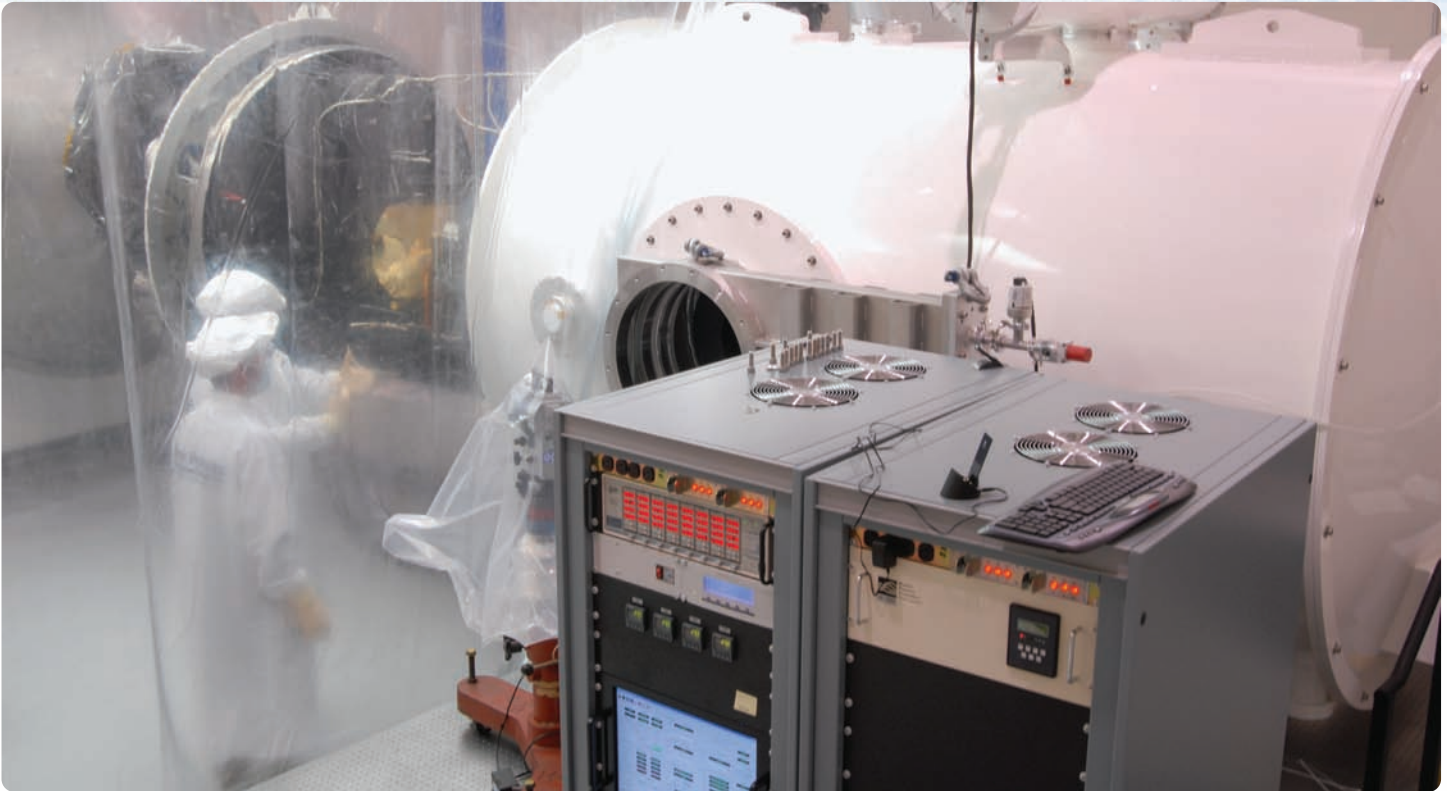


MIC⁵

MULTIFUNCTION INFRARED CALIBRATOR 5



MIC5 provides cryogenically-cooled, low background configurations for the calibration of sensor units under test (UUT). It can be configured for three different modes: collimated source, linearity source, and closely-spaced objects (CSO). MIC5 consists of a cryogenic cooling system, cryogenic shrouds, an optical bench, optics, mechanisms, and sources – all within a vacuum skin. MIC5 also uses a variety of external sources (e.g., spectral, blackbodies, integrating spheres, etc.). The vacuum chamber mates to the instrument test chamber, which provides a simulated operational environment. For many applications, the instrument test chamber and calibration chamber share a common vacuum and cold shield. MIC5 can successfully measure image quality of UUT at both ambient and cryogenic temperatures. MIC5 includes a port to allow for in-situ monitoring of the optical beam during cryogenic operations testing.

SPECIFICATIONS

EXTERNAL DIMENSIONS	144" x 84" diameter
FOCAL LENGTH	147"
EXIT BEAM DIAMETER	15.5"
COLLIMATOR OUTPUT BEAM ANGULAR RANGE	20° x 17°
	<small>HORIZONTAL X VERTICAL</small>
CRYOGENIC OPERATION	77 K (LN ₂)
	<small>(FOR LOW BACKGROUND)</small>

MIC5 also features:

- Two filter wheels, each with 11 filter positions
- One aperture wheel with 16 positions
- Three-axis aperture/filter translation stage X, Y, and focus
- Multiple point sources that can have variable irradiance and relative spatial positions
- Scan mirror
- Cold shutter
- Output beam monitor port
- Secondary port



Space Dynamics
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