



The ModCon Mode Controller For Aerospace

For source independent mode control fit the ModCon to your light source to:

- Improve your measurement accuracy
- Ensure stable launch conditions for multimode fiber measurements
- Meet 85/85% launch conditions



Measurements of loss and bandwidth in multimode fibers are known to be highly dependent on the modal condition of the light source used for the measurement. For example, OTDR and LS/PM loss measurements can differ significantly simply because an OTDR uses a laser source and not an LED.

Now there is a way to dramatically improve agreement AND ensure you meet international standards at the same time - the ModCon. The ModCon is a passive device which ensures that the correct launch conditions are achieved independent of the light source used. This results in more accurate measurements, better agreement between different test sets, and compliance with the 85/85% launch conditions called for in various aerospace standards. Every ModCon is tested using an MPX Modal Explorer to ensure that its output meets the standard regardless of the modal distribution of the input.

Simply fit the ModCon between the test set and the Fiber Under Test.

Technical Specifications

General

Insertion loss @850 nm 50 μm typically < 5.0 dB
62.5 μm typically < 5.0 dB

Dimensions 165 mm x 105 mm x 32 mm

Weight 380 g

The Modal Launch Conditions for our Aerospace modal controllers is specified in terms of the width of the Near Field Pattern at 5, 15 and 75% of the maximum. A Certificate of Conformance or a Test Certificate (850 nm and 1300 nm) giving details of how it was measured are available as options.

Launch condition for Modal Controllers in 62.5/125 fiber

Intensity (% of max)	Maximum value (μm)	Minimum value (μm)
5	55	51
15	52	45
75	33	20

Launch condition for Modal Controllers in 50/125 fiber

Intensity (% of max)	Maximum value (μm)	Minimum value (μm)
5	44.0	40.8
15	41.6	36.0
75	26.4	16.0

Manufactured by
Arden Photonics Ltd

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Ordering Information

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Modcon	Description
MC-FC-50-E-85	Mode control patchcord with FC connectors in "Eurocard" case to deliver an 85/85% modal launch into 50 μm core fiber from an 850 or 1300 nm light source
MC-FC-62-E-85	Mode control patchcord with FC connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5 μm core fiber from an 850 or 1300 nm light source
MC-LC-50-E-85	Mode control patchcord with LC connectors in "Eurocard" case to deliver an 85/85% modal launch into 50 μm core fiber from an 850 or 1300 nm light source
MC-LC-62-E-85	Mode control patchcord with LC connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5 μm core fiber from an 850 or 1300 nm light source
MC-SC-50-E-85	Mode control patchcord with SC connectors in "Eurocard" case to deliver an 85/85% modal launch into 50 μm core fiber from an 850 or 1300 nm light source
MC-SC-62-E-85	Mode control patchcord with SC connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5 μm core fiber from an 850 or 1300 nm light source
MC-ST-50-E-85	Mode control patchcord with ST connectors in "Eurocard" case to deliver an 85/85% modal launch into 50 μm core fiber from an 850 or 1300 nm light source
MC-ST-62-E-85	Mode control patchcord with ST connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5 μm core fiber from an 850 or 1300 nm light source

As well as our standard range of products we also make:

- ModCons for Telecomms applications complying with IEC Encircled Flux launch conditions
- Customised Test boxes

