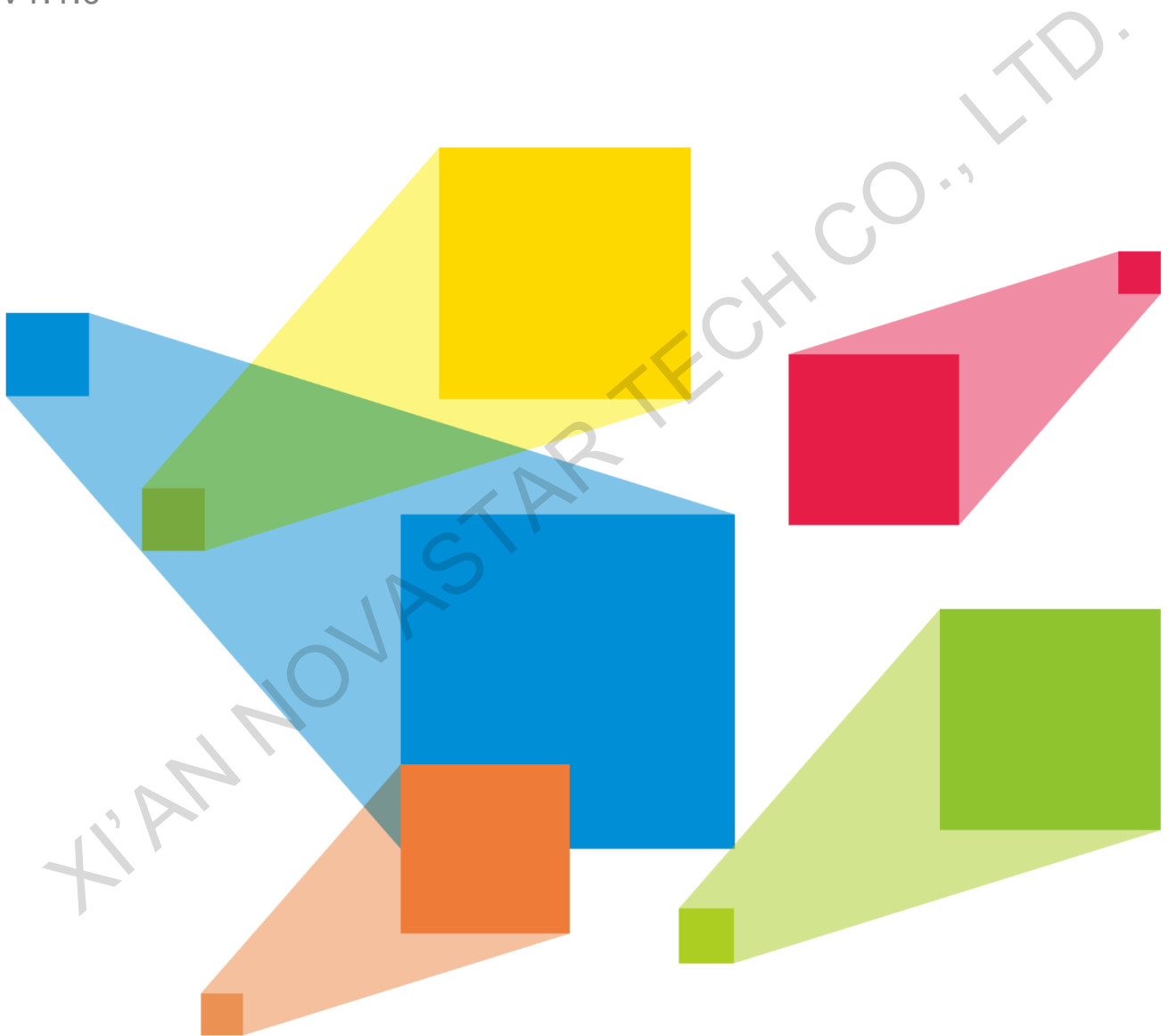


# NovaPro UHD

## All-in-One Controller

V1.1.0



Specifications

## Overview

The NovaPro UHD is a new all-in-one controller developed by NovaStar. Featuring video processing and control, and the built-in Master VI platform software, the NovaPro UHD allows you to easily manage layers and configure screens by using a mouse, keyboard and monitor.

The NovaPro UHD is capable of receiving a variety of video signals and processing images of resolutions up to Ultra HD 4Kx2K@60Hz and 8Kx1K@60Hz. It comes with a maximum loading capacity of 10.4 million pixels and can send the processed videos to LED displays using Neutrik Ethernet ports and fiber optical ports.

Thanks to the powerful video processing and sending capabilities, the NovaPro UHD is widely used for high-end rental applications, stage control systems and fine-pitch fixed LED displays.

## Features












- Industry-standard input connectors
  - 4x 12G-SDI (IN-LOOP)
  - 1x HDMI 2.0 (IN-LOOP)
  - 1x DP 1.2
  - 4x HDMI 1.3 (You can buy a DVI input card to replace the connectors.)
- 16x Neutrik Ethernet outputs and 4x OPT outputs
  - Fiber optical output supports two modes: copy and hot backup
  - The maximum loading capacity is 10.4 million pixels. The maximum output width per unit is 16,384 pixels and the maximum output height per unit is 8,192 pixels.
- 6x layers
  - At most two 4Kx2K and four 2Kx1K layers can be added, and layer scaling is available.
  - Supports layer opacity adjustment, layer mask, layer overlapping, layer copying, layer mirroring, layer flipping, etc.
  - Supports layers of irregular shapes.
  - Allows you to adjust the Z-order of layers.
- 1x OSD, 1x LOGO and 1x BKG
  - OSD supports cropping, opacity adjustment, dynamic and static images, and position settings.
  - LOGO supports resolutions up to 256x256 and allows for cropping, opacity adjustment and position settings.
  - BKG can be scaled to fit the screen automatically.
- Built-in Master VI platform software allowing for easier operations
- Working with the A8s or A10s Plus receiving card to support HDR function, making images smoother
- Low latency output
  - The delay from the input source to receiving card can be as low as 1 frame when the low latency and synchronization functions are turned on and the data runs vertically on the screen.
- Multiviewer settings
  - Monitor the input sources, PVW or PGM, or perform mixed monitoring.
- Web control
  - Access and control the NovaPro UHD in real time by using a browser without the need to install multiple pieces of software.
- Up to four NovaPro UHD units can be linked together for image mosaic.

## Appearance

### Front Panel



Button	Function
On/OFF button	Hold down the button for 3 seconds to power on, power off or restart the device.
Layer buttons	Open or close layers and display layer status. Status LEDs: <ul style="list-style-type: none"> <li>● On (blue): The layer is open and an input source is accessed.</li> <li>● Flashing (blue): The layer is being edited and an input source is accessed.</li> <li>● On (white): The layer is open, but no input source is accessed.</li> <li>● Flashing (white): The layer is being edited, but no input source is accessed or the input source is abnormal.</li> <li>● Off: The layer is closed.</li> </ul>
Input source buttons	Quickly switch the layer input source and display the input source status. Press an input source button to switch to the input source. Status LEDs: <ul style="list-style-type: none"> <li>● On (blue): The input source is accessed and being used by a layer.</li> <li>● On (white): The input source is accessed but not in use.</li> <li>● Off:               <ul style="list-style-type: none"> <li>- The input source is not accessed or abnormal.</li> <li>- The input source is not accessed but already used by a layer.</li> </ul> </li> </ul>
TFT screen	Display current device status, menus, submenus and messages.

Knob	<ul style="list-style-type: none"> <li>• Rotate the knob to scroll through the menu items, or adjust a parameter value.</li> <li>• Press the knob to confirm the selection or settings.</li> </ul>
Function buttons	<ul style="list-style-type: none"> <li>• : Enter or exit the quick navigation screen.</li> <li>• : Make the LED screen fade to black.</li> <li>• : Access the LOGO menu.</li> <li>• : Access the preset menu.</li> <li>• : Freeze the output image.</li> <li>• : Access the OSD menu.</li> <li>• : Custom function button</li> <li>• : Access the test pattern menu.</li> <li>• : Access the BKG settings menu.</li> <li>• : Send the PVW to PGM with a transition effect.</li> <li>• : Send the PVW directly to PGM without a transition effect.</li> </ul>
ESC button	Exit the current menu or cancel an operation.
USB ports	<p>2x USB 2.0</p> <ul style="list-style-type: none"> <li>• Connect to a mouse and keyboard to control the device with the built-in GUI.</li> <li>• Insert a USB drive to update the system.</li> <li>• Insert a USB drive to import or export files.</li> </ul>

**Note:**

Hold down the knob and the ESC button simultaneously for 3 seconds or longer to lock or unlock the front panel buttons.

## Rear Panel



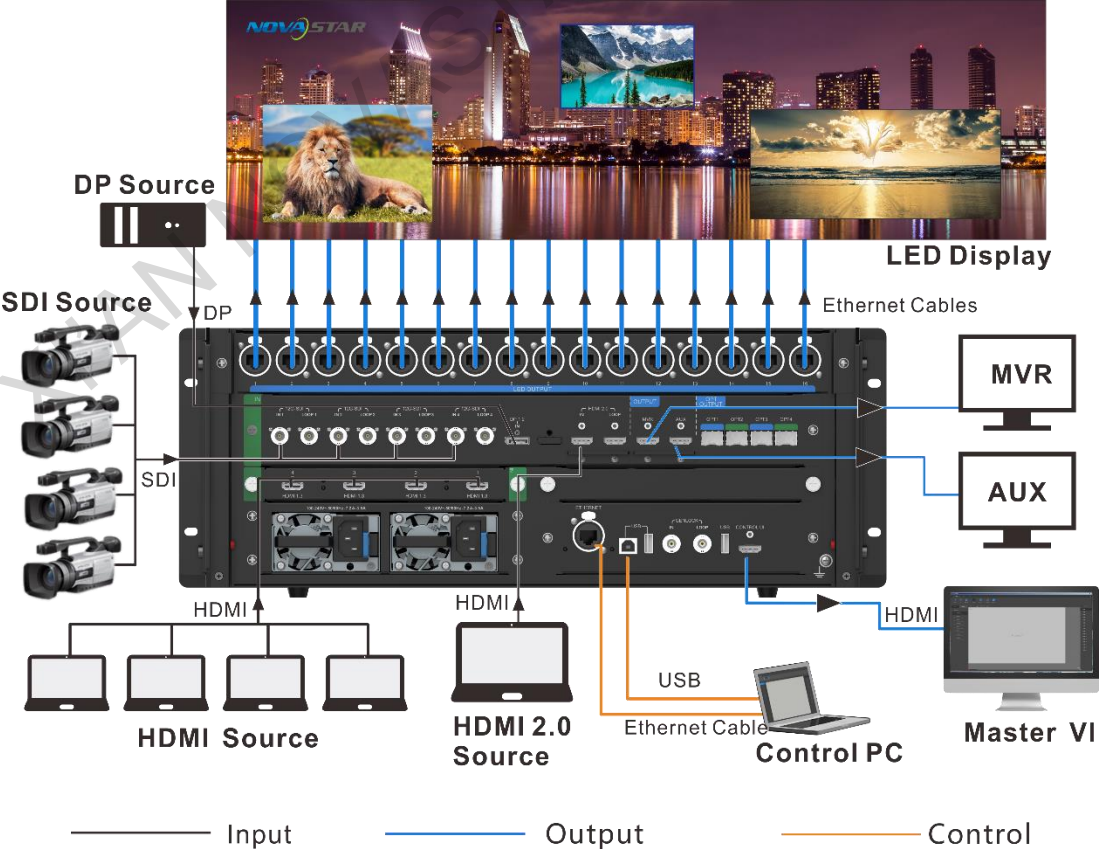
### Note:

The NovaPro UHD supports the replacement of the HDMI input card (standard configuration). You can buy a DVI input card to replace the HDMI input card.

Input		
Connector	Quantity	Description
12G-SDI	4	<ul style="list-style-type: none"> <li>Supports ST-2082-1 (12G), ST-2081-1 (6G), ST-424 (3G) and ST-292 (HD).</li> <li>Up to 4Kx2K@60Hz input resolution</li> <li>Connector 4 supports deinterlacing processing.</li> <li>Supports 12G-SDI output with loop-through.</li> </ul> <p>Note: When the input source is a 12G-SDI signal, a CANARE / L-4.5CHD+ / UHDTV-SDI SDI cable is required and it cannot be longer than 50 m.</p>
DP 1.2	1	<ul style="list-style-type: none"> <li>Up to 4Kx2K@60Hz (8Kx1K@60Hz) input resolution</li> <li>HDCP 1.3 compliant</li> <li>Does not support interlaced input signals.</li> </ul>
HDMI 2.0	1	<ul style="list-style-type: none"> <li>Up to 4Kx2K@60Hz (8Kx1K@60Hz) input resolution</li> <li>HDCP 1.4 and HDCP 2.2 compliant</li> <li>Does not support interlaced input signals.</li> <li>Supports HDMI 2.0 output with loop-through.</li> </ul>
HDMI 1.3	4	<ul style="list-style-type: none"> <li>D_4xHDMI 1.3 input card (can be replaced by a D_4xDVI input card)</li> <li>Up to 1920x1080@60Hz input resolution for each connector</li> <li>HDCP 1.3 compliant</li> <li>Supports interlaced input signals.</li> </ul>
Output		
Connector	Quantity	Description
Ethernet port	16	Neutrik Gigabit Ethernet outputs <ul style="list-style-type: none"> <li>Max. loading capacity: 10.4 million pixels</li> <li>Max. width: 16,384 pixels</li> <li>Max. height: 8,192 pixels</li> </ul>
OPT 1-4	4	10G fiber optical outputs (copy and hot backup)

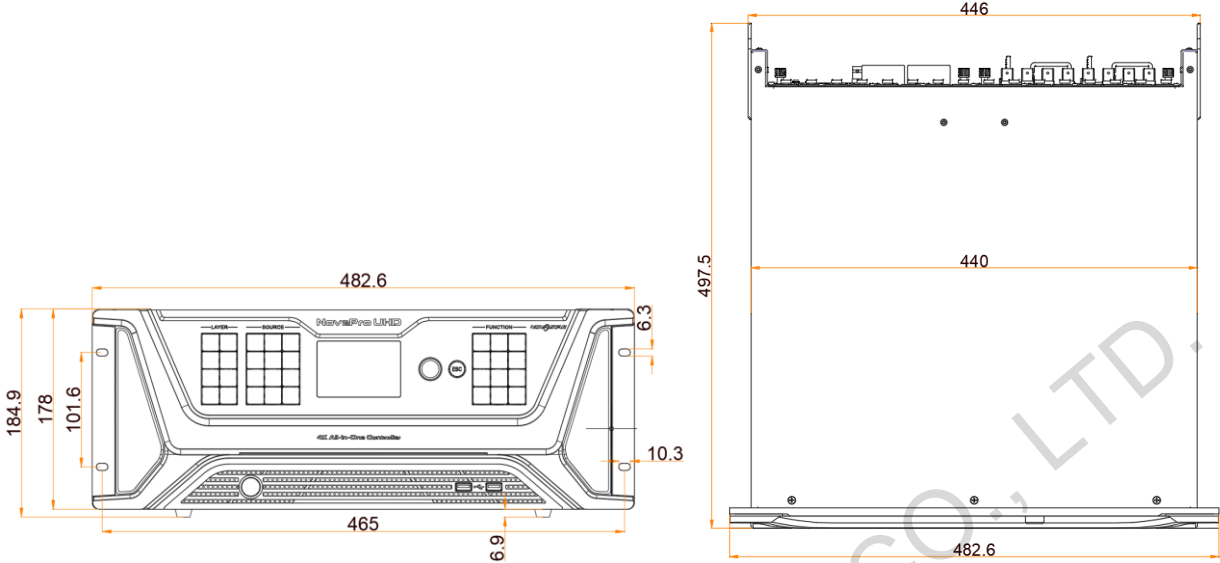
		<ul style="list-style-type: none"> <li>• OPT 1 transmits data on Ethernet ports 1–8.</li> <li>• OPT 2 transmits data on Ethernet ports 9–16.</li> <li>• OPT 3 is the copy/hot backup channel for OPT 1.</li> <li>• OPT 4 is the copy/hot backup channel for OPT 2.</li> </ul>
MVR	1	HDMI 1.3 connector, used for Multiviewer to monitor input sources, PVM or PGM, or perform mixed monitoring
AUX	1	HDMI 1.3 connector, used for connecting to an auxiliary device such as a teleprompter
<b>Control</b>		
<b>Connector</b>	<b>Quantity</b>	<b>Description</b>
ETHERNET	1	For PC communication or network connection
USB	3	<ul style="list-style-type: none"> <li>• 1x USB 2.0 (Type-B): Connect to the PC for device debugging.</li> <li>• 2x USB 2.0 (Type-A):                             <ul style="list-style-type: none"> <li>- Insert a USB drive to update the system.</li> <li>- Connect to a mouse and keyboard.</li> <li>- Output port for linking another device unit</li> </ul> </li> </ul>
GENLOCK IN-LOOP	1	Connect to a synchronization signal source. <ul style="list-style-type: none"> <li>• IN: Accept the sync source.</li> <li>• LOOP: Loop the sync source.</li> </ul>
CONTROL UI	1	Connect to a monitor for displaying the user interface of the Master VI platform software.

### Applications



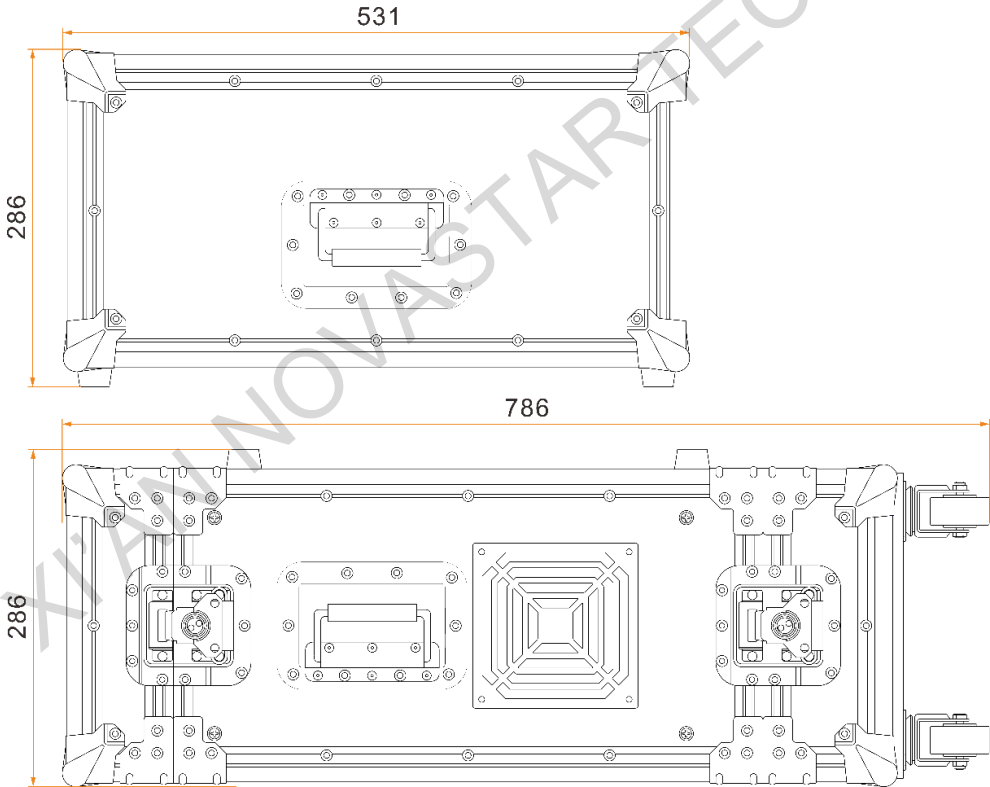
# Dimensions

## NovaPro UHD



Tolerance: ±0.5 Unit: mm

## Flight Case



Tolerance: ±0.5 Unit: mm

**Note:**

If you need the detailed dimension drawings of the flight case, please contact the customer service of NovaStar.

## Specifications

Overall Specifications		
Electrical Specifications	Power connectors	100-240V~, 50/60Hz, 7.2A-3.5A Dual redundant power supplies
	Rated power consumption	180 W
Operating Environment	Operating temperature	-10°C to +60°C
	Operating humidity	0% RH to 80% RH, non-condensing
Storage Environment	Storage humidity	0% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	482.6 mm x 184.9 mm x 497.5 mm
	Net weight	21 kg
	Gross weight	42 kg
Packing Information	Accessories	<ul style="list-style-type: none"> <li>• 2x Power cords</li> <li>• 1x DVI cable</li> <li>• 1x USB cable</li> <li>• 1x Ethernet cable</li> <li>• 1x HDMI cable</li> <li>• 1x DP cable</li> <li>• 1x Mini DP to DP cable</li> <li>• 46x Silicone dustproof plugs</li> <li>• 1x USB drive (16 GB)</li> <li>• 1x Custom Letter</li> <li>• 1x Quick Start Guide</li> <li>• 1x Certificate of Approval</li> <li>• 1x Safety Manual</li> </ul>
	Flight case	531 mm x 286 mm x 786 mm
Certifications		FCC, IC, EMC, UL/CUL, CB, CE, RoHS 10, EAC, KC, RCE, PSE
Noise Level (typical at 25°C/77°F)		57 dB (A)

## Video Source Features

Input Connector	Bit Depth		Max. Input Resolution
<ul style="list-style-type: none"> <li>• HDMI 2.0</li> <li>• DP 1.2</li> </ul>	8-bit	RGB 4:4:4	4096x2160@60Hz 8192x1080@60Hz
		YCbCr 4:4:4	
		YCbCr 4:2:2	
		YCbCr 4:2:0	Not supported



Input Connector	Bit Depth		Max. Input Resolution
	10-bit	RGB 4:4:4	4096x2160@30Hz
		YCbCr 4:4:4	8192x1080@30Hz
		YCbCr 4:2:2	4096x2160@60Hz 8192x1080@60Hz
		YCbCr 4:2:0	Not supported
	12-bit	RGB 4:4:4	4096x2160@30Hz
		YCbCr 4:4:4	8192x1080@30Hz
		YCbCr 4:2:2	4096x2160@60Hz 8192x1080@60Hz
		YCbCr 4:2:0	Not supported
HDMI 1.3	8-bit	RGB 4:4:4	1920x1080@60Hz
		YCbCr 4:4:4	
		YCbCr 4:2:2	
	10-bit	RGB 4:4:4	
		YCbCr 4:4:4	
		YCbCr 4:2:2	
	12-bit	RGB 4:4:4	
		YCbCr 4:4:4	
		YCbCr 4:2:2	
12G-SDI	<ul style="list-style-type: none"> <li>• Max. input resolution: 4096x2160@60Hz</li> <li>• Does not support input resolution and bit depth settings.</li> <li>• Supports ST-2082-1 (12G), ST-2081-1 (6G), ST-424 (3G) and ST-292 (HD).</li> </ul>		

**Copyright © 2020 Xi'an NovaStar Tech Co., Ltd. All Rights Reserved.**

No part of this document may be copied, reproduced, extracted or transmitted in any form or by any means without the prior written consent of Xi'an NovaStar Tech Co., Ltd.

**Trademark**

**NOVA STAR** is a trademark of Xi'an NovaStar Tech Co., Ltd.

**Statement**

Thank you for choosing NovaStar's product. This document is intended to help you understand and use the product. For accuracy and reliability, NovaStar may make improvements and/or changes to this document at any time and without notice. If you experience any problems in use or have any suggestions, please contact us via the contact information given in this document. We will do our best to solve any issues, as well as evaluate and implement any suggestions.

[Official website](http://www.novastar.tech)  
www.novastar.tech

[Technical support](mailto:support@novastar.tech)  
support@novastar.tech