ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR FCC CERTIFICATION

Test Report No.	**: E069R-007**
AGR No.	**: A061A-049**
Applicant	**: KTV GLOBAL CORPORATION**
Address	**: 357-55, Hosan-Dong, Dalseo-Gu, Daegu-Shi, 704-230, Korea**
Manufacturer	**: KTV GLOBAL CORPORATION**
Address	**: 357-55, Hosan-Dong, Dalseo-Gu, Daegu-Shi, 704-230, Korea**
Type of Equipment	**: 10.2" LCD TV RECEIVER (FM Transmitter)**
FCC ID.	**: BRFLTD102AA**
Model Name	**: LTD102AA**
Multiple Model Name	**: LVMD-102, LVMD-102S**
Serial number	**: N/A**
Total page of Report	**: 15 pages (including this page)**
Date of Incoming	**: January 05, 2006**
Date of Issuing	**: September 05, 2006**

SUMMARY

The equipment complies with the regulation of ***FCC CRF 47 PART 15, SUBPART C, SECTION 15.239***.
This test report contains only the results of a single test of the sample supplied for the examination. It is not a general valid assessment of the features of the respective products of the mass-production.

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1. VERIFICATION OF COMPLIANCE

-. APPLICANT : KTV GLOBAL CORPORATION

-. ADDRESS : 357-55, Hosan-Dong, Dalseo-Gu, Daegu-Shi, 704-230, Korea

-. CONTACT PERSON : Mr. Eui-Yeun, Kim / Team Leader

-. TELEPHONE NO : +82-53-605-7071

-. BRAND NAME : KTV or KEC Mobile Application

-. FCC ID : BRFLTD102AA

-. MODEL NO/NAME : LTD102AA

-. SERIAL NUMBER : N/A

-. DATE : September 05, 2006

EQUIPMENT CLASS	DXX - Low Power Communication Device Transmitter
E.U.T. DESCRIPTION	10.2" LCD TV RECEIVER (FM Transmitter)
THIS REPORT CONCERNS	ORIGINAL GRANT
MEASUREMENT PROCEDURES	Chapter 7 and 13 of ANSI C63.4: 2003
TYPE OF EQUIPMENT TESTED	PRE-PRODUCTION
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	CERTIFICATION
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15 SECTION 15.239
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	Yes
FINAL TEST WAS CONDUCTED ON	3 METER OPEN AREA TEST SITE

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

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2. GENERAL INFORMATION

2.1 Product Description

The KTV GLOBAL CORPORATION, Model LTD102AA (referred to as the EUT in this report) is 10.2" LCD TV RECEIVER that has the FM transmitter from 88.3 MHz to 90.3 MHz for audio signal of FM radio receiver. Product specification described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	Plastic
LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>=1MHz)	14.31818 MHz, 27.00 MHz and 18.432 MHz
POWER REQUIREMENT	DC 12V from a car battery
TX FREQUENCY RANGE	88.3 MHz ~ 90.3 MHz (range into 100 kHz Step)
NUMBER OF LAYERS	4 Layers: Digital Board 2 Layers: IR Board, Control Board, SW Board, Chip Board, FM Transmitter Board
EXTERNAL CONNECTOR	AV In/Out, Ant

2.2 Model Differences

The following lists consist of the added model and their differences.

	Model Name	Model Differences
Basic Model	LTD102AA	-
Multiple Models	LVMD-102	The models are same to basic model (enclosure shape are the same), but the brand name, model name and enclosure color are different.
	LVMD-102S	

2.3 Related Submittal(s) / Grant(s)

-. Original submittal only

2.4 Test System Details

The model numbers for all the equipments which were used in the tested system is:

Model	Manufacturer	FCC ID	Description	Connected to
LTD102AA	KTV GLOBAL CORPORATION	BRFLTD102AA	10.2" LCD TV RECEIVER(EUT)	-
SMS-015N	Sungil Precision Co., Ltd.	N/A	Speak	EUT
GHV-S9990	Goldstar	N/A	VCR	EUT

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2.5 Test Methodology

The radiated testing was performed according to the procedures in chapter 7, 13 of ANSI C63.4: 2003 and performed at a distance of 3 meters from EUT to the antenna.

2.6 Test Facility

The open area test site and conducted measurement facilities are located on at 307-51 Daessangryung-Ri, Chowol-Eup, Kwangju-City, Kyunggi-Do, 464-080, Korea. Description details of test facilities were submitted to the Commission on August 30, 2005. (Registration Number: 340658)

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3. SYSTEM TEST CONFIGURATION

3.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
Main Board	N/A	PLAM15	N/A
AV Board	N/A	N/A	N/A
LED Board 1	N/A	PLAZ15	N/A
LED Board 2	N/A	PLAZ15-2	N/A
Inverter	P.I.S Corp.	N/A	N/A
LCD Panel	N/A	N/A	N/A
Control Board	N/A	PLAZ15-3	N/A
F.M. Module	N/A	PLAZ15-5	N/A

3.2 EUT exercise Software

The Model, LTD102AA is included a FM transmitter designed to operate on function in the 88.3 ~ 90.3 MHz. The EUT has audio input port, so the input port was connected to a VCR and played a real movie, both AV signal comes from the VCR, when the volume control of VCR was set to maximum.

3.3 Cable Description

Ports Name	Shielded	Ferrite Bead	Metal Hood	Length (m)	Connected to
AV In/Out	Y	EUT END	BOTH END	1.5	VCR
DC In	N	EUT END	N	1.2	Car Adaptor
Antenna In	Y	N	BOTH END	3.0	Antenna

3.4 Equipment Modifications

-. The ground panel was added to the bottom of tuner board and DVD loader through the gasket.

-. The ferrite core was added to the FPC cable of the Panel.

-. The copper tape was added between scaler and decoder in order to shield.

-. The ferrite core was added to the control harness.

-. The ferrite core was added to the 13 Pin harness.

-. The ferrite core was added to the line of the IR LED.

-. The ground was connected between Main, Tuner and DVD Loader enclosure.

-. The ferrite core was added to the RF Cable, Power In/out, AV In/Out and EXT SPK & Door Cable.

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3.5 Configuration of Test System

Line Conducted Test: It does not to test this requirement, because the power of the EUT is supplied from a car battery.

Radiated Emission Test: Preliminary radiated emissions test were conducted using the procedure in ANSI C63.4: 2003 8.3.1.1 and 13.1.4.1 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 meter open area test site.

Occupied Bandwidth Measurement:

This measurement is performed with the antenna located close enough to give a full-scale deflection of the modulated carrier on the spectrum analyzer.

3.6 Antenna Requirement

For intentional device, according to section 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.

Antenna Construction:

FM transmitter antenna of the EUT is fixed inside the EUT, no consideration of replacement by the user.

4. PRELIMINARY TEST

4.1 AC Power line Conducted Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
It does not need to test this requirement, because the power of the EUT is supplied from a car battery.	

4.2 Radiated Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
Transmit RF Signal continuously	X

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5. FINAL RESULT OF MEASURMENT

Preliminary test was done in normal operation mode. And the final measurement was selected for the maximized emission level

5.1 Radiated Emission Test (Within the permitted 200 kHz band)

The following table shows the highest levels of radiated emission on both polarizations of horizontal and vertical.

Humidity Level : 49 % Temperature: 21 °C
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.239 (b)
Type of Test : Low Power Communication Device Transmitter
Result : PASSED BY –5.52 dB at 88.30 MHz

EUT : 10.2" LCD TV RECEIVER Date: June 27, 2006
Distance : 3 Meter

Radiated Emission			Ant	Correction Factors		Total	Limit	Margin
Freq. (MHz)	Amp. (dBuV)	Detect Mode	Pol.	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	(dBuV/m)	(dB)
88.30	32.80	Quasi-Peak	V	7.95	1.73	42.48	48.00	-5.52
	33.72	Peak	V	7.95	1.73	43.40	48.00	-4.60
90.30	30.80	Quasi-Peak	V	8.25	1.76	40.81	48.00	-7.19
	32.34	Peak	V	8.25	1.76	42.35	48.00	-5.70

Radiated Emission Tabulated Data

Tested by: Do-Seob, Choi / Test Engineer

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5.2 Radiated Emission Test (Outside of the specified 200 kHz band)

The following table shows the highest levels of radiated emission on both polarizations of horizontal and vertical.

Humidity Level : 49 % Temperature: 21 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209 (a)

Type of Test : Low Power Communication Device Transmitter

Result : PASSED BY –4.50 dB at 137.83 MHz

EUT : 10.2" LCD TV RECEIVER Date: June 27, 2006

Frequency range : 30MHz – 1000MHz

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)

Distance : 3 Meter

Remark : Other emissions

Radiated Emission		Ant	Correction Factors		Total	FCC	
Freq. (MHz)	Amp. (dBuV)	Pol.	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
43.50	20.60	V	12.95	1.58	35.13	40.00	-4.87
47.40	21.10	V	11.54	1.60	34.24	40.00	-5.76
96.84	25.90	H	9.54	1.90	37.34	43.52	-6.18
137.83	22.10	V	14.56	2.36	39.02	43.52	-4.50
214.05	19.80	H	16.29	2.91	39.00	43.52	-4.52
272.38	18.80	V	17.81	3.49	40.10	46.02	-5.92

Tested by: Do-Seob, Choi / Test Engineer

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5.3 Bandwidth of the operating frequency

Humidity Level : 49 % Temperature: 21 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.239 (a)

Result : PASSED

EUT : 10.2" LCD TV RECEIVER Date: June 27, 2006

Operating Condition : Transmit the RF signal.

Minimum Resolution Bandwidth : 10 kHz

Remark : Refer to test data in next page.

Operating Condition	Frequency (MHz)	Measured Value (kHz)	Limit (kHz)	Margin (kHz)
Car Adaptor Mode	88.3	147.0	200	-53.0
	90.3	153.3		-46.7

Tested by: Do-Seob, Choi / Test Engineer

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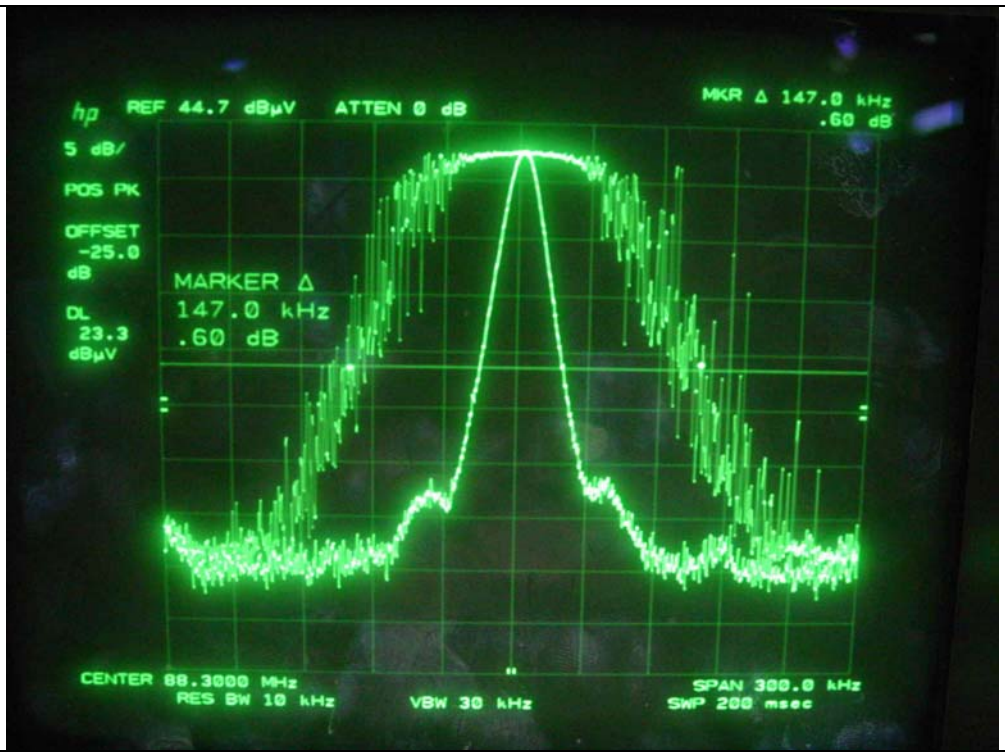
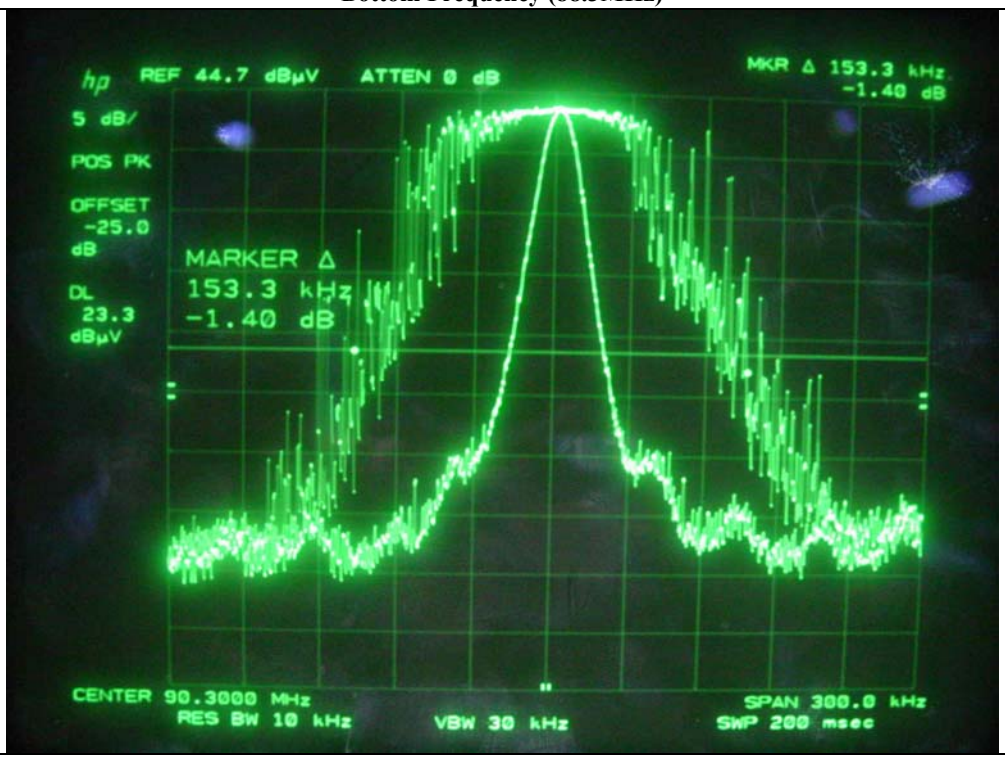


Bottom Frequency (88.3MHz)



Middle Frequency (90.3MHz)

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5.4 Tuning Range of the operating frequency

Humidity Level	: 41 %	Temperature: 24 °C
Limits apply to	: FCC CFR 47, PART 15, SUBPART C, SECTION 15.239 (a)	
Result	: PASSED	

EUT	: 10.2" LCD TV RECEIVER	Date: September 01, 2006
Operating Condition	: The lowest and highest frequency was adjusted by manual using knob on the EUT and the spectrum was in max hold mode for capturing the spectrum.	
Test Result	: Met the requirement. Refer to test data in next page.	

Tested by: Do-Seob, Choi / Test Engineer

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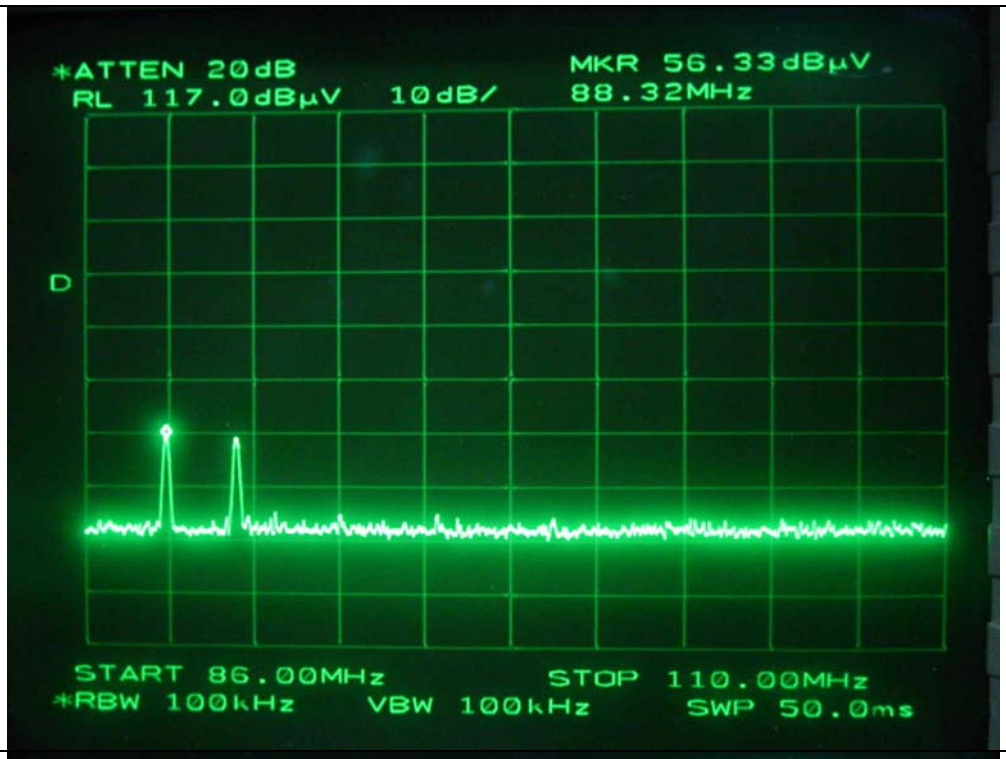

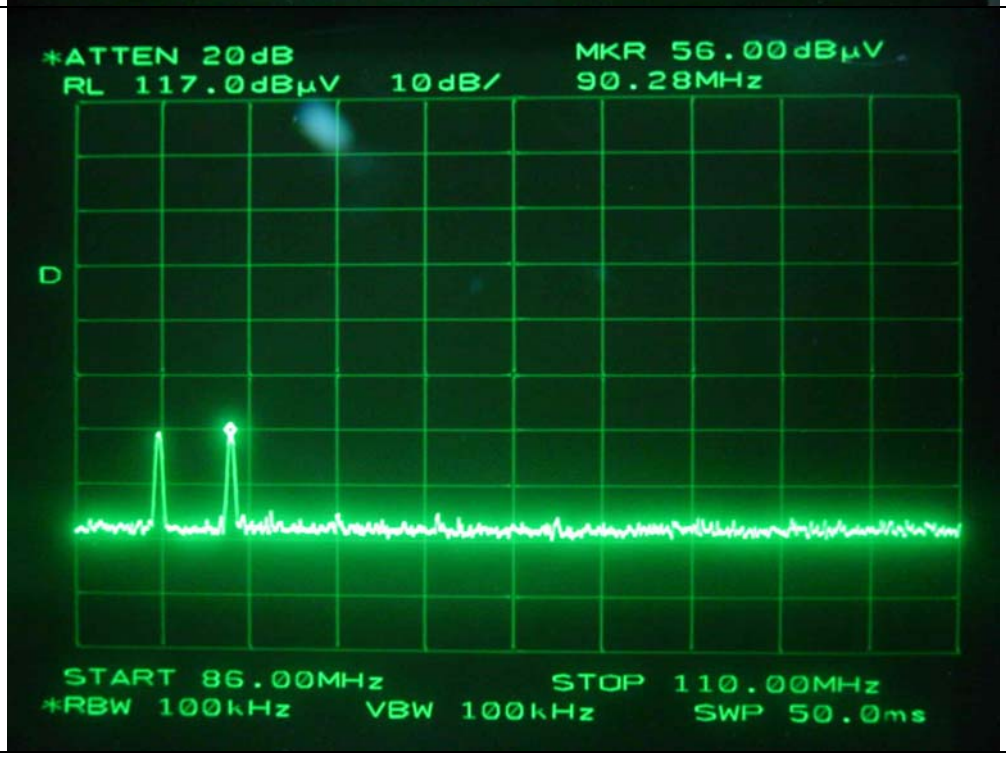

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6. FIELD STRENGTH CALCULATION

Meter readings are compared to the specification limit correcting for antenna and cable losses

+	Meter reading	(dBuV)
+	Cable Loss	(dB)
+	Antenna Factor (Loss)	(dB/meter)
=	Corrected Reading	(dBuV/meter)
-	Specification Limit	(dBuV/meter)
=	dB Relative to Spec	(+/- dB)

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7. LIST OF TEST EQUIPMENT

No.	EQUIPMENTS	MFR.	MODEL	SER. NO.	LAST CAL	DUE CAL	USE
1.	Test receiver	R/S	ESVS10	827864/005	DEC/05	12MONTH	■
2.	Test receiver	R/S	ESHS 10	834467/007	MAY/06	12MONTH	
3.	Spectrum analyzer	HP	8566B	3407A08547	JUN/06	12MONTH	■
4.	TRILOG Broadband Antenna	Schwarzbeck	VULB9163	VULB9163 166	MAY/06	12MONTH	
5.	Biconical antenna	EMCO	3110	9003-1121	FEB/06	12MONTH	
		Schwarzbeck	VHA9103	91031852	FEB/06		■
6.	Log Periodic antenna	EMCO	3146	9001-2614	FEB/06	12MONTH	
		Schwarzbeck	9108-A(494)	62281001	FEB/06		■
7.	LISN	EMCO	3825/2	9109-1867	JUN/06	12MONTH	
				9109-1869	JUN/06		
		Schwarzbeck	NSLK 8126	8126-404	JUL/06		
8.	Position Controller	HD GmbH	HD100	N/A	N/A	N/A	■
9.	Turn Table	HD GmbH	DS420S	N/A	N/A	N/A	■
10.	Antenna Master	HD GmbH	MA240	N/A	N/A	N/A	■

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