



CinCam Application Beam Quality M^2 - CinSquare -

The CinSquare CS200 / CS300 system is a compact and fully automated tool to measure the beam quality of cw and pulsed laser systems from the UV to NIR spectral range. This system consists of a fixed focusing lens in front of a motorized translation stage carrying a CinCam CCD/CMOS/InGaAs beam profiler. To analyse the beam caustic according to ISO 11146-1/2 the software calculates the beam size of several measurement planes via 2nd Moment method. The whole measuring process is fully automated and controlled by CINOGY's software RayCi.

The CinSquare measurement system is equipped with two alignment mirrors for exact positioning of the laser beam through the measurement set-up. An additional filter wheel allows incremental beam attenuation. Its operational robustness and reliability ensure continuous use applications in industry, science, research and development.

Spectral response:	250-1800nm
Pixel size:	3.75 μm^2 @CCD / 5.3 μm^2 @CMOS / 15 μm^2 @InGaAs
Number of pixel:	1.3MPixel@CCD / CMOS / 0.3MPixel@InGaAs
Technology:	CCD / CMOS / InGaAs
Accuracy:	2-3% typical / 3-5% waist size / position etc.
Beam diameter (1/e ²):	0.5-10mm
Stage length:	200mm (400mm)@CS-200 / 300mm@CS-300
ND filter:	up to 6 ND filters pre-assembled
Focusing lens:	up to 6 lenses pre-assembled
Input power:	up to 20W (modular attenuator)
Software:	RayCi-Pro
Dimensions CS200:	560 x 220 x 190mm ³
Dimensions CS300:	745 x 220 x 190mm ³

The software RayCi reports M^2 , K, beam waist diameter, beam waist position, divergence angle, Rayleigh length, etc. Incomparable visualization modes, extensive analytical capabilities and new developed algorithms ensure the highest accuracy for beam quality measurements.

- Confirm to ISO 11146-1/2
- Robust and compact system in industrial design (24/7)
- Reliable and fully automated M^2 measurement in <1 minute (~30s fast scan)
- Camera-based system without scanning slit technique
- 'CinCal' algorithm for high measurement accuracy
- Compatible with cw and pulsed laser systems
- Measurement data as printable protocol (pdf)

