

## ALS LED Light Source with 85/85 launch condition

- Compact hand held light source
- Insertion Loss testing for Aerospace applications
- Provides stable 85/85% launch conditions for multimode fiber measurements
- 1300nm or 850nm LED
- For 62.5/125  $\mu\text{m}$  or 50/125  $\mu\text{m}$  fiber
- Rechargeable Li-Ion battery with 48hr life



The ALS handheld optical fiber source is used with an Optical Power Meter to measure the loss of multimode optical fiber systems, in applications which require 85/85% Limited Phase Space model launch conditions. The ALS provides excellent stability and ease of use.

The 85/85% model launch condition is used specifically in the aerospace industry, and it's widely used by Airbus for certification of its optical fiber harnesses.

### Technical Specification - ALS LED Light Source

Part Number	ALS-1300-62-85-HH	ALS-1300-50-85-HH	ALS-0850-62-85-HH	ALS-0850-50-85-HH
<b>Description</b>	1300nm LED light source with FC connector to deliver 85/85% modal launch into 62.5/125 $\mu\text{m}$ fiber.	1300nm LED light source with FC connector to deliver 85/85% modal launch into 50/125 $\mu\text{m}$ fiber.	850nm LED light source with FC connector to deliver 85/85% modal launch into 62.5/125 $\mu\text{m}$ fiber.	850nm LED light source with FC connector to deliver 85/85% modal launch into 50/125 $\mu\text{m}$ fiber.
<b>Source Type</b>	LED	LED	LED	LED
<b>Centre Wavelength</b>	1300nm	1300nm	850nm	850nm
<b>Spectral Width</b>	155nm (FWHM)	155nm (FWHM)	50nm (FWHM)	50nm (FWHM)
<b>Dimensions</b>	200 x 120 x 35 mm	200 x 120 x 35 mm	200 x 120 x 35 mm	200 x 120 x 35 mm
<b>Weight</b>	0.5kg	0.5kg	0.5kg	0.5kg
<b>Optical Power Output</b>	-20dBm into 62.5/125 $\mu\text{m}$ fiber	-20dBm into 50/125 $\mu\text{m}$ fiber	-20dBm into 62.5/125 $\mu\text{m}$ fiber	-20dBm into 50/125 $\mu\text{m}$ fiber
<b>Optical Power Stability</b>	$\pm 0.05$ dB over 1 hour	$\pm 0.05$ dB over 1 hour	$\pm 0.05$ dB over 1 hour	$\pm 0.05$ dB over 1 hour
<b>Optical Launch Condition</b>	85/85% Limited Phase Space	85/85% Limited Phase Space	85/85% Limited Phase Space	85/85% Limited Phase Space
<b>Connector Interface</b>	FC	FC	FC	FC
<b>Power</b>	Built-in Li-Ion battery (External charger supplied)	Built-in Li-Ion battery (External charger supplied)	Built-in Li-Ion battery (External charger supplied)	Built-in Li-Ion battery (External charger supplied)
<b>Battery Life</b>	48 hours continuous	48 hours continuous	48 hours continuous	48 hours continuous
<b>Case</b>	ABS	ABS	ABS	ABS
<b>Operating Temperature</b>	0° to +50°C	0° to +50°C	0° to +50°C	0° to +50°C
<b>Storage Temperature</b>	-10° to +60°C	-10° to +60°C	-10° to +60°C	-10° to +60°C
<b>Humidity</b>	5% – 95%, relative, non-condensing	5% – 95%, relative, non-condensing	5% – 95%, relative, non-condensing	5% – 95%, relative, non-condensing

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## Launch condition for Model Controllers

The Model Launch Conditions for our Aerospace modal controllers are specified in terms of the width of the Near Field Pattern at 5, 15 and 75% of the maximum. The specification limits are shown below. 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 62.5/125µm fiber

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

## Launch condition for 50/125µm 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

Part Number	Description
ALS-1300-62-85-HH	1300nm LED light source with FC connector to deliver 85/85% modal launch into 62.5/125µm fiber. External battery charger, storage case, Certificate of Conformance and User Manual are included.
ALS-1300-50-85-HH	1300nm LED light source with FC connector to deliver 85/85% modal launch into 50/125µm fiber. External battery charger, storage case, Certificate of Conformance and User Manual are included.
ALS-0850-62-85-HH	850nm LED light source with FC connector to deliver 85/85% modal launch into 62.5/125µm fiber. External battery charger, storage case, Certificate of Conformance and User Manual are included.
ALS-0850-50-85-HH	850nm LED light source with FC connector to deliver 85/85% modal launch into 50/125µm fiber. External battery charger, storage case, Certificate of Conformance and User Manual are included.
Options	Description
ALS-BC	ALS light source external battery charger (one is included with all ALS light sources)
ALS-CC	ALS light source Certificate of Conformance (one is included with all ALS light sources)
ALS-TC	ALS light source Test Certificate (not included - this is an extra cost)
ALS-UM	ALS light source User Manual (one is not included with all ALS light sources)

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## Ordering Information

Accessories	Description
<b>ALS-RR</b>	ALS light source recertification. Includes product check and adjustment if required, retest and issue of new Certificate of Conformance.
<b>ALS-560XL</b>	560XL InGaAs Optical Meter
<b>ALS-T1020</b>	T1020 SOC adapter for NTT/FC-PC (you will need at least one adaptor to use the 560XL Power Meter)
<b>ALS-CT01</b>	Coupler tube for linking two ELIO terminated patchcords in order to null the power meter before IL testing
<b>ALS-TL01-50-FC/FC-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 50/125 $\mu$ m fiber, 1.5m long with FC connectors on each end, Cable construction 3mm diameter PVC sheath, with Aramid yarn strength number.
<b>ALS-TL01-62-FC/FC-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 62.5/125 $\mu$ m fiber, 1.5m long with FC connectors on each end, Cable construction 3mm diameter PVC sheath, with Aramid yarn strength number.
<b>ALS-TL01-50-FC/Elio-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 50/125 $\mu$ m fiber, 1.5m long with FC connector on one end, Elio connector on the other. Cable construction 2mm diameter PVC sheath, with Aramid yarn strength member.
<b>ALS-TL01-62-FC/Elio-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 62.5/125 $\mu$ m fiber, 1.5m long with FC connector on each end, Elio connector on the other. Cable construction 2mm diameter PVC sheath, with Aramid yarn strength member.
<b>ALS-TL01-50-FC/SC-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 50/125 $\mu$ m fiber, 1.5m long with FC connector on one end, SC connector on the other. Cable construction 3mm diameter PVC sheath, with Aramid yarn strength member.
<b>ALS-TL01-62-FC/SC-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 62.5/125 $\mu$ m fiber, 1.5m long with FC connector on one end, SC connector on the other. Cable construction 3mm diameter PVC sheath, with Aramid yarn strength member.
<b>ALS-TL01-50-FC/ST-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 50/125 $\mu$ m fiber, 1.5m long with FC connector on one end, ST connector on the other. Cable construction 3mm diameter PVC sheath, with Aramid yarn strength member.
<b>ALS-TL01-62-FC/ST-S</b>	Test lead for use with 85/85 Light Source/Power Meter. Made in 62.5/125 $\mu$ m fiber, 1.5m long with FC connectors on one end, ST connector on the other. Cable construction 3mm diameter PVC sheath, with Aramid yarn strength member.
<b>ALS-TK01-1300-62</b>	Insertion Loss Test Kit containing 1 x ALS-1300-62-85-HH 1300nm LED light source, 1 x battery charger, 1 x 560XL Power Meter, 1 x ALS-T1020 FC-PC adapter for Power meter, 2 x ALS-TL01-62-FC/Elio-S test leads, 1 x ALS-TL01-62-FC/FC-S test lead, 1 x ALS-CT01 Elio coupler tube. In waterproof carrying case.
<b>ALS-TK01-1300-50</b>	Insertion Loss Test Kit containing 1 x ALS-1300-50-85-HH 1300nm LED light source, 1 x battery charger, 1 x 560XL Power Meter, 1 x ALS-T1020 FC-PC adapter for Power meter, 2 x ALS-TL01-50-FC/Elio-S test leads, 1 x ALS-TL01-50-FC/FC-S test lead, 1 x ALS-CT01 Elio coupler tube. In waterproof carrying case.
<b>ALS-TK01-0850-62</b>	Insertion Loss Test Kit containing 1 x ALS-0850-62-85-HH 1300nm LED light source, 1 x battery charger, 1 x 560XL Power Meter, 1 x ALS-T1020 FC-PC adapter for Power meter, 2 x ALS-TL01-62-FC/Elio-S test leads, 1 x ALS-TL01-62-FC/FC-S test lead, 1 x ALS-CT01 Elio coupler tube. In waterproof carrying case.
<b>ALS-TK01-0850-50</b>	Insertion Loss Test Kit containing 1 x ALS-0850-50-85-HH 1300nm LED light source, 1 x battery charger, 1 x 560XL Power Meter, 1 x ALS-T1020 FC-PC adapter for Power meter, 2 x ALS-TL01-50-FC/Elio-S test leads, 1 x ALS-TL01-50-FC/FC-S test lead, 1 x ALS-CT01 Elio coupler tube. In waterproof carrying case.

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