DATE=10/28/2005
PART NAME : ILC DESY 1.3GHZ RF CAVITY ASSEMBLY 180
REV NUMBER :
SER NUMBER :
STATS COUNT : 1

'Inspected by' : Robert Riley
'Cavity Number' : ACCEL 7 180 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	0.002	-1.000	-0.006			
FL	0.000	0.018	0.018	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	0.763	0.763	0.200	0.000	0.563

DEG	DIM ANGL1= 3D ANGLE (COMPLEMENT) FROM PLANE PL-NEAR-END-FLANGE TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.369	0.369	0.100	0.100	0.269

MM	DIM LOC2= LOCATION OF CIRCLE CR-NEAR-END -FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.141	0.141	0.200	0.200	0.000
Z	0.000	-0.850	-0.850	0.200	0.200	0.650
D	140.000	140.107	0.107	0.300	0.300	0.000
RN	0.000	0.009	0.009	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	1282.418	-0.982	3.000	3.000	0.000
V	-0.001	1.000	-0.004			
FL	0.000	0.028	0.028	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	0.545	0.545	0.200	0.000	0.345

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.256	0.256	0.100	0.100	0.156

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.153	-0.154	0.200	0.200	0.000
Z	0.000	-0.378	-0.379	0.200	0.200	0.179
D	140.000	140.123	0.123	0.300	0.300	0.000
RN	0.000	0.021	0.021	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	129.030	0.230	0.200	0.200	0.030
V	0.001	-1.000	-0.006			
FL	0.000	0.048	0.048	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	0.617	0.617	0.200	0.000	0.417

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.332	0.332	0.100	0.100	0.232

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	1188.787	-1.213	0.200	0.200	1.013
V	-0.002	1.000	-0.004			
FL	0.000	0.042	0.042	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	0.468	0.468	0.200	0.000	0.268

DEG	DIM ANGL8= 3D ANGLE (TRUE) FROM PLANE PLC-DAT-2 TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.251	0.251	0.100	0.100	0.151

PICKUP ANTENNA FLANGE NW8

MM	DIM LOC5= LOCATION OF PLANE PL-NW8-ANTENNA-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-53.800	-53.787	0.013	0.200	0.200	0.000
V	-1.000	-0.003	-0.002			
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	0.094	0.094	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	0.197	0.197	0.100	0.100	0.097

MM	DIM LOC6= LOCATION OF CIRCLE CR-NW8-ANTENNA-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	96.600	96.615	0.015	0.200	0.200	0.000
Z	0.000	-0.285	-0.285	0.200	0.200	0.085
D	33.800	33.828	0.028	0.150	0.000	0.000
RN	0.000	0.012	0.012	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	87.784	-0.216	0.200	0.200	0.016
V	1.000	0.002	-0.020			
FL	0.000	0.020	0.020	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	1.264	1.264	0.200	0.000	1.064

DEG	DIM ANGL4= 3D ANGLE (TRUE) FROM PLANE PL-NW-40-FLANGE TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	1.150	1.150	0.100	0.100	1.050

MM	DIM LOC8= LOCATION OF CIRCLE CR-NW-40-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	1222.800	1222.065	-0.735	0.200	0.200	0.535
Z	0.000	-1.633	-1.633	0.200	0.200	1.433
D	76.000	75.997	-0.003	0.200	0.000	0.003
RN	0.000	0.018	0.018	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	60.352	-0.248	0.200	0.200	0.048

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	17.692	2.692	0.500	0.500	2.192

DEG	DIM ANGL17= 2D ANGLE (COMPLEMENT) FROM PLANE PL-NW12-FLANGE-HOM1 TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	30.000	31.291	1.291	0.500	0.500	0.791

MM	DIM LOC Z SUPPORT RING POINTS 9= LOCATION OF CIRCLE CR-NW12-FLANGE-HOM1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	39.018	37.280	-1.738	0.200	0.200	1.538
Y	93.022	93.438	0.416	0.200	0.200	0.216
Z	-61.443	-62.489	-1.046	0.200	0.200	0.846
D	33.800	33.768	-0.032	0.150	0.000	0.032
RN	0.000	0.032	0.032	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	0.002	0.002	0.000	0.000	0.002

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	17.321	2.321	0.500	0.500	1.821

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	34.982	-0.018	0.500	0.500	0.000

MM	DIM LOC9= LOCATION OF CIRCLE CR-NW12-FLANGE-HOM-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-71.322	-72.756	-1.435	0.200	0.200	1.235
Y	1224.495	1224.756	0.261	0.200	0.200	0.061
Z	-8.596	-8.473	0.124	0.200	0.200	0.000
D	33.800	33.759	-0.041	0.150	0.000	0.041
RN	0.000	0.042	0.042	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	69.079	67.595	-1.484	0.200	0.200	1.284
Y	96.600	96.991	0.391	0.200	0.200	0.191
Z	-39.027	-41.509	-2.482	0.200	0.200	2.282
D	44.000	43.841	-0.159	0.000	0.100	0.059
RN	0.000	0.103	0.103	0.100	0.000	0.003
V	-0.853	-0.006	0.522			

DEG	DIM ANGL9= 3D ANGLE (COMPLEMENT) FROM CYLINDER CY-HOM-1 TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	30.000	31.451	1.451	0.500	0.500	0.951

DEG	DIM ANGL10= 3D ANGLE (TRUE) FROM CYLINDER CY-HOM-1 TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	90.000	89.667	-0.333	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	58.551	-1.449	0.500	0.500	0.949

MM	DIM LOC-HOM3= LOCATION OF POINT PT-RT-HOM-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PR	116.000	116.120	0.120	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	96.532	-0.068	0.200	0.200	0.000
Z	0.000	-0.168	-0.168	0.200	0.200	0.000

HOM 2 LOCATION

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-64.329	-64.700	-0.372	0.200	0.200	0.172
Y	1222.800	1221.590	-1.210	3.000	3.000	0.000
Z	-45.746	-45.020	0.726	0.200	0.200	0.526
D	44.000	43.917	-0.083	0.000	0.100	0.000
RN	0.000	0.051	0.051	0.100	0.000	0.000
V	-0.822	-0.003	-0.569			

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	60.477	-0.123	0.200	0.200	0.000

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	35.000	34.693	-0.307	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	90.191	0.191	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	55.307	0.307	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	116.030	0.030	0.200	0.200	0.000

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	1221.852	-0.948	3.000	3.000	0.000
Z	0.000	-0.231	-0.231	0.200	0.200	0.031

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	130.726	131.048	0.322	1.000	1.000	0.000
Z	0.000	0.000	0.000	0.200	0.200	0.000
D	111.000	110.879	-0.121	0.200	0.200	0.000
RN	0.000	0.014	0.014	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	-0.042	-0.042	0.200	0.200	0.000
Y	158.307	158.379	0.072	1.000	1.000	0.000
Z	0.000	0.143	0.142	0.200	0.200	0.000
D	191.200	191.174	-0.026	0.200	0.200	0.000
RN	0.000	0.023	0.023	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	-0.054	-0.054	0.200	0.200	0.000
Y	193.513	193.633	0.120	1.000	1.000	0.000
Z	0.000	0.271	0.271	0.200	0.200	0.071
D	210.300	210.503	0.202	0.200	0.200	0.002
RN	0.000	0.234	0.234	0.200	0.000	0.034

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.141	-0.141	0.200	0.200	0.000
Y	203.315	203.042	-0.273	1.000	1.000	0.000
Z	0.000	0.307	0.307	0.200	0.200	0.107
D	210.300	210.482	0.181	0.200	0.200	0.000
RN	0.000	0.208	0.208	0.200	0.000	0.008

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.240	-0.240	0.200	0.200	0.040
Y	309.514	309.289	-0.225	1.000	1.000	0.000
Z	0.000	0.879	0.879	0.200	0.200	0.679
D	210.300	210.577	0.277	0.200	0.200	0.077
RN	0.000	0.205	0.205	0.200	0.000	0.005

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.235	-0.235	0.200	0.200	0.035
Y	319.276	318.616	-0.660	1.000	1.000	0.000
Z	0.000	0.892	0.892	0.200	0.200	0.692
D	210.300	210.495	0.195	0.200	0.200	0.000
RN	0.000	0.213	0.213	0.200	0.000	0.013

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.330	-0.330	0.200	0.200	0.130
Y	423.959	424.194	0.234	1.000	1.000	0.000
Z	0.000	1.246	1.245	0.200	0.200	1.045
D	210.300	210.572	0.272	0.200	0.200	0.072
RN	0.000	0.323	0.323	0.200	0.000	0.123

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.284	-0.284	0.200	0.200	0.084
Y	434.018	433.561	-0.457	1.000	1.000	0.000
Z	0.000	1.144	1.144	0.200	0.200	0.944
D	210.300	210.512	0.212	0.200	0.200	0.012
RN	0.000	0.155	0.155	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	-0.297	-0.297	0.200	0.200	0.097
Y	539.193	539.858	0.665	1.000	1.000	0.000
Z	0.000	1.259	1.259	0.200	0.200	1.059
D	210.300	210.657	0.356	0.200	0.200	0.156
RN	0.000	0.160	0.160	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	-0.270	-0.270	0.200	0.200	0.070
Y	549.308	549.208	-0.100	1.000	1.000	0.000
Z	0.000	1.258	1.258	0.200	0.200	1.058
D	210.300	210.593	0.293	0.200	0.200	0.093
RN	0.000	0.318	0.318	0.200	0.000	0.118

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.203	-0.203	0.200	0.200	0.003
Y	654.473	655.312	0.838	1.000	1.000	0.000
Z	0.000	1.195	1.195	0.200	0.200	0.995
D	210.300	210.540	0.240	0.200	0.200	0.040
RN	0.000	0.228	0.228	0.200	0.000	0.028

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.160	-0.160	0.200	0.200	0.000
Y	664.439	664.337	-0.103	1.000	1.000	0.000
Z	0.000	1.227	1.227	0.200	0.200	1.027
D	210.300	210.518	0.217	0.200	0.200	0.017
RN	0.000	0.161	0.161	0.200	0.000	0.000

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.107	-0.107	0.200	0.200	0.000
Y	770.224	770.492	0.269	1.000	1.000	0.000
Z	0.000	1.102	1.102	0.200	0.200	0.902
D	210.300	210.612	0.312	0.200	0.200	0.112
RN	0.000	0.118	0.118	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	-0.101	-0.101	0.200	0.200	0.000
Y	779.934	779.929	-0.005	1.000	1.000	0.000
Z	0.000	1.082	1.082	0.200	0.200	0.882
D	210.300	210.654	0.354	0.200	0.200	0.154
RN	0.000	0.051	0.051	0.200	0.000	0.000

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.035	-0.035	0.200	0.200	0.000
Y	885.675	885.953	0.278	1.000	1.000	0.000
Z	0.000	0.891	0.891	0.200	0.200	0.691
D	210.300	210.665	0.364	0.200	0.200	0.164
RN	0.000	0.113	0.113	0.200	0.000	0.000

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.017	-0.017	0.200	0.200	0.000
Y	895.028	895.094	0.066	1.000	1.000	0.000
Z	0.000	0.865	0.865	0.200	0.200	0.665
D	210.300	210.597	0.297	0.200	0.200	0.097
RN	0.000	0.146	0.146	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	0.012	0.012	0.200	0.200	0.000
Y	1000.912	1000.804	-0.108	1.000	1.000	0.000
Z	0.000	0.546	0.546	0.200	0.200	0.346
D	210.300	210.588	0.288	0.200	0.200	0.088
RN	0.000	0.080	0.080	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	0.044	0.044	0.200	0.200	0.000
Y	1010.509	1010.424	-0.085	1.000	1.000	0.000
Z	0.000	0.601	0.601	0.200	0.200	0.401
D	210.300	210.570	0.269	0.200	0.200	0.069
RN	0.000	0.176	0.176	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	0.076	0.076	0.200	0.200	0.000
Y	1115.741	1116.164	0.423	1.000	1.000	0.000
Z	0.000	0.257	0.257	0.200	0.200	0.057
D	210.300	210.551	0.251	0.200	0.200	0.051
RN	0.000	0.244	0.244	0.200	0.000	0.044

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.110	0.110	0.200	0.200	0.000
Y	1125.443	1126.115	0.672	1.000	1.000	0.000
Z	0.000	0.206	0.206	0.200	0.200	0.006
D	210.300	210.474	0.173	0.200	0.200	0.000
RN	0.000	0.180	0.180	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	0.060	0.060	0.200	0.200	0.000
Y	1156.557	1157.041	0.484	1.000	1.000	0.000
Z	0.000	0.109	0.109	0.200	0.200	0.000
D	200.000	200.021	0.021	0.200	0.200	0.000
RN	0.000	0.071	0.071	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	1186.394	1186.752	0.358	1.000	1.000	0.000
Z	0.000	0.000	0.000	0.200	0.200	0.000
D	111.000	110.886	-0.113	0.200	0.200	0.000
RN	0.000	0.015	0.015	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	-0.042	-0.042				
Z	0.000	0.143	0.142				
TP	RFS		0.297	0.200		0.000	0.097

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.054	-0.054				
Z	0.000	0.271	0.271				
TP	RFS		0.553	0.200		0.000	0.353

⊕ MM	DIM LOC-TP-CC4= TRUE POSITION OF CIRCLE CRC-CAV-1-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.141	-0.141				
Z	0.000	0.307	0.307				
TP	RFS		0.675	0.200		0.000	0.475

⊕ MM	DIM LOC-TP-CC5= TRUE POSITION OF CIRCLE CRC-CAV-2-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.240	-0.240				
Z	0.000	0.879	0.879				
TP	RFS		1.823	0.200		0.000	1.623

⊕ MM	DIM LOC-TP-CC6= TRUE POSITION OF CIRCLE CRC-CAV-2-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.235	-0.235				
Z	0.000	0.892	0.892				
TP	RFS		1.845	0.200		0.000	1.645

⊕ MM	DIM LOC-TP-CC7= TRUE POSITION OF CIRCLE CRC-CAV-3-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.330	-0.330				
Z	0.000	1.246	1.245				
TP	RFS		2.577	0.200		0.000	2.377

⊕ MM	DIM LOC-TP-CC8= TRUE POSITION OF CIRCLE CRC-CAV-3-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.284	-0.284				
Z	0.000	1.144	1.144				
TP	RFS		2.357	0.200		0.000	2.157

⊕ MM	DIM LOC-TP-CC9= TRUE POSITION OF CIRCLE CRC-CAV-4-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.297	-0.297				
Z	0.000	1.259	1.259				
TP	RFS		2.586	0.200		0.000	2.386

⊕ MM	DIM LOC-TP-CC10= TRUE POSITION OF CIRCLE CRC-CAV-4-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.270	-0.270				
Z	0.000	1.258	1.258				
TP	RFS		2.574	0.200		0.000	2.374

⊕ MM	DIM LOC-TP-CC11= TRUE POSITION OF CIRCLE CRC-CAV-5-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.203	-0.203				
Z	0.000	1.195	1.195				
TP	RFS		2.425	0.200		0.000	2.225

⊕ MM	DIM LOC-TP-CC12= TRUE POSITION OF CIRCLE CRC-CAV-5-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.160	-0.160				
Z	0.000	1.227	1.227				
TP	RFS		2.474	0.200		0.000	2.274

⊕ MM	DIM LOC-TP-CC13= TRUE POSITION OF CIRCLE CRC-CAV-6-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.107	-0.107				
Z	0.000	1.102	1.102				
TP	RFS		2.214	0.200		0.000	2.014

⊕ MM	DIM LOC-TP-CC14= TRUE POSITION OF CIRCLE CRC-CAV-6-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.101	-0.101				
Z	0.000	1.082	1.082				
TP	RFS		2.173	0.200		0.000	1.973

⊕ MM	DIM LOC-TP-CC15= TRUE POSITION OF CIRCLE CRC-CAV-7-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.035	-0.035				
Z	0.000	0.891	0.891				
TP	RFS		1.783	0.200		0.000	1.583

⊕ MM	DIM LOC-TP-CC16= TRUE POSITION OF CIRCLE CRC-CAV-7-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.017	-0.017				
Z	0.000	0.865	0.865				
TP	RFS		1.730	0.200		0.000	1.530

⊕ MM	DIM LOC-TP-CC17= TRUE POSITION OF CIRCLE CRC-CAV-8-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.012	0.012				
Z	0.000	0.546	0.546				
TP	RFS		1.093	0.200		0.000	0.893

⊕ MM	DIM LOC-TP-CC18= TRUE POSITION OF CIRCLE CRC-CAV-8-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.044	0.044				
Z	0.000	0.601	0.601				
TP	RFS		1.205	0.200		0.000	1.005

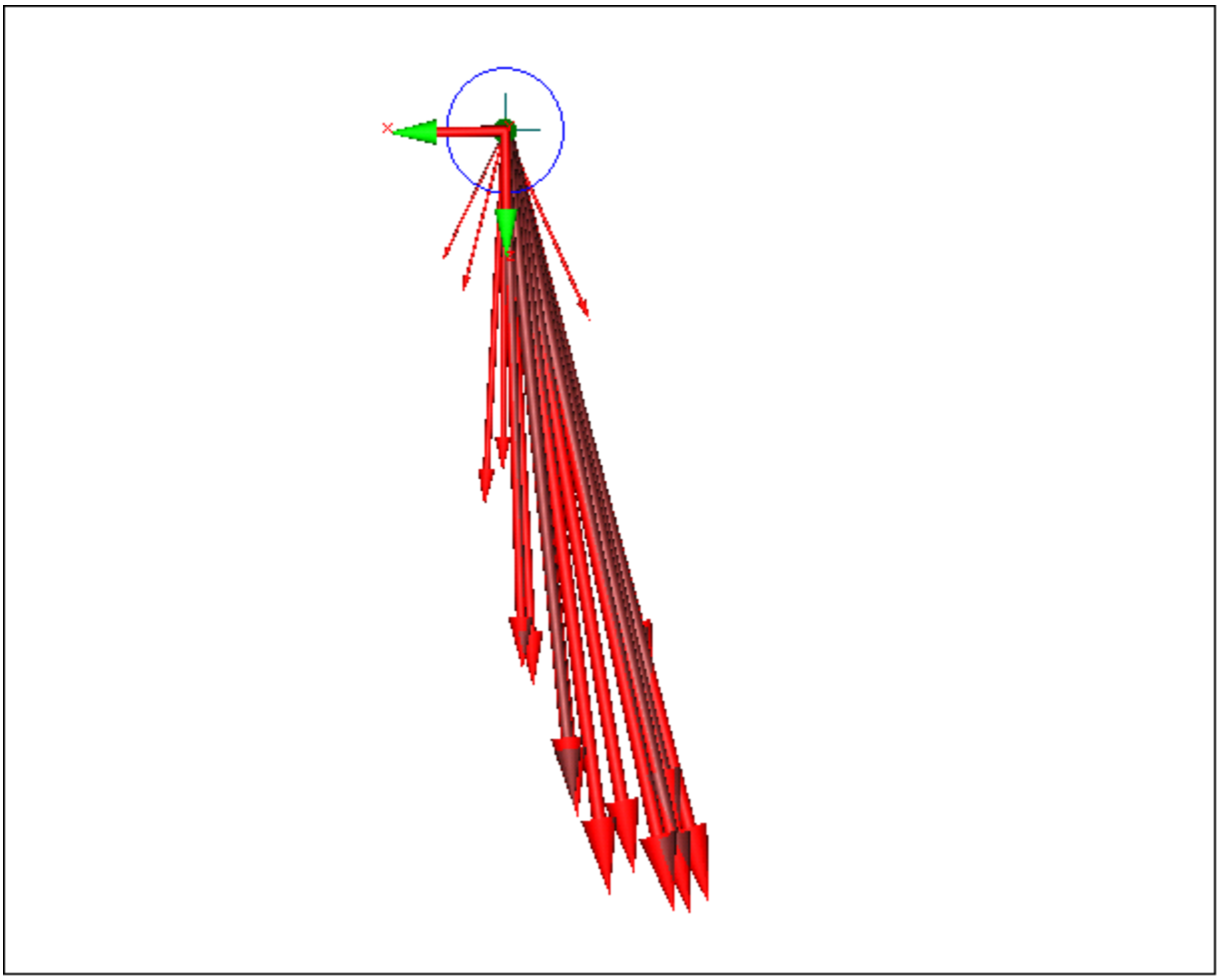
⊕ MM	DIM LOC-TP-CC19= TRUE POSITION OF CIRCLE CRC-CAV-9-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.076	0.076				
Z	0.000	0.257	0.257				
TP	RFS		0.535	0.200		0.000	0.335

MM	DIM LOC-TP-CC20= TRUE POSITION OF CIRCLE CRC-CAV-9-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.110	0.110				
Z	0.000	0.206	0.206				
TP	RFS		0.468	0.200		0.000	0.268

MM	DIM LOC-TP-CC21= TRUE POSITION OF CIRCLE CRC-VAC-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.060	0.060				
Z	0.000	0.109	0.109				
TP	RFS		0.249	0.200		0.000	0.049

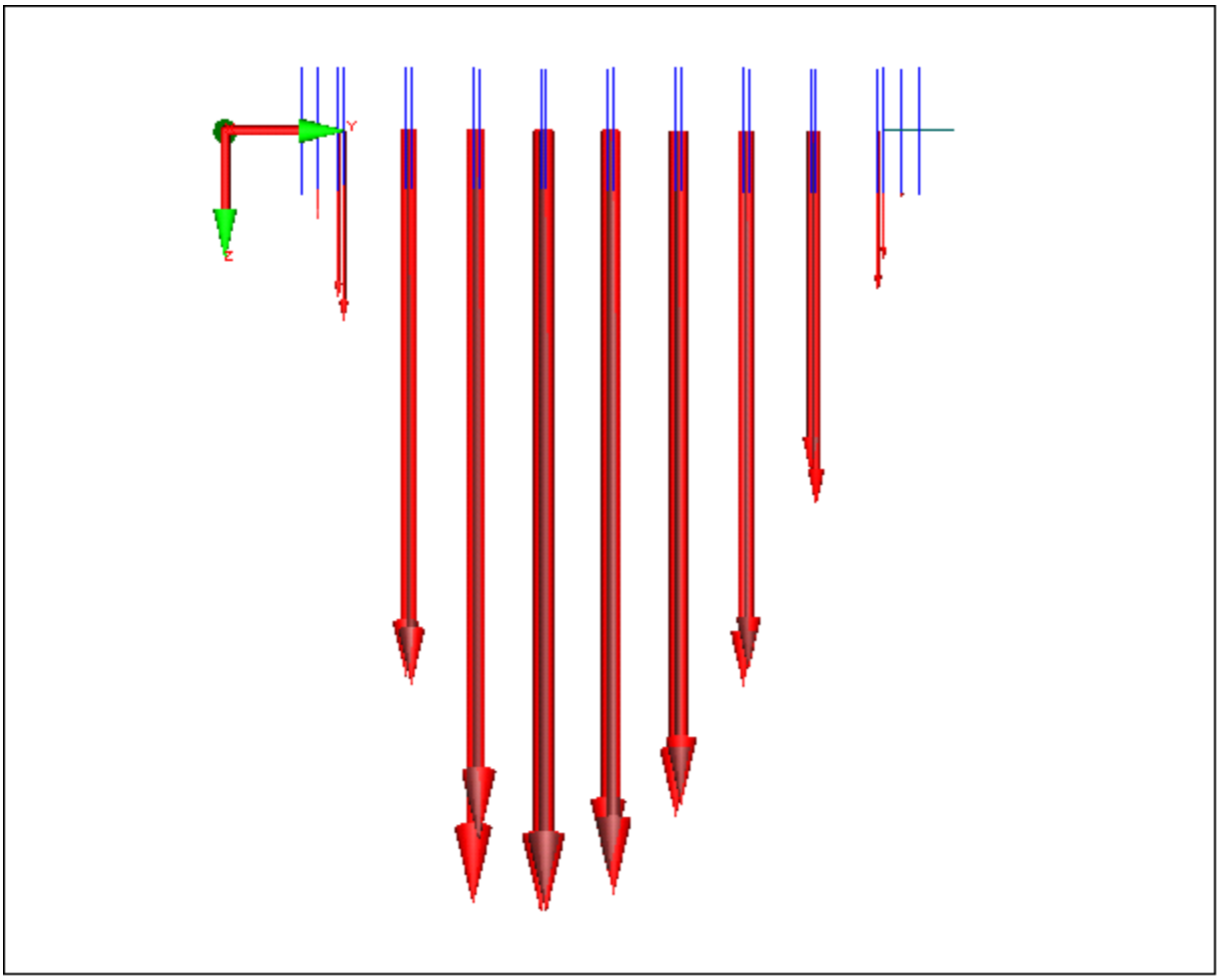
MM	DIM LOC-TP-CC22= TRUE POSITION OF CIRCLE CRC-DAT-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.000	0.000				
Z	0.000	0.000	0.000				
TP	RFS		0.000	0.200		0.000	0.000

True Position plots from 3 views
x1000

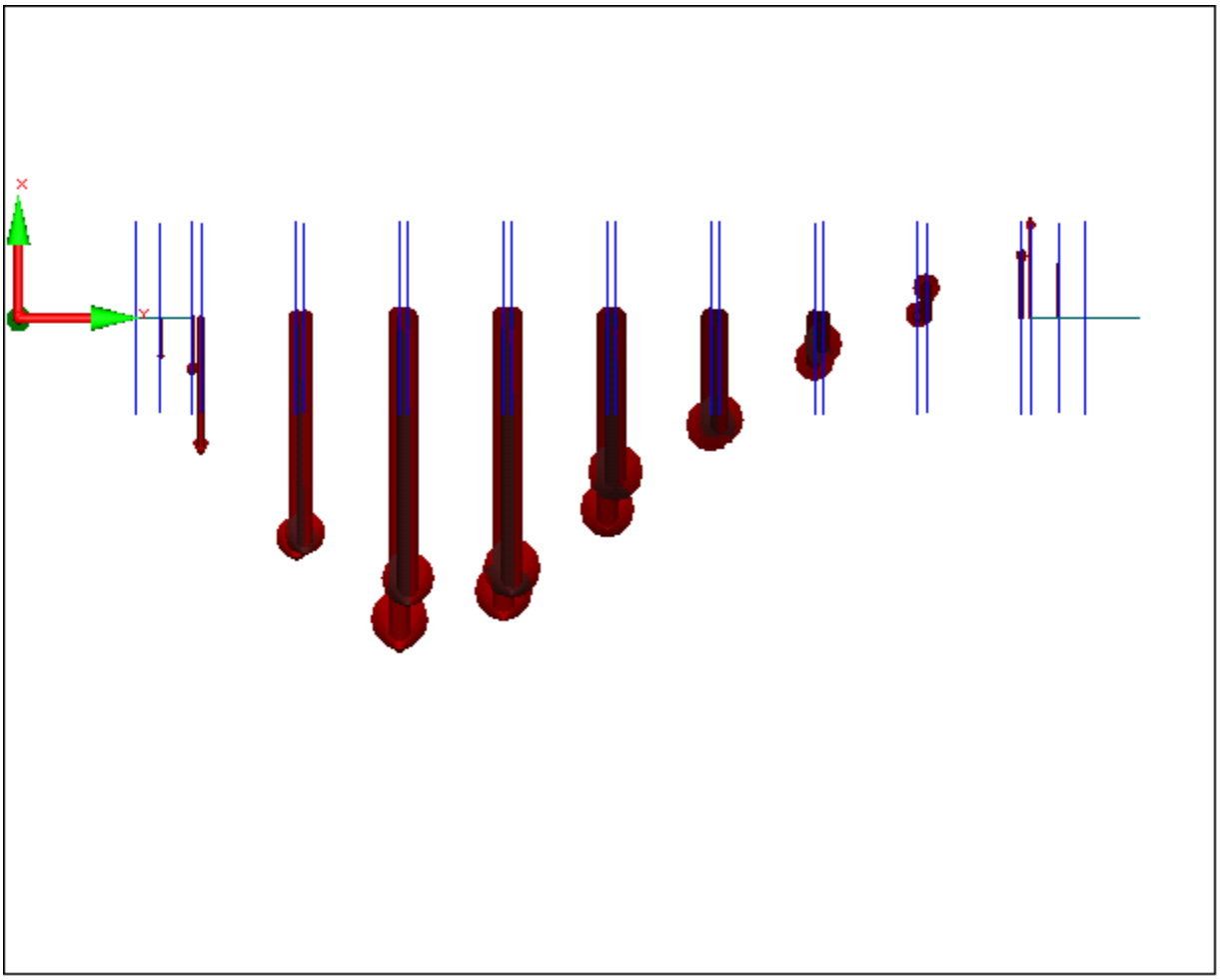


-Y View

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	-0.101	-0.101	0.200	0.200	0.000
Y	658.560	659.511	0.951	1.000	1.000	0.000
Z	0.000	0.704	0.704	0.200	0.200	0.504
ST	0.000	1.386	1.386	0.200	0.000	1.186

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	-0.167	-0.167	0.200	0.200	0.000
Y	256.462	256.646	0.184	1.000	1.000	0.000
Z	0.000	0.684	0.684	0.200	0.200	0.484
R	56.500	56.371	-0.129	0.200	0.200	0.000
RN	0.000	0.002	0.002	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	-0.244	-0.244	0.200	0.200	0.044
Y	371.792	371.974	0.182	1.000	1.000	0.000
Z	0.000	1.177	1.177	0.200	0.200	0.977
R	56.500	56.334	-0.166	0.200	0.200	0.000
RN	0.000	0.004	0.004	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	-0.365	-0.365	0.200	0.200	0.165
Y	487.122	487.305	0.183	1.000	1.000	0.000
Z	0.000	1.374	1.374	0.200	0.200	1.174
R	56.500	56.436	-0.064	0.200	0.200	0.000
RN	0.000	0.018	0.018	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	-0.278	-0.278	0.200	0.200	0.078
Y	602.452	602.635	0.183	1.000	1.000	0.000
Z	0.000	1.184	1.184	0.200	0.200	0.984
R	56.500	56.346	-0.154	0.200	0.200	0.000
RN	0.000	0.009	0.009	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	-0.132	-0.132	0.200	0.200	0.000
Y	717.557	717.741	0.184	1.000	1.000	0.000
Z	0.000	1.163	1.163	0.200	0.200	0.963
R	56.500	56.390	-0.110	0.200	0.200	0.000
RN	0.000	0.023	0.023	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	-0.123	-0.123	0.200	0.200	0.000
Y	832.757	832.940	0.183	1.000	1.000	0.000
Z	0.000	1.006	1.006	0.200	0.200	0.806
R	56.500	56.372	-0.128	0.200	0.200	0.000
RN	0.000	0.007	0.007	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	0.071	0.071	0.200	0.200	0.000
Y	948.157	948.337	0.180	1.000	1.000	0.000
Z	0.000	0.662	0.662	0.200	0.200	0.462
R	56.500	56.358	-0.142	0.200	0.200	0.000
RN	0.000	0.017	0.017	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	0.075	0.075	0.200	0.200	0.000
Y	1063.457	1063.639	0.182	1.000	1.000	0.000
Z	0.000	0.408	0.408	0.200	0.200	0.208
R	56.500	56.312	-0.188	0.200	0.200	0.000
RN	0.000	0.031	0.031	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	0.001	0.001	0.200	0.200	0.000
Y	250.557	250.743	0.186	1.000	1.000	0.000
Z	-56.500	-55.683	0.817	0.200	0.200	0.617

MM	DIM LOC-SUPPORT RING-PT2= LOCATION OF POINT PT-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	365.887	366.073	0.186	1.000	1.000	0.000
Z	-56.500	-55.163	1.337	0.200	0.200	1.137

MM	DIM LOC-SUPPORT RING-PT3= LOCATION OF POINT PT-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	481.217	481.403	0.186	1.000	1.000	0.000
Z	-56.500	-55.048	1.452	0.200	0.200	1.252

MM	DIM LOC-SUPPORT RING-PT4= LOCATION OF POINT PT-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	596.547	596.733	0.186	1.000	1.000	0.000
Z	-56.500	-55.118	1.382	0.200	0.200	1.182

MM	DIM LOC-SUPPORT RING-PT5= LOCATION OF POINT PT-SUPPORT-RING-T56					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	711.557	711.743	0.186	1.000	1.000	0.000
Z	-56.500	-55.181	1.319	0.200	0.200	1.119

MM	DIM LOC-SUPPORT RING-PT6= LOCATION OF POINT PT-SUPPORT-RING-T67					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	826.857	827.043	0.186	1.000	1.000	0.000
Z	-56.500	-55.350	1.150	0.200	0.200	0.950

MM	DIM LOC-SUPPORT RING-PT7= LOCATION OF POINT PT-SUPPORT-RING-T78					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	942.157	942.343	0.186	1.000	1.000	0.000
Z	-56.500	-55.668	0.832	0.200	0.200	0.632

MM	DIM LOC-SUPPORT RING-PT8= LOCATION OF POINT PT-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	1057.557	1057.743	0.186	1.000	1.000	0.000
Z	-56.500	-55.878	0.622	0.200	0.200	0.422

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	0.684	0.684	0.200	0.200	0.484

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	1.177	1.177	0.200	0.200	0.977

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	1.374	1.374	0.200	0.200	1.174

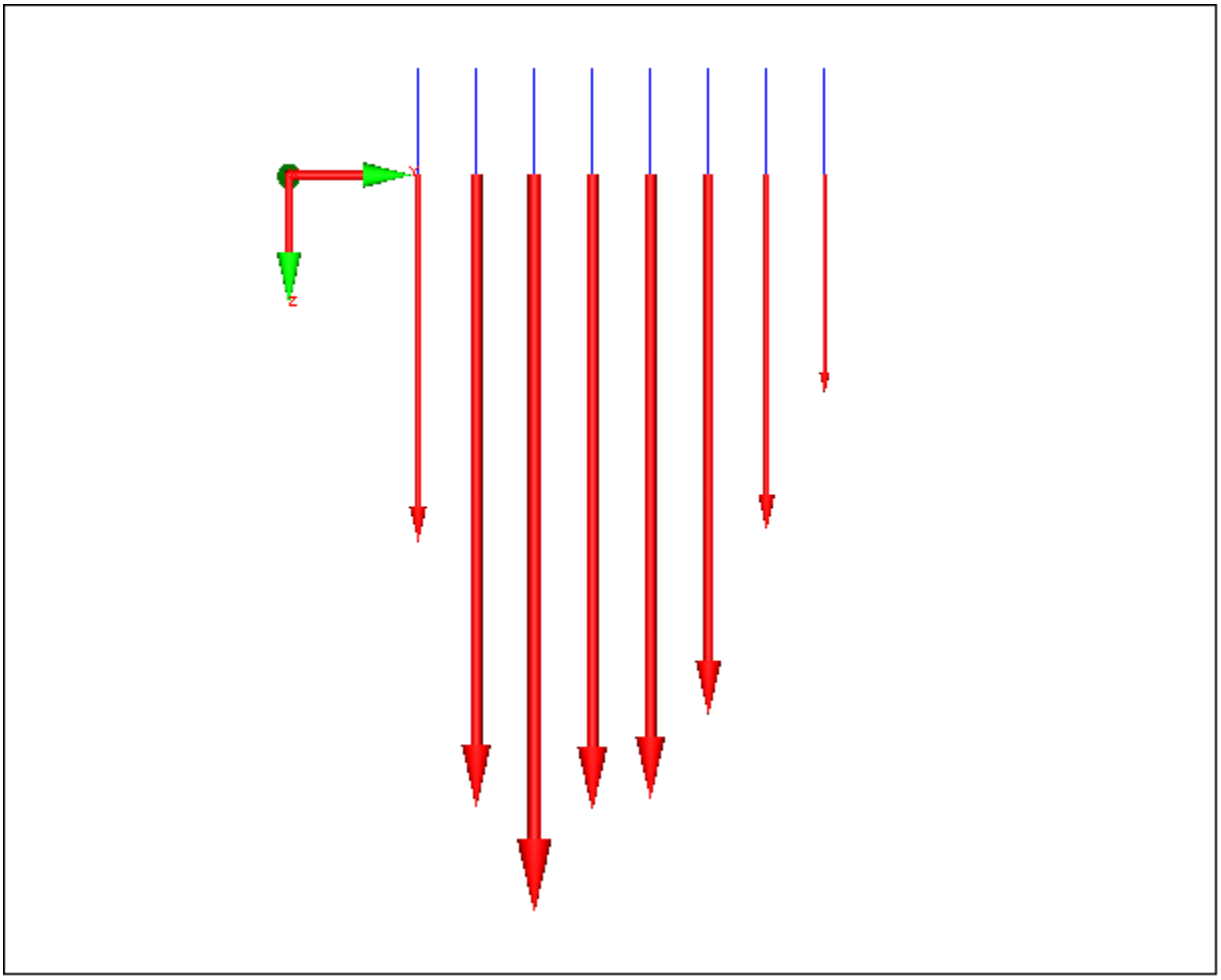
MM	DIM LOC Z SUPPORT RING CIRCLES 4= LOCATION OF CIRCLE CR-SUPPORT-RING-T4					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	1.184	1.184	0.200	0.200	0.984

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	1.163	1.163	0.200	0.200	0.963

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	1.006	1.006	0.200	0.200	0.806

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	0.662	0.662	0.200	0.200	0.462

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	0.408	0.408	0.200	0.200	0.208



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	-55.683	0.817	0.200	0.200	0.617

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	-55.163	1.337	0.200	0.200	1.137

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	-55.048	1.452	0.200	0.200	1.252

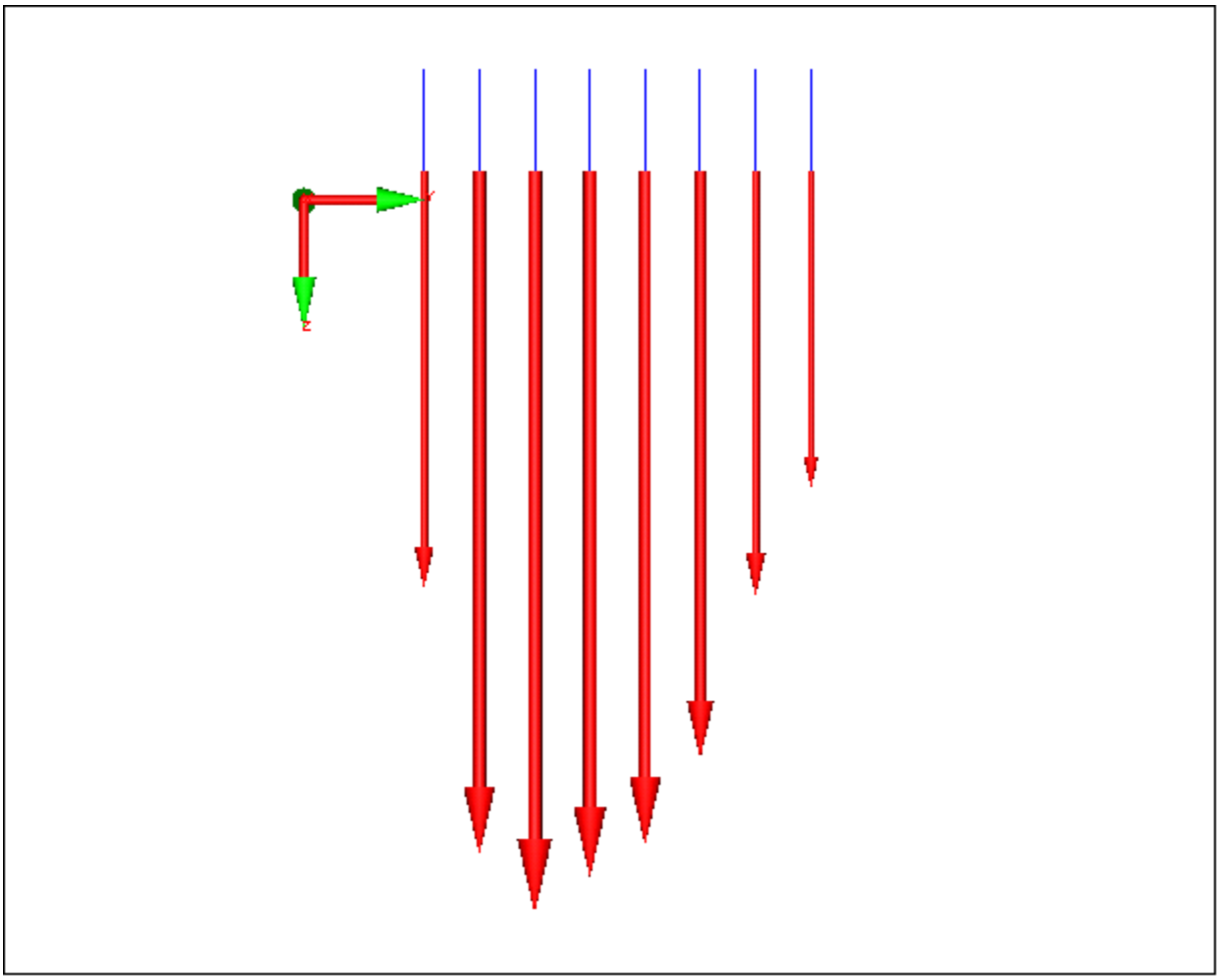
MM	DIM LOC Z SUPPORT RING POINTS 4= LOCATION OF POINT PT-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	-56.500	-55.118	1.382	0.200	0.200	1.182

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	-55.181	1.319	0.200	0.200	1.119

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	-55.350	1.150	0.200	0.200	0.950

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	-55.668	0.832	0.200	0.200	0.632

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	-55.878	0.622	0.200	0.200	0.422



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	15.000	0.000	0.500	0.500	0.000

ANGLE I: 0.2588121 - 14.99958804
ANGLE K: 0.9659277

END OF MEASUREMENT FOR
PN=ILC DESY 1.3GHZ RF CAVITY ASSEMBLY 180 DWG= SN=
TOTAL # OF MEAS =299 # OUT OF TOL =147