



Prüfbericht-Nr.: Test Report No.:	10053900 001	Auftrags-Nr.: Order No.:	144078396 030	Seite 1 von 11 Page 1 of 11
Kunden-Referenz-Nr.: Client Reference No.:	42065355	Auftragsdatum: Order date:	23.10.2015	
Auftraggeber: Client:	Daten ROD ILHEUS-URUCUCA, KM 3,5 - DISTRITO INDUSTRIAL DE ILHEUS - CEP: 45.658-335			
Prüfgegenstand: Test item:	Monitor			
Bezeichnung / Typ-Nr.: Identification / Type No.:	Model Number: 20M35PD-ME.ADATMSR Model Name: 20M35PD			
Auftrags-Inhalt: Order content:	ENERGY STAR Program for Displays -			
Prüfgrundlage: Test specification:	ENERGY STAR Program Requirements for Displays Eligibility Criteria Version 6.0 IEC 62301 Ed 2.0: Household Electrical Appliances - Measurement of Stdbby Power IEC 62087 Ed 3.0: Methods of Measurement for the Power Consumption of AV			
Wareneingangsdatum: Date of receipt:	03.12.2015	See photographs embedded in this report.		
Prüfmuster-Nr.: Test sample No.:	A000290450-001			
Prüfzeitraum: Testing period:	03/06/2015 - 05/06/2015			
Ort der Prüfung: Place of testing:	Qisda Corporation			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland Taiwan Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft / tested by:		kontrolliert / reviewed by:		
 04.12.2015 Vera Lai / Project Engineer Datum Name/Stellung Unterschrift Date Name/Position Signature		 29.12.2015 Pei-Wen Chan / Senior Project Manager Datum Name/Stellung Unterschrift Date Name/Position Signature		
Sonstiges / Other: This Product has an Internal Power Supply				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

Prüfbericht-Nr.: 10053900 001*Test Report No.:***Seite 2 von 11***Page 2 of 11*

Contents

	Page
1 General Remarks	3
1.1 Complementary Materials	3
1.2 Abriviations Used	3
2 General Product Information	3
2.1 Ratings and System Details	3
2.2 Generel Requirements	4
2.3 On Mode Requirements	4
2.4 Sleep Mode Requirements	5
2.5 Off Mode Requirements	5
2.6 Luminance Reporting Requirements	5
3 Test Set-up and Operation Modes	6
3.1 Options / Accessories / Ancillary Equipment / Configuration for Testing	6
3.2 Measurement Uncertainty	6
4 Measurement	7
5 Photographs of the EUT	8
6 Attachment: Signed Declaration of Conformity (DoC) for family models	11
7 Measurement and Test equipment list	11

Prüfbericht-Nr.: 10053900 001

Test Report No.:

Seite 3 von 11

Page 3 of 11

1. General Remarks

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see remark #)" refers to a remark appended to the report.

"(See appended table)" refers to a table appended to the report.

1.1 Complementary Materials

All attachments are integral parts of this test report.

1.1 Abbreviation Used

PE: Protective Earth

F: Fail

IPS: Internal Power Supply

sec: Secondary

EPS: External Power Supply

gnd: Ground

HV: High Voltage

I/O: Input/Output

pri: Primary

EUT: Equipment Under Test

N/A: Not Applicable

N/T Not Tested (test was not performed)

P: Pass

P/D: Photo Documentation

2. General Product Information

2.1 Ratings and System Details



The equipment model Model Number: 20M35PD-ME.ADATMSR is 19.5 inch LCD Monitor for the use with information technology equipment.

Prüfbericht-Nr.: 10053900 001

Test Report No.:

Seite 4 von 11

Page 4 of 11

2.2 General Requirements

Clause	Requirement - Test	Remark	Verdict
2.2.1	External Power Supply : The EPS need to meet the performance requirements under the International Efficiency Marking Protocol and include the level V marking.	Not applicable	N/A
2.2.2	Power Management: i. Products shall offer at least one power management feature that is enabled by default, and that can be used to automatically transition from On Mode to Sleep Mode either by a connected host device or internally (e.g., support for VESA Display Power Management Signaling (DPMS), enabled by default). ii. Products that generate content for display from one or more internal sources shall have a sensor or timer enabled by default to automatically engage Sleep or Off Mode. iii. For products that have an internal default delay time after which the product transitions from On Mode to Sleep Mode or Off Mode, the delay time shall be reported. iv. Computer monitors shall automatically enter Sleep Mode or Off Mode within 15 minutes of being	Automatically enter Sleep Mode within 0.5 mins.	P

2.3 On Mode Requirements

Clause	Requirement - Test	Remark	Verdict
2.3.1	On Mode power (PON), as measured per the ENERGY STAR test method, referenced in Table 6, shall be less than or equal to the Maximum On Mode Power Requirement (PON_MAX), as calculated and rounded per Table 1.	See test results.	P
2.3.2	For products meeting the definition of an Enhanced-Performance Display, a power allowance (PEP), as calculated per Equation 3, shall be added to PON_MAX, as calculated per Table 1. In this case, PON, as measured per the ENERGY STAR test method (referenced in Table 6), shall be less than or equal to the sum of PON_MAX and PEP.	Not applicable	N/A
2.3.3	For products with Automatic Brightness Control (ABC) enabled by default, a power allowance (PABC), as calculated per Equation 3, shall be added to the Maximum On Mode Power Requirement (PON_MAX), as calculated per Table 1, if the On Mode power reduction (RABC), as calculated per Equation 2, is greater than or equal to 20%.	Not applicable	N/A

Prüfbericht-Nr.: 10053900 001

Test Report No.:

Seite 5 von 11

Page 5 of 11

Clause	Requirement - Test	Remark	Verdict
2.3.4	For products powered with a low-voltage dc source, On Mode power (PON), as calculated per Equation 4, shall be less than or equal to the Maximum On Mode Power Requirement (PON_MAX), as calculated per Table 1.	Not applicable	N/A

2.4 Sleep Mode Requirements

Clause	Requirement - Test	Remark	Verdict
2.4.1	Measured Sleep Mode power (PSLEEP) for products without data or networking connection capabilities shall be less than or equal to the Maximum Sleep Mode Power Requirement (PSLEEP_MAX), as specified in Table 2.	See test results.	P
2.4.2	Measured Sleep Mode power (PSLEEP) for products with one or more of the bridging, network, or additional capabilities included in Table 3 or 4 shall be less than or equal to the Maximum Bridging/Network Sleep Mode Power Requirement (PSLEEP_AP), as calculated per Equation 7.	Not applicable	N/A
2.4.3	For products that offer more than one Sleep Mode (e.g., "Sleep" and "Deep Sleep"), measured Sleep Mode power (PSLEEP) in any Sleep Mode shall not exceed the Maximum Sleep Mode power Requirement.	Not applicable	N/A

2.5 Off Mode Requirements

Clause	Requirement - Test	Remark	Verdict
2.5.1	Measured Off Mode power (POFF) shall be less than or equal to the Maximum Off Mode Power Requirement (POFF_MAX) specified in Table 5.	See test results.	P

2.6 Luminance Reporting Requirements

Clause	Requirement - Test	Remark	Verdict
2.6.1	The as-shipped luminance and the maximum luminance shall be reported.	See test results.	P

Prüfbericht-Nr.: 10053900 001

Seite 6 von 11

Test Report No.:

Page 6 of 11

3. Test Set-up and Operation Modes

3.1 Options / Accessories / Ancillary Equipment / Configuration for Testing

The equipment was tested without any optional accessory installed.

3.2 Measurement Uncertainty

The measured input power is: $m_x (1 \pm 0.0094) \text{ W}$

Room temperature: 23.6 °C

Relative humidity: 57 %

Prüfbericht-Nr.: 10053900 001
Test Report No.:
Seite 7 von 11
Page 7 of 11

4. Measurement

RESULT:

Mandate: *On Mode power (P_{ON}), Sleep Mode power (P_{sleep}) and OFF Mode power (P_{OFF}) as calculated per the ENERGY STAR test method, shall be less than or equal to the Maximum On Mode Power Requirement (P_{ON_MAX}), Maximum Sleep Mode Power Requirement (P_{Sleep_MAX}) and Maximum Off Mode Power Requirement (P_{OFF_MAX}) as shown below:*

<i>diagonal screen size</i>	<i>19.5 inch</i>
<i>resolution in Megapixels</i>	<i>1.4 MP</i>
<i>Active Sreen Area</i>	<i>159 square inch</i>

<i>P_{ON_MAX}</i>	<i>≤ 16.3 Watt</i>
<i>P_{Sleep_MAX} (low power)</i>	<i>≤ 0.5 Watt</i>
<i>P_{OFF_MAX} (Standby / OFF)</i>	<i>≤ 0.5 Watt</i>

Test result:

Luminance level set to	200.9 cd/m²
Default Delay Time to Sleep (min)	0.50 mins

Supply Voltage / Frequency	100.2V / 50Hz	100.3V / 60Hz
On-Mode	11.53 Watt	11.24 Watt
Sleep mode (low power)	0.185 Watt	0.181 Watt
Standby (Off-mode)	0.145 Watt	0.157 Watt
Non-Connected Sleep Mode Power	N/A	N/A

Supply Voltage / Frequency	115.2V / 60Hz	230.3V / 50Hz
On-Mode	11.24 Watt	11.25 Watt
Sleep mode (low power)	0.193 Watt	0.277 Watt
Standby (Off-mode)	0.157 Watt	0.241 Watt
Non-Connected Sleep Mode Power	N/A	N/A

Prüfbericht-Nr.: 10053900 001
Test Report No.:

Seite 8 von 11
Page 8 of 11

5. Photos of the EUT

Pic. 1



Pic. 2

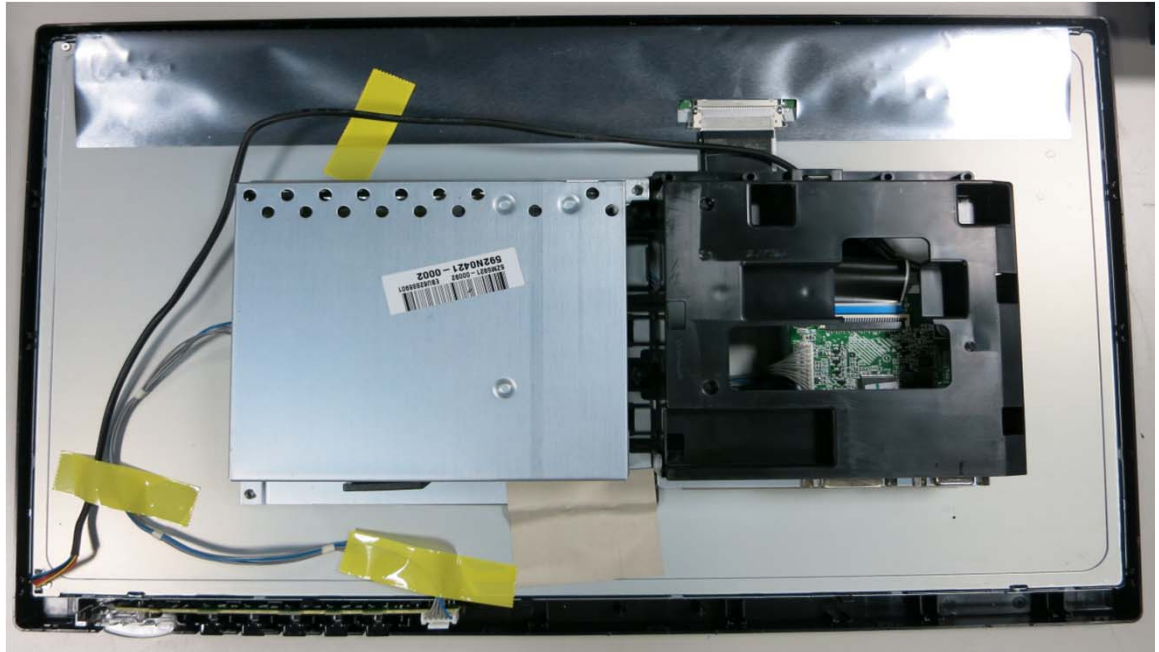


Prüfbericht-Nr.: 10053900 001
Test Report No.:

Seite 9 von 11
Page 9 of 11

5. Photos of the EUT

Pic. 3

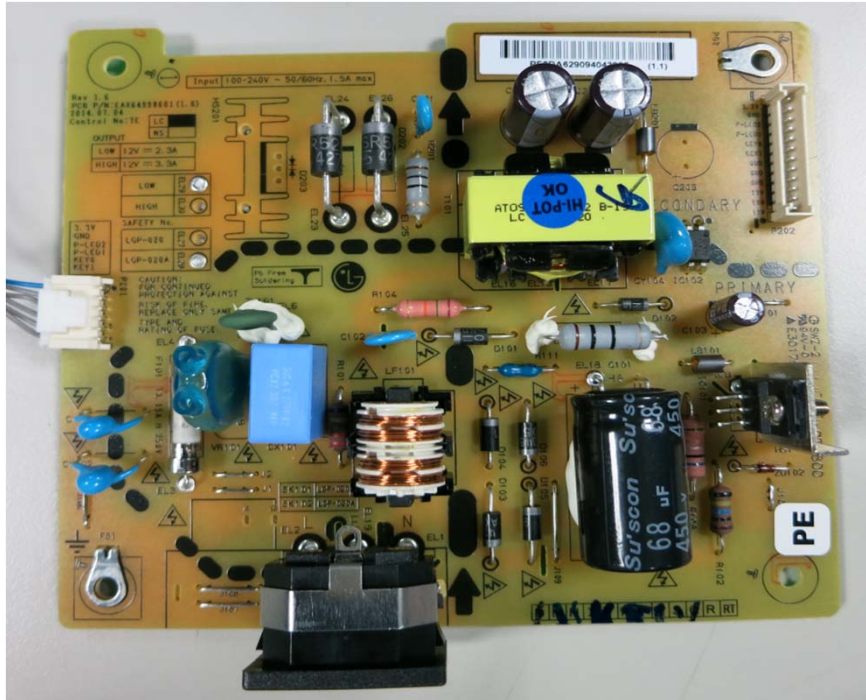


Pic. 4

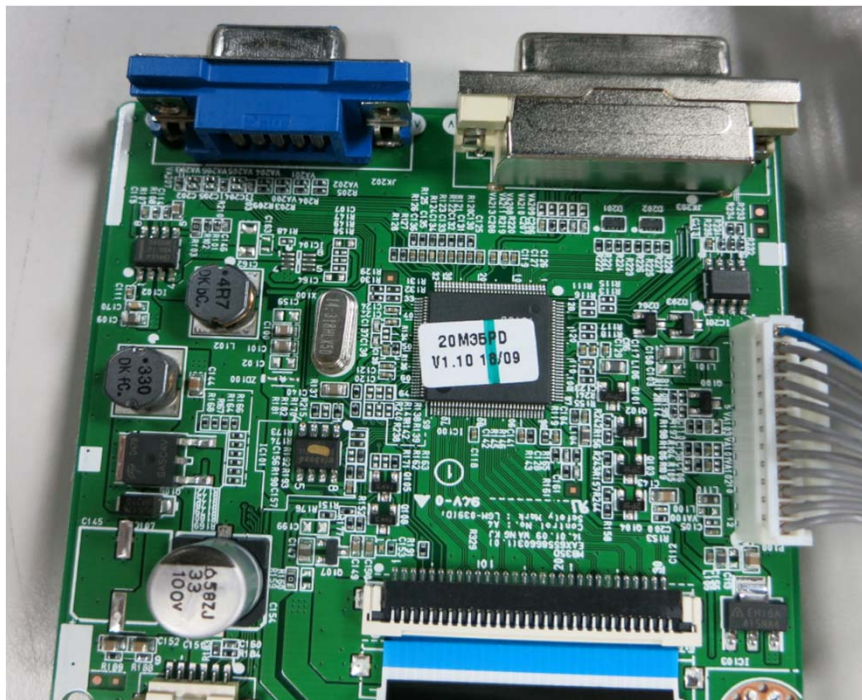


5. Photos of the EUT

Pic. 5



Pic. 6



Prüfbericht-Nr.: 10053900 001*Test Report No.:***Seite 11 von 11***Page 11 of 11***6. Attachment:** Signed Declaration of Conformity (DoC) for family models

– N/A –

7. Measurement and Test equipment list

Instrument	Mode I/ Type	Instrument NO.	Calibration Date	Next Calibration Date
Digital Power Meter	Voltech / PM1000+	TW-Ergo-127	Jul-15	Jul-16
Temperature Humidity Recoder	Sato / SK-L200TH	TW-Ergo-117	Jul-15	Jul-16
Spectroradiometer	Minolta CS1000A	TW-Ergo-067	Apr-15	Apr-16
Wind speed meter	Testo 425	TW-Ergo-095	Jun-15	Jun-16