



COMPONENT SPECIFICATION

TITLE

INPUT TEST MASS, 4K, SUBSTRATE, COATED

APPROVALS:	DATE	REV	DCN NO	BY	CHK	DCC	DATE
DRAWN: Helena Armandula	3-13-98						
CHECKED: Jordan Camp	4/6/98						
APPROVED: S. Whitcomb	4/6/98						
DCC RELEASE:							

Applicable Documents

LIGO-D960787-B-D
 LIGO-E960093-A-D

Input Test Mass Substrate, 4K
 Substrate, Input Test Mass

Requirements

Physical Configuration

Fabricate from
 LIGO-D960787-B-D

Input Test Mass Substrate, 4K

Surface 1 and 2

Coating to be centered at 1064 nm
 Angle of Incidence to be 0 degrees for HR; ~2 degrees for AR

Coating Uniformity: 1nm rms - central 8 cm
 15 nm p-v - over 20 cm
 Scatter: <15 ppm
 Absorption: <1 ppm

Zero surface electrical field

Surface Quality

To comply with LIGO Component Specification E960093-A-D (Page 2):
 "Scratches and Point Defects"
 Coating to resist abrasion test per MIL-M-13508C

Surface 1: HR Coating

Transmission: 3% +/- 0.3%



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Surface 2: AR Coating

Reflection: 600 ppm +/- 100 ppm

NOTE:

Coating manufacturer to provide:

1. One (1 in.) witness plate from each coating run
2. Spectrophotometer graphs of Reflectance and Transmittance of HR coating
3. Spectrophotometer graph of Reflectance of AR coating