The *ModCon* Mode Controller AEROSPACE

For source independent mode control fit the ***ModCon*** to your light source and

- 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 Specification

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

Dims (mm)		165 x 105 x 32	
Weight (gm)		380	

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 and 1300nm) 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

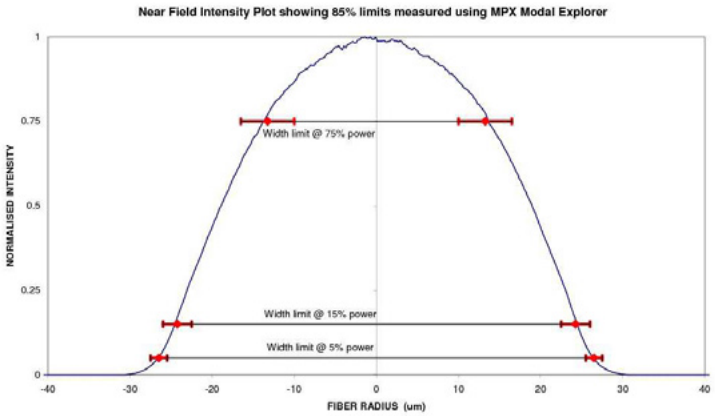
Intensity (% of max)	Maximum value (µm)	Minimum value (µm)
5	44.0	40.8
15	41.6	36.0
75	26.4	16.0

Ordering information

Our Modal Controllers for Aerospace are available in 50µm and 62.5µm core graded index fiber, with either FC, ST, SC or LC connectors. The input and output cables have a 3mm diameter PVC sheath, and contain an Aramid yarn strength member.		
MC-FC-50-E-85	Mode control patchcord with FC connectors in "Eurocard" case to deliver an 85/85% modal launch into 50µm core fiber from an 850 or 1300nm light source	
MC-FC-62-E-85	Mode control patchcord with FC connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5µm core fiber from an 850 or 1300nm light source	
MC-LC-50-E-85	Mode control patchcord with LC connectors in "Eurocard" case to deliver an 85/85% modal launch into 50µm core fiber from an 850 or 1300nm light source	
MC-LC-62-E-85	Mode control patchcord with LC connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5µm core fiber from an 850 or 1300nm light source	
MC-SC-50-E-85	Mode control patchcord with SC connectors in "Eurocard" case to deliver an 85/85% modal launch into 50µm core fiber from an 850 or 1300nm light source	
MC-SC-62-E-85	Mode control patchcord with SC connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5µm core fiber from an 850 or 1300nm light source	
MC-ST-50-E-85	Mode control patchcord with ST connectors in "Eurocard" case to deliver an 85/85% modal launch into 50µm core fiber from an 850 or 1300nm light source	
MC-ST-62-E-85	Mode control patchcord with ST connectors in "Eurocard" case to deliver an 85/85% modal launch into 62.5µm core fiber from an 850 or 1300nm light source	

As well as our standard range of products we also make

- ModCons for Telecomms applications complying with IEC Encircled Flux launch conditions
- Ruggedised OTDR lead-in boxes containing ModCon mode controllers
- Customised Test boxes



Specification may be changed without notice due to technical advances or component changes. Issue 21 June 2010