

1. Customer and Project Information

Customer contact name *

Company *

Address

Project / reference name

Date

PMC contact

Telephone

Email *

2. Application Overview

Briefly describe the intended application, the component being moved, and the reason motion is required.

3. Motion Configuration and Mechanical Envelope

Motion type

☐

Rotary

☐

Linear

☐

Multi-axis

☐

Other

Required travel / rotation

Units (mm, deg, rev)

Number of axes

Orientation / mounting

Maximum moving load

Load units (g, kg, N)

Moment of inertia g.mm2

Available space envelope

Mechanical constraints, mounting interface, shaft / stage details, preload, cable routing, or drawings available

4. Speed, Force / Torque, and Motion Profile

Minimum speed

Maximum speed

Speed units (mm/s, RPM)

Max. operating frequency (Hz)

Max. dynamic force / torque

Holding / self-braking force/torque

Units (N, mNm, Nm)

Typical duty cycle (%)

Mode of operation

☐ Stepping only

☐ Continuous only

☐ Stepping and continuous

Typical move distance / angle

Move time

Settle time

Dwell / rest time

Motion profile Description, including acceleration, reversals, triggering, scanning, homing, & stop-on-trigger needs, or provide a scaled motion diagram

5. Resolution, Accuracy, and Feedback Control

Feedback approach

☐ Open loop only

☐ Closed loop using PMC encoder

☐ External sensor / controller

Minimum step size

Closed-loop accuracy

Required repeatability

Units (um, urad, deg)

Encoder, sensor, control-loop, trigger, in-position, or synchronization requirements

6. Lifetime and Usage Requirements

Rotary required life cycle (total number of rotations)

Linear required life cycle (total distance traveled (m or miles)

Operating hours / day

Design life (years)

Continuous run time, rest intervals, shock loads, or special durability conditions

7. Driver, Electrical, and Communications Requirements

Max. PCB size (L x W x H)

Supply / compliance voltage

Maximum power (W)

Nominal power (W)

Channel configuration

☐ Single channel

☐ Multi-channel

Number of channels

Communications protocol (select all that apply)

☐ UART

☐ I2C

☐ SPI

☐ RS-232

☐ USB

☐ CAN

☐ Other

Other driver requirements, custom commands, connectors, cable length, software, trigger inputs, or digital outputs

8. Environmental and Special Requirements

Operating temperature range

 min (C)

 max (C)

Vacuum level / pressure (if applicable)

☐ Non-magnetic

☐ MRI compatible

☐ Vacuum / UHV

☐ Cleanroom

☐ Low outgassing

☐ Radiation

☐ Other

Environmental details, materials restrictions, EMC, noise, contamination, or certification requirements

9. Project Timing, Quantities, and Final Notes

Prototype quantity

Estimated annual volume

Desired sample date

Estimated production start

Additional requirements, priorities, trade-offs, or questions

Completed by

Title

Date