

ans =

14-Feb-2015 15:38:16

Torsion Suspension (suspTorsion.m)

- torsion suspension wire material: Silicon
- torsion suspension wire loss angle:  $1e-06$
- torsion suspension wire temperature: 300 K
- torsion wire diameter (single wire, multiplied safety factor 15x): 41.9824  $\mu\text{m}$
- torsion suspension wire length: 0.4 m
- torsion spring constant (2 wire): 0.0004088 Nm/rad
- torsion bar inertia:  $0.00035559\text{kg}\cdot\text{m}^2$
- torsion resonance: 0.17065 Hz

You are not injecting squeezing..loozer!

- Seismic Isolator: MinusK
- Seismic Ground Motion: LL0
- Seismic Isolator: MinusK
- Seismic Ground Motion: LL0

Laser Power: 0.050 Watt

SRM Detuning: 0.00 degree

SRM transmission: 1.0000

ITM transmission: 0.0140

PRM transmission: 1.0000

Finesse: 448.16

Power Recycling Factor: 1.00

Arm power: 0.01 kW

Power on beam splitter: 0.05 W

Thermal load on ITM: 0.000 W

Thermal load on BS: 0.000 W

Required TCS efficiency: 1.000 (estimate, see IFOModel.m for definition)

BNS Inspiral Range: 0.000 Mpc

BBH Inspiral Range: 0.000 Mpc

Stochastic Omega:  $3e+04$  Universes

New Nebulous Range: 0.027 Mpc

TORPEDO Configuration

- Bar length and diameter: 0.18 m x 0.02 m.
- Bar material: Silicon
- Bar material loss angle:  $1e+09$
- Bar temperature: 300 K
- Bar mass: 0.1317 kg