

S1-G Cryomodule Thermal Data

Accessing thermal data from the collaborative laboratories

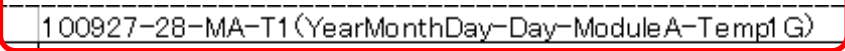
- Data files of S1-G cryomodule thermal condition
 - Temperature sensors and strain gauges in the cryomodule
 - Pressures, mass flow rates of He gas and LHe levels in 2K cold box
 - Data sampling time= 1 minute
 - Every day, the data file will be updated.
 - June 7 ~ August 4, September 6 ~ End of this year.
 - We will prepare the accessible directory on the KEK Website.

Data file

File Name/

Year-Month-Day-Day-Module A-Item

Item: T=Temperature, STG=strain gauge,
P-F-LD=pressure etc.



Tug #	Comments	Sensors
TCA100	Helium Vessel : (A-1)	Cernox
TCA105	Piezo : (A-1)	Cernox
TCA110	Connection area of input coupler with beam pipe : (A-1)	Cernox
TCA111	5K thermal intercept of input coupler (beam pipe side) : (A-1)	Cernox
TCA112	5K thermal intercept of input coupler (body) : (A-1)	Cernox
TCA114	5K thermal intercept of input coupler (cooling pipe side) : (A-1)	Cernox
TCA115	5K thermal intercept of input coupler (intercept side) : (A-1)	Cernox
TCA200	Helium Vessel : (A-2)	Cernox
TCA205	Piezo : (A-2)	Cernox
TCA210	Connection area of input coupler with beam pipe : (A-2)	Cernox
TCA211	5K thermal intercept of input coupler (beam pipe side) : (A-2)	Cernox
TCA212	5K thermal intercept of input coupler (body) : (A-2)	Cernox
TCA214	5K thermal intercept of input coupler (cooling pipe side) : (A-2)	Cernox
TCA215	5K thermal intercept of input coupler (intercept side) : (A-2)	Cernox
TCA300	Helium Vessel : (A-3)	Cernox
TCA305	Piezo : (A-3)	Cernox
TCA310	Connection area of input coupler with beam pipe : (A-3)	Cernox
TCA312	5K thermal intercept of input coupler (body) : (A-3)	Cernox
TCA400	Helium Vessel : (A-4)	Cernox
TCA405	Piezo : (A-4)	Cernox

100927-28-MA-T2		
Tug #	Comments	Sensors
TCA410	Connection area of input coupler with beam pipe : (A-4)	Cernox
TCA412	5K thermal intercept of input coupler (body) : (A-4)	Cernox
TCA760	Position inside of 5K thermal anchor	Cernox
TCAB62	cooling pipe(supply line)	Cernox
TCAB63	cooling pipe(to cavity)	Cernox
TCA982	GRP(End plate side)	Cernox
TCA985	cooling pipe(End plate side)	Cernox
TTA130	80K thermal intercept of input coupler (beam pipe side) : (A-1)	T.C Type T
TTA131	80K thermal intercept of input coupler (body) : (A-1)	T.C Type T
TTA132	80K thermal intercept of input coupler (vacuum vessel side) : (A-1)	T.C Type T
TTA133	80K thermal intercept brade of input coupler (coupler side)	T.C Type T
TTA134	80K thermal intercept brade of input coupler (cooling pipe side) : (A-1)	T.C Type T
TTA135	Input coupler (room temperature and in the vacuum vessel) : (A-1)	T.C Type T
TTA230	80K thermal intercept of input coupler (beam pipe side) : (A-2)	T.C Type T
TTA231	80K thermal intercept of input coupler (body) : (A-2)	T.C Type T
TTA232	80K thermal intercept of input coupler (vacuum vessel side) : (A-2)	T.C Type T
TTA233	80K thermal intercept brade of input coupler (coupler side) : (A-2)	T.C Type T

100927-28-MA-T3		
Tug #	Comments	Sensors
TTA234	80K thermal intercept brade of input coupler (cooling pipe side) : (A-2)	T.C Type T
TTA235	Input coupler (room temperature and in the vacuum vessel) : (A-2)	T.C Type T
TTA331	80K thermal intercept of input coupler (body)(old TTA330) : (A-3)	T.C Type T
TTA431	80K thermal intercept of input coupler (body)(old TTA431) : (A-4)	T.C Type T
TTA610	80K thermal intercept at the 0 degree : Fixed support post	T.C Type T
TTA616	80K thermal intercept at the 180 degree : Fixed support post	T.C Type T
TTA620	Room temperature area : Fixed support post	T.C Type T
TTA640	80K thermal intercept at the 0 degree : Movable support post	T.C Type T
TTA646	80K thermal intercept at the 180 degree : Movable support post	T.C Type T
TTA650	Room temperature area : Movable support post	T.C Type T
TTA770	Position inside of 80K thermal intercept	T.C Type T
TTA810	0 degree in the side of Upstream : 80 K thermal radiation shield	T.C Type T
TTA813	90 degree in the side of Upstream : 80 K thermal radiation shield	T.C Type T
TTA816	180 degree in the side of Upstream : 80 K thermal radiation shield	T.C Type T
TTA819	270 degree in the side of Upstream : 80 K thermal radiation shield	T.C Type T
TTA830	0 degree in the center : 80 K thermal radiation shield	T.C Type T
TTA833	90 degree in the center : 80 K thermal radiation shield	T.C Type T
TTA836	180 degree in the center : 80 K thermal radiation shield	T.C Type T
TTA839	270 degree in the center : 80 K thermal radiation shield	T.C Type T
TTA850	0 degree in the side of end flange : 80 K thermal radiation shield	T.C Type T

100927-28-MA-T4		
Tug #	Comments	Sensors
TTA853	90 degree in the side of end flange : 80 K thermal radiation shield	T.C Type T
TTA856	180 degree in the side of end flange : 80 K thermal radiation shield	T.C Type T
TTA859	270 degree in the side of end flange : 80 K thermal radiation shield	T.C Type T
TTA860	80K shield end plate : 80 K thermal radiation shield	T.C Type T
TTA861	WPM pipe at 80K thermal intercept (GRP)	T.C Type T
TTA862	WPM pipe at 80K thermal intercept (Cavity)	T.C Type T
TKA101	HOM coupler in the input coupler side-top : (A-1)	Carbon Resistor
TKA102	HOM coupler in the input coupler side-bottom : (A-1)	Carbon Resistor
TKA103	HOM coupler in the non-input coupler side-top : (A-1)	Carbon Resistor
TKA104	HOM coupler in the non-input coupler side-bottom : (A-1)	Carbon Resistor
TKA201	HOM coupler in the input coupler side-top : (A-2)	Carbon Resistor
TKA202	HOM coupler in the input coupler side-bottom : (A-2)	Carbon Resistor
TKA203	HOM coupler in the non-input coupler side-top : (A-2)	Carbon Resistor
TKA204	HOM coupler in the non-input coupler side-bottom : (A-2)	Carbon Resistor
TKA301	HOM coupler in the input coupler side-top : (A-3)	Carbon Resistor
TKA302	HOM coupler in the input coupler side-bottom : (A-3)	Carbon Resistor

100927-28-MA-T6		
Tug #	Comments	Sensors
TPA550	0 degree in the side of end flange : 5K thermal radiation shield	Pt-Co
TPA553	90 degree in the side of end flange : 5K thermal radiation shield	Pt-Co
TPA556	180 degree in the side of end flange : 5K thermal radiation shield	Pt-Co
TPA559	270 degree in the side of end flange : 5K thermal radiation shield	Pt-Co
TPA560	5K shield end plate : 5K thermal radiation shield	Pt-Co
TPA603	5K thermal intercept at the 90 degree : Fixed support post	Pt-Co
TPA609	5K thermal intercept at the 270 degree : Fixed support post	Pt-Co
TPA633	5K thermal intercept at the 90 degree : Movable support post	Pt-Co
TPA639	5K thermal intercept at the 270 degree : Movable support post	Pt-Co
TPA700	Upstream-top (Module-A connection side) : Gas return pipe	Pt-Co
TPA706	Upstream-bottom : Gas return pipe	Pt-Co
TPA710	Center-top : Gas return pipe	Pt-Co
TPA716	Center-bottom : Gas return pipe	Pt-Co
TPA717	Connection area between S.P and GRP(Fixed) : Gas return pipe	Pt-Co
TPA718	Connection area between S.P and GRP(Movable) : Gas return pipe	Pt-Co
TPA720	Downstream-top (end flange side) : Gas return pipe	Pt-Co
TPA726	Downstream-bottom : Gas return pipe	Pt-Co

100927-28-MA-T5		
Tug #	Comments	Sensors
TKA303	HOM coupler in the non-input coupler side-top : (A-3)	Carbon Resistor
TKA304	HOM coupler in the non-input coupler side-bottom : (A-3)	Carbon Resistor
TKA401	HOM coupler in the input coupler side-top : (A-4)	Carbon Resistor
TKA402	HOM coupler in the input coupler side-bottom : (A-4)	Carbon Resistor
TKA403	HOM coupler in the non-input coupler side-top : (A-4)	Carbon Resistor
TKA404	HOM coupler in the non-input coupler side-bottom : (A-4)	Carbon Resistor
TPA510	0 degree in the side of module-A : 5K thermal radiation shield	Pt-Co
TPA513	90 degree in the side of module-A : 5K thermal radiation shield	Pt-Co
TPA516	180 degree in the side of module-A : 5K thermal radiation shield	Pt-Co
TPA519	270 degree in the side of module-A : 5K thermal radiation shield	Pt-Co
TPA529	270 degree at fixed support post : 5K thermal radiation shield	Pt-Co
TPA530	0 degree at shield center : 5K thermal radiation shield	Pt-Co
TPA533	90 degree at shield center : 5K thermal radiation shield	Pt-Co
TPA536	180 degree at shield center : 5K thermal radiation shield	Pt-Co
TPA539	270 degree at shield center : 5K thermal radiation shield	Pt-Co
TPA549	270 degree at movable support post : 5K thermal radiation shield	Pt-Co

100927-28-MA-STG (Strain Gauge)		
Tug #	Comments	Sensors
STA730 X	0 degree in the side of Upstream	Strain Gauge
STA730 Y	0 degree in the side of Upstream	Strain Gauge
STA733 X	90 degree in the side of Upstream	Strain Gauge
STA733 Y	90 degree in the side of Upstream	Strain Gauge
STA736 X	180 degree in the side of Upstream	Strain Gauge
STA736 Y	180 degree in the side of Upstream	Strain Gauge
STA739 X	270 degree in the side of Upstream	Strain Gauge
STA739 Y	270 degree in the side of Upstream	Strain Gauge
STA740 X	0 degree in the center	Strain Gauge
STA740 Y	0 degree in the center	Strain Gauge
STA743 X	90 degree in the center	Strain Gauge
STA743 Y	90 degree in the center	Strain Gauge
STA746 X	180 degree in the center	Strain Gauge
STA746 Y	180 degree in the center	Strain Gauge
STA749 X	270 degree in the center	Strain Gauge
STA749 Y	270 degree in the center	Strain Gauge
STA750 X	0 degree in the side of end flange	Strain Gauge
STA750 Y	0 degree in the side of end flange	Strain Gauge
STA753 X	90 degree in the side of end flange	Strain Gauge
STA753 Y	90 degree in the side of end flange	Strain Gauge
STA756 X	180 degree in the side of end flange	Strain Gauge
STA756 Y	180 degree in the side of end flange	Strain Gauge
STA759 X	270 degree in the side of end flange	Strain Gauge
STA759 Y	270 degree in the side of end flange	Strain Gauge

2 K Cold Box

100927-28-2KCB-T1		
Tug #	Comments	Sensors
TI750	Vacuum break at 2K	T (Cernox)
TI751	Vacuum break 5K thermal intercept (2K side)	T (Cernox)
TI752	Vacuum break 5K thermal intercept (80K side)	T (Cernox)
TI753	Vacuum break 5K thermal intercept (body)	T (Cernox)
TI754	5K shield cooling pipe (forward)	T (Cernox)
TI755	5K shield cooling pipe (return)	T (Cernox)
TI760	Vacuum break 80K thermal intercept (2K side)	T.C Type T
TI761	Vacuum break 80K thermal intercept (80K side)	T.C Type T
TI762	Vacuum break at 300K	T.C Type T
TI763	Vacuum break 80K thermal intercept (body)	T.C Type T
TI764	80K shield cooling pipe (forward)	T.C Type T
TI765	80K shield cooling pipe (return)	T.C Type T

100927-28-2KCB-T2		
Tug #	Comments	Sensors
TI101	4K liquid helium vessel	T (Cernox)
TI102	H.X. high pressure line-outlet	T (Cernox)
TI103	H.X. low pressure line-inlet	T (Cernox)
TI103-2	2K return gas line	T (Cernox)
TI104	H.X. low pressure line-outlet	T (Cernox)
TI105	H.X. high pressure line-after JT valve	T (Cernox)
TI106	Precooling/warming-up line	T (Cernox)
TI107	2K liquid helium vessel	T (Cernox)
TI108	2K return gas line	T (Cernox)
TI109	5K shield forward line	T (Cernox)
TI110	5K shield return line	T (Cernox)
TI111	80K shield forward line	T (PT100)
TI112	80K shield return line	T (PT100)
TI301	4K liquid helium vessel	T (PtCo)
T201	Vacuum pump outlet	T.C Type T
T202	5K line flow meter	T.C Type T
T203	LN2 line outlet	T.C Type T
H101 (V)	4K liquid helium vessel (Heater:Voltage)	
H101 (I)	4K liquid helium vessel (Heater:Current)	

100927-28-2KCB-P-F-LD		
Tug #	Comments	Sensors
LI101	4K liquid helium vessel (Level sensor)	L (AMISC level sensor)
LI102	2K liquid helium vessel (Level sensor)	L (AMISC level sensor)
P102	4K liquid helium vessel	P (Relative pressure)
P104	2K liquid helium vessel	P (Absolute pressure)
P110	5K shield return line	P (Relative pressure)
P201	Vacuum pump outlet	P (Relative pressure)
P202	5K line flow meter	P (Relative pressure)
F102	Vacuum pump outlet	
F103	5K line flow meter	
PI001	2K LHE Supply	P (Relative pressure)
LDI901	GRP Position	Laser rangefinder
LDI902	GRP Position	Laser rangefinder
LDI903	GRP Position	Laser rangefinder
LDI904	GRP Position	Laser rangefinder
POA660	Support structure	potentiometer