COMPONENT SPECIFICATION

TITLE: **HIGH TRANSMISSION STEERING 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-D970594-00-D Steering Mirror Substrate
LIGO-E970151-00-D Substrate, Steering Mirror

Requirements

Physical Configuration

Fabricate from
LIGO-D970594-00-D Steering Mirror Substrate

Surface 1 and 2

Coating to be centered at 1064 nm
Angle of Incidence to be 45 degrees, S polarization

Coating Uniformity: 1nm rms - central 3 cm
10 nm p-v over 6.8 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: 5000 ppm +1000 ppm/-0 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