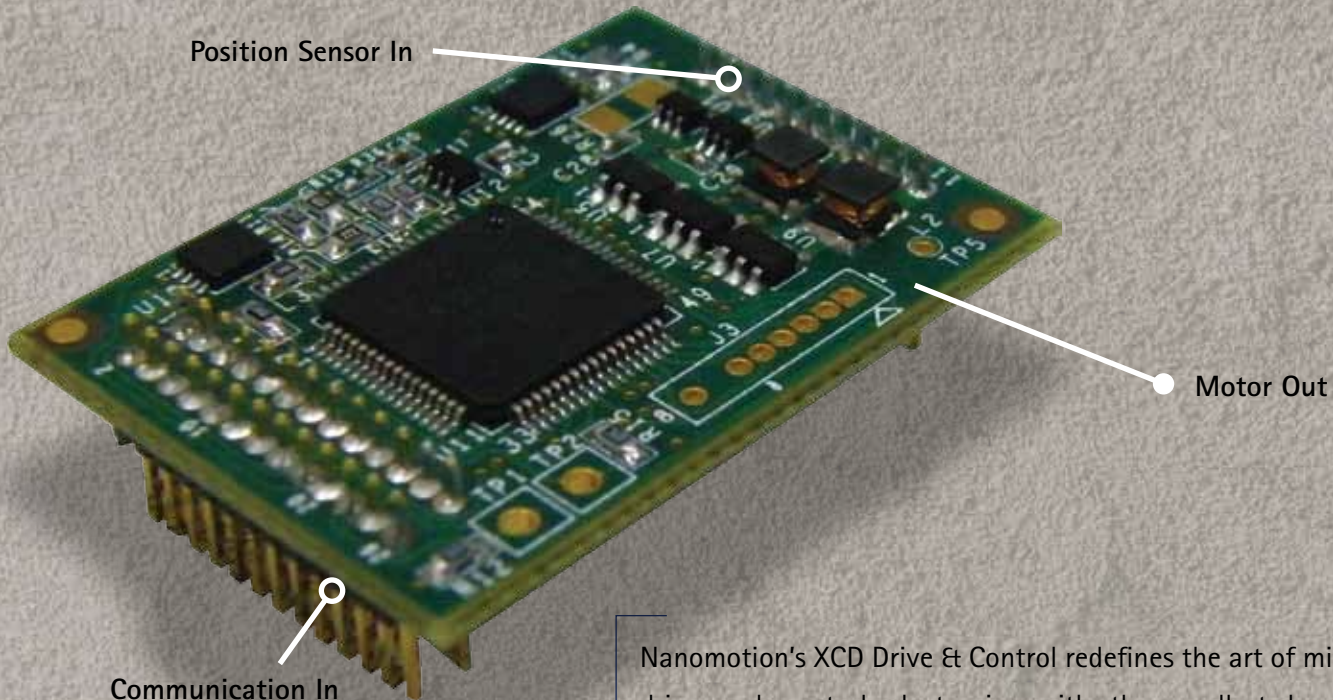


XCD Drive & Control

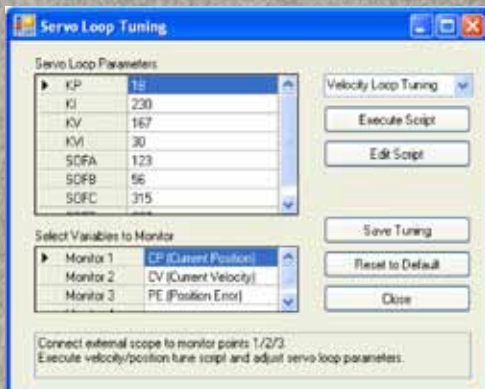


Nanomotion's XCD Drive & Control redefines the art of miniaturized drive and control electronics with the smallest hardware for operating piezo ceramic servo motors. The XCD provides complete servo control for the OEM market, coupled with the power stage and drive electronics on one board. The XCD interfaces with an OEM specific motherboard for motor, position sensor, communication and power connections.

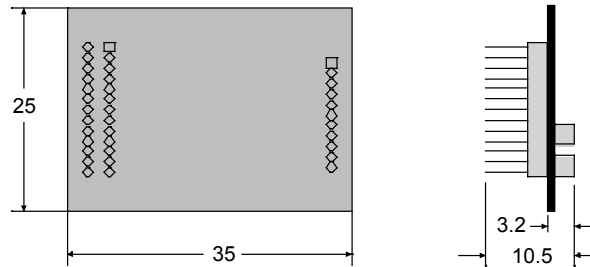
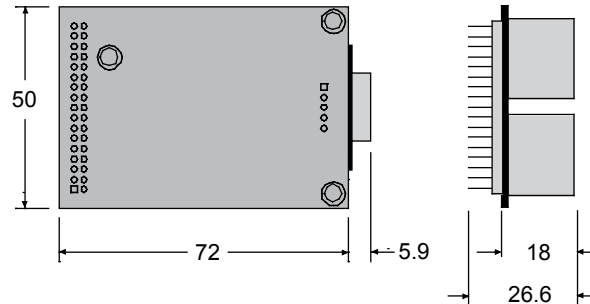
The XCD is provided in two versions; XCD-Edge, which can drive and control up to two Edge motors, as a single axis or XCD-HR, which can drive the ST, HR1 or HR2 motor. The XCD can operate in the 'AB5' mode with brake on/off, or in the more traditional AB1A mode.

XCD Drive Key Features:

- OEM drive & control
- Smallest form-factor:
XCD-Edge; XCD-ST, HR1, HR2
- Quadrature encoder input
- IIC, RS232, & SPI communications, supported by Nanomotion's user interface and simple software commands
- Limits & I/O
- Interconnect motherboard configured for customer requirement



A simple user interface facilitates the set up and downloading of motion scripts

XCD Dimensions***(mm)****XCD-Edge****XCD-HR**

* XCD dimensions do not include connection motherboard. The XCD is designed to interface with a motherboard that will allow for user-specific configurations of motor, feedback and communication connections. The motherboard can be configured by Nanomotion and is quoted based on customer requirements.

XCD Specifications

	XCD-EDGE	XCD-HR
Motors supported	Edge motor (up to 2)	ST, HR1, HR2
Encoder Input	Quadrature, single ended	Quadrature, differential
Input Power	5 VDC	12 VDC
Power Consumption	2 W (max)	13 W (max)
Drive Mode	AB5 (brake on/off) or AB1A mode	
Communication	IIC, RS232, SPI	
Safety	End of travel limits and E-Stop	
Digital Inputs	2 - TTL 3.3 to 5 V	
Digital Outputs	2 - TTL 3.3 V	
Analog Inputs	2 - (0 to 3.3 V)	
Analog Outputs	2 - PWM	
Operating Temperature	-40 to 85 °C	


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