Jupiter

Pana OPS Manual

February 17, 2023

A-PAN-000-07, Rev. C

Acknowledgments

Conventions Used in this Manual

Labels from the user Interface (UI) are **bolded** to make it easier to follow instructions. If you see a **bolded** word or set of words, look for the label in the UI. Where possible tabs and dialog boxes are named in instructions as markers so you know you are in the right place.

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Chapter 1

PANA OPS

The Pana OPS is an Open Pluggable Specification (OPS) plug in module which adds computing capability to Pana Displays. The Pana OPS is an 11th generation Intel i7 processor; conforming to Intel OPS standard with 16GB dual-channel memory; NVME and SATA 3.0 storage methods.

Pana OPS Features:

- JAE 80pin supports DP 1.4 up to 5K60 to the Pana screen
- External connection supports HDMI 1.4 in to OPS and HDMI 2.0 out from OPS
- Two USB-C thunderbolt compatible ports each support 5K60 video, touch, and power charging at 60W (for 65W use the USB-C on the Pana); Two USB 3.0
- Supports NVME and SATA 3.0 Storage Methods
- 21:9 5K Display Support

Figure 1.1: Pana OPS Front Panel

1.1 Pana OPS Ordering Information

Table 1.1: Pana OPS Ordering Information

Product Name	JOQS Number	Description
Pana OPS	P-OPS-i7	11th generation Intel i7 processor; Intel OPS standard; 16GB DDR4 dual channel memory; 256GB NVME, 21:9 5K Display Support

1.2 Interfaces

Figure 1.2: Pana OPS Interfaces

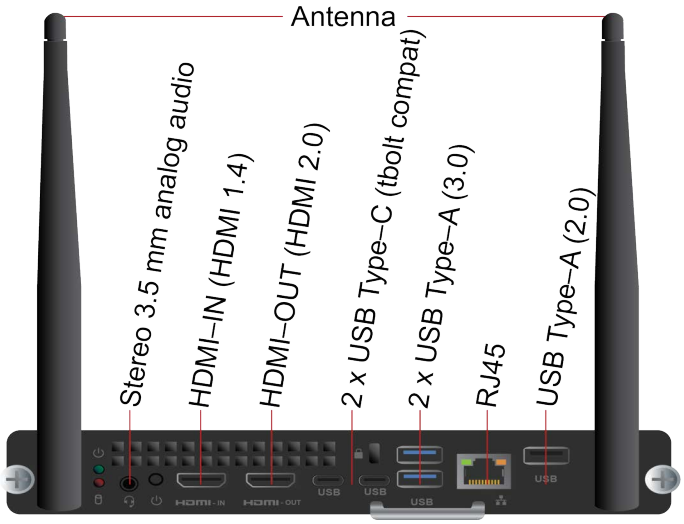


Table 1.2: Pana OPS Interfaces

Interface	Description/Number of interfaces
WIFI	INTEL AX201
Bluetooth	Bluetooth 5.2
NET	RJ45 Ethernet for network communications
USB 3.0 (Type A)	2
USB 2.0 (Type A)	1
USB Type-C	2 thunderbolt compatible ports — each supports 5K60 video, reverse touch, power charging at 60W from the 65 power distribution from the Pana display. The USB-C ports take input from the camera and microphone input when connected to the USB-C port of the Pana 34. The OPS as a standalone device (not in the Pana OPS slot) may be powered by USB-C from the Pana.
HDMI IN	1 (HDMI 1.4) *Windows10 sees these as USB 1080p webcam. It will show up as a USB camera when launching the native Windows camera app.
HDMI OUT	1 (HDMI 2.0)

Note: The HDMI 1.4 IN uses a USB connection internally so the highest supported resolution to the OPS and therefore the Pana screen from HDMI 1.4 IN on the OPS is 1080p@30 Hz.

1.3 Pana OPS Specifications

Figure 1.3: Pana OPS Dimensions

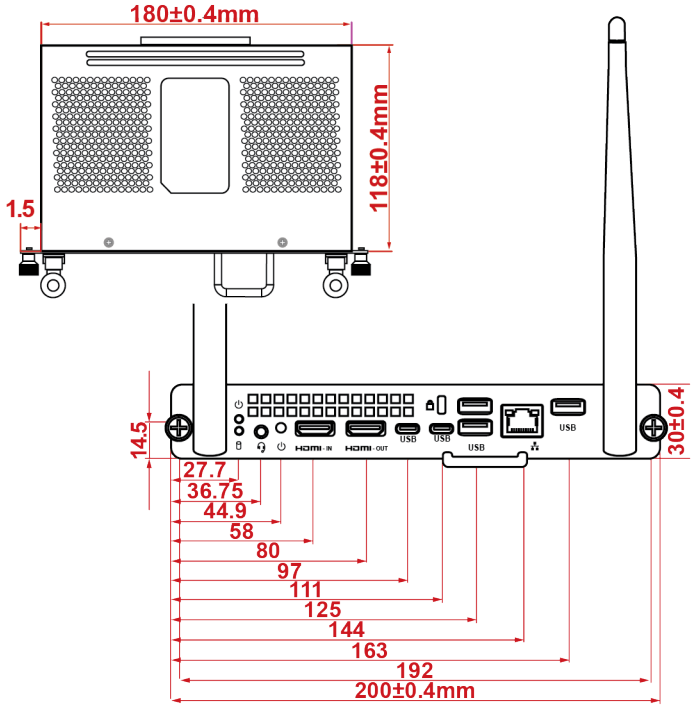


Table 1.3: Pana OPS Specifications

Feature	Description
Model	S21-TGLU-OPS11
CPU	Intel® mobile Core™ i7 1165G7 2.8Ghz
Chipset	System on a Chip (SOC)
Graphics	Intel® Iris® Xe Graphics
RAM	16GB DDR4
SSD	256GB (NVME protocol)
LAN	Integrated 10/100/1000 network adapter
Control Software	Windows based application
Power Consumption	
Maximum power	60W
Standby Power	0.5W

Table 1.3: Pana OPS Specifications

Feature	Description
Environmental	
Operating Temperature	0° to 40°C (32° to 104°F)
Storage/Transport	-20° to 60°C (-4° to 140°F)
Operating Humidity	10 to 90% (Non-condensing)
Storage/Transport Humidity	0 to 90% (Non-condensing)
Certifications	
Regulatory Certifications	cULus, CE, FCC, ICES, AS/NZS, RoHS, REACH

1.4 Installation

1 *Turn Pana off and unplug power*

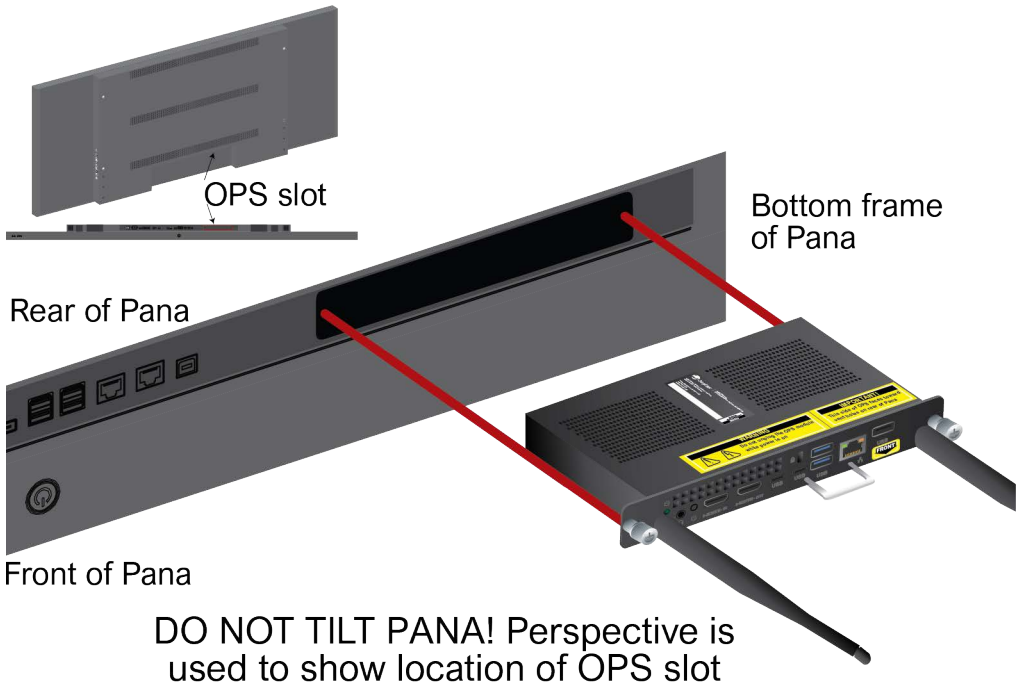
2 *Remove OPS slot cover*

3 *Insert Pana OPS in the proper orientation*

WARNING! **The orientation of the Pana OPS into the Pana OPS slot is important!** Not only does the OPS need to connect to the Pana to be operational, the vent holes in the OPS match the vent holes in the Pana.

See *Figure 1.4. Pana 105 (D and T models) Installation Diagram* and *Figure 1.5. Pana 81 (D and T models) Installation Diagram* for proper orientation of the Pana OPS which differs based on the Pana model.

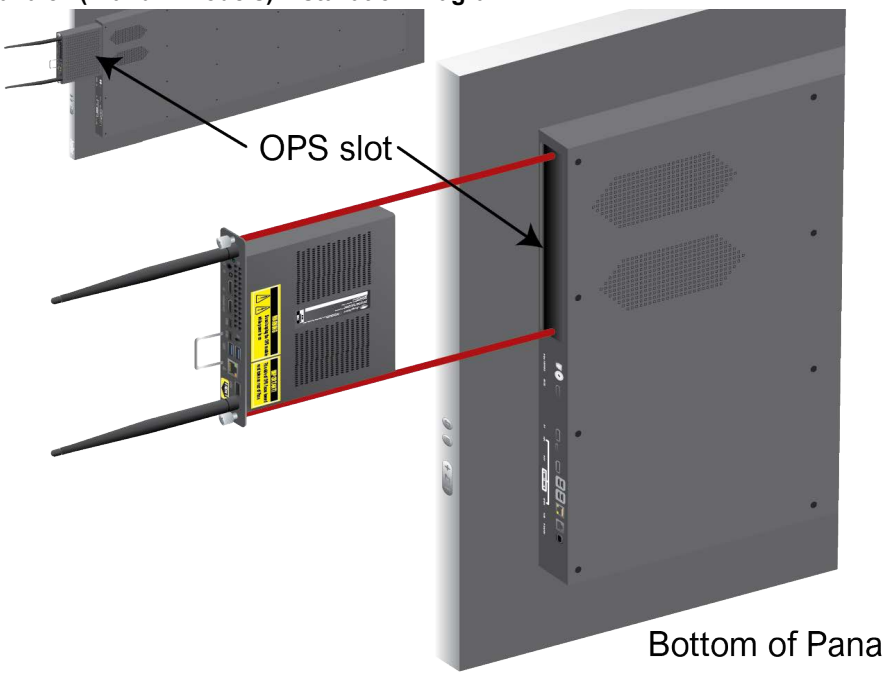
Figure 1.4: Pana 105 (D and T models) Installation Diagram



WARNING! **DO NOT TILT PANA!** Even though the graphics may show a perspective which appears if the Pana is tilted, these graphics are used to show the location of the OPS slot and how the Pana OPS should be oriented to the Pana.

Note: Slot the OPS in until it clicks which is in engaging the connector on the Pana. Use only one of the captive thumb screws as using both may pull the OPS out of line with the connector.

Figure 1.5: Pana 81 (D and T models) Installation Diagram

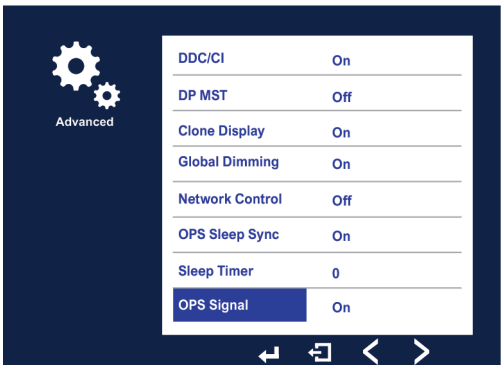


4 *Configure Pana for OPS via Pana Menus*

a *Control Pana OPS on/off behavior*

We first need to turn the OPS Signal on to communicate with the OPS. The OPS Sleep Sync option tells the OPS to sleep when the Pana sleeps (according to the Sleep Timer) and to wake up when the Pana wakes up.

Figure 1.6: Advanced|OPS Signal and OPS Sleep Sync



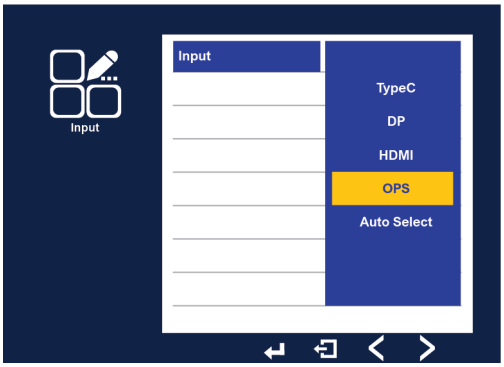
OPS Signal and ***OPS Sleep Sync*** should be set to ***On***.

Once ***OPS Signal*** is ***ON*** when you select OPS as the input source it will launch the OPS.

Note: ***OPS Signal*** may be on the second page of the ***Advanced*** menu. Click the left arrow "**>**" to access the second page.

b *Configure OPS as input source*

Figure 1.7: OPS as Input Source



5 *Verify OPS functioning*

When you have ***OPS Signal ON*** and select the ***OPS*** as input source the OPS will launch (if it is properly connected).

On startup of the Pana you will see the OPS as Input in the first Pana startup screen. Then you will see Windows loading and when everything is up and running you will see the Windows system tray along the bottom of the Pana screen.

Note: The Pana OPS is supplied with a Windows 10 Pro image which is not activated. You must activate it or use your own corporate image/license.

Jupiter provides a BIOS update which allows the Trusted Platform Module (TPM) 2.0 to be enabled on the OPS. TPM 2.0 is a prerequisite for Windows 11 installation. The BIOS update file is available under Software Downloads at *jupiter.com/support*. See *Section 1.5, BIOS Update on page 8*.

1.5 BIOS Update

Download and run the file on the OPS and it will update the BIOS and restart Windows. Two BIOS features should be enabled to update to Windows 11:

- Secure Boot
- Trusted Platform Module (TPM)

Once those two features are enabled in the BIOS Windows 11 can be installed via an in-place upgrade from Windows 10.

You will need a keyboard attached to the OPS (or wirelessly with a bluetooth keyboard/USB pair). To navigate within the BIOS use the arrow keys. To select an item use the Enter key.

To enter the BIOS, on startup hold Esc. In the BIOS enable TPM and Secure Boot and let the startup sequence proceed.

WARNING! Once the updating process is started do not stop or shut off the Pana/Pana OPS.

1 *Download the OPS BIOS update from Jupiter Systems and put it on the OPS*

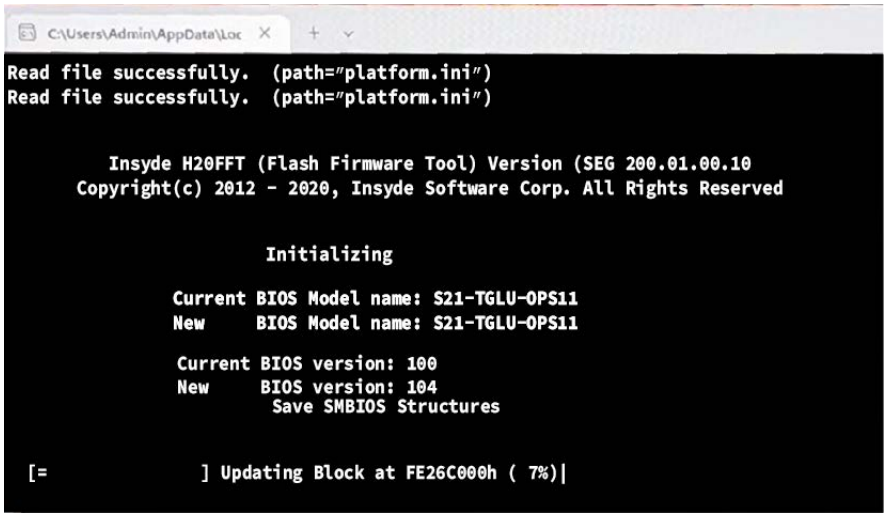
a *Go to jupiter.com/support and under the Software Downloads section download the **TPM 2.0 module bios upgrade** file and put it on the OPS*

Note: Do not change the file name of the OPS BIOS .exe file.

b *Run the OPS BIOS .exe file as Administrator*

A system status screen will display. Initially you will not see the status for a few minutes.

Figure 1.8: BIOS Updating Status



When the BIOS is updated the Pana/Pana OPS will restart on its own.

c *When the Pana restarts hold down the Esc key*

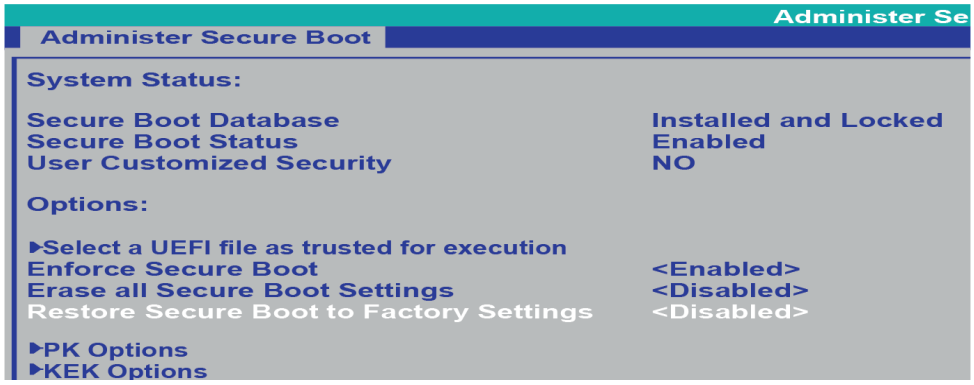
You will be in the ***Front Page*** of the BIOS setup application.

2 *Set Secure Boot*

Figure 1.9: Front Page

a From the ***Front Page*** select ***Administer Secure Boot***

Figure 1.10: Administer Secure Boot: Restore to Factory Settings



b *From **Administer Secure Boot** page select **Restore Secure Boot to Factory Settings***

c *Click F10 to save changes and exit back to the **Front Page***

3 *Set TPM*

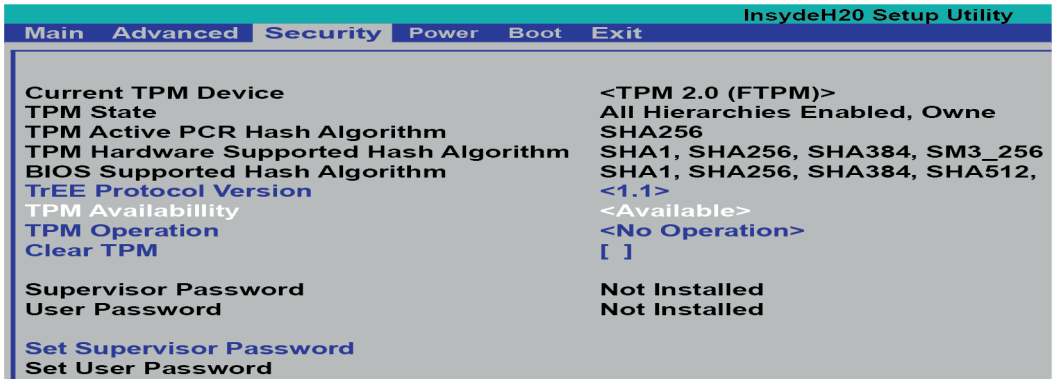
Figure 1.11: Front Page: Setup Utility

a From ***Front Page*** select ***Setup Utility***

This actions put you in the ***Main*** tab of the BIOS.

b *Select **Security** tab*

Figure 1.12: Security: TPM Availability



c *From the **Security** page select **TPM Availability***

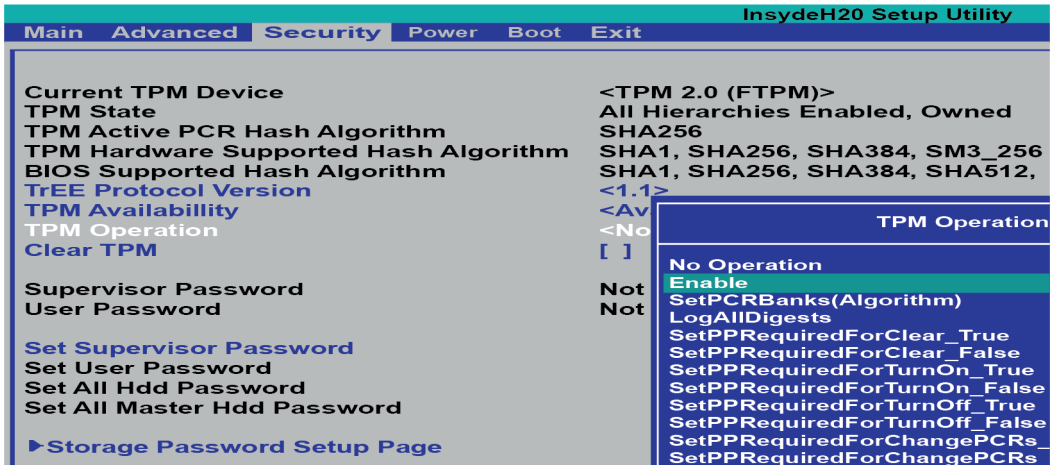
d *From the **TPM Availability** options select **Available***

Figure 1.13: Security: TPM Availability: Available

e *Select **TPM Operation***

f *From **TPM Operations** page select **Enable***

Figure 1.14: Security: TPM Operation: Enable



g *Click F10 to save changes and exit*

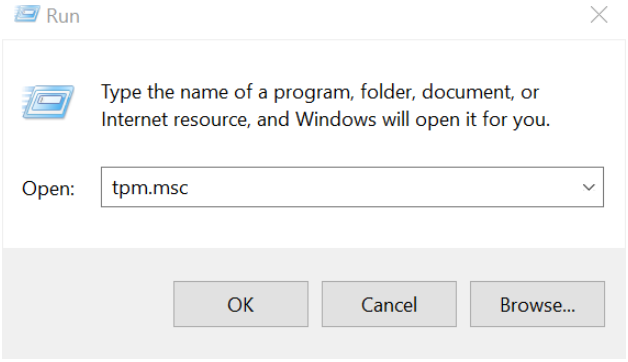
When you do this exit ***Save and Exit*** action the updater will close and restart the OPS.

4 *Verify TPM*

Option 1: Run TPM Management

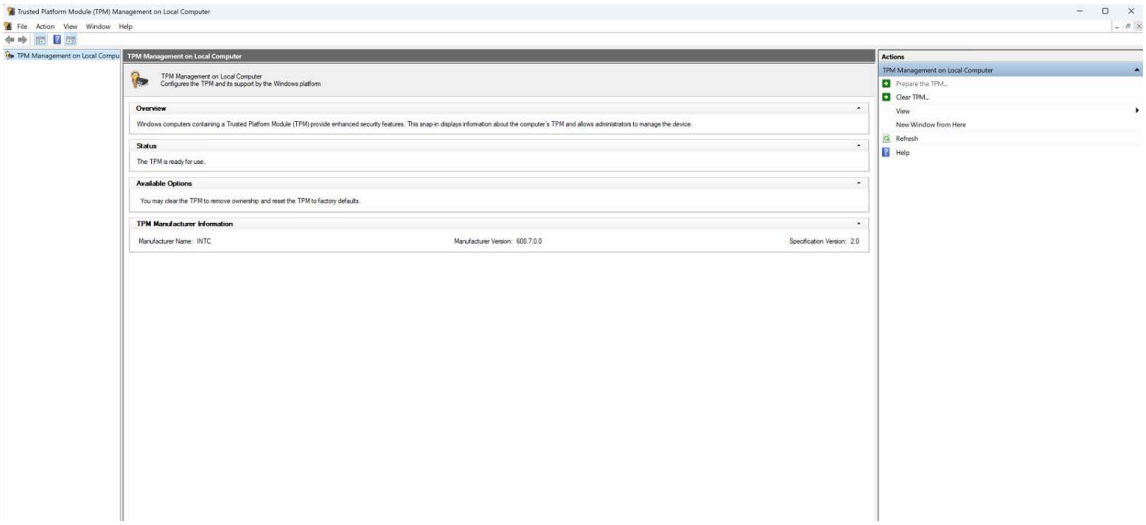
a *In the Windows Start menu **Run** option enter **tpm.msc***

Figure 1.15: Run tpm.msc



b *Verify the application is running*

Figure 1.16: TPM Management Application



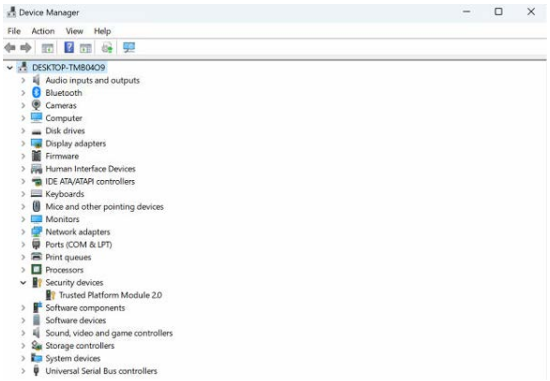
c *Exit the application*

Option 2: Verify TPM Management in Device Manager

a *Open Device Manager*

b *From the list find Security devices and expand it*

Figure 1.17: Trusted Platform Module 2.0 in Security devices



If TPM is installed there will be a new entry for ***Trusted Platform Module 2.0***

Chapter 2

TECHNICAL SUPPORT

2.1 Technical Assistance

If you require technical assistance, please contact Jupiter Systems' technical support team. Please provide as much information to the support team about the fault and any steps you have taken in trying to resolve the issue.

2.2 Contact Information

- Website
  www.jupiter.com /support
- Phone
  1-510-675-1000
- Email
  support@jupiter.com
- Mail (physical)
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