

# Neurode©- 1000

## Convection Cooled Clean Room Computer 3U

### Feature

- Rugged Industrial grade PC
- Standard 3U, 12 HP rack mount
- Convection Cooled
- No Fan. No forced ventilation
- Black Anodized rugged case
- Low Power, typically 10W
- Single 5V DC power < 10 W
- Windows or Linux OS
- 128 MB SDRAM
- 2 Serial Prot RS232/RS485
- 40 GB HDD
- Ethernet 100/10 Base-T
- USB
- VGA
- PS2 Keyboard and Mouse
- Analog IO ( Option)
- Digital IO ( Option)

### Application:

- Clean room
- Instrumentation
- Aerospace
- Military
- Vehicle



### Benefits:

- Single Platform for Data Acquisition and Control
- Standard PC Software
- Fully integrated Analogue IO, Digital IO, Motion control, Serial IO ( option), GPS
- Low maintenance
- Over all cost reduction
- Supports Industry Protocols
- Small foot print

### Overview :

The Neurode 1000 series is designed as a 3U rack mount able platform to meet various industrial applications with a single standard of quality. Whether you require it for a desktop, factory floor, naval vessel or a vehicle mount, each Neurode will be made to meet your needs. The Neurode advantage starts with its size. At 170 mm-60.62 mm-128.4 mm, the standard Neurode will fit into spaces where other computers cannot.

### Clean Room Friendly

Neurode-1000 Industrial Computer specially designed for clean room environment, it has no fan, there is no forced air ventilation, the body is made of special thick black anodized aluminum tube which serves as an effective heat sink too, No paint and/or pigment is used at all, so it will not release any particle to clean room environment.

### Full Standard PC

The Neurode is a full PC with all standard hardware and software components: PS2 mouse and keyboard, VGA display, USB port, LAN Ethernet port, Serial port, Windows/Linux Operating System.

### More Customized

Each Neurode is made to order, which means you get a clean customization down to the slightest detail. Our technical staff will advise you on the package which will meet your requirements and we will then deliver it in one piece. You will buy nothing more or less than what you need.

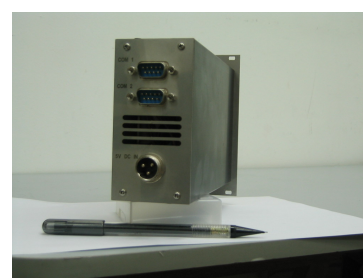
### Better Integrated

Whether you need a plain industrial computer with additional serial ports, or one with specialty functions in data acquisition, machine vision, digital signal processing, motion control, GPS or wireless LAN, we will integrate your demands onto a Neurode. Before delivery, each Neurode is quality checked to meet your specifications so that upon delivery you immediately plug in without assuming any integration risk.. The table below list existing models of Neurode-1000 :

Neurode-1000 Models	Extended IO functions	IO type
1001	Analog Input	16 channels Analog Input, 12 bit
1002	Serial IO	2 Serial RS232
1003	Digital with Rely	8 isolated digital Input and 8 relay
1004	Digital IO	32 channels isolated IO
1005	Counter/Timer & digital IO	3 counter 24 channel TTL IO
1006	Multi Serial port	4 port RS232/RS485
1007	Multi Serial port	6 ports RS232/RS485
1008	Multi Serial port	10 ports RS232/RS485
1009	Motion Control	4 Axis Stepper motor controller
1010	Motion Control	16 Channels servo controller
1011	Machine Vision	3 Channel frame grabber
1012	GPS	12 Channel Global Position Receiver



Front view



Back view

Figure-1  
Neurode-1002 2 Serial RS232 ports

<b>Basic Neurode-1000 series computer specification</b>	
CPU	Embedded low power AMD GXI-3000 MHz
Memory	128 MB SDRAM
Storage	40 GB Hard Drive
VGA display	4 MB memory , 1024x768
LAN	Ethernet 100/10 Base-T IEEE 802.3 U protocol
USB	2 ports, 1.1 compliant
Serial Ports	One RS232/422/485 port and one RS232
PS2	Keyboard and Mouse ( Y cable)
Watch Dog Timer	1.6 sec intervals
Power management	Power saving modes Normal/Standby/Suspend , APM 1.1 compliant
Power input	5 Volt, 2 A
Dimension	60.62x128.4x170 mm
Weight	850 gr
Operating temperature	0-60° C
Operating System	Microsoft Windows and Linux



Figure-2  
**Neurode-1000 and Neurode-3000 series**



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