				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
drange_PD	TBD		PD dynamic range							IF	DG	EL	IO		AO		
drange_QPD	TBD		QPD dynamic range							IF	DG	EL	IO		AO		
aperture_rfpd_high	3.00.E-03	m	RF PD aperture (high power)							IF		EL					
aperture_rfpd_low	3.00.E-03	m	RF PD aperture (low power)							IF		EL					
aperture_dcpd_high	3.00.E-03	m	DC PD aperture (high power)							IF		EL					
aperture_dcpd_low	3.00.E-03	m	DC PD aperture (low power)							IF		EL					
input_rfpd_high	3.00.E-01	W	RF PD input power (high power)							IF		EL					
input_rfpd_low	1.00.E-01	W	RF PD input power (low power)							IF		EL					
input_dcpd_high	1.00.E-01	W	DC PD input power (high power)							IF		EL					
input_dcpd_low	1.00.E-02	W	DC PD input power (low power)							IF		EL					
RFHOMsuppression	TBD		RF HOM suppression at LO distributo							IF		EL					
dcpowersupply	2.40.E+01	V	DC power supply							IF		EL					
dcvoltage	1.00.E-01	V	maximum DC voltage for demo signal							IF		EL			AO		
noise_PD	1.00.E-09	V/rtHz	electric noise on demo signal							IF		EL			AO		
error_IQ	1.00.E-02		error of 90deg for I&Q LO							IF	DG	EL					
loss_PD	5.00.E-02		1 - quantum efficiency (DC PD)							IF		EL	IO		AO		
noise_QPD	1.00.E-09	V/rtHz	QPD noise							IF	DG	EL	IO		AO		
actuator_IM	TBD		actuator power on IM				VI			IF		EL					
actuate_range	TBD		actuation range (AC)				VI			IF		EL					
noise_actuator	TBD		actuator noise				VI			IF		EL					
actuator_ITM	TBD		actuator power on ITM				VI			IF		EL			AO		
actuator_ETM	TBD		actuator power on ETM				VI			IF		EL			AO		

Table 1: Interface parameters that AEL subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
emissiv_baf_TM	TBD		emissivity of baffle near TM					MI	CR						**AO**		
emissiv_baf_rs	TBD		emissivity of baffle on radiation s					MI	CR						**AO**		
heat_viewport	1.00.E−02	W	heat from view ports			VA			CR	IF					**AO**		
FI_extinction	4.00.E+01	dB	extinction ratio of Faraday Isolato							IF			IO		**AO**		
outFI_extinction	4.00.E+01	dB	extinction ratio of output Faraday							IF			IO		**AO**		
loss_outFI	2.00.E−02		optical loss of output Faraday Isol							IF			IO		**AO**		
centering	1.00.E−04	m	Beam centering error					MI		IF			IO		**AO**		
num_viewport	1.00.E+00		number of view ports			VA			CR	IF					**AO**		

Table 2: Interface parameters that AOS subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
emissivity_TM	8.00.E-02		emmisivity of surface of TM					MI	CR								
Tm_TM	2.00.E+01	K	temperature					MI	CR	IF							
specificheat_TM	6.90.E-01	J/K/kg	specific heat of TM				VI	MI	CR								
kappa_TM	1.57.E+04	W/m/K	thermal conducutivity of TM				VI	MI	CR								
diameter_cryo8K	5.00.E-01	m	radiation shield diameter			VA			CR								
emissivity_vacuum	3.00.E-02		duct emissivity			VA			CR								
heat_fromBS	1.00.E-01	W	radiation from BS chamber			VA			CR	IF							
heat_fromArm	1.00.E-01	W	radiation from arm cavity			VA			CR	IF							
heat_cryoshield	1.00.E-01	W	heat from radiation shield			VA			CR	IF							
diameter_aperture	2.50.E-01	m	radiation shield aperture diameter			VA			CR	IF					AO		
heat_scatter_toshiel	4.00.E+00	W	max heat from scattering light			VA		MI	CR	IF					AO		
seis_cryostat	TBD		vibration at cryostat	TU	FA	VA			CR	IF							
diameter_tophole	1.50.E-01	m	top hole diameter (to SAS)			VA	VI		CR	IF							
heat_fromtop	1.00.E-02	W	radiation from upper stages			VA	VI		CR	IF							
Tm_cryo8K	8.00.E+00	K	inner shield temeprature			VA	VI		CR	IF							
Tm_cryo80K	8.00.E+01	K	duct shield temperature			VA	VI		CR	IF							
kappa_heatlink	4.00.E+03	W/m/K	heat link thermal conductivity at 1				VI		CR								
num_HL1	7.00.E+00		number of HL1 (Sh-PF)				VI		CR								
RRR_HL1	4.00.E+03		RRR of HL1 (Sh-PF)				VI		CR								
RoU_HL1	5.00.E-01	m	HL1 radius of U				VI		CR								
lsus_HL1	7.50.E-01	m	HL1 length				VI		CR								
ksus_HL1	TBD		HL1 spring constant				VI		CR								
diameter_HL1	1.00.E-03	m	HL1 diameter				VI		CR								
loss_HL1	5.00.E-05		HL1 loss				VI		CR								
num_HL2	5.00.E+00		number of HL2 (PF-IM)				VI		CR								
RRR_HL2	4.00.E+03		RRR of HL2 (Sh-PF)				VI		CR								
RoU_HL2	4.00.E-01		HL2 radius of U				VI		CR								
lsus_HL2	6.28.E-01	m	HL2 length				VI		CR								
ksus_HL2	TBD		HL2 spring constant				VI		CR								
diameter_HL2	3.00.E-03	m	HL2 diameter				VI		CR								
loss_HL2	5.00.E-05		HL2 loss				VI		CR								
num_HL3	4.00.E+00		number of HL3 (IM-RM)				VI		CR								
RRR_HL3	4.00.E+03		RRR of HL3 (Sh-PF)				VI		CR								
RoU_HL3	3.00.E-01		HL3 radius of U				VI		CR								
lsus_HL3	4.71.E-01		HL3 length				VI		CR								
ksus_HL3	TBD		HL3 spring constant				VI		CR								
diameter_HL3	1.60.E-03		HL3 diameter				VI		CR								
loss_HL3	5.00.E-05		HL3 loss				VI		CR								
m_IM	6.00.E+01	kg	mass of IM				VI		CR								
RRR_IM	2.00.E+01		RRR of IM				VI		CR								
width_IM	3.10.E-01	m	IM width				VI		CR								
depth_IM	2.00.E-01	m	IM depth				VI		CR								
thickness_IM	1.10.E-01	m	IM thickness				VI		CR								
Tm_IM	TBD	K	temperature of IM				VI		CR								
emissivity_IM	2.00.E-02		emmisivity of surface of IM				VI		CR								
Cs_IM	TBD		specific heat of IM				VI		CR								
kappa_IM	TBD		thermal conducutivity of IM				VI		CR								
num_IMwires	4.00.E+00		number of wires (IM)				VI		CR								
E_IMwire	1.61.E+11	Pa	wire Young's modulus (IM)				VI		CR								
tensile_IM	5.00.E+09	Pa	wire tensile strength (IM)				VI		CR								
loss_Imwire	1.00.E-04		loss				VI		CR								
kappa_Imwire	TBD		thermal conductivity				VI		CR								
lsus_IM	4.00.E-01	m	length				VI		CR								
dsus_IM	7.20.E-04	m	diameter				VI		CR								
rho_Imwire	1.93.E+04	kg/m^3	density				VI		CR								
Tm_Imwire	1.00.E+01	K	temperature of IM wire				VI		CR								
Tm_RM	1.50.E+01	K	temperature of RMTM				VI		CR								
emissivity_RM	2.00.E-02		emmisivity of surface of RMTM				VI		CR								
Cs_RM	TBD		specific heat of RMTM				VI		CR								
kappa_RM	TBD		thermal conducutivity of RMTM				VI		CR								
kappa_RMwire	TBD		thermal conductivity (RM wire)				VI		CR								
lsus_RM	3.00.E-01	m	length (RM wire)				VI		CR								
dsus_RM	4.00.E-04	m	diameter (RM wire)				VI		CR								
num_RMwire	4.00.E+00		number of fibers (RM)				VI		CR								
E_RMwire	1.30.E+11	Pa	Young's modulus (RM wire)				VI		CR								

Table 3: Interface parameters (1) that CRY subsystem is in charge of.

rho_RMwire	8.36.E+03	kg/m^3	density (RM wire)				VI		CR							
Tm_RMwire	1.60.E+01	K	effective temperature (RM wire)				VI		CR							
loss_yaw_IM	TBD		yaw-mode loss (IM)				VI		CR	IF						
loss_pitch_IM	TBD		pitch-mode loss (IM)				VI		CR	IF						
f_yaw_IM	TBD		yaw-mode resonant frequency (IM)				VI		CR	IF				AO		
f_pitch_IM	TBD		pitch-mode resonant frequency (IM)				VI		CR	IF				AO		
inertia_yaw_IM	TBD		yaw-mode moment of inertia (IM)				VI		CR	IF				AO		
inertia_pitch_IM	TBD		pitch-mode moment of inertia (IM)				VI		CR	IF				AO		

Table 4: Interface parameters (2) that CRY subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
noise_adc	2.00.E−06	V/rtHz	ADC noise				VI			IF	DG	EL	IO	LA			
noise_dac	1.50.E−06	V/rtHz	DAC noise				VI			IF	DG	EL	IO	LA			
max_adc	2.00.E+01	V	ADC maximum input voltage (+/−)				VI			IF	DG	EL	IO	LA			
max_dac	1.00.E+01	V	DAC maximum output voltage (+/−)				VI			IF	DG	EL	IO	LA			
sampling	1.64.E+04	Hz	sampling frequency				VI			IF	DG	EL	IO	LA			DA
loopdelay	1.00.E−04	sec	loop time delay (>200Hz UGF)				VI			IF	DG	EL	IO	LA			DA
bandwidth	7.40.E+03	Hz	observation bandwidth							IF	DG						DA

Table 5: Interface parameters that DGS subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
Tm_room	2.90.E+02	K	room temperature		FA				CR	IF						GI	
clean_manu	1.00.E+1		cleanliness in manufacture rooms		FA			MI									
clean_lab	1.00.E+2		cleanliness in lab		FA			MI									
clean_buil	1.00.E+3		cleanliness in buildings		FA			MI									

Table 6: Interface parameters that FCL subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
barometer	TBD		barometer resolution		FA	VA	VI			IF	DG					**GI**	DA
hygrometer	TBD		hygrometer resolution		FA	VA	VI			IF	DG					**GI**	DA
thermometer	TBD		thermometer resolution		FA		VI			IF	DG					**GI**	DA
microphone	TBD		microphone resolution		FA		VI			IF	DG					**GI**	DA
particlemeter	TBD		particle meter resolution	TU	FA	VA	VI			IF	DG					**GI**	DA
accelerometer	TBD		accelerometer resolution				VI			IF	DG					**GI**	DA
seismometer	TBD		seismometer resolution	TU	FA		VI			IF	DG					**GI**	DA

Table 7: Interface parameters that GIF subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
L_PMC	4.88.E-01	m	PMC length										IO				
noise_oscillator	-1.60.E+02	dBc	RF oscillator phase noise							IF		EL	IO				
L_RC	1.50.E-01	m	Ref Cav length										IO		AO		
finesse_RC	1.00.E+04		Ref Cav finesse										IO		AO		
trans_MC	8.00.E-01		MC transmittance										IO	LA			
noise_FSSPD	1.00.E-09	V/rtHz	FSS PD noise level							IF		EL	IO		AO		
power_FSS	1.00.E-01	W	pick-off power for FSS							IF			IO		AO		
angle_MCend	5.42.E-01	deg	angle of incidence on MC-end							IF			IO		AO		
w_MCend	4.38.E-03	m	beam radius on MC-end							IF			IO		AO		
w_MCin	2.53.E-03	m	beam radius on MC-in							IF			IO		AO		
w_MCout	2.53.E-03	m	beam radius on MC-out							IF			IO		AO		
finesse_MC	5.00.E+02		MC finesse							IF			IO		AO		
beamjitter_MC	TBD		MC output beam jitter							IF			IO		AO		
L_MCout_MMT1	5.80.E+00	m	distance of MC-out and MMT1							IF			IO		AO		
L_MMT1_MMT2	5.60.E+00	m	distance of MMT1 and MMT2							IF			IO		AO		
L_MMT2_PRM	5.80.E+00	m	distance of MMT2 and PRM							IF			IO		AO		
L_OMC	8.00.E-01	m	OMC length							IF			IO		AO		
dither_length_OMC	TBD		dither freq for OMC length							IF			IO		AO		
dither_angle_OMC	TBD		dither freq for OMC angle							IF			IO		AO		
num_mirror_OMC	4.00.E+00		number of mirrors (OMC)					MI		IF			IO		AO		
loss_OMC	5.00.E-02		OMC optical loss					MI		IF			IO		AO		
finesse_OMC	5.00.E+02		OMC finesse					MI		IF			IO		AO		
num_mirror_PMC	4.00.E+00		number of mirrors (PMC)					MI					IO				
finesse_PMC	1.55.E+02		PMC finesse					MI					IO				
diameter_MMT	1.00.E-01	m	MMT mirror diameter					MI					IO		AO		
thickness_MMT	3.00.E-02	m	MMT mirror thickness					MI					IO		AO		
RoC_MMT1	2.06.E+01	m	MMT1 RoC					MI					IO		AO		
RoC_MMT2	2.61.E+01	m	MMT2 RoC					MI					IO		AO		
R_MCend	1.00.E+00		MC-end reflectivity					MI		IF			IO		AO		
R_MCin	9.94.E-01		MC-in reflectivity					MI		IF			IO		AO		
R_MCout	9.94.E-01		MC-out reflectivity					MI		IF			IO		AO		
L_MC	5.33.E+01	m	MC length (roundtrip)			VA				IF			IO		AO		
mass_OMCplatform	TBD		mass of OMC platform				VI						IO				
reso_OMCsusp	TBD		resonant freq of OMC suspension				VI						IO				

Table 8: Interface parameters that IOO subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
wavelength	1.06.E-06	m	wavelength											LA			
FN	1.00.E+02	Hz/rtHz	free-run FN (at 100Hz)											LA			
IN	1.00.E-04	W/W/rtHz	free-run IN											LA			
laser_linewidth	TBD		linewidth											LA			
chiller	1.50.E+01	deg	chiller temperature											LA			
laser_temperature	TBD		Laser temperature											LA			
laserpower	1.80.E+02	W	laser power							IF			IO	LA			
laserpower_green	1.00.E-01	W	Green Laser power							IF			IO	LA	AO		
freq_gap_green	1.00.E+08	Hz	Green laser's frequency gap (X and							IF			IO	LA	AO		

Table 9: Interface parameters that LAS subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
contrastdefect	5.00.E-03		contrast defect (alignment etc)							IF					AO		
guoy_PRC	2.00.E+01	deg	Gouy phase shift in PRC							IF					AO		
guoy_SRC	2.00.E+01	deg	Gouy phase shift in SRC							IF					AO		
offset_arm	2.00.E-12	m	differential offset on arm cavities							IF			IO				
detune	3.50.E+00	deg	detune phase							IF			IO				
f1	1.69.E+07	Hz	f1 sideband frequencies							IF			IO		AO		
mod_f1	2.00.E-01		f1 sideband modulation depth at IFO							IF			IO		AO		
f2	4.50.E+07	Hz	f2 sideband frequencies							IF			IO		AO		
mod_f2	2.00.E-01		f2 sideband modulation depth at IFO							IF			IO		AO		
f3	3.94.E+07	Hz	f3 sideband freq (if any)							IF			IO		AO		
mod_f3	0.00.E+00		f3 sideband modulation depth at IFO							IF			IO		AO		
RIN_AF	TBD		AF RIN							IF			IO	LA	AO		
RIN_RF	1.00.E-09	W/W/rtH	RF RIN (>15MHz)							IF			IO	LA	AO		
num_coat_ETM	1.80.E+01		number of layers on ETM					MI		IF							
num_coat_ITM	9.00.E+00		number of layers on ITM					MI		IF							
m_ETM	2.28.E+01	kg	ETM mass					MI		IF							
m_ITM	2.28.E+01	kg	ITM mass					MI		IF							
finesse_green	1.90.E+01		Green arm finesse (ITM0.8-ETM0.9)					MI		IF					AO		
R_BS_green	1.00.E-02		BS reflectivity for green					MI		IF					AO		
R_PR2_green	1.00.E-02		PR2 reflectivity for green					MI		IF					AO		
R_PR3_green	1.00.E-02		PR3 reflectivity for green					MI		IF					AO		
R_SR2_green	1.00.E-02		SR2 reflectivity for green					MI		IF					AO		
R_SR3_green	1.00.E-02		SR3 reflectivity for green					MI		IF					AO		
R_PRM	9.00.E-01		PRM reflectivity					MI		IF					AO		
loss_PRM	1.00.E-04		PRM optical loss					MI		IF					AO		
loss_PR2	1.00.E-04		PR2 optical loss					MI		IF					AO		
loss_PR3	1.00.E-04		PR3 optical loss					MI		IF					AO		
RoC_PRM	3.70.E+02	m	RoC of PRM					MI		IF					AO		
RoC_PR2	4.17.E+00	m	RoC of PR2					MI		IF					AO		
RoC_PR3	3.23.E+01	m	RoC of PR3					MI		IF					AO		
R_SRM	9.00.E-01		SRM reflectivity					MI		IF					AO		
loss_SRM	1.00.E-04		SRM optical loss					MI		IF					AO		
loss_SR2	1.00.E+04		SR2 optical loss					MI		IF					AO		
loss_SR3	1.00.E+04		SR3 optical loss					MI		IF					AO		
RoC_SRM	3.70.E+02	m	RoC of SRM					MI		IF					AO		
RoC_SR2	4.17.E+00	m	RoC of SR2					MI		IF					AO		
RoC_SR3	3.23.E+01	m	RoC of SR3					MI		IF					AO		
R_ETM	1.00.E+00		ETM reflectivity					MI		IF					AO		
R_ITM	9.96.E-01		ITM reflectivity					MI		IF					AO		
R_ASp	0.00.E+00		AS POM reflectivity (if any)					MI		IF			IO		AO		
w_ETM	4.53.E-02	m	beam radius on ETM					MI		IF			IO		AO		
w_ITM	3.43.E-02	m	beam radius on ITM					MI		IF			IO		AO		
wedge_PRM	3.00.E-01	deg	wedge angle of PRM (horiz)			VA		MI		IF			IO		AO		
wedge_SRM	3.00.E-01	deg	wedge angle of SRM			VA		MI		IF			IO		AO		
L_arm	3.00.E+03	m	arm length			VA				IF							
L_PRM_PR2	1.4761.E+01	m	PRM-PR2 distance			VA				IF					AO		
L_PR2_PR3	1.2067.E+01	m	PR2-PR3 distance			VA				IF					AO		
L_PR3_BS	1.4764.E+01	m	PR3-BS distance			VA				IF					AO		
L_SRM_SR2	1.4764.E+01	m	SRM-SR2 distance			VA				IF					AO		
L_SR2_SR3	1.2067.E+01	m	SR2-SR3 distance			VA				IF					AO		
L_SR3_BS	1.4764.E+01	m	SR3-BS distance			VA				IF					AO		
foldangle_PRC	6.293.E-01	deg	PRC folding angle			VA				IF					AO		
foldangle_SRC	6.293.E-01	deg	SRC folding angle			VA				IF					AO		
L_BS_ITM	2.50285.E+01	m	BS-ITM average distance			VA				IF					AO		
L_asym	3.33.E+00	m	asymmetry length			VA				IF					AO		
rms	1.00.E-14	m	rms fluctuation of DARM				VI			IF							
UGF_CARM	1.00.E+04	Hz	CARM UGF				VI			IF		EL					
UGF_DARM	2.00.E+02	Hz	DARM UGF				VI			IF		EL					
UGF_PRCL	2.00.E+01	Hz	PRCL UGF				VI			IF		EL					
UGF_MICH	2.00.E+01	Hz	MICH UGF				VI			IF		EL					
UGF_SRCL	2.00.E+01	Hz	SRCL UGF				VI			IF		EL					
FF_PRCL	1.00.E+02		PRCL FF gain				VI			IF		EL					
FF_MICH	1.00.E+02		MICH FF gain				VI			IF		EL					
FF_SRCL	1.00.E+02		SRCL FF gain				VI			IF		EL					

Table 10: Interface parameters that MIF subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
rho_ETM	4.00.E+03	kg/m^3	mirror bulk density of ETM					MI									
rho_ITM	4.00.E+03	kg/m^3	mirror bulk density of ITM					MI									
E_ETM	4.00.E+11	Pa	Young's modulus of ETM substrate					MI									
E_ITM	4.00.E+11	Pa	Young's modulus of ITM substrate					MI									
sigma_ETM	2.90.E-01		mirror bulk Poisson ratio of ETM					MI									
sigma_ITM	2.90.E-01		mirror bulk Poisson ratio of ITM					MI									
alpha_ETM	5.6.E-9	1/K	mirror thermal expansion of ETM					MI	CR								
alpha_ITM	5.6.E-9	1/K	mirror thermal expansion of ITM					MI	CR								
Cs_ETM	6.90.E-01	J/K/kg	mirror specific heat of ETM					MI	CR								
Cs_ITM	6.90.E-01	J/K/kg	mirror specific heat of ITM					MI	CR								
kappa_ETM	1.57.E+04	W/m/K	mirror thermal conductivity of ETM					MI	CR								
kappa_ITM	1.57.E+04	W/m/K	mirror thermal conductivity of ITM					MI	CR								
E.coat_silica	7.20.E+10	Pa	silica coating Youngs modulus					MI	CR								
E_coat_tantala	1.40.E+11	Pa	tantala coating Youngs modulus					MI	CR								
sigma_coat_silica	1.70.E-01		silica coating Poisson ratio					MI	CR								
sigma_coat_tantala	2.30.E-01		tantala coating Poisson ratio					MI	CR								
Cv_coat_silica	1.64.E+06	J/K/m^3	silica coating specific heat per vo					MI	CR								
Cv_coat_tantala	2.10.E+06	J/K/m^3	tantala coating specific heat per v					MI	CR								
alpha_coat_silica	5.10.E-07	1/K	silica coating thermal expansion					MI	CR								
alpha_coat_tantala	3.60.E-06	1/K	tantala coating thermal expansion					MI	CR								
alpha_coat_silica	1.38.E+00	W/m/K	silica coating thermal conductivity					MI	CR								
alpha_coat_tantala	3.30.E+01	W/m/K	tantala coating thermal conductivit					MI	CR								
diamter_TM	2.20.E-01	m	TM diameter					MI	CR	IF					AO		
thickness_TM	1.50.E-01	m	TM thickness					MI	CR	IF					AO		
abso_AR	1.00.E-06		AR surface absorption					MI	CR	IF					AO		
R_BS	5.00.E-01		BS reflectivity					MI		IF							
loss_BS_HR	5.00.E-05		BS HR surface optical loss					MI		IF							
RoC_BS	5.00.E+05	m	RoC of BS					MI		IF							
abso_BS	1.50.E-04	1/m	BS substrate absorption					MI		IF							
radisu_BS	1.90.E-01	m	BS radius					MI		IF					AO		
thickness_BS	1.20.E-01	m	BS thickness					MI		IF					AO		
loss_BS_AR	5.00.E-05		BS AR surface reflectivity					MI		IF					AO		
diameter_PRM	2.50.E-01	m	PRM diamter					MI		IF					AO		
thickness_PRM	1.00.E-01	m	PRM thickness					MI		IF					AO		
diameter_PR2	2.50.E-01	m	PR2 diamter					MI		IF					AO		
thickness_PR2	1.00.E-01	m	PR2 thickness					MI		IF					AO		
diameter_PR3	2.50.E-01	m	PR3 diameter					MI		IF					AO		
thickness_PR3	1.00.E-01	m	PR3 thickness					MI		IF					AO		
diameter_SRM	2.50.E-01	m	SRM diamter					MI		IF					AO		
thickness_SRM	1.00.E-01	m	SRM thickness					MI		IF					AO		
diameter_SR2	2.50.E-01	m	SR2 diamter					MI		IF					AO		
thickness_SR2	1.00.E-01	m	SR2 thickness					MI		IF					AO		
diameter_SR3	2.50.E-01	m	SR3 diameter					MI		IF					AO		
thickness_SR3	1.00.E-01	m	SR3 thickness					MI		IF					AO		
surfacerms_center	3.00.E-10	m	central region surface rms					MI		IF					AO		
surfacerms_outer	1.00.E-09	m	outer region surface rms					MI		IF					AO		
surfacecenter	1.20.E-01	m	border of central region					MI		IF					AO		
flatness_AR_TM	TBD		AR side surface flatness					MI		IF					AO		
RoC_TM_fromAR	TBD		ROC seen from AR side					MI		IF					AO		
birefringence	TBD		birefringence					MI		IF					AO		
loss_ETM	4.50.E-05		ETM optical loss					MI		IF					AO		
loss_ITM	4.50.E-05		ITM optical loss					MI		IF					AO		
loss_imbalance	1.50.E-05		optical loss imbalance					MI		IF					AO		
finesse_imbalance	5.00.E-03		finesse imbalance rate					MI		IF					AO		
RoCerror_ETM	1.00.E-02		RoC error of ETM					MI		IF					AO		
RoCerror_ITM	1.00.E-02		RoC error of ITM					MI		IF					AO		
RoC_ETM	7.00.E+03	m	RoC of ETM					MI		IF					AO		
RoC_ITM	5.00.E+05	m	RoC of ITM					MI		IF					AO		
RoCerror_diff	5.00.E-03		RoC imbalance in two arms					MI		IF					AO		
BRDF	1.40.E-05		BRDF					MI	CR	IF					AO		
mloss_ETM	1.00.E-08		mirror mechanical loss of ETM					MI	CR	IF							
mloss_ITM	1.00.E-08		mirror mechanical loss of ITM					MI	CR	IF							
mloss_coat_silica	3.00.E-04		silica coating loss					MI	CR	IF							
mloss_coat_tantala	5.00.E-04		tantala coating loss					MI	CR	IF							
loss_sleeks	TBD		scratches and sleeks loss					MI	CR	IF					AO		

Table 11: Interface parameters (1) that MIR subsystem is in charge of.

loss_points	1.00.E-05		point defects loss					MI	CR	IF					AO			
loss_ITMsubstrate	5.00.E-03	1/m	ITM substrate optical loss					MI	CR	IF					AO			
abs_coat	1.00.E-06		absorption at coating					MI	CR	IF					AO			
loss_AR_ITM	1.00.E-04		ITM AR surface optical loss					MI	CR	IF					AO			
RoC_MCin	5.00.E+05	m	MC-in RoC					MI		IF			IO		AO			
RoC_MCout	5.00.E+05	m	MC-out RoC					MI		IF			IO		AO			
RoC_MCend	4.00.E+01	m	MC-end RoC					MI		IF			IO		AO			
diameter_MC	1.00.E-01	m	MC mirror diameter					MI		IF			IO		AO			
thickness_MC	3.00.E-02	m	MC mirror thickness					MI		IF			IO		AO			
wedge_BS	3.83.E-01	deg	AR wedge of BS			VA		MI		IF					AO			
wedge_ETM	3.00.E-01	deg	wedge angle of ETM			VA		MI		IF					AO			
wedge_ITM_sap	2.00.E-01	deg	wedge angle of ITM (sapphire)			VA		MI		IF					AO			
wedge_ITM_sil	3.35.E-01	deg	wedge angle of ITM (silica)			VA		MI		IF					AO			
ear_distance	2.46.E-01	m	distance of flat ear surfaces				VI	MI										

Table 12: Interface parameters (2) that MIR subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
tunnelsize	4.00.E+00	m	tunnel width/height	TU	FA	VA			CR								
tilt_tunnel	3.33.E−03		tunnel tilt (diff at ETM and ITM)	TU	FA	VA			CR	IF			IO				
cmrr_seis	TBD		CMRR (3km)	TU	FA	VA	VI										
cmrr_cutoff	TBD		CMR cutoff frequency	TU	FA	VA	VI										
diameter_borehole	1.20.E+00	m	diamter of borehole for SAS	TU	FA	VA	VI										

Table 13: Interface parameters that TUN subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
flatness_flange	1.00.E-04	m	flange flatness			**VA**											
thickness_flange	3.00.E-02	m	flange thickness			**VA**											
diameter_duct	8.00.E-01	m	duct diameter			**VA**			CR	IF					AO		
num_pump	3.00.E+01		number of pumps per arm		FA	**VA**											
speed_ionpump	1.00.E+03	L/s	pumping speed of ion pump		FA	**VA**											
speed_turbopump	2.00.E+03	L/s	pumping speed of turbo pump		FA	**VA**											
num_gv800	4.00.E+00		number of gv (DN800) per arm		FA	**VA**											
num_gv1000	3.00.E+00		number of gv (DN1000) per arm		FA	**VA**											
vacuum	2.00.E-07	Pa	vacuum pressure		FA	**VA**				IF							

Table 14: Interface parameters that VAC subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
k_GAS4	4.73.E+02	kg/s^2	spring constant of 4th GAS filter				VI										
loss_GAS4blade	1.00.E-02		loss of GAS filter blades				VI										
m_joint	1.00.E-01	kg	mass of GAS filter joint for wire				VI										
lsus_GASPF	2.10.E+00	m	wire length btw 4th GAS filter and				VI										
d_GAS4	3.11.E-03	m	wire diameter (4th GAS)				VI										
n_GAS4	1.00.E+00		number of wires (4th GAS)				VI										
E_GAS4	1.86.E+11	Pa	wire youg's modulus (4th GAS)				VI										
tensile_GAS4	2.00.E+09	Pa	wire tensile strength (4th GAS)				VI										
loss_GAS4wire	TBD		loss of wire (4th GAS)				VI										
lsus_GAS4	2.10.E+00	m	wire length btw 4th GAS filter and				VI										
m_payload	1.20.E+02	kg	total mass suspended by 4th GAS fil				VI										
m_RM	3.00.E+01	kg	mass of RMTM				VI		CR								
diameter_RMout	2.90.E-01	m	outer diameter				VI		CR								
diameter_RMin	2.60.E-01	m	inner diameter				VI		CR								
thickness_RM	2.60.E-01	m	thickness				VI		CR								
loss_RMwire	5.00.E-06		loss (RM wire)				VI		CR								
f_yaw_RM	TBD		yaw-mode resonance (RM wire)				VI		CR								
f_pitch_RM	TBD		pitch-mode resonance (RM wire)				VI		CR								
loss_yaw_RM	TBD		yaw-mode loss (RM wire)				VI		CR								
loss_pitch_RM	TBD		pitch-mode loss (RM wire)				VI		CR								
inertia_yaw_RM	TBD		yaw-mode moment of inertia (RM wire				VI		CR								
inertia_pitch_RM	TBD		pitch-mode moment of inertia (RM wi				VI		CR								
kappa_fiber_TM	7.00.E+03	W/m/K	thermal conductivity at 20K (TM fib				VI		CR								
lsus_TM	3.00.E-01	m	length (TM)				VI		CR								
dsus_TM	1.60.E-03	m	diameter (TM)				VI		CR								
num_TMfiber	4.00.E+00		number of fibers (TM)				VI		CR								
E_TMfiber	4.00.E+11	Pa	Young's modulus (TM fiber)				VI		CR								
rho_TMfiber	4.00.E+03	kg/m^3	density (TM fiber)				VI		CR								
Tm_TMfiber	1.60.E+01		effective temperature (TM)				VI		CR								
mloss_TMfiber	2.00.E-07		loss (TM fiber)				VI		CR								
loss_yaw_TM	TBD		yaw-mode loss (TM)				VI		CR								
loss_pitch_TM	TBD		pitch-mode loss (TM)				VI		CR								
inertia_yaw_TM	TBD		yaw-mode moment of inertia (TM)				VI		CR								
inertia_pitch_TM	TBD		pitch-mode moment of inertia (TM)				VI		CR								
f_yaw_TM	TBD		yaw-mode resonant frequency (TM)				VI		CR						AO		
f_pitch_TM	TBD		pitch-mode resonant frequency (TM)				VI		CR						AO		
dT_GAS4	TBD		T dependence of spring constant				VI		CR	IF							
dsus_GAS4	3.74.E-03	m	wire diameter (4th GAS)				VI				DG	EL					
num_GAS4wire	1.00.E+00		number of wires (4th GAS)				VI				DG	EL					
adjust_range	1.00.E-02	m	adjustable distance (DC)				VI			IF		EL					
rms_SAS	1.00.E-07	m	RMS displacement				VI			IF	DG	EL					
rms_SAS_velocity	1.00.E-07	m/s	RMS velocity				VI			IF	DG	EL					
rms_pitch	TBD		RMS pitch				VI			IF	DG	EL					
rms_yaw	TBD		RMS yaw				VI			IF	DG	EL					
VHC	5.00.E-03		Vertical horizontal coupling	TU	FA	VA	VI			IF						GI	

Table 15: Interface parameters that VIS subsystem is in charge of.

				TU	FA	VA	VI	MI	CR	IF	DG	EL	IO	LA	AO	GI	DA
hb	1.05457.E-34	J*s	reduced Planck constant							IF			IO		AO		
c	2.99792458.E+08	m/s	speed of light							IF			IO	LA	AO		
kb	1.38.E-23	J/K	Boltzmann's constant			VA	VI	MI	CR								
g	9.8.E+00	m/s^2	acceleration of gravity			VA	VI	MI	CR	IF					AO		
lambda	1.064.E-06	m	wavelength			VA		MI	CR	IF			IO	LA	AO		
rho_sap	4.0.E+03	kg/m^3	density of Sapphire				VI	MI	CR								
Y_sap	4.0.E+11	Pa	Young's modulus of Sapphire				VI	MI	CR								
sigma_sap	2.9.E-01		Poisson ratio of Sapphire				VI	MI	CR								
alpha_sap	5.6.E-09	1/K	thermal expansion of Sapphire at 20K					MI	CR								
Cs_sap	6.9.E-01	J/kg/K	specific heat of Sapphire					MI	CR								
kappa_sap	1.57.E+04	W/m/K	thermal conductivity of Sapphire					MI	CR								
n_sap	1.754.E+00		refractive index of Sapphire			VA		MI		IF					AO		
tensile_sap	TBD	Pa	tensile strength of Sapphire fiber				VI		CR								
rho_sil	2.2.E+03	kg/m^3	density of Silica				VI	MI									
Y_sil	7.2.E+10	Pa	Young's modulus of Silica				VI	MI		IF							
sigma_sil	1.7.E-01		Poisson ratio of Silica					MI									
alpha_sil	5.1.E-07	1/K	thermal expansion of Silica at 290K					MI									
Cs_sil	1.64.E+06	J/m^3/K	specific heat of Silica					MI									
kappa_sil	1.38.E+00	W/m/K	thermal conductivity of Silica					MI									
n_sil	1.45.E+00		refractive index of Silica			VA		MI		IF					AO		
Y_tan	1.4.E+11	Pa	Young's modulus of Tantala				VI	MI		IF							
sigma_tan	2.3.E-01		Poisson ratio of Tantala					MI									
alpha_tan	3.6.E-06	1/K	thermal expansion of Tantala at 290K					MI									
Cs_tan	2.1.E+06	J/m^3/K	specific heat of Tantala					MI									
kappa_tan	3.3.E+01	W/m/K	thermal conductivity of Tantala					MI									
n_tan	2.07.E+00		refractive index of Tantala			VA		MI		IF					AO		
rho_Cu	8.93.E+03	kg/m^3	density of Copper				VI		CR								
Y_Cu	1.298.E+11	Pa	Young's modulus of Copper				VI		CR								
sigma_Cu	3.43.E-01		Poisson ratio of Copper				VI		CR								
alpha_Cu	TBD	1/K	thermal expansion of Copper at 20K						CR								
Cs_Cu	TBD	J/kg/K	specific heat of Copper at 20K						CR								
kappa_Cu	TBD	W/m/K	thermal conductivity of Copper at 20K						CR								
RRR_Cu	2.0.E+01		RRR of Copper						CR								
tensile_Cu	TBD	Pa	tensile strength of Cu fiber				VI		CR								
rho_Al	2.69.E+03	kg/m^3	density of Aluminum				VI		CR								
Y_Al	7.03.E+11	Pa	Young's modulus of Aluminum				VI		CR								
sigma_Al	3.45.E-01		Poisson ratio of Aluminum				VI		CR								
alpha_Al	TBD	1/K	thermal expansion of Aluminum at 20K						CR								
Cs_Al	TBD	J/kg/K	specific heat of Aluminum at 20K						CR								
kappa_Al	TBD	W/m/K	thermal conductivity of Aluminum at 20K						CR								
RRR_Al	4.0.E+03		RRR of Aluminum						CR								
tensile_Al	TBD	Pa	tensile strength of Al fiber				VI		CR								
rho_bol	7.60.E+03	kg/m^3	density of Bolfur				VI		CR								
Y_bol	1.568.E+11	Pa	Young's modulus of Bolfur				VI		CR								
sigma_bol	TBD		Poisson ratio of Bolfur				VI		CR								
alpha_bol	TBD	1/K	thermal expansion of Bolfur						CR								
Cs_bol	TBD	J/kg/K	specific heat of Bolfur						CR								
kappa_bol	TBD	W/m/K	thermal conductivity of Bolfur						CR								
RRR_bol	TBD		RRR of Bolfur						CR								
tensile_bol	3.528.E+09	Pa	tensile strength of 100um Bolfur fiber				VI		CR								
bigG	6.673.E-11	m^3/kg/s^2	Gravitational constant														DA
ms	1.989.E+30	kg	solar mass														DA
neutron	1.4.E+00	solar mass	neutron star mass														DA
fmax	1.570.E+00	Hz	end freq of BNS inspiral														DA
snr	8.0.E+00		SNR for IR calculation														DA

Table 16: Other constants.