

1.0 Reference and Address			
Report Number	220901006SHA-2	Original Issued: 22-Sep-2022	Revised: 3-Nov-2022
Standard(s)	ENERGY STAR® Program Requirements for Displays Version 8.0		
Test Methods	All Product Types and Screen Sizes	ENERGY STAR Test Method for Determining Display Energy – Rev. Nov-2021	
	Enhanced Performance Displays	International Committee for Display Metrology (ICDM) Information Display Measurements Standard – Version 1.03	
	Displays Claiming Full Network Connectivity	CTA-2037-A, Determination of Television Set Power Consumption	
	Displays Claiming High Dynamic Range (HDR)	VESA High-performance Monitor and Display Compliance Test Specification (DisplayHDR CTS) Version 1.0	
Test Materials	“IEC 62087:2011 Dynamic Broadcast-Content Signal” shall be used for testing, as specified in IEC 62087:2011, Section 11.6, “On (average) mode testing using dynamic broadcast-contentvideo signal.”		
	“VESA FPDm2” shall be used only for products that cannot display the IEC 62087:2011 Dynamic Broadcast-Content Signal.		
Reference Standard	IEC 62301:2011, “Household electrical appliances - Measurement of standby power”		
Standard(s)	ENERGY STAR® Program Requirements for Displays Version 8.0		

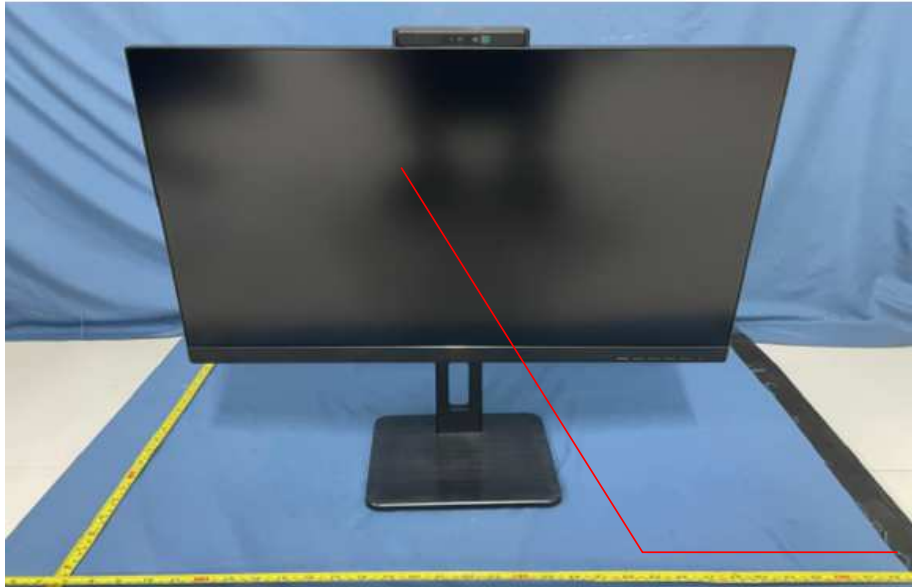
1.0 Reference and Address

Applicant	Top Victory Electronics (Taiwan) Co.,Ltd.	Manufacturer 1	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	+886-2-82261668-2375	Phone	+86-591-85285555
FAX	+886-2-82261668-2375	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 Display Technology (China) Co., Ltd.
Address	China Electronic Beihai Industry Park,Northeast of the Crossing between Taiwan Road and Jilin Road Beihai City,Guangxi	Address	No.106 Jinghai 3 Rd., BDA, Beijing City
Country	China	Country	China
Contact	Jiaping Chen	Contact	Nancy.Shang
Phone	86-799-3132666-8255	Phone	86(10)64326699-8312
FAX	86-779-2232270	FAX	NA
Email	jiaping.Chen@tpv-tech.com	Email	lijia.shang@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@lntdisplayfj.com	Email	zhe.zhou@tpv-tech.com

2.0 Product Description					
Product	Display (LCD Monitor)				
Brand Name	AOC				
Description	The product covered by this report is a Display (LCD Monitor)				
Models	Q27P3QW(Q27P3);Q27P3CV(Q27P3C);Q27P3CW(Q27P3C)				
Model Similarity	Model Name:Q27P3QW;Q27P3CV;Q27P3CW Model Number:Q27P3;Q27P3C Q27P3QW use main board "715GD401" and power board "715G7610". Q27P3CV and Q27P3CW use the same main board and power board. Q27P3CV has camera. Q27P3CW has not camera.				
Ratings	100-240Vac 50/60Hz 1.5A				
Other Ratings	NA				
Date Available	09/18/2022	Market Availability	Yes	OEM	TPV Electronics(Fujian) Co. Ltd
Major Markets	Canada,Japan,Taiwan,United States				
Trans Type	Modification: Added Model Name/Number				
Notes	NA				
UPC	4038986180764				
Reason no UPC					
Other reason no UPC					
Additional Model Details (Optional)	Model Name and Number	Identifying Information			
Original Certificate Actual Issued Date for Model Tested (Only Applies to Revised Reports)					09/30/2022

3.0 Product Photographs

Photo 1 - External View (front)



1

Photo 2 - External View (back)

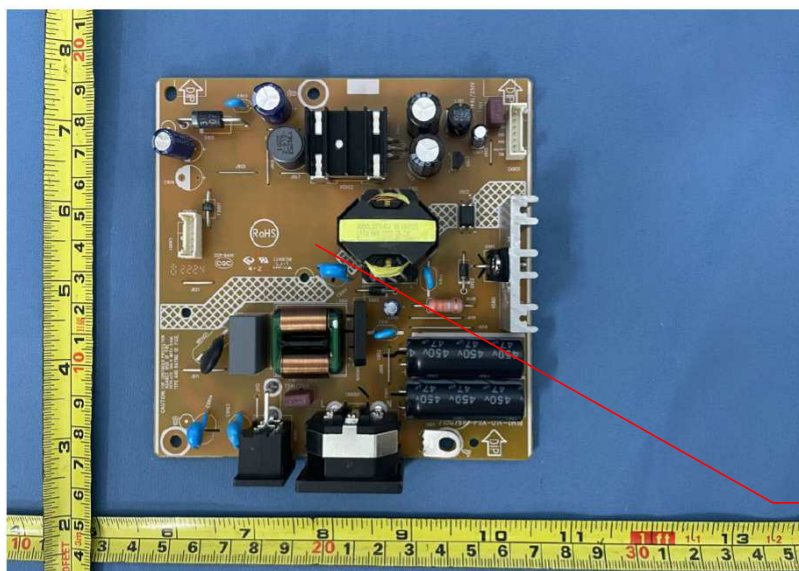


3.0 Product Photographs

Photo 3 - Main Board



Photo 4- Power Board



3.0 Product Photographs

Photo 5 - Main Board



4

Photo 6- Power Board



5

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	TPV	TPM270***** * (* can be 0~9, A~Z, “.”, “-” or blank)	27.0inch,TFT type,with LED backlight TPM270WF1-KCJP02 is tested as a representation.	NR
3	2	Main Board	TPV	715GD401	I/P: 19Vdc,3A	NR
5	4			715GD415	I/P: 19Vdc,6A This is tested model.	
4	3	Power Board	TPV	715G7610	I/P:100-240Vac,50/60Hz,1.5A; O/P:max.19Vdc,3A	NR
6	5			715GB004	I/P:100-240Vac,50/60Hz,1.5A; O/P:max.19Vdc,6A This is tested model.	
NOTES:						
1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.						
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.1-2 for details.

5. Package Markings - NA

6. Warranty Information - NA

7. Marking Label - Refer to Illustration No.3.for details.

7.0 Illustrations

Illustration 1 - Installation and Safety instruction

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.



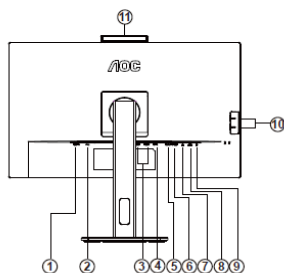
WARNING: A WARNING indicates the potential for bodily harm and tells you how to avoid the problem. Some warnings may appear in alternate formats and may be unaccompanied by an icon. In such cases, the specific presentation of the warning is mandated by regulatory authority.

7.0 Illustrations

Illustration 2 - Installation and Safety instruction (Continued)

Connecting the Monitor

Cable Connections In Back of Monitor:



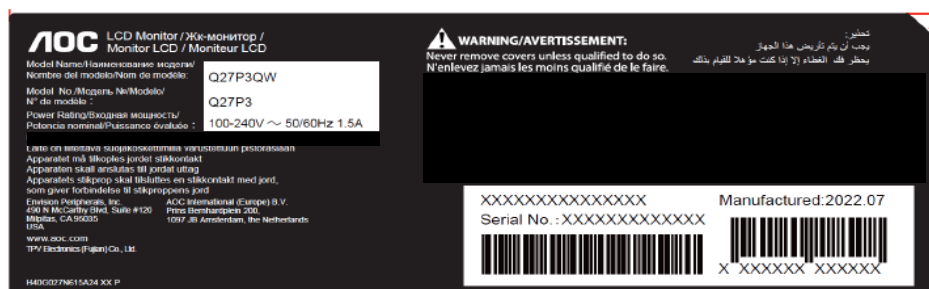
1. Power switch
2. Power
3. HDMI 1/HDMI 2
4. DP IN
5. USB C
6. DP OUT
7. RJ45 Input
8. USB3.2 Gen1 downstream + fast chargingx1
USB3.2 Gen1x1
9. Earphone
10. USB3.2 Gen1x2
11. Camera

Connect to PC

1. Connect the power cord to the back of the display firmly.
 2. Turn off your computer and unplug its power cable.
 3. Connect the display signal cable to the video connector of your computer.
 4. Plug the power cord of your computer and your display into a nearby outlet.
 5. Turn on your computer and display.
- If your monitor displays an image, installation is complete. If it does not display an image, please refer Troubleshooting.
- To protect equipment, always turn off the PC and LCD monitor before connecting.

7.0 Illustrations

Illustration 3 - Marking Label



8.0 Test Summary			
Evaluation Period	11/3/2022-11/3/2022		Project No. 221002140SHA
Sample Rec. Date	3-Nov-2022	Condition	Prototype
			Sample ID. 0221103-70-027
Test Location	Intertek Testing Services Shanghai Limited (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			Q27P3CW(Q27P3C)
Date tested			11/03/2022
Serial number of Unit tested			1 sample
ENERGY STAR Specification Version*			8.0
Product Type*			Monitor
Tiled Display System			
Maximum Tiled Configuration			
Panel Type*			Other
Other Panel Type			TFT LCD
Diagonal Screen Size in*			27
Screen Area sq_in*			310.47
Display Contrast Ratio*			1000
Native Vertical Resolution lines*			1440
Native Horizontal Resolution lines*			2560
Total Native Resolution megapixels*			3.7
Native Pixel Density Dp_pixels_sq_in*			11874
As Tested Screen Refresh Rate Hz*			60
Maximum Screen Refresh Rate Hz*			75
Enhanced Performance Criteria*			Yes
Color Gamut			40
Reported Contrast Ratio at 85 deg Left Horiz Viewing Angle			181
Reported Contrast Ratio at 85 deg Right Horiz Viewing Angle			198
High Dynamic Range HDR*			N/A
Other Available Interfaces			
Other Features			
Signal Interface*			DisplayPort 1.2
Other Interface			
USB C with Power Delivery Supported*			Yes
Maximum Power Delivery_W			65
Other Power Source			
Does Model Have a Forced Menu at Initial Start up*			No
Maximum Measured Luminance_cd_m_2*			389.3
Maximum Reported Luminance_cd_m_2*			350
As shipped Luminance_cd_m_2			254.1
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			21.66
Reported On Mode Power at 115 Volts_W			21.66
Maximum On Mode Power Limit for Signage Certification_W			
Measured Sleep Mode Power at 115 Volts_W			0.29
Reported Sleep Mode Power at 115 Volts_W			0.29
Measured Disconnected Sleep Mode Power at 115 Volts_W			0.29
Maximum Sleep Mode Power Limit for Signage Certification_W			

8.0 Test Summary			
Number of Sleep Modes in Addition to Default Sleep Mode*			0
Other Mechanism for Automatically Entering Sleep or Off Mode			
Default Delay Time to Sleep_min			
Measured Off Mode Power at 115 Volts_W			0.18
Reported Off Mode Power at 115 Volts_W			0.18
Measured Total Energy Consumption at 115 Volts_kWh			68.06
Reported Total Energy Consumption at 115 Volts_kWh			68.06
Max Total Energy Consumption Limit for Monitor_kWh			70.49
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			21.42
Measured Sleep Mode Power at 230 Volts_W			0.31
Measured Disconnected Sleep Mode Power at 230 Volts_W			0.31
Measured Off Mode Power at 230 Volts_W			0.2
Measured Total Energy Consumption at 230 Volts_kWh			67.43
True Power Factor PF During On Mode Testing at 115 Volts_W			0.51
True Power Factor PF During On Mode Testing at 230 Volts_W			0.9
Color Spaces Supported*			sRGB
Available Signal or Data Interfaces*			HDMI,Display,USB
Model Features*			C
Features Enabled in Default On Mode*			None
Features Enabled in Default Sleep Mode*			None
Wireless Technologies Supported*			None
Ethernet Supported*			None
Power_Source*			Ac to dc internal 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			21.55
Measured Sleep Mode Power at 100 Volts_50Hz_W			0.29
Measured Disconnected Sleep Mode Power at 100 Volts_50Hz_W			0.29
Measured Off Mode Power at 100 Volts_50Hz_W			0.18
Measured Total Energy Consumption at 100 Volts_50Hz_kWh			67.72
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			21.56
Measured Sleep Mode Power at 100 Volts_60Hz_W			0.29
Measured Disconnected Sleep Mode Power at 100 Volts_60Hz_W			0.29
Measured Off Mode Power at 100 Volts_60Hz_W			0.18
Measured Total Energy Consumption at 100 Volts_60Hz_kWh			67.75
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:	Eddie Liu	Reviewed by:	Carl Dong
Title:	Engineer	Title:	Engineer
Signature:	Eddie Liu	Signature:	Carl Dong

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	+886-2-82261668-2375		
FAX	+886-2-82261668-2375		
Email	David.cheng@tpv-tech.com		

MULTIPLE LISTEE 1	None		
Address			
Country		EPA ID	
Contact			
Phone			
FAX			
Email			
Brand Name			
Date Available		Market Availability	OEM
Major Markets			
Trans Type			
Notes			
UPC			
Reason no UPC			
Other reason no UPC			
ASSOCIATED MANUFACTURER			
Address			
Country			
MULTIPLE LISTEE 1 MODELS		BASIC LISTEE MODELS	
Additional Model Details (Optional)	Model Name and Number	Identifying Information	

9.0 Correlation Page For Multiple Listings

MULTIPLE LISTEE 2	None		
Address			
Country		EPA ID	
Contact			
Phone			
FAX			
Email			
Brand Name			
Date Available		Market Availability	OEM
Major Markets			
Trans Type			
Notes			
UPC			
Reason no UPC			
Other reason no UPC			
ASSOCIATED MANUFACTURER			
Address			
Country			
MULTIPLE LISTEE 2 MODELS		BASIC LISTEE MODELS	
Additional Model Details (Optional)	Model Name and 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 Certification Body.

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 NA Inc.
ETL Component Evaluation Center
1717 Arlingate Ln.
Columbus, Ohio 43228 USA
Attn: Jennifer Chandler or Marissa Evans

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.

