DATE=11/2/2005
PART NAME : ILC DESY 1.3GHZ RF CAVITY ASSEMBLY 180
REV NUMBER :
SER NUMBER :
STATS COUNT : 1

'Inspected by' : Robert Riley
'Cavity Number' : ACCEL 9 180 RUN 1

BEAM PIPE FLANGE NEAR

MM	DIM LOC1= LOCATION OF PLANE PL-NEAR-END-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.000	0.000	0.200	0.200	0.000
V	-0.000	-1.000	-0.003			
FL	0.000	0.028	0.028	0.200	0.000	0.000

// MM	DIM PARL1= PARALLEL OF PLANE PL-NEAR-END-FLANGE,RFS TO WORKPLANE YMINUS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.390	0.390	0.200	0.000	0.190

DEG	DIM ANGL1= 3D ANGLE (COMPLEMENT) FROM PLANE PL-NEAR-END-FLANGE TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.188	0.188	0.100	0.100	0.088

MM	DIM LOC2= LOCATION OF CIRCLE CR-NEAR-END -FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.029	-0.029	0.200	0.200	0.000
Z	0.000	-0.390	-0.390	0.200	0.200	0.190
D	140.000	140.098	0.098	0.300	0.300	0.000
RN	0.000	0.017	0.017	0.200	0.000	0.000

BEAM PIPE FLANGE FAR

MM DIM LOC3= LOCATION OF PLANE PL-FAR-END

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	1283.400	1281.448	-1.952	3.000	3.000	0.000
V	0.003	1.000	-0.002			
FL	0.000	0.054	0.054	0.200	0.000	0.000

// MM DIM PARL2= PARALLEL OF PLANE PL-FAR-END,RFS TO WORKPLANE YMINUS EXTEND=0.000

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.486	0.486	0.200	0.000	0.286

DEG DIM ANGL2= 3D ANGLE (COMPLEMENT) FROM PLANE PL-FAR-END TO YAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.230	0.230	0.100	0.100	0.130

MM DIM LOC4= LOCATION OF CIRCLE CR-FAR-END

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.171	0.170	0.200	0.200	0.000
Z	0.000	-0.333	-0.333	0.200	0.200	0.133
D	140.000	140.139	0.139	0.300	0.300	0.000
RN	0.000	0.016	0.016	0.200	0.000	0.000

DATUM-1-PLANE

MM DIM LOC-DATUM-1-PLANE= LOCATION OF PLANE PLC-DAT-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	128.800	129.060	0.260	0.200	0.200	0.060
V	-0.001	-1.000	-0.002			
FL	0.000	0.046	0.046	0.200	0.000	0.000

// MM DIM PARL5= PARALLEL OF PLANE PLC-DAT-1,RFS TO WORKPLANE YMINUS EXTEND=0.000

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.230	0.230	0.200	0.000	0.030

DEG DIM ANGL7= 3D ANGLE (TRUE) FROM PLANE PLC-DAT-1 TO YAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.122	0.122	0.100	0.100	0.022

DATUM-2-PLANE

MM DIM LOC-DATUM-2-PLANE= LOCATION OF PLANE PLC-DAT-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	1190.000	1187.785	-2.215	0.200	0.200	2.015
V	-0.001	1.000	-0.002			
FL	0.000	0.066	0.066	0.200	0.000	0.000

// MM	DIM PARL6= PARALLEL OF PLANE PLC-DAT-2,RFS TO WORKPLANE YMINUS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.259	0.259	0.200	0.000	0.059

DEG	DIM ANGL8= 3D ANGLE (TRUE) FROM PLANE PLC-DAT-2 TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.129	0.129	0.100	0.100	0.029

PICKUP ANTENNA FLANGE NW8

MM	DIM LOC5= LOCATION OF PLANE PL-NW8-ANTENNA-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-53.800	-53.631	0.169	0.200	0.200	0.000
V	-1.000	0.001	-0.001			
FL	0.000	0.002	0.002	0.200	0.000	0.000

// MM	DIM PARL3= PARALLEL OF PLANE PL-NW8-ANTENNA-FLANGE,RFS TO WORKPLANE XMINUS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.035	0.035	0.200	0.000	0.000

DEG	DIM ANGL3= 3D ANGLE (TRUE) FROM PLANE PL-NW8-ANTENNA-FLANGE TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.072	0.072	0.100	0.100	0.000

MM	DIM LOC6= LOCATION OF CIRCLE CR-NW8-ANTENNA-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	96.600	96.726	0.126	0.200	0.200	0.000
Z	0.000	0.010	0.010	0.200	0.200	0.000
D	33.808	33.781	-0.027	0.150	0.000	0.027
RN	0.000	0.023	0.023	0.150	0.000	0.000

MAIN COUPLER FLANGE NW40

MM	DIM LOC7= LOCATION OF PLANE PL-NW-40-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	88.000	87.147	-0.853	0.200	0.200	0.653
V	1.000	-0.005	-0.001			
FL	0.000	0.001	0.001	0.200	0.000	0.000

// MM	DIM PARL4= PARALLEL OF PLANE PL-NW-40-FLANGE,RFS TO WORKPLANE XMINUS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.346	0.346	0.200	0.000	0.146

DEG	DIM ANGL4= 3D ANGLE (TRUE) FROM PLANE PL-NW-40-FLANGE TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.317	0.317	0.100	0.100	0.217

MM	DIM LOC8= LOCATION OF CIRCLE CR-NW-40-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	1222.800	1220.032	-2.768	0.200	0.200	2.568
Z	0.000	0.274	0.274	0.200	0.200	0.074
D	76.000	75.989	-0.011	0.200	0.000	0.011
RN	0.000	0.020	0.020	0.200	0.000	0.000

MM	DIM DIST1= 2D DISTANCE FROM CIRCLE CR-NW-40-FLANGE TO PLANE PL-FAR-END PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	60.600	61.416	0.816	0.200	0.200	0.616

HOM-1 FLANGE NW12

MM	DIM FLAT1= FLATNESS OF PLANE PL-NW12-FLANGE-HOM1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.002	0.002	0.200	0.000	0.000

DEG	DIM ANGL16= 2D ANGLE (TRUE) FROM PLANE PL-NW12-FLANGE-HOM1 TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	15.000	17.248	2.248	0.500	0.500	1.748

DEG	DIM ANGL17= 2D ANGLE (COMPLEMENT) FROM PLANE PL-NW12-FLANGE-HOM1 TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	30.000	29.974	-0.026	0.500	0.500	0.000

MM	DIM LOC= LOCATION OF CIRCLE CR-NW12-FLANGE-HOM1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	38.183	38.183	100.000	100.000	0.000
Y	0.000	92.994	92.994	100.000	100.000	0.000
Z	0.000	-62.500	-62.500	100.000	100.000	0.000
D	33.800	33.791	-0.009	0.150	0.000	0.009
RN	0.000	0.028	0.028	0.150	0.000	0.000

HOM-2 FLANGE NW12

MM	DIM = FLATNESS OF PLANE PL-NW12-FLANGE-HOM-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.007	0.007	0.000	0.000	0.007

DEG	DIM ANGL5= 2D ANGLE (COMPLEMENT) FROM PLANE PL-NW12-FLANGE-HOM-2 TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	15.000	18.628	3.628	0.500	0.500	3.128

DEG	DIM ANGL6= 2D ANGLE (TRUE) FROM PLANE PL-NW12-FLANGE-HOM-2 TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	35.000	35.640	0.640	0.500	0.500	0.140

MM	DIM LOC9= LOCATION OF CIRCLE CR-NW12-FLANGE-HOM-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-72.763	-72.763	100.000	100.000	0.000
Y	0.000	1224.513	1224.513	2000.000	2000.000	0.000
Z	0.000	-8.500	-8.500	100.000	100.000	0.000
D	33.800	33.770	-0.030	0.150	0.000	0.030
RN	0.000	0.038	0.038	0.150	0.000	0.000

HOM 1 LOCATION

MM	DIM LOC-HOM1= LOCATION OF CYLINDER CY-HOM-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	68.451	68.451	100.000	100.000	0.000
Y	96.600	96.710	0.110	0.200	0.200	0.000
Z	0.000	-40.167	-40.167	100.000	100.000	0.000
D	44.000	43.862	-0.138	0.000	0.100	0.038
RN	0.000	0.065	0.065	0.100	0.000	0.000
V	-0.864	-0.004	0.503			

DEG	DIM ANGL9= 3D ANGLE (COMPLEMENT) FROM CYLINDER CY-HOM-1 TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	30.000	30.205	0.205	0.500	0.500	0.000

DEG	DIM ANGL10= 3D ANGLE (TRUE) FROM CYLINDER CY-HOM-1 TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	90.000	89.778	-0.222	0.500	0.500	0.000

DEG	DIM ANGL11= 3D ANGLE (TRUE) FROM CYLINDER CY-HOM-1 TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	60.000	59.796	-0.204	0.500	0.500	0.000

MM	DIM LOC-HOM3= LOCATION OF POINT PT-RT-HOM-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PR	116.000	115.957	-0.043	0.200	0.200	0.000

INTERSECTION OF HOM1 & YZ PLANE

MM	DIM LOC-HOM1 X PLANE= LOCATION OF POINT PTC-HOM1 X YZ PLANE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.000	0.000	0.200	0.200	0.000
Y	96.600	96.403	-0.197	0.200	0.200	0.000
Z	0.000	-0.321	-0.321	0.200	0.200	0.121

HOM 2 LOCATION

MM DIM LOC-HOM2= LOCATION OF CYLINDER CY-HOM-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-64.321	-64.321	100.000	100.000	0.000
Y	1222.800	1220.681	-2.119	3.000	3.000	0.000
Z	0.000	-45.730	-45.730	100.000	100.000	0.000
D	44.000	43.868	-0.132	0.000	0.100	0.032
RN	0.000	0.058	0.058	0.100	0.000	0.000
V	-0.816	0.000	-0.579			

MM DIM DIST2= 2D DISTANCE FROM POINT PT-HOM-2 TO PLANE PL-FAR-END PAR TO YAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	60.600	60.337	-0.263	0.200	0.200	0.063

DEG DIM ANGL12= 3D ANGLE (TRUE) FROM CYLINDER CY-HOM-2 TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	35.000	35.345	0.345	0.500	0.500	0.000

DEG DIM ANGL13= 3D ANGLE (COMPLEMENT) FROM CYLINDER CY-HOM-2 TO YAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	90.000	90.004	0.004	0.500	0.500	0.000

DEG DIM ANGL14= 3D ANGLE (TRUE) FROM CYLINDER CY-HOM-2 TO ZAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	55.000	54.655	-0.345	0.500	0.500	0.000

MM DIM LOC-HOM4= LOCATION OF POINT PT-HOM-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PR	116.000	115.726	-0.274	0.200	0.200	0.074

INTERSECTION OF HOM2 & YZ PLANE

MM DIM LOC-HOM2 X PLANE= LOCATION OF POINT PTC-HOM2 X YZ PLANE

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.000	0.000	0.200	0.200	0.000
Y	1222.800	1220.675	-2.125	3.000	3.000	0.000
Z	0.000	-0.111	-0.111	0.200	0.200	0.000

LOCATIONS OF CONSTRUCTED CIRCLES
ON 18 HALF CELLS & 2 DATUM SURFACES & 2 VACUUM SURFACES

MM DIM LOC-CC1= LOCATION OF CIRCLE CRC-DAT-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.000	0.000	0.200	0.200	0.000
Y	0.000	131.090	131.090	2000.000	2000.000	0.000
Z	0.000	0.000	0.000	0.200	0.200	0.000
D	111.000	110.891	-0.109	0.200	0.200	0.000
RN	0.000	0.024	0.024	0.200	0.000	0.000

MM DIM LOC-CC2= LOCATION OF CIRCLE CRC-VAC-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.041	0.041	0.200	0.200	0.000
Y	0.000	158.492	158.492	2000.000	2000.000	0.000
Z	0.000	0.037	0.037	0.200	0.200	0.000
D	191.200	191.173	-0.028	0.200	0.200	0.000
RN	0.000	0.050	0.050	0.200	0.000	0.000

MM DIM LOC-CC3= LOCATION OF CIRCLE CRC-CAV-1-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.069	0.069	0.200	0.200	0.000
Y	0.000	193.552	193.552	2000.000	2000.000	0.000
Z	0.000	0.066	0.066	0.200	0.200	0.000
D	210.300	210.577	0.277	0.200	0.200	0.077
RN	0.000	0.138	0.138	0.200	0.000	0.000

MM DIM LOC-CC4= LOCATION OF CIRCLE CRC-CAV-1-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.073	0.073	0.200	0.200	0.000
Y	0.000	203.088	203.088	2000.000	2000.000	0.000
Z	0.000	0.076	0.076	0.200	0.200	0.000
D	210.300	210.576	0.276	0.200	0.200	0.076
RN	0.000	0.116	0.116	0.200	0.000	0.000

MM DIM LOC-CC5= LOCATION OF CIRCLE CRC-CAV-2-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.109	0.108	0.200	0.200	0.000
Y	0.000	308.999	308.999	2000.000	2000.000	0.000
Z	0.000	0.319	0.318	0.200	0.200	0.118
D	210.300	210.655	0.355	0.200	0.200	0.155
RN	0.000	0.123	0.123	0.200	0.000	0.000

MM DIM LOC-CC6= LOCATION OF CIRCLE CRC-CAV-2-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.067	0.067	0.200	0.200	0.000
Y	0.000	318.402	318.402	2000.000	2000.000	0.000
Z	0.000	0.317	0.317	0.200	0.200	0.117
D	210.300	210.505	0.205	0.200	0.200	0.005
RN	0.000	0.209	0.209	0.200	0.000	0.009

MM DIM LOC-CC7= LOCATION OF CIRCLE CRC-CAV-3-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.097	0.097	0.200	0.200	0.000
Y	0.000	424.532	424.532	2000.000	2000.000	0.000
Z	0.000	0.516	0.516	0.200	0.200	0.316
D	210.300	210.658	0.358	0.200	0.200	0.158
RN	0.000	0.173	0.173	0.200	0.000	0.000

MM DIM LOC-CC8= LOCATION OF CIRCLE CRC-CAV-3-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.102	0.102	0.200	0.200	0.000
Y	0.000	433.903	433.903	2000.000	2000.000	0.000
Z	0.000	0.376	0.376	0.200	0.200	0.176
D	210.300	210.563	0.262	0.200	0.200	0.062
RN	0.000	0.148	0.148	0.200	0.000	0.000

MM DIM LOC-CC9= LOCATION OF CIRCLE CRC-CAV-4-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.109	0.109	0.200	0.200	0.000
Y	0.000	539.430	539.430	2000.000	2000.000	0.000
Z	0.000	0.484	0.484	0.200	0.200	0.284
D	210.300	210.610	0.310	0.200	0.200	0.110
RN	0.000	0.159	0.159	0.200	0.000	0.000

MM DIM LOC-CC10= LOCATION OF CIRCLE CRC-CAV-4-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.123	0.123	0.200	0.200	0.000
Y	0.000	548.848	548.848	2000.000	2000.000	0.000
Z	0.000	0.443	0.443	0.200	0.200	0.243
D	210.300	210.534	0.233	0.200	0.200	0.033
RN	0.000	0.170	0.170	0.200	0.000	0.000

MM DIM LOC-CC11= LOCATION OF CIRCLE CRC-CAV-5-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.143	0.142	0.200	0.200	0.000
Y	0.000	654.620	654.620	2000.000	2000.000	0.000
Z	0.000	0.503	0.502	0.200	0.200	0.302
D	210.300	210.619	0.319	0.200	0.200	0.119
RN	0.000	0.147	0.147	0.200	0.000	0.000

MM DIM LOC-CC12= LOCATION OF CIRCLE CRC-CAV-5-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.187	0.187	0.200	0.200	0.000
Y	0.000	664.247	664.247	2000.000	2000.000	0.000
Z	0.000	0.491	0.491	0.200	0.200	0.291
D	210.300	210.587	0.286	0.200	0.200	0.086
RN	0.000	0.211	0.211	0.200	0.000	0.011

MM DIM LOC-CC13= LOCATION OF CIRCLE CRC-CAV-6-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.186	0.186	0.200	0.200	0.000
Y	0.000	769.465	769.465	2000.000	2000.000	0.000
Z	0.000	0.470	0.470	0.200	0.200	0.270
D	210.300	210.558	0.257	0.200	0.200	0.057
RN	0.000	0.172	0.172	0.200	0.000	0.000

MM DIM LOC-CC14= LOCATION OF CIRCLE CRC-CAV-6-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.164	0.164	0.200	0.200	0.000
Y	0.000	778.916	778.916	2000.000	2000.000	0.000
Z	0.000	0.465	0.465	0.200	0.200	0.265
D	210.300	210.558	0.258	0.200	0.200	0.058
RN	0.000	0.229	0.229	0.200	0.000	0.029

MM DIM LOC-CC15= LOCATION OF CIRCLE CRC-CAV-7-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.155	0.155	0.200	0.200	0.000
Y	0.000	885.047	885.047	2000.000	2000.000	0.000
Z	0.000	0.351	0.351	0.200	0.200	0.151
D	210.300	210.640	0.339	0.200	0.200	0.139
RN	0.000	0.241	0.241	0.200	0.000	0.041

MM DIM LOC-CC16= LOCATION OF CIRCLE CRC-CAV-7-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.090	0.090	0.200	0.200	0.000
Y	0.000	894.180	894.180	2000.000	2000.000	0.000
Z	0.000	0.389	0.389	0.200	0.200	0.189
D	210.300	210.527	0.226	0.200	0.200	0.026
RN	0.000	0.133	0.133	0.200	0.000	0.000

MM DIM LOC-CC17= LOCATION OF CIRCLE CRC-CAV-8-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.100	0.100	0.200	0.200	0.000
Y	0.000	999.831	999.831	2000.000	2000.000	0.000
Z	0.000	0.215	0.215	0.200	0.200	0.015
D	210.300	210.674	0.373	0.200	0.200	0.173
RN	0.000	0.130	0.130	0.200	0.000	0.000

MM DIM LOC-CC18= LOCATION OF CIRCLE CRC-CAV-8-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.065	0.065	0.200	0.200	0.000
Y	0.000	1009.382	1009.382	2000.000	2000.000	0.000
Z	0.000	0.256	0.256	0.200	0.200	0.056
D	210.300	210.593	0.293	0.200	0.200	0.093
RN	0.000	0.191	0.191	0.200	0.000	0.000

MM DIM LOC-CC19= LOCATION OF CIRCLE CRC-CAV-9-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.132	0.132	0.200	0.200	0.000
Y	0.000	1115.118	1115.118	2000.000	2000.000	0.000
Z	0.000	0.030	0.030	0.200	0.200	0.000
D	210.300	210.628	0.328	0.200	0.200	0.128
RN	0.000	0.090	0.090	0.200	0.000	0.000

MM DIM LOC-CC20= LOCATION OF CIRCLE CRC-CAV-9-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.117	0.117	0.200	0.200	0.000
Y	0.000	1124.442	1124.442	2000.000	2000.000	0.000
Z	0.000	-0.005	-0.006	0.200	0.200	0.000
D	210.300	210.475	0.175	0.200	0.200	0.000
RN	0.000	0.145	0.145	0.200	0.000	0.000

MM DIM LOC-CC21= LOCATION OF CIRCLE CRC-VAC-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.050	0.050	0.200	0.200	0.000
Y	0.000	1156.065	1156.065	2000.000	2000.000	0.000
Z	0.000	0.065	0.065	0.200	0.200	0.000
D	200.000	199.984	-0.017	0.200	0.200	0.000
RN	0.000	0.107	0.107	0.200	0.000	0.000

MM DIM LOC-CC22= LOCATION OF CIRCLE CRC-DAT-2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.000	0.000	0.200	0.200	0.000
Y	0.000	1185.703	1185.703	2000.000	2000.000	0.000
Z	0.000	0.000	0.000	0.200	0.200	0.000
D	111.000	110.875	-0.125	0.200	0.200	0.000
RN	0.000	0.020	0.020	0.200	0.000	0.000

TRUE POSITIONS OF CONSTRUCTED CIRCLES
ON 18 HALF CELLS & 2 DATUM SURFACES & 2 VACUUM SURFACES

MM DIM LOC-TP-CC1= TRUE POSITION OF CIRCLE CRC-DAT-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.000	0.000				
Z	0.000	0.000	0.000				
TP	RFS		0.000	0.200		0.000	0.000

MM DIM LOC-TP-CC2= TRUE POSITION OF CIRCLE CRC-VAC-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.041	0.041				
Z	0.000	0.037	0.037				
TP	RFS		0.111	0.200		0.000	0.000

MM DIM LOC-TP-CC3= TRUE POSITION OF CIRCLE CRC-CAV-1-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.069	0.069				
Z	0.000	0.066	0.066				
TP	RFS		0.191	0.200		0.000	0.000

⊕ MM	DIM LOC-TP-CC4= TRUE POSITION OF CIRCLE CRC-CAV-1-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.073	0.073				
Z	0.000	0.076	0.076				
TP	RFS		0.211	0.200		0.000	0.011

⊕ MM	DIM LOC-TP-CC5= TRUE POSITION OF CIRCLE CRC-CAV-2-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.109	0.108				
Z	0.000	0.319	0.318				
TP	RFS		0.673	0.200		0.000	0.473

⊕ MM	DIM LOC-TP-CC6= TRUE POSITION OF CIRCLE CRC-CAV-2-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.067	0.067				
Z	0.000	0.317	0.317				
TP	RFS		0.648	0.200		0.000	0.448

⊕ MM	DIM LOC-TP-CC7= TRUE POSITION OF CIRCLE CRC-CAV-3-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.097	0.097				
Z	0.000	0.516	0.516				
TP	RFS		1.050	0.200		0.000	0.850

⊕ MM	DIM LOC-TP-CC8= TRUE POSITION OF CIRCLE CRC-CAV-3-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.102	0.102				
Z	0.000	0.376	0.376				
TP	RFS		0.779	0.200		0.000	0.579

⊕ MM	DIM LOC-TP-CC9= TRUE POSITION OF CIRCLE CRC-CAV-4-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.109	0.109				
Z	0.000	0.484	0.484				
TP	RFS		0.993	0.200		0.000	0.793

⊕ MM	DIM LOC-TP-CC10= TRUE POSITION OF CIRCLE CRC-CAV-4-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.123	0.123				
Z	0.000	0.443	0.443				
TP	RFS		0.920	0.200		0.000	0.720

⊕ MM	DIM LOC-TP-CC11= TRUE POSITION OF CIRCLE CRC-CAV-5-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.143	0.142				
Z	0.000	0.503	0.502				
TP	RFS		1.045	0.200		0.000	0.845

⊕ MM	DIM LOC-TP-CC12= TRUE POSITION OF CIRCLE CRC-CAV-5-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.187	0.187				
Z	0.000	0.491	0.491				
TP	RFS		1.051	0.200		0.000	0.851

⊕ MM	DIM LOC-TP-CC13= TRUE POSITION OF CIRCLE CRC-CAV-6-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.186	0.186				
Z	0.000	0.470	0.470				
TP	RFS		1.011	0.200		0.000	0.811

⊕ MM	DIM LOC-TP-CC14= TRUE POSITION OF CIRCLE CRC-CAV-6-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.164	0.164				
Z	0.000	0.465	0.465				
TP	RFS		0.986	0.200		0.000	0.786

⊕ MM	DIM LOC-TP-CC15= TRUE POSITION OF CIRCLE CRC-CAV-7-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.155	0.155				
Z	0.000	0.351	0.351				
TP	RFS		0.767	0.200		0.000	0.567

⊕ MM	DIM LOC-TP-CC16= TRUE POSITION OF CIRCLE CRC-CAV-7-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.090	0.090				
Z	0.000	0.389	0.389				
TP	RFS		0.799	0.200		0.000	0.599

⊕ MM	DIM LOC-TP-CC17= TRUE POSITION OF CIRCLE CRC-CAV-8-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.100	0.100				
Z	0.000	0.215	0.215				
TP	RFS		0.474	0.200		0.000	0.274

⊕ MM	DIM LOC-TP-CC18= TRUE POSITION OF CIRCLE CRC-CAV-8-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.065	0.065				
Z	0.000	0.256	0.256				
TP	RFS		0.528	0.200		0.000	0.328

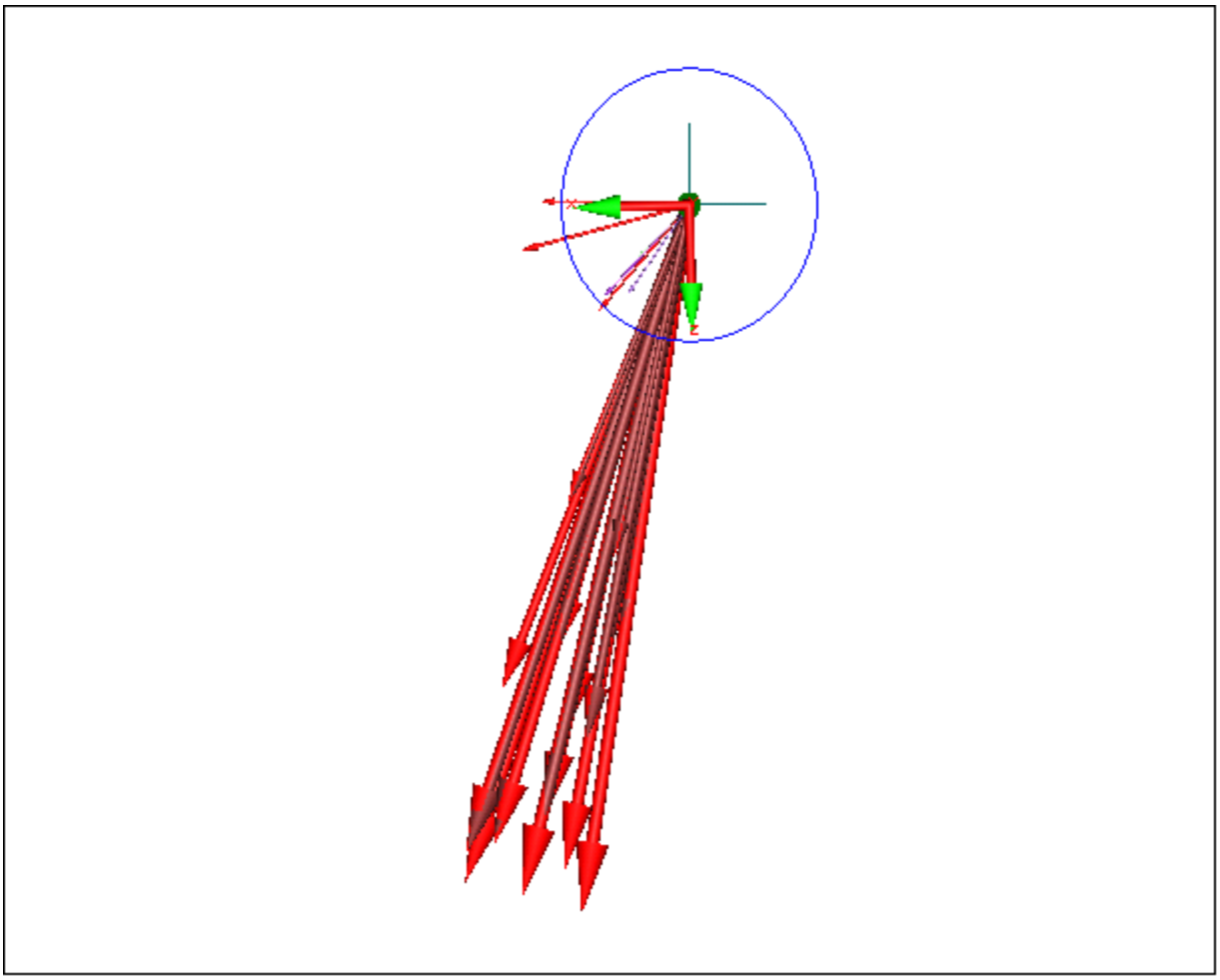
⊕ MM	DIM LOC-TP-CC19= TRUE POSITION OF CIRCLE CRC-CAV-9-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.132	0.132				
Z	0.000	0.030	0.030				
TP	RFS		0.271	0.200		0.000	0.071

MM	DIM LOC-TP-CC20= TRUE POSITION OF CIRCLE CRC-CAV-9-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.117	0.117				
Z	0.000	-0.005	-0.006				
TP	RFS		0.234	0.200		0.000	0.034

MM	DIM LOC-TP-CC21= TRUE POSITION OF CIRCLE CRC-VAC-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.050	0.050				
Z	0.000	0.065	0.065				
TP	RFS		0.165	0.200		0.000	0.000

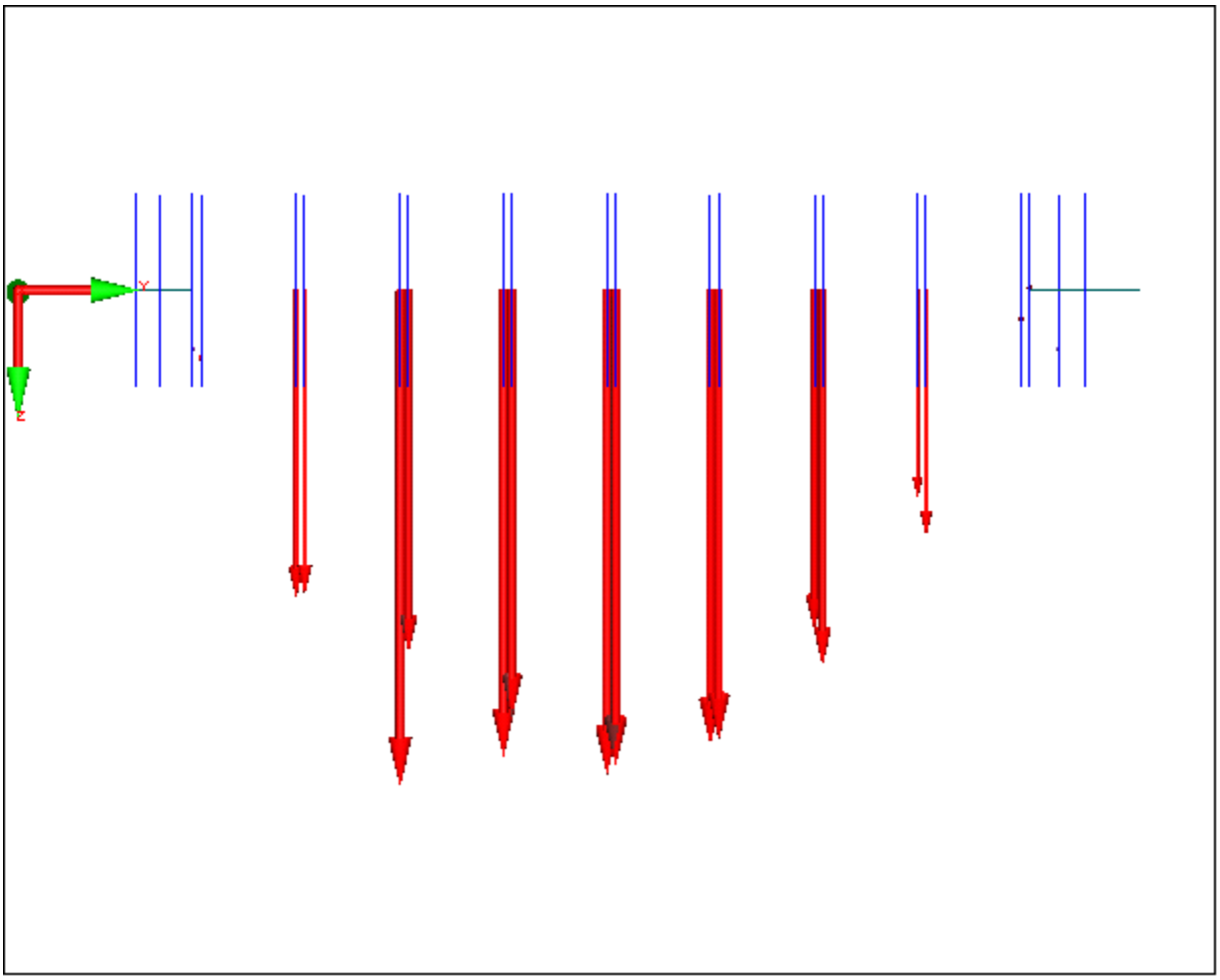
MM	DIM LOC-TP-CC22= TRUE POSITION OF CIRCLE CRC-DAT-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.000	0.000				
Z	0.000	0.000	0.000				
TP	RFS		0.000	0.200		0.000	0.000

True Position plots from 3 views
x1000

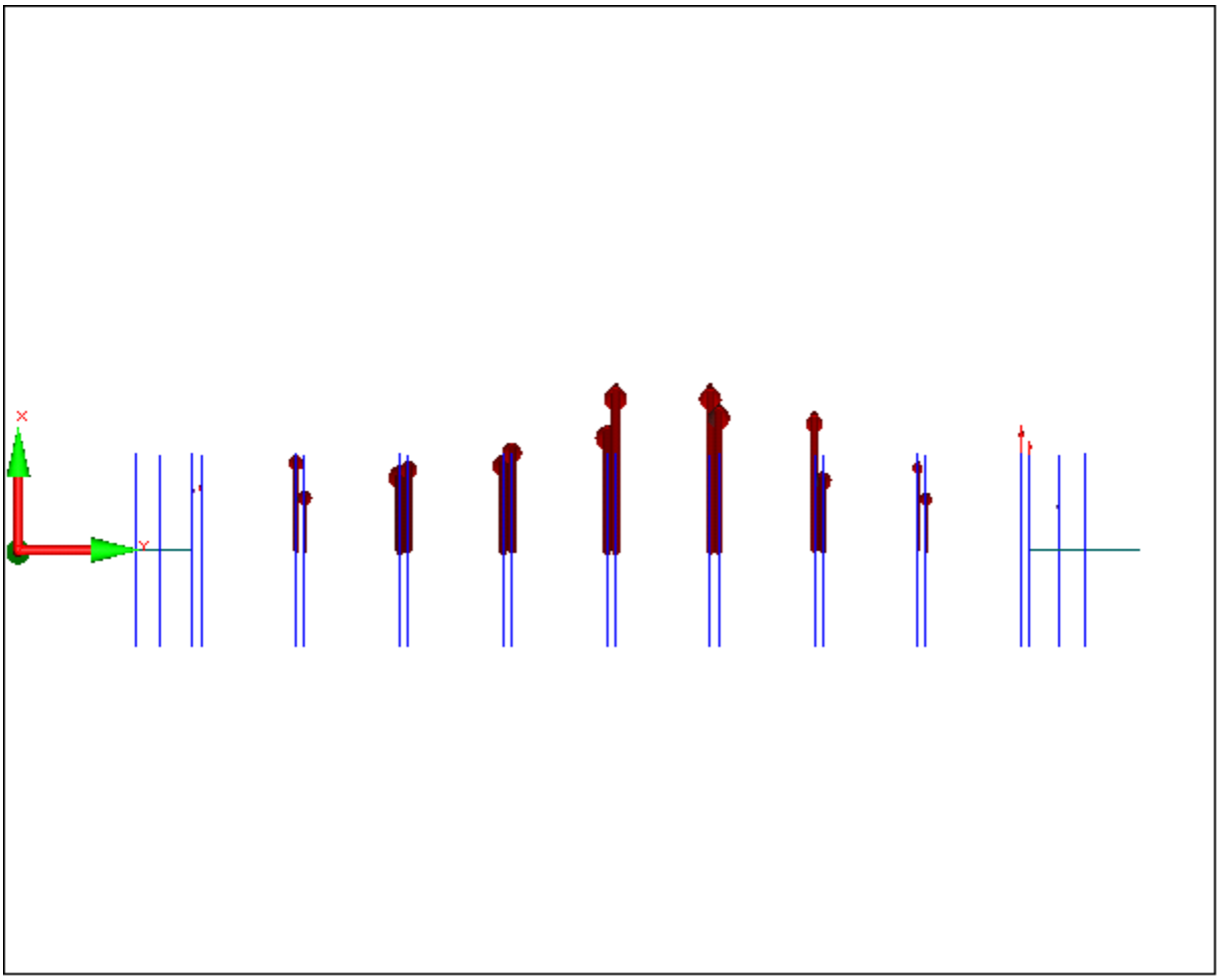


-Y View

x1000



+X View
x1000



+Z View
x1000

MM	DIM LOC-BEST FIT CONSTRUCTED LINE= LOCATION OF LINE LNC-BEST-FIT					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.099	0.099	0.200	0.200	0.000
Y	0.000	658.971	658.971	2000.000	2000.000	0.000
Z	0.000	0.267	0.267	0.200	0.200	0.067
ST	0.000	0.546	0.546	0.200	0.000	0.346

SUPPORT RING CIRCLE LOCATIONS

MM	DIM LOC-SUPPORT RING-1= LOCATION OF CIRCLE CR-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.018	0.017	0.200	0.200	0.000
Y	0.000	256.142	256.142	2000.000	2000.000	0.000
Z	0.000	0.139	0.139	0.200	0.200	0.000
R	56.500	56.338	-0.162	0.200	0.200	0.000
RN	0.000	0.016	0.016	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-2= LOCATION OF CIRCLE CR-SUPPORT-RING-T23

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.227	0.227	0.200	0.200	0.027
Y	0.000	371.275	371.275	2000.000	2000.000	0.000
Z	0.000	0.368	0.367	0.200	0.200	0.167
R	56.500	56.441	-0.059	0.200	0.200	0.000
RN	0.000	0.088	0.088	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-3= LOCATION OF CIRCLE CR-SUPPORT-RING-T34

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.117	0.117	0.200	0.200	0.000
Y	0.000	486.606	486.606	2000.000	2000.000	0.000
Z	0.000	0.428	0.428	0.200	0.200	0.228
R	56.500	56.341	-0.159	0.200	0.200	0.000
RN	0.000	0.022	0.022	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-4= LOCATION OF CIRCLE CR-SUPPORT-RING-T45

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.116	0.115	0.200	0.200	0.000
Y	0.000	601.940	601.940	2000.000	2000.000	0.000
Z	0.000	0.481	0.481	0.200	0.200	0.281
R	56.500	56.369	-0.131	0.200	0.200	0.000
RN	0.000	0.011	0.011	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-5= LOCATION OF CIRCLE CR-SUPPORT-RING-T56

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.204	0.204	0.200	0.200	0.004
Y	0.000	717.042	717.042	2000.000	2000.000	0.000
Z	0.000	0.366	0.366	0.200	0.200	0.166
R	56.500	56.343	-0.157	0.200	0.200	0.000
RN	0.000	0.011	0.011	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-6= LOCATION OF CIRCLE CR-SUPPORT-RING-T67

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.200	0.200	0.200	0.200	0.000
Y	0.000	832.239	832.239	2000.000	2000.000	0.000
Z	0.000	0.382	0.382	0.200	0.200	0.182
R	56.500	56.320	-0.180	0.200	0.200	0.000
RN	0.000	0.012	0.012	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-7= LOCATION OF CIRCLE CR-SUPPORT-RING-T78

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.072	0.071	0.200	0.200	0.000
Y	0.000	947.139	947.139	2000.000	2000.000	0.000
Z	0.000	0.314	0.314	0.200	0.200	0.114
R	56.500	56.352	-0.148	0.200	0.200	0.000
RN	0.000	0.004	0.004	0.200	0.000	0.000

MM	DIM LOC-SUPPORT RING-8= LOCATION OF CIRCLE CR-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.101	0.101	0.200	0.200	0.000
Y	0.000	1062.435	1062.435	2000.000	2000.000	0.000
Z	0.000	0.154	0.154	0.200	0.200	0.000
R	56.500	56.330	-0.170	0.200	0.200	0.000
RN	0.000	0.037	0.037	0.200	0.000	0.000

SUPPORT RING POINT LOCATIONS

MM	DIM LOC-SUPPORT RING-PT1= LOCATION OF POINT PT-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.017	0.017	0.200	0.200	0.000
Y	0.000	250.134	250.134	2000.000	2000.000	0.000
Z	-56.500	-56.257	0.243	0.200	0.200	0.043

MM	DIM LOC-SUPPORT RING-PT2= LOCATION OF POINT PT-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.018	0.018	0.200	0.200	0.000
Y	0.000	365.364	365.364	2000.000	2000.000	0.000
Z	-56.500	-56.024	0.476	0.200	0.200	0.276

MM	DIM LOC-SUPPORT RING-PT3= LOCATION OF POINT PT-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.018	0.018	0.200	0.200	0.000
Y	0.000	480.634	480.634	2000.000	2000.000	0.000
Z	-56.500	-55.946	0.554	0.200	0.200	0.354

MM	DIM LOC-SUPPORT RING-PT4= LOCATION OF POINT PT-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.019	0.019	0.200	0.200	0.000
Y	0.000	596.034	596.034	2000.000	2000.000	0.000
Z	-56.500	-55.861	0.639	0.200	0.200	0.439

MM	DIM LOC-SUPPORT RING-PT5= LOCATION OF POINT PT-SUPPORT-RING-T56					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.020	0.020	0.200	0.200	0.000
Y	0.000	711.034	711.034	2000.000	2000.000	0.000
Z	-56.500	-55.944	0.556	0.200	0.200	0.356

MM	DIM LOC-SUPPORT RING-PT6= LOCATION OF POINT PT-SUPPORT-RING-T67					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.020	0.020	0.200	0.200	0.000
Y	0.000	826.334	826.334	2000.000	2000.000	0.000
Z	-56.500	-55.949	0.551	0.200	0.200	0.351

MM	DIM LOC-SUPPORT RING-PT7= LOCATION OF POINT PT-SUPPORT-RING-T78					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.021	0.021	0.200	0.200	0.000
Y	0.000	941.134	941.134	2000.000	2000.000	0.000
Z	-56.500	-56.016	0.484	0.200	0.200	0.284

MM	DIM LOC-SUPPORT RING-PT8= LOCATION OF POINT PT-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.021	0.021	0.200	0.200	0.000
Y	0.000	1056.534	1056.534	2000.000	2000.000	0.000
Z	-56.500	-56.188	0.312	0.200	0.200	0.112

SUPPORT RING CIRCLES IN Z

MM	DIM LOC Z SUPPORT RING CIRCLES 1= LOCATION OF CIRCLE CR-SUPPORT-RING-T1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.139	0.139	0.200	0.200	0.000

MM	DIM LOC Z SUPPORT RING CIRCLES 2= LOCATION OF CIRCLE CR-SUPPORT-RING-T2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.368	0.367	0.200	0.200	0.167

MM	DIM LOC Z SUPPORT RING CIRCLES 3= LOCATION OF CIRCLE CR-SUPPORT-RING-T3					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.428	0.428	0.200	0.200	0.228

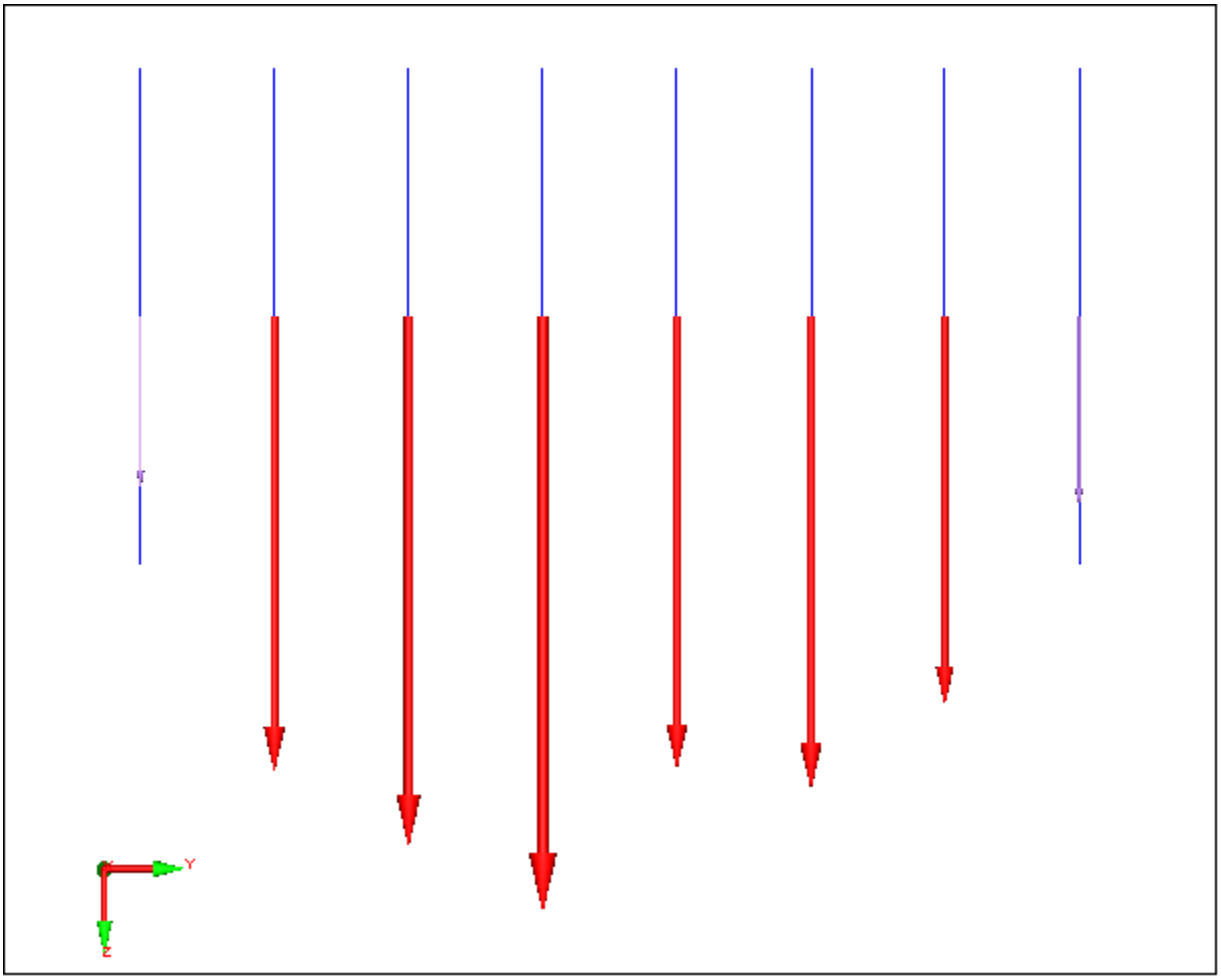
MM	DIM LOC Z SUPPORT RING CIRCLES 4= LOCATION OF CIRCLE CR-SUPPORT-RING-T4					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.481	0.481	0.200	0.200	0.281

MM	DIM LOC Z SUPPORT RING CIRCLES 5= LOCATION OF CIRCLE CR-SUPPORT-RING-T5					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.366	0.366	0.200	0.200	0.166

MM	DIM LOC Z SUPPORT RING CIRCLES 6= LOCATION OF CIRCLE CR-SUPPORT-RING-T6					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.382	0.382	0.200	0.200	0.182

MM	DIM LOC Z SUPPORT RING CIRCLES 7= LOCATION OF CIRCLE CR-SUPPORT-RING-T7					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.314	0.314	0.200	0.200	0.114

MM	DIM LOC Z SUPPORT RING CIRCLES 8= LOCATION OF CIRCLE CR-SUPPORT-RING-T8					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	0.154	0.154	0.200	0.200	0.000



SUPPORT RING CIRCLES IN Z
x1000

SUPPORT RING POINTS IN Z

MM	DIM LOC Z SUPPORT RING POINTS 1= LOCATION OF POINT PT-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-56.257	0.243	0.200	0.200	0.043

MM	DIM LOC Z SUPPORT RING POINTS 2= LOCATION OF POINT PT-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-56.024	0.476	0.200	0.200	0.276

MM	DIM LOC Z SUPPORT RING POINTS 3= LOCATION OF POINT PT-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-55.946	0.554	0.200	0.200	0.354

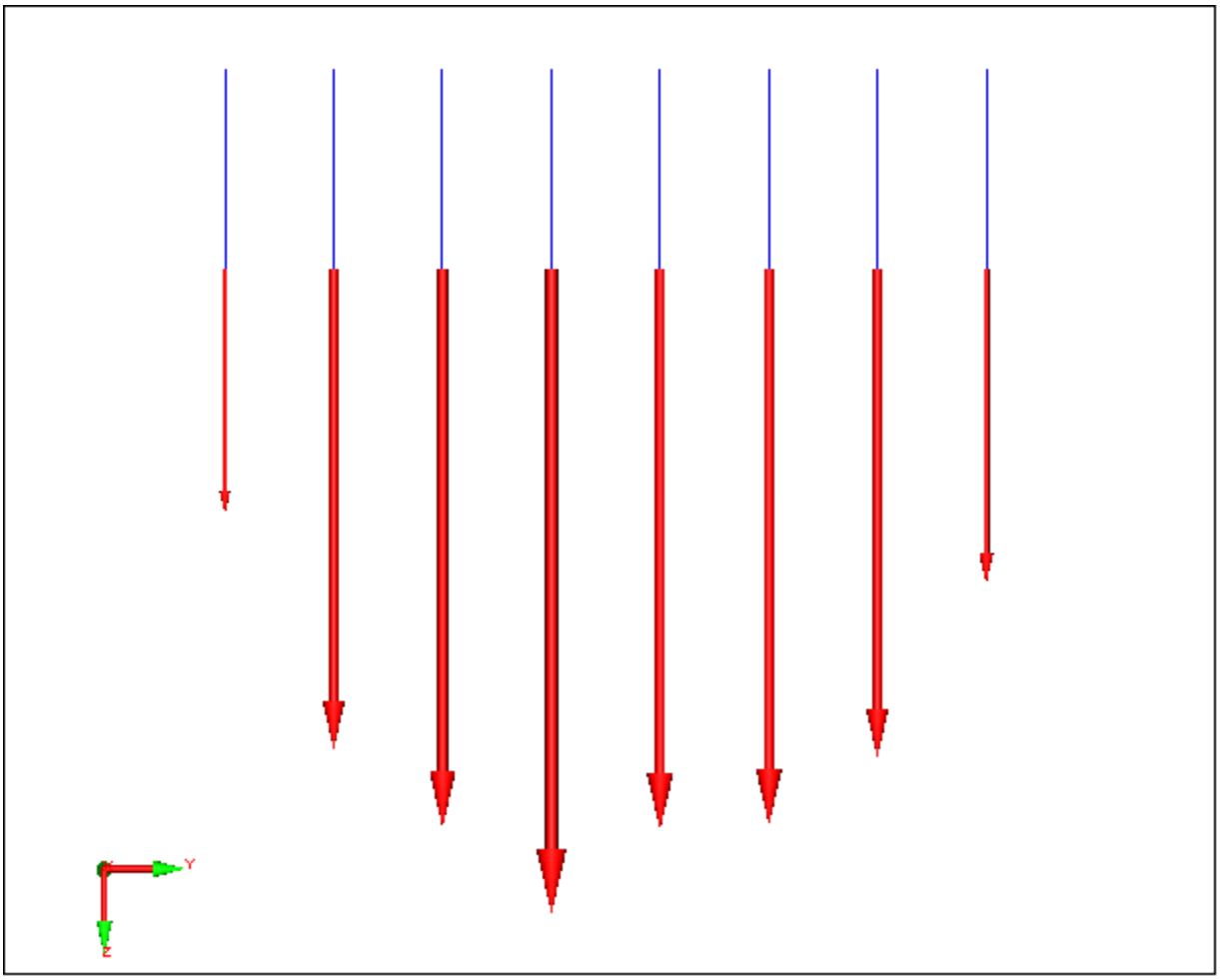
MM	DIM LOC Z SUPPORT RING POINTS 4= LOCATION OF POINT PT-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-55.861	0.639	0.200	0.200	0.439

MM	DIM LOC Z SUPPORT RING POINTS 5= LOCATION OF POINT PT-SUPPORT-RING-T56					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-55.944	0.556	0.200	0.200	0.356

MM	DIM LOC Z SUPPORT RING POINTS 6= LOCATION OF POINT PT-SUPPORT-RING-T67					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-55.949	0.551	0.200	0.200	0.351

MM	DIM LOC Z SUPPORT RING POINTS 7= LOCATION OF POINT PT-SUPPORT-RING-T78					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-56.016	0.484	0.200	0.200	0.284

MM	DIM LOC Z SUPPORT RING POINTS 8= LOCATION OF POINT PT-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-56.188	0.312	0.200	0.200	0.112



SUPPORT RING POINTS IN Z
x1000

DEG	DIM ANGL15= 2D ANGLE (TRUE) FROM LINE LNC-FOR 180 OFFSET TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	15.000	15.255	0.255	0.500	0.500	0.000

(9) ANGLE I: 0.2631146 - 15.25495207
ANGLE K: 0.9647646
(7) ANGLE I: 0.2588121 - 14.99958804
ANGLE K: 0.9659277
(6) ANGLE I: 0.2439225 - 14.11816578
ANGLE K: 0.9697947

END OF MEASUREMENT FOR
PN=ILC DESY 1.3GHZ RF CAVITY ASSEMBLY 180 DWG= SN=
TOTAL # OF MEAS =299 # OUT OF TOL =115