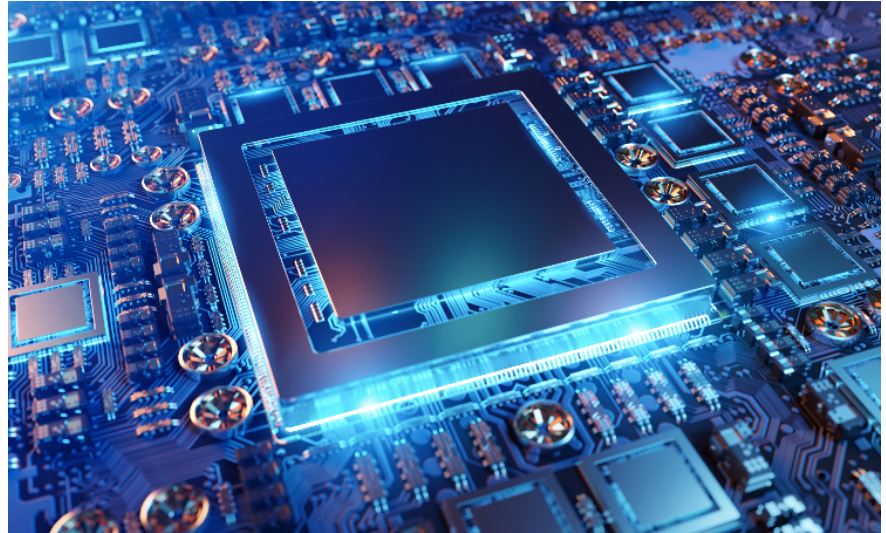


## UNLOCKING THE POWER OF PHOTONICS



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## OUR PRODUCTS & SERVICES

- Scalable photonic integrated circuits controller
  - XDAC
  - XPOW
  - Custom / OEM / ODM /Integration
- FPGA - ASIC electronic photonic design service
  - RTL verification / IP integration
  - Silicon photonic heterogeneous integration

The Nicslab logo consists of the word "nicslab" in a white, lowercase, sans-serif font, centered within a black rounded rectangle with a thin white border.A red ribbon graphic with the words "NEW PRODUCT" in white, uppercase, sans-serif font, angled upwards from left to right.

# XDAC

## SCALABLE PHOTONIC INTEGRATED CIRCUIT CONTROLLER

The XDAC system is a complete, compact, programmable, affordable and easy to use multichannel source measurement system for low power applications from simple electronic circuits to complex photonic integrated circuits.



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## Better control, more accurate with rich features



- Enable range span configuration through software
- High-resolution control with 16-bit standard
- High scalability 120 channels in a box
- Flexible unipolar and bipolar output
- Gigabit Ethernet
- Functional GPIO
- USB ports

# Your new source measurement system

The scalability, flexibility, and performance of the XDAC revolutionize the conventional source measurement unit. For the first time, we've built a complete scalable source measurement system experience. Whether you're sourcing devices, measuring parameters, automating experiments or analyzing data, you'll find the easy to use and flexible experience - but on a compact and much more cost-effective instrument.

## Real-time monitoring



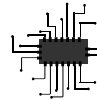
XDAC equipped with high responsivity sensors per channel and high resolution converter combine with high-speed real-time voltage and current reading.

## Easy to use GUI



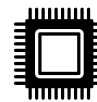
We are making the graphical user interface simple with many features depend on what you need.

## Flexible output range



Your XDAC comes with range span configuration technology that enables the user to select the output range with software without losing control of the high-resolution feature.

## High scalability



Start from 8 channels output per unit to 120 channels in a single box. It also enables distributed control for the larger channels.

# Graphical User Interface (GUI)

The screenshot displays the Nicslab XDAC-120MUB-R4G8 GUI. The interface is dark-themed and includes a sidebar on the left with a power button, 'SAVE' and 'UPLOAD' buttons, and a vertical menu with 'Auto Mode', 'CV SEQUENCE', 'CC SEQUENCE', 'RUN', 'RECORD', and 'SETTING' buttons. Below the menu is a 'Value Increment' section with a dropdown set to '0.001' and a 'Status: Connected' indicator. The main area features a table with 20 channels, each with a lock checkbox, voltage and current readouts, and sliders for voltage and current settings. The 'Notes' column is currently empty. An 'Upgrade' button is located in the top right corner.

Channel	Lock	Voltage	Current	Voltage Settings	Current Settings	Notes
1	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
2	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
3	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
4	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
5	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
6	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
7	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
8	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
9	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
10	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
11	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
12	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
13	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
14	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
15	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
16	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
17	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
18	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
19	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	
20	<input type="checkbox"/>	0.000 V	0.000 mA	0.000	0.000	

# Model Comparison

XPOW	XDAC-XU	XDAC-XMUB	XDAC-XMUB
8/40/120 Channels	8/40/120 Channels	8/40/120 Channels	8/40/120 Channels
16-bit resolution control	16-bit resolution control	16-bit resolution control	16-bit resolution control
8-bit AVR RISC-based microcontroller	Quad core Cortex 64-bit ARM v8	Quad core Cortex 64-bit ARM v8	Quad core Cortex 64-bit ARM v8
0 - 36 Volt, 0 - 300 mA (Basic) + 0 - 5 Volt, 0 - 10 Volt, 0 - 20 Volt, 0 - 200 mA, 0 - 100 mA, 0 - 50mA (Premium feature)	0 - 36 Volt, 0 - 300 mA (Basic) + 0 - 5 Volt, 0 - 10 Volt, 0 - 20 Volt, 0 - 200 mA, 0 - 100 mA, 0 - 50mA (Premium feature)	±18 Volt , ±500 mA (Basic) + ±2.5 Volt, ±5 Volt, ±10 Volt (Premium feature)	±18 Volt , ±500 mA (Basic) + ±2.5 Volt, ±5 Volt, ±10 Volt (Premium feature)
USB ports	Gigabit Ethernet, USB ports	Gigabit Ethernet, USB ports	Gigabit Ethernet, USB ports
Shared Ground	Shared Ground	Shared Ground	Un-Shared Ground

## Software

<sup>a</sup> Basic features: slider, voltage reading, current reading, enable SCPI command.

<sup>b</sup> Premium features: Basic + notes, lock, save & load setting, record, sequence, programming template, range span configuration

\*Range span configuration: enables the user to select the output range with software without losing control of the high-resolution feature.