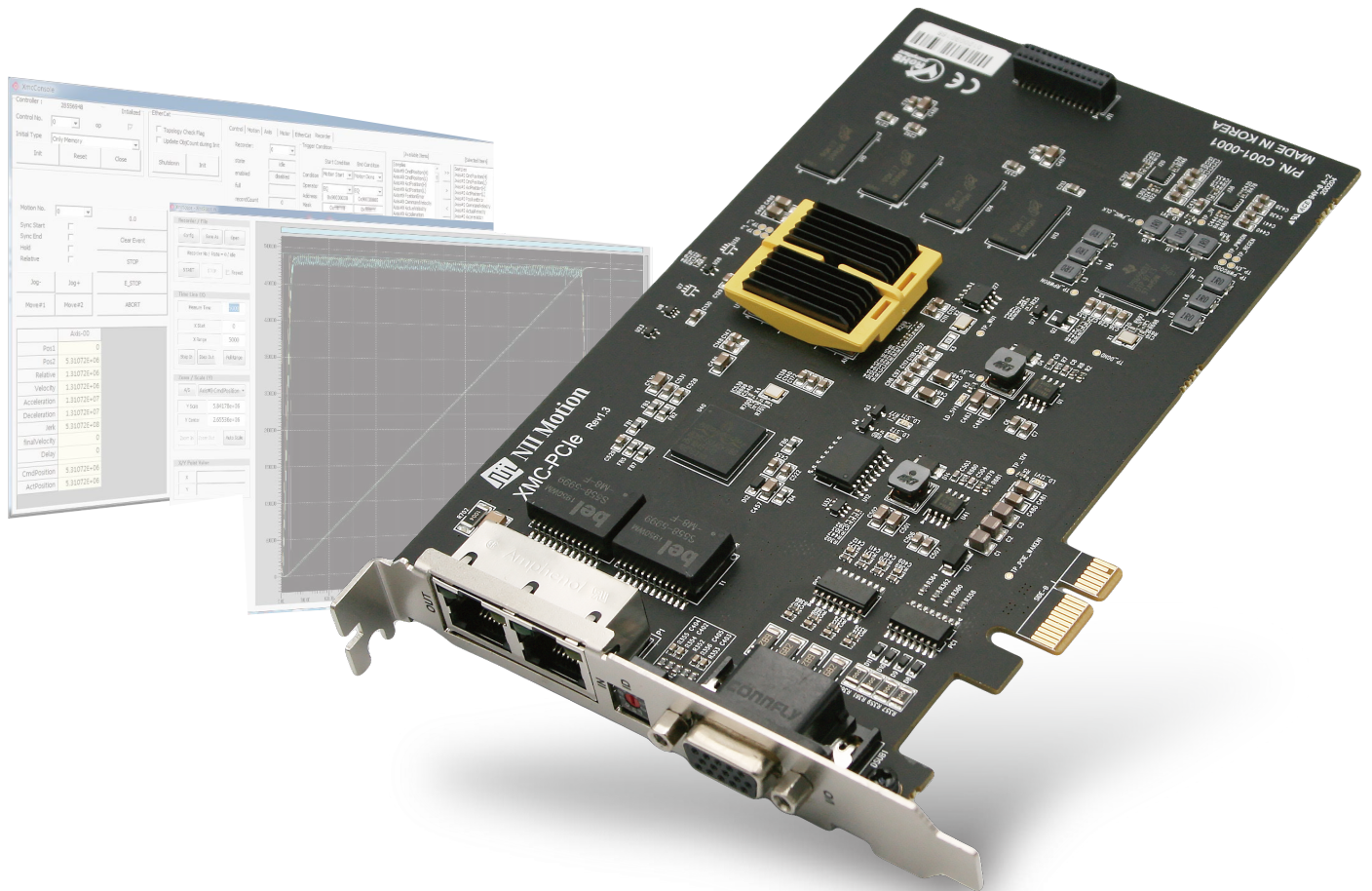




High Performance Motion Control
XMC-PCle EtherCAT Motion Controller

XMC-PCIe High Performance EtherCAT Motion Controller



Features

- Supports 64 fully synchronized axes
- 1GigE EtherCAT for high-performance of Motion and I/O applications
- Broad range of compatible EtherCAT slaves
- Provide Motion programming library for C/C++
- 3CH isolated digital input (1CH E-STOP input)/3CH isolated digital output

Special Features

- ✓ **4kHz** servo update rate
- ✓ Supports **Torque/Velocity** mode @4kHz (**PID** control)
- ✓ Provides Pre Filter and various of Post Filter (**Low Pass, High Pass, Notch, Resonator**)
- ✓ Gantry Algorithm for **Yaw (Theta) control**
- ✓ **Various of motion** : Coordinated, Append, Final Velocity Motion & On the Fly Modification
- ✓ Geometric Path : **2D, 3D Path Motion**
- ✓ Electric **CAM** : Linear, Cubic
- ✓ Compensation : **2D, 3D** Position / 1D Torque compensator (**Error Mapping**)
- ✓ Supports Tangential Following (TAF), Analog Feedback control

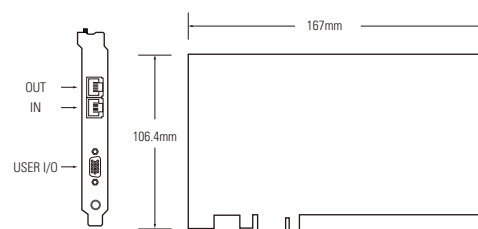
EtherCAT Specifications

- Bandwidth : 1Gbps
- Transfer Mode : 1000BASE-TX full duplex (IEEE 802.3)
- Cable & Connector : Shielded Twisted Pair (CAT5e), RJ45
- Topology : String, Ring
- Cable Length : 100m max between nodes
- Cyclic period : 250µsec ~ 2000µsec
- Jitter : <1 µsec
- Communication Profile : CoE (CAN over EtherCAT)
- Number of Axes : 64
- Number of Nodes : 64
- Motion modes : HM, CSP, CSV, CST
- Parameter transfer : CoE Object read/write

Hardware Specifications

- 1.5Ghz Dual-core processor
- PCI Express 2.0 x 1 slot
- Power consumption : 12V @ 0.5A (max)
- Humidity : 30 ~ 80% RH, non-condensing
- Operating Temp : 0 ~ 50 °C
- Storage Temp : -20 ~ 55 °C

Dimension



Utilities

XMC Motion Console

- Graphical User Interface
- Motion Configuration & Servo Tuning

XMC Motion Scope

- Graphical User Interface as an OscilloScope
- Getting All data of Firmware available

Direct Memory Access Utility(DMA3)

Bode Tool

Drive Configuration Utility by SDO

