

# New Scale News

Your update on ingeniously small motion systems

July 2011

Greetings!

Welcome to this issue of New Scale News, your update on miniature motion technology and applications.

This month we share the latest advances in our miniature M3-F focus module for compact cameras in biometric detection, medical diagnostics, machine vision and more.

Please enjoy - and as always, we hope you'll [share your comments](#) and questions.

## In this issue

[~ New >2M cycle lifetime for M3-F](#)

[~ App note: camera system design](#)

[~ Find us on DigiKey](#)

[~ Contact us](#)

## ~ Compact M3-F focus module now has >2M cycle lifetime

Based on continuous design improvements and testing, we've released new **lifetime** and **repeatability specifications** for our miniature M3-F focus module for compact board cameras. The new specifications are:

- > **2 million cycles** lifetime (MTBF) in a fixed orientation
- > 500,000 cycles lifetime (MTBF) in random orientation
- **+/- 5 microns** uni-directional repeatability
- **+/- 20 microns** bi-directional repeatability

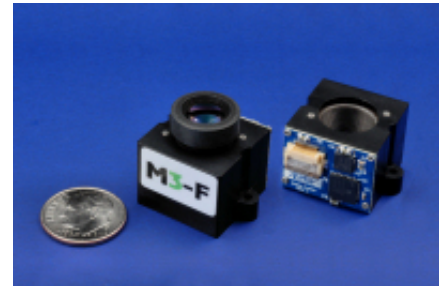
The lifetime is competitive and the position repeatability far superior to other miniature focus solutions. This is a critical advantage with autofocus algorithms such as "image resolution hill climbing," where image quality is directly proportional to lens position repeatability.

In addition, the M3-F accepts high-quality glass or polymer lenses, which have greater transmission and clarity than non-traditional composite lenses of liquid or liquid crystal.

The embedded closed-loop drive delivers high repeatability, low temperature dependence and no hysteresis. With the added benefit of lower external processing requirements and lower overall system cost, the M3-F is the clear winner for compact, high-resolution camera applications.

[View the M3-F module video](#)

[Get complete M3-F module details and specifications](#)



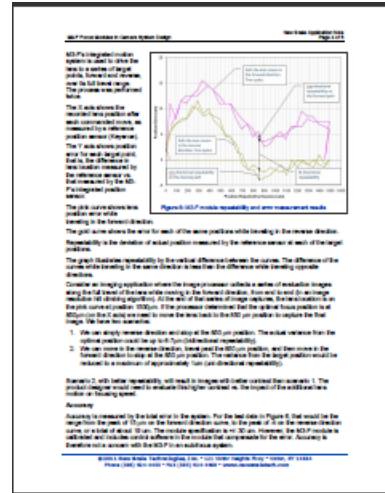
M3-F focus module: superior repeatability for high-resolution imaging

## ~ Application note: M3-F focus modules in camera system design

This revised and expanded application note, "*M3-F focus modules in camera system design*," describes the use of the M3-F module in camera systems. It includes:

- discussion of bi-directional vs. uni-directional repeatability and impact of repeatability on system performance
- comparison to other focus solutions such as liquid lenses or stepper motors
- module technical details
- block diagrams
- integration information

[Read the app note online](#)  
[Download as a PDF](#) (189Kb)



## ~ M3 training videos, demo kits now available on DigiKey



Demo kits for New Scale's M3-F focus module and M3-L linear motion module are now available on DigiKey.

DigiKey also hosts a new Product Training Module, developed through our partnership with austriamicrosystems, describing the M3 platform and its applications.

- [View the M3 module product training module](#) at DigiKey
- [Shop for developer's kits at DigiKey](#) (SPI interface only)
- [Shop for developer's kits at New Scale Technologies](#) (SPI or 12C interface)

## ~ Contact us

[Send email](mailto:sales@newscaletech.com) to sales@newscaletech.com  
[Visit our website](http://www.newscaletech.com) at www.newscaletech.com  
 Call us at +1 (585) 924-4450

Did you get this email from a friend? [Sign up for your own copy.](#)

