2182, 2182-2183, 2183-2184, 2184-2185, 2185-2186, 2186-2187, 2187-2188, 2188-2189, 2189-2190, 2190-2191, 2191-2192, 2192-2193, 2193-2194, 2194-2195, 2195-2196, 2196-2197, 2197-2198, 2198-2199, 2199-2200, 2200-2201, 2201-2202, 2202-2203, 2203-2204, 2204-2205, 2205-2206, 2206-2207, 2207-2208, 2208-2209, 2209-2210, 2210-2211, 2211-2212, 2212-2213, 2213-2214, 2214-2215, 2215-2216, 2216-2217, 2217-2218, 2218-2219, 2219-2220, 2220-2221, 2221-2222, 2222-2223, 2223-2224, 2224-2225, 2225-2226, 2226-2227, 2227-2228, 2228-2229, 2229-2230, 2230-2231, 2231-2232, 2232-2233, 2233-2234, 2234-2235, 2235-2236, 2236-2237, 2237-2238, 2238-2239, 2239-2240, 2240-2241, 2241-2242, 2242-2243, 2243-2244, 2244-2245, 2245-2246, 2246-2247, 2247-2248, 2248-2249, 2249-2250, 2250-2251, 2251-2252, 2252-2253, 2253-2254, 2254-2255, 2255-2256, 2256-2257, 2257-2258, 2258-2259, 2259-2260, 2260-2261, 2261-2262, 2262-2263, 2263-2264, 2264-2265, 2265-2266, 2266-2267, 2267-2268, 2268-2269, 2269-2270, 2270-2271, 2271-2272, 2272-2273, 2273-2274, 2274-2275, 2275-2276, 2276-2277, 2277-2278, 2278-2279, 2279-2280, 2280-2281, 2281-2282, 2282-2283, 2283-2284, 2284-2285, 2285-2286, 2286-2287, 2287-2288, 2288-2289, 2289-2290, 2290-2291, 2291-2292, 2292-2293, 2293-2294, 2294-2295, 2295-2296, 2296-2297, 2297-2298, 2298-2299, 2299-2300, 2300-2301, 2301-2302, 2302-2303, 2303-2304, 2304-2305, 2305-2306, 2306-2307, 2307-2308, 2308-2309, 2309-2310, 2310-2311, 2311-2312, 2312-2313, 2313-2314, 2314-2315, 2315-2316, 2316-2317, 2317-2318, 2318-2319, 2319-2320, 2320-2321, 2321-2322, 2322-2323, 2323-2324, 2324-2325, 2325-2326, 2326-2327, 2327-2328, 2328-2329, 2329-2330, 2330-2331, 2331-2332, 2332-2333, 2333-2334, 2334-2335, 2335-2336, 2336-2337, 2337-2338, 2338-2339, 2339-2340, 2340-2341, 2341-2342, 2342-2343, 2343-2344, 2344-2345, 2345-2346, 2346-2347, 2347-2348, 2348-2349, 2349-2350, 2350-2351, 2351-2352, 2352-2353, 2353-2354, 23

Figure 1

10-10-68
 10-10-68
 10-10-68

Printed: 27-09-1998 Time: 15:31:55
Mobile Technology (Shenzhen) Co., Ltd.

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