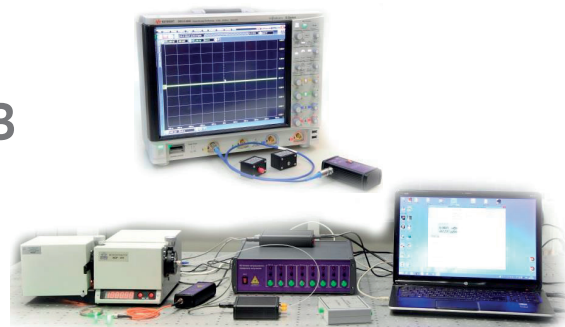


Working standard of unit of average power of optical emission in fiber optic transmission systems ПЭСМ-В



STRUCTURE OF WORKING STANDARD ПЭСМ-В

- Measuring unit of average power of optic emission;
- Portable computer;
- Set of fiber optic cables and elements;
- Kit of photoelectric measuring converters;
- Measuring unit of time responses of optic emission sources;
- Measuring unit of spectral characteristics of optic emission receivers.

PURPOSE OF WORKING STANDARD ПЭСМ-В

Working standard ПЭСМ-В is designed for reproducing, storing and transmitting the unit of average power of optic emission, calibration and verification of measuring instruments of average power at fixed length of волн излучения – calibration wavelength. Calibrated and verified measuring instruments include average power meters, wattmeters, optical testers, optical emission sources, and fiber-optic attenuators for fiber-optic transmission systems. Verification can be carried out according to GOST 8.720-2010 and P 50.2.070-2009.

Working standard ПЭСМ-В **CAN BE USED** when performing scientific and practical tasks in the field of developing fiber-optic communication systems and information transfer, when measuring the parameters of sources and receivers of optical emission.

Range of measured average power of optic emission, Вт	from 10^{-10} to $1,0$ ¹⁾
Range of wavelength of investigated emission (for sources), nm	from 500 to 1700
Calibration wavelength, fixed in ranges, nm	$(850; 1310; 1550; 1650) \pm 10$ ¹⁾ $(1064; 1490; 1625) \pm 5$ ¹⁾
Limits of permissible relative error of average power measurements, %	
• at calibration wavelengths in the range from 10^{-10} to 10^{-2} Вт	$\pm 2,0$
• at calibration wavelengths in the range from 10^{-7} to $1,0$ Вт	$\pm 2,5$
• in working spectral range	$\pm 5,0$
• relative power levels in the range from 10^{-10} to 10^{-2} Вт	$\pm 1,0$
• relative power levels in the range from 10^{-5} to 10^{-4} Вт	$\pm 0,5$
• relative power levels in the range from 10^{-7} to $1,0$ Вт	$\pm 1,5$
Measurement error of relative spectral characteristics of receivers, not more than, %	$\pm 5,0$
Rise time of transient response of measuring converters, not more than, ns	1,0

¹⁾– characteristics are determined according to requirements of the customer;

²⁾– working standard ПЭСМ-В has an instrument-modular design and can be equipped with various modifications on request of the customer.