

1.0 Reference and Address			
Report Number	160702583SHA-001	Original Issued: 9-Nov-2016	Revised: None
Standard(s)	ENERGY STAR® Program Requirements for Displays Version 7.0		
Applicant	Top Victory Electronics (Taiwan) Co.,Ltd.	Manufacturer	TPV Electronics(Fujian) Co., Ltd
Address	10F.,No.230,Liancheng Rd. Zhonghe City. Taipei Country 23553	Address	Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province
Country	Taiwan	Country	P.R.China
Contact	David.Cheng	Contact	Winter Feng
Phone	+886-02-82261668	Phone	+86-591-85285555
FAX	+886-02-82261707	FAX	+86-591-85285447
Email	David.cheng@tpv-tech.com	Email	winter.feng@tpv-tech.com
Manufacturer 2	TPV Display Technology (Beihai) Co.,Ltd	Manufacturer 3	TPV Technology(Beijing)Co.,Ltd.
Address	China Electronic Beihai Industry Park,Northeast of the Crossing between Taiwan Road and Jilin Road Beihai City,Guangxi	Address	No.10 Jiuxianqiao Rd. Chao Yang District Beijing
Country	China	Country	China
Contact	Yin Tao	Contact	Jenny Che
Phone	18277949678	Phone	010-64326699-8601
FAX	86-779-2232270	FAX	86-10-64371452
Email	yin.tao@tpv-tech.com	Email	jenny.che@tpv-tech.com
Manufacturer 4	L&T Display Technology (Fujian) Ltd.	Manufacturer 5	TPV Display Technology(Wuhan)Co.,Ltd
Address	Optoelectronic Park, Rongqiao Economic and Technological Development Zone,Fuqing City,Fujian	Address	Unique No.11 Zhuankou Development District of Economic Technological Development Zone Wuhan
Country	China	Country	China
Contact	Shan Xu	Contact	Zhe.Zhou
Phone	86(591)8651-5556	Phone	86(27)-6884 3822
FAX	86(591)8651-5556	FAX	86(27)-6884 3822
Email	shan.xu@Intdisplayfj.com	Email	zhe.zhou@tpv-tech.com
Manufacturer 6	TPV Display Technology (China) Co., Ltd.		
Address	No.106 Jinghai 3 Rd., BDA, Beijing City		
Country	China		
Contact	Nancy.Shang		
Phone	86(10)64326699-8312		
FAX			
Email	lijia.shang@tpv-tech.com		

2.0 Product Description			
Product	Display (LCD Monitor)		
Brand name	AOC		
Description	The product covered by this report is a LCD Display (LED backlighting) The evaluation standard of this report is based on: ENERGY STAR Program Requirements Product Specification for Displays Eligibility Criteria Version 7.0 And the test specification of this report refer to: IEC 62301:2011(Ed.2.0): Household electrical appliances -Measurement of standby power IEC 62087:2011(Ed.3.0): Methods of measurement for the power consumption of audio, video and related equipment		
Models	AG251FZ(250LM00005);AG251FX(250LM00005)		
Model Similarity	Model name:AG251FZ;AG251FX Model number: 250LM00005 Different model names mean differnet sales regions or appearance.		
Ratings	DC20V,4.5A		
Other Ratings	NA		
Date available	10/20/2016	Market availability	Yes
		Last Mfg date	NA
Major Markets	Australia,New Zealand,Canada,Europe,Japan,Switzerland,Taiwan,United States		
Trans Type	Initial Certification: Model Meets ENERGY STAR Requirements		
Notes	NA		
Additional model details (optional)	Model Name or Number	Identifying Information	
Original Certificate actual issued date for model tested (only applies to revised reports)			NA

3.0 Product Photographs

Photo 1 - External View (front)



Photo 2 - External View (back)



3.0 Product Photographs

Photo 3 - Main Board

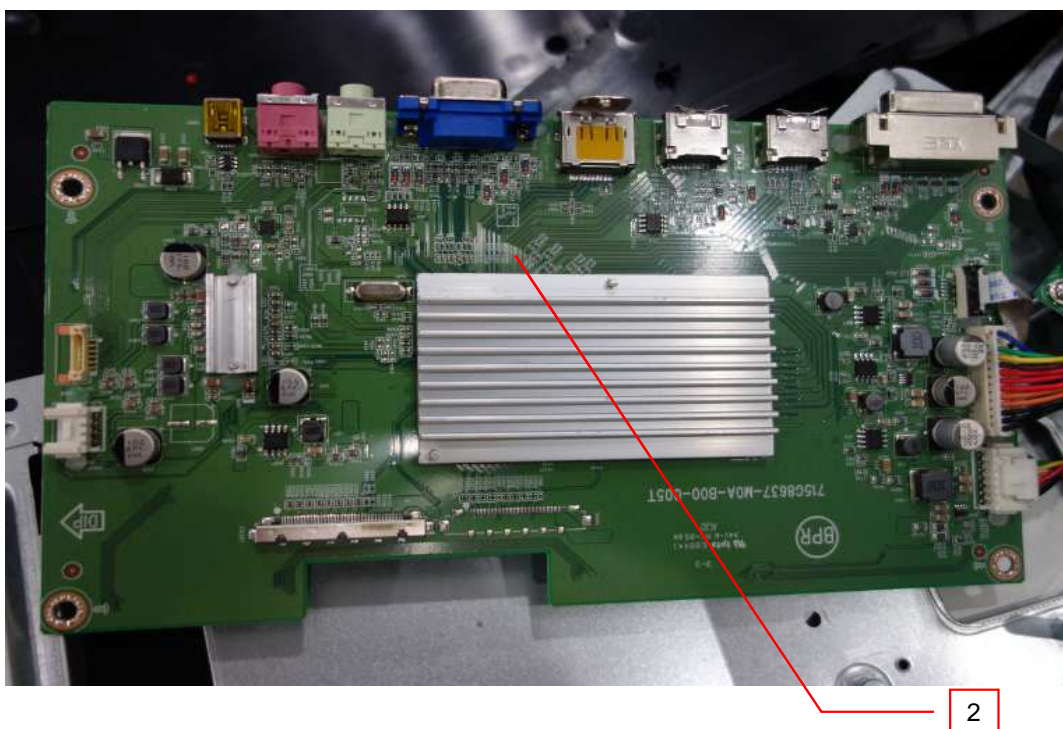


Photo 4 - Power Adapter



4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
1	1	LCD Panel	AUO	M250HTN01.0	25.0inch,TFT type,with LED backlight	UR
3	2	Main Board	TPV	715G8637	I/P:DC20V/4.5A	NR
4	3	Power Adapter	TPV	ADPC2090	I/P: AC100-240V, 50-60Hz, 1.3A. O/P:DC20V/4.5A.Level:VI	NR

2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.

3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates: a) Unlisted and only visual examination is necessary or b) marks are not required to be verified.

5.0 Critical Unlisted CEC Components

Periodic Evaluation of Critical Unlisted Components by the Intertek Component Evaluation Centers (CEC) is not required under the INTERTEK ENERGY STAR Program.

6.0 Critical Features

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the ENERGY STAR® Program Requirements.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Product Safety Compliance - NA
2. EMI Compliance - NA
3. Schematics - NA
4. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. Refer to Illustration No.1.and 2 for details.
5. Package Markings - NA
6. Warranty Information - NA
7. Marking Label - Refer to Illustration No.3 and 4 for details.

7.0 Illustrations

Illustration 1 - Installation, Operating and Safety Instructions

Safety

National Conventions

The following subsections describe notational conventions used in this document.

Notes, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, cautions, and warnings, and they are used as follows:



NOTE: A NOTE indicates important information that helps you make better use of your computer system.



CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



WARNING: A WARNING indicates the potential for bodily harm and tells you how to avoid the problem. Some warnings may appear in alternate formats and may be unaccompanied by an icon. In such cases, the specific presentation of the warning is mandated by regulatory authority.

Power



The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.



The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.



Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.



Do not overload power strips and extension cords. Overloading can result in fire or electric shock.



To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100 - 240V ~, Min. 5A



The wall socket shall be installed near the equipment and shall be easily accessible.



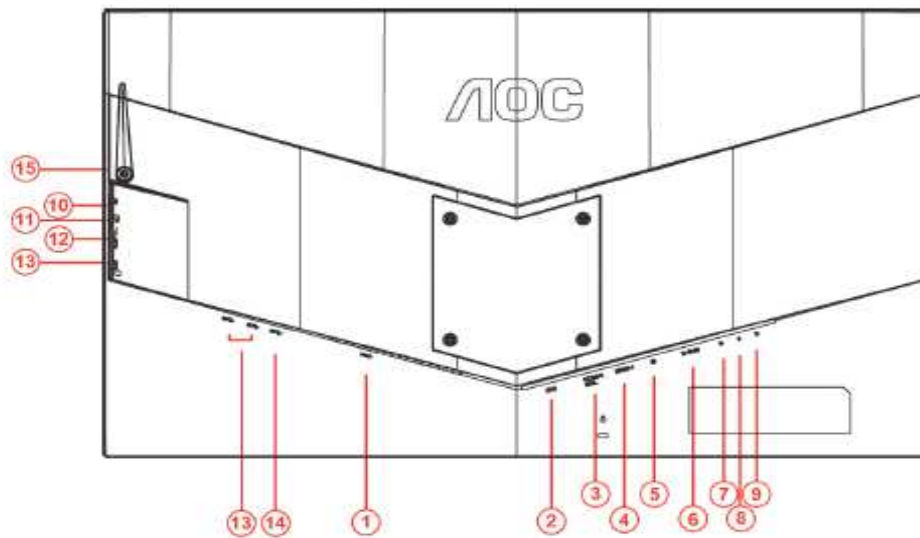
For use only with the attached power adapter (Input: 100-240V~, 50-60Hz, 1.3A Output: 20Vdc, 4.5 A)
Manufacturers: TPV ELECTRONICS (FUJIAN) CO.,LTD. Model: ADPC2090

7.0 Illustrations

Illustration 2 - Installation, Operating and Safety Instructions(continued)

Connecting the Monitor

Cable Connections In Back of Monitor and Computer:



1	Power	9	Quick Switch port
2	DVI Dual-Link	10	Microphone in
3	HDMI-2(HDMI1.4)/MHL	11	Earphone(Combined with Microphone)
4	HDMI-1(HDMI2.0)	12	USB3.0 downstream + fast charging
5	DP	13	USB3.0 downstream
6	D-SUB	14	USB3.0 upstream
7	Audio line in	15	Headphone hook
8	Microphone out		

7.0 Illustrations

Illustration 3 - Marking Label

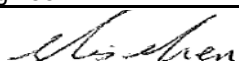
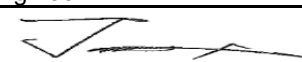


Illustration 4 - Adapter Marking Label



8.0 Test Summary			
Evaluation Period	10/25/2016-10/25/2016		Project No. 160702583SHA
Sample Rec. Date	29-Jul-2016	Condition Prototype	Sample ID. 0160729-78-001
Test Location	Intertek Testing Services Shanghai Limited. EPA ID(1105997) Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China		
Test Procedure	Testing Lab	Test type	Qualification
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.			
The following requirements were evaluated:			
Required Submittal Information			Submittal Data
Model Name and/or Number tested			AG251FZ (250LM00005)
Date tested			10/25/2016
Serial number of Unit tested			Engineer Sample
ENERGY_STAR_Specification_Version*			7.0
Product_Type*			Monitor
Display_Type*			Other
Other_Display_Type			TFT LCD
Display_Backlight_Technology*			LED
Other_Display_Backlight_Technology			NA
Display_Contrast_Ratio*			3000
Image_Height_in*			11.9
Image_Width_in*			21.4
Diagonal_Screen_Size_in*			25
Screen_Area_sq_in*			255
Aspect_Ratio*			1.78
Native_Vertical_Resolution_lines*			1080
Native_Horizontal_Resolution_lines*			1920
Total_Native_Resolution_megapixels*			2.1
Native_Pixel_Density_Dp_pixels_sq_in*			7763
Screen_Refresh_Rate_Hz*			60
Color_Gamut*			34.6
Enhanced_Performance_Criteria*			None
Reported_Contrast_Ratio_at_85_deg_Left_Horiz_Viewing_Angle			
Reported_Contrast_Ratio_at_85_deg_Right_Horiz_Viewing_Angle			
Is_This_Model_Shipped_With_an_External_Power_Supply_EPS*			Yes
Is_Model_Sold_Through_Enterprise_Channels*			Yes
Other_Available_Interfaces			NA
Other_Features			NA
Signal_Interface*			DisplayPort 1.2
Other_Interface			NA
Other_Power_Source			NA
VESA_FPDM2_Test_Pattern_Used*			No
Other_Mechanism_for_Automatically_Entering_Sleep_or_Off_Mode			NA
Default_Delay_Time_to_Sleep_min			4
Does_Model_Have_a_Forced_Menu_at_Initial_Start_up*			No
User_Interface*			Yes
Maximum_Measured_Luminance_cd_m_2*			523
Maximum_Reported_Luminance_cd_m_2*			500
As_shipped_Luminance_cd_m_2			400
As_tested_Luminance_cd_m_2*			200
On_Mode_Power_at_12_Lux_at_115_Volts_W			
On_Mode_Power_at_300_Lux_at_115_Volts_W			
Measured_On_Mode_Power_at_115_Volts_W			16.29
Reported_On_Mode_Power_at_115_Volts_W			16.29
Maximum_On_Mode_Power_Limit_for_Signage_Certification_W			

8.0 Test Summary	
Measured Sleep Mode Power at 115 Volts_W	0.47
Reported Sleep Mode Power at 115 Volts_W	0.47
Measured Disconnected Sleep Mode Power at 115 Volts_W	0.47
Maximum Sleep Mode Power Limit for Signage Certification_W	
Measured Off Mode Power at 115 Volts_W	0.31
Reported Off Mode Power at 115 Volts_W	0.31
Measured Total Energy Consumption at 115 Volts_kWh	52.61
Reported Total Energy Consumption at 115 Volts_kWh	52.61
Max Total Energy Consumption Limit for Monitor_kWh	56.7
On Mode Power at 12 Lux at 230 Volts_W	
On Mode Power at 300 Lux at 230 Volts_W	
Measured On Mode Power at 230 Volts_W	16.25
Measured Sleep Mode Power at 230 Volts_W	0.48
Measured Disconnected Sleep Mode Power at 230 Volts_W	0.48
Measured Off Mode Power at 230 Volts_W	0.32
Measured Total Energy Consumption at 230 Volts_kWh	52.57
True Power Factor PF During On Mode Testing at 115 Volts_W	0.5
True Power Factor PF During On Mode Testing at 230 Volts_W	0.5
Number of Sleep Modes in Addition to Default Sleep Mode*	0
Color Spaces Supported*	NTSC
Available Signal or Data Interfaces*	DVI,VGA,HDMI 1.4,DisplayPort 1.2,USB 3.0
Model Features*	Built-In Speakers
Features Enabled in Default On Mode*	Built-In Speakers
Features Enabled in Default Sleep Mode*	None
Wireless Technologies Supported*	None
Low Power Wireless Technologies*	None
Ethernet Supported*	None
Power Source*	Ac power supply
Mechanism for Automatically Entering Sleep or Off Mode*	Display Power Management Signaling
On Mode Power at 12 Lux at 100 Volts 50Hz_W	
On Mode Power at 300 Lux at 100 Volts 50Hz_W	
Measured On Mode Power at 100 Volts 50Hz_W	16.49
Measured Sleep Mode Power at 100 Volts 50Hz_W	0.46
Measured Disconnected Sleep Mode Power at 100 Volts 50Hz_W	
Measured Off Mode Power at 100 Volts 50Hz_W	0.31
Measured Total Energy Consumption at 100 Volts 50Hz_kWh	53.17
On Mode Power at 12 Lux at 100 Volts 60Hz_W	
On Mode Power at 300 Lux at 100 Volts 60Hz_W	
Measured On Mode Power at 100 Volts 60Hz_W	16.33
Measured Sleep Mode Power at 100 Volts 60Hz_W	0.46
Measured Disconnected Sleep Mode Power at 100 Volts 60Hz_W	
Measured Off Mode Power at 100 Volts 60Hz_W	0.31
Measured Total Energy Consumption at 100 Volts 60Hz_kWh	52.68

8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Chris Chen	Reviewed by:	Jarree Jiang
Title:	Engineer	Title:	Engineer
Signature:		Signature:	

9.0 Correlation Page For Multiple Listings			
The following products, which are identical to those identified in this report except for model number and Company name.			
BASIC LISTEE	Top Victory Electronics (Taiwan) Co.,Ltd.		
Address	10F.,No.230,Liancheng Rd. Zhonghe City. Taipei Country 23553		
Country	Taiwan	EPA ID	1065104
Product	Display (LCD Monitor)		
Contact	David.Cheng		
Phone	+886-02-82261668		
FAX	+886-02-82261707		
Email	David.cheng@tpv-tech.com		

MULTIPLE LISTEE 1	None		
Address			
Country		EPA ID	
Contact			
Phone			
FAX			
Email			
Brand Name			
Date available		Market availability	Last Mfg date
Major Markets			
Trans Type			
Notes			

ASSOCIATED MANUFACTURER			
Address			
Country			

MULTIPLE LISTEE 1 MODELS		BASIC LISTEE MODELS	
Additional model details (Optional)	Model Name or Number	Identifying Information	

MULTIPLE LISTEE 2	None		
Address			
Country		EPA ID	
Contact			
Phone			
FAX			
Email			
Brand Name			
Date available		Market availability	Last Mfg date
Major Markets			
Trans Type			
Notes			

ASSOCIATED MANUFACTURER			
Address			
Country			

MULTIPLE LISTEE 2 MODELS		BASIC LISTEE MODELS	
Additional model details (Optional)	Model Name or Number	Identifying Information	

10.0 General Information

The Applicant has agreed to produce products in accordance with the requirements of this report and to maintain compliance with all ENERGY STAR Product Specification requirements.

Changes to Product Design / Alternate Components

As part of this agreement, the Applicant also has agreed to notify Intertek and to request authorization prior to making any changes to the product (including but not limited to using alternate parts, components or materials) which may effect compliance with the ENERGY STAR Product Specification. Those parts, components or materials identified as critical have been listed in Section 4.0 of this report.

Product Surveillance

Under this Program, market surveillance is conducted on an annual basis. For each Product Type defined in the EPA ENERGY STAR Program, Intertek will select 10% of those certified products for Verification Testing in accordance with the requirements of the EPA ENERGY STAR Product Specification.

The primary source for products under Verification Testing will be the retail market. Applicants whose products are selected for Verification Testing are required to provide a list of locations where the product might be obtained. The Applicant is responsible for the cost of procurement and the Verification Tests. Should products not be readily available on the retail market, the Applicant is required to provide access to distribution warehouses to allow selection of those products. Should the product not be available on the retail market or if procurement from the retail market is not feasible, then alternate arrangements for Verification Testing will be made by the Intertek

As a general rule under the Verification Testing requirements, the products must achieve energy values within 5% of the required Tier Limit.

Compliance with ENERGY STAR Product Specifications under Verification Testing

Products found non-compliant with ENERGY STAR Product Specification under Verification Testing, will be reported to the EPA within 48 hours and the product removed from the ENERGY STAR Program. If it is determined during Verification Testing that changes have been made to product design or critical components, the Certification Body may increase Verification Testing frequency of those products.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation

Ship the samples to:
Intertek Testing Services Shanghai Limited
ETL Component Evaluation Center
Building No. 86, 1198 Qinzhou Road (North)
Shanghai 200233, China
Attn: Ms. Dansy Xu

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

11.0 Manufacturing and Production Tests

Manufacturing and Production tests are not required under the INTERTEK ENERGY STAR Program. However, Intertek encourages the use of such ongoing product testing to ensure compliance with the EPA ENERGY STAR Product Specifications.

