



COMPONENT SPECIFICATION

TITLE LARGE TELESCOPE MIRROR SUBSTRATE, COATED

APPROVALS:	DATE	REV	DCN NO	BY	CHK	DCC	DATE
DRAWN: David Reitze	06-23-98						
CHECKED:							
APPROVED:							
DCC RELEASE:							

Applicable Documents

LIGO-D970586-01-D
LIGO-E970143-01-D

Large Telescope Mirror Substrate
Substrate, Large Telescope Mirror

Requirements

Physical Configuration

Fabricate from
LIGO-D970586-01-D

Large Telescope Mirror Substrate

Surface 1 and 2

Coating to be centered at 1064 nm
Angle of Incidence to be 0 degrees

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: <20 ppm



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Surface 2: AR Coating

Reflection: < 300 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