



## CKSM-2 Contractor Series Multimode & Single-mode Test Kit with Set Reference

Combining the CSM1-2 optical power meter, CSS1-MM Dual LED light source, and CSS1-SM Dual LASER source, the CKSM-2 is a cost-effective test kit designed for performing insertion loss measurements on multimode as well as single-mode fiber optic links. Weighing only 0.4 lb each, units are compact and convenient for field use.

The CSS1-MM and CSS1-SM sources feature Dual output, 850 /1300 nm LED or 1310/ 1550 nm LASER respectively, from a single output port. Both CSS1 models offer 2 modes of operation, continuous wave (CW) and user selectable modulated Tone. The CSS1-MM LED and CSS1-SM LASER output ports are stabilized to ensure accurate test results per current TIA/EIA requirements. A large LCD display with backlight shows emitted wavelengths [nm], tone frequency [Hz], and indicates a low battery condition. The CSS1-MM model output port is equipped with a fixed SC connector while the CSS1-SM output port is equipped with Universal Connector Interface (UCI) base and SC adapter.

The CSM1-2 optical power meter operates at 850/ 1300/ 1310/ 1550 nm and features multiple test Tone detection for fiber identification. The CSM1-2 stores optical references for each calibrated wavelength. A large LCD display with backlight shows measured power [dBm or  $\mu$ W] or insertion loss [dB], calibrated wavelengths [nm], tone frequency [Hz], and indicates a low battery condition. The CSM1 optical input port accepts a variety of Noyes thread-on style adapter caps (ordered separately) to meet a wide range of testing requirements. One adapter cap, 2.5 mm Universal, is included.

The CSS1-MM, CSS1-SM, and CSM1-2 are fully N.I.S.T. traceable.

### Features

- Palm-sized, rugged, lightweight
- CW and modulated Tone
- 270, 330, 1000, and 2000 Hz Tone
- Power measurements in dBm or  $\mu$ W; insertion loss in dB
- Reference power level storage
- Large LCD with backlight
- Automatic power-off function
- Battery gauge
- Long battery life with AA alkaline
- Free 50  $\mu$ m and 62.5  $\mu$ m mandrels
- Cost-effective, easy to use
- N.I.S.T traceable

### Applications

- Certify multimode and single-mode fiber links per TIA/EIA standards
- Fiber identification prior to splicing

### Ordering Information

MODEL	INCLUDES
CKSM-2	CSS1-MM Dual LED source, CSS1-SM Dual Laser source, CSM1-2 optical power meter, AA batteries, 2.5 mm universal adapter cap, UCI-SC connector, 50 and 62.5 $\mu$ m mandrels, user's guide, and carry case.

## CKSM-2 Contractor Series Multimode & Single-mode Test Kit with Set Reference

### CSS1-SM Specifications

OPTICAL	CSS1-SM (SINGLE PORT)
Output wavelength	1310 nm ±20 nm, 1550 nm ±20 nm
Spectral width (max)	5 nm
Output power	≥ 0.0 dBm into 9/125 fiber
Emitter type	Laser, Class I (FDA 21 CFR 1040.10 and 1040.11, and IEC 60825-1)
Output stability	± 0.05 dB typical over 1 hour (after 30 sec.) ± 0.15 dB over 8 hours (after 30 sec. typically)
Tone output	270, 330, 1000, 2000 Hz
GENERAL	
Output connector	SC, FC, ST, LC
Power	2 x AA batteries
Battery life	75 hours typical
Operating temperature	-10 to 50°C, 90% RH (non-condensing)
Storage temperature	-30 to 60°C, 90% RH (non-condensing)
Size (H x W x D)	11.4 x 6.4 x 3.2 cm (4.5 x 2.5 x 1.3 in)
Weight	0.18 kg (0.4 lb)

All specifications at 25°C.

### CSS1-MM Specifications

OPTICAL	CSS1-MM (SINGLE PORT)	
Output wavelength	850 nm ±20 nm	1300 nm +40/-60 nm
Spectral width (max)	35 nm	170 nm
Output power	≥ -20.0 dBm into 62.5/125 fiber	
Emitter type	LED, Class I (IEC 60825 - 1)	
Output stability	± 0.1 dB over 1 hour (after 30 sec typically) ± 0.15 dB over 8 hours (after 30 sec typically)	
Tone output	270, 330, 1000, 2000 Hz	
GENERAL		
Output connector	SC	
Power	2 x AA batteries	
Battery life	30 hours typical	
Operating temperature	-10 to 50°C, 90% RH (non-condensing)	
Storage temperature	-30 to 60°C, 90% RH (non-condensing)	
Size (H x W x D)	11.4 x 6.4 x 3.2 cm (4.5 x 2.5 x 1.3 in)	
Weight	0.18 kg (0.4 lb)	

All specifications at 25°C

### CSM1-2 Specifications

OPTICAL	CSM1-2
Calibrated wavelengths	850, 1300, 1310, 1550 nm
Detector type	Germanium (Ge)
Measurement range	+6 to -60 dBm
Tone detect range	+6 to -50 dBm +6 to -45 dBm for 850 nm
Accuracy*	± 0.3 dB
Resolution	0.01 dB
Measurement units	dB, dBm, µW
GENERAL	
Power	2 x AA batteries
Battery life	> 300 hours
Operating temperature	-10 to 50°C, 90% RH (non-condensing)
Storage temperature	-30 to 60°C, 90% RH (non-condensing)
Size (H x W x D)	11.4 x 6.4 x 3.2 cm (4.5 x 2.5 x 1.3 in)
Weight	0.18 kg (0.4 lb)

\*Accuracy measured at 25°C and -10 dBm per N.I.S.T. standards.  
All specifications at 25°C