FERMILAB Technical Division

QUALITY CONTROL REPORT

DATE=6/26/2009 TIME=5:10:36 PM

PART NAME : PN440004-n ILC 1p3GHZ RF CAVITY ASSEMBLY 000 TB9RI029 v4z IR
REV NUMBER :
SER NUMBER :
STATS COUNT : 1

440004-n
FNAL 1.3GHZ TESLA
RF CAVITY
ASSEMBLY
@ 000 rotation

'Inspected by ' : Oscar Lira
'Cavity Number' : TB9RI029
' ' :

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	0.003			
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	0.429	0.429	0.200	0.000	0.229

DEG	DIM ANGL1= 3D ANGLE (COMPLEMENT) FROM PLANE PL-NEAR-END-FLANGE TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.205	0.205	0.100	0.100	0.105

MM	DIM LOC2= LOCATION OF CIRCLE CR-NEAR-END-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.093	-0.093	0.200	0.200	0.000
Z	0.000	0.358	0.358	0.200	0.200	0.158
D	140.000	140.071	0.071	0.300	0.300	0.000
RN	0.000	0.009	0.009	0.200	0.000	0.000

MM	DIM DIST03= 2D DISTANCE FROM PLANE PL-NEAR-END-FLANGE TO PLANE PL-NEAR-END-FLANGE-ORING PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1.000	1.071	0.071	0.100	0.100	0.000

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True Position of 6 Bolt Holes on the
NEAR BEAM PIPE FLANGE
to flange

⊕ MM	DIM TP NBPF BH1= TRUE POSITION OF CIRCLE CR-NEARFLANGE BH 015						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.941	-0.059				
PA	15.000	13.399	-1.601				
DF	8.800	8.803	0.003	0.300	0.300		0.000
TP	RFS		3.354	0.300		0.000	3.054
RN	0.000	0.019	0.019	0.300	0.000		0.000

⊕ MM	DIM TP NBPF BH2= TRUE POSITION OF CIRCLE CR-NEARFLANGE BH 045						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.958	-0.042				
PA	45.000	43.375	-1.625				
DF	8.800	8.813	0.013	0.300	0.300		0.000
TP	RFS		3.403	0.300		0.000	3.103
RN	0.000	0.015	0.015	0.300	0.000		0.000

⊕ MM	DIM TP NBPF BH3= TRUE POSITION OF CIRCLE CR-NEARFLANGE BH 075						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.956	-0.044				
PA	75.000	73.408	-1.592				
DF	8.800	8.807	0.007	0.300	0.300		0.000
TP	RFS		3.335	0.300		0.000	3.035
RN	0.000	0.014	0.014	0.300	0.000		0.000

⊕ MM	DIM TP NBPF BH4= TRUE POSITION OF CIRCLE CR-NEARFLANGE BH 105						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.969	-0.031				
PA	105.000	103.400	-1.600				
DF	8.800	8.804	0.004	0.300	0.300		0.000
TP	RFS		3.350	0.300		0.000	3.050
RN	0.000	0.015	0.015	0.300	0.000		0.000

⊕ MM	DIM TP NBPF BH5= TRUE POSITION OF CIRCLE CR-NEARFLANGE BH 135						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.975	-0.025				
PA	135.000	133.372	-1.628				
DF	8.800	8.806	0.006	0.300	0.300		0.000
TP	RFS		3.409	0.300		0.000	3.109
RN	0.000	0.018	0.018	0.300	0.000		0.000

⊕ MM	DIM TP NBPF BH6= TRUE POSITION OF CIRCLE CR-NEARFLANGE BH 165						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.959	-0.041				
PA	165.000	163.396	-1.604				
DF	8.800	8.802	0.002	0.300	0.300		0.000
TP	RFS		3.358	0.300		0.000	3.058
RN	0.000	0.013	0.013	0.300	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	1247.400	1246.039	-1.361	3.000	3.000	0.000
V	0.003	1.000	0.003			
FL	0.000	0.030	0.030	0.200	0.000	0.000

// MM	DIM PARL2= PARALLEL OF PLANE PL-FAR-END,RFS TO WORKPLANE YPLUS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.530	0.530	0.200	0.000	0.330

DEG	DIM ANGL2= 3D ANGLE (COMPLEMENT) FROM PLANE PL-FAR-END TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.250	0.250	0.100	0.100	0.150

MM	DIM LOC4= LOCATION OF CIRCLE CR-FAR-END					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.074	0.074	0.200	0.200	0.000
Z	0.000	0.180	0.179	0.200	0.200	0.000
D	140.000	140.081	0.081	0.300	0.300	0.000
RN	0.000	0.004	0.004	0.200	0.000	0.000

MM	DIM DIST04= 2D DISTANCE FROM PLANE PL-FAR-END TO PLANE PL-FAR-END-FLANGE-ORING PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1.000	1.078	0.078	0.100	0.100	0.000

True Position of 6 Bolt Holes on the
FAR BEAM PIPE FLANGE
to flange

MM	DIM TP FBPF BH1= TRUE POSITION OF CIRCLE CR-FARFLANGE BH 015						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.972	-0.028				
PA	15.000	14.799	-0.201				
DF	8.800	8.814	0.014	0.300	0.300		0.000
TP	RFS		0.424	0.300		0.000	0.124
RN	0.000	0.021	0.021	0.300	0.000		0.000

MM	DIM TP FBPF BH2= TRUE POSITION OF CIRCLE CR-FARFLANGE BH 045						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.979	-0.021				
PA	45.000	44.823	-0.177				
DF	8.800	8.819	0.019	0.300	0.300		0.000
TP	RFS		0.373	0.300		0.000	0.073
RN	0.000	0.037	0.037	0.300	0.000		0.000

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⊕ MM	DIM TP FBPF BH3= TRUE POSITION OF CIRCLE CR-FARFLANGE BH 075						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.955	-0.045				
PA	75.000	74.794	-0.206				
DF	8.800	8.814	0.014	0.300	0.300		0.000
TP	RFS		0.440	0.300		0.000	0.140
RN	0.000	0.011	0.011	0.300	0.000		0.000

⊕ MM	DIM TP FBPF BH4= TRUE POSITION OF CIRCLE CR-FARFLANGE BH 105						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.963	-0.037				
PA	105.000	104.809	-0.190				
DF	8.800	8.814	0.014	0.300	0.300		0.000
TP	RFS		0.405	0.300		0.000	0.105
RN	0.000	0.019	0.019	0.300	0.000		0.000

⊕ MM	DIM TP FBPF BH5= TRUE POSITION OF CIRCLE CR-FARFLANGE BH 135						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.985	-0.015				
PA	135.000	134.822	-0.177				
DF	8.800	8.817	0.017	0.300	0.300		0.000
TP	RFS		0.373	0.300		0.000	0.073
RN	0.000	0.016	0.016	0.300	0.000		0.000

⊕ MM	DIM TP FBPF BH6= TRUE POSITION OF CIRCLE CR-FARFLANGE BH 165						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	60.000	59.958	-0.042				
PA	165.000	164.824	-0.176				
DF	8.800	8.837	0.037	0.300	0.300		0.000
TP	RFS		0.378	0.300		0.000	0.078
RN	0.000	0.011	0.011	0.300	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	92.840	93.123	0.283	0.200	0.200	0.083
V	-0.001	-1.000	0.002			
FL	0.000	0.066	0.066	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	0.273	0.273	0.200	0.000	0.073

DEG	DIM ANGL7= 3D ANGLE (TRUE) FROM PLANE PLC-DAT-1 TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.145	0.145	0.100	0.100	0.045

DATUM-2-PLANE

MM	DIM LOC-DATUM-2-PLANE= LOCATION OF PLANE PLC-DAT-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	1154.560	1152.676	-1.884	0.200	0.200	1.684
V	-0.002	1.000	0.002			
FL	0.000	0.040	0.040	0.200	0.000	0.000

// MM	DIM PARL6= PARALLEL OF PLANE PLC-DAT-2,RFS TO WORKPLANE YPLUS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.278	0.278	0.200	0.000	0.078

DEG	DIM ANGL8= 3D ANGLE (TRUE) FROM PLANE PLC-DAT-2 TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.158	0.158	0.100	0.100	0.058

MM	DIM DIST3= 2D DISTANCE FROM PLANE PLC-DAT-1 TO PLANE PLC-DAT-2 PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1061.060	1059.553	-1.507	0.200	0.200	1.307

MM	DIM DIST4= 2D DISTANCE FROM PLANE PLC-DAT-2 TO PLANE PL-FAR-END PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	93.500	93.363	-0.137	0.200	0.200	0.000

PICKUP ANTENNA FLANGE NW8

MM	DIM LOC5= LOCATION OF PLANE PL NW8 ANTENNA FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-53.800	-53.963	-0.163	0.200	0.200	0.000
V	-1.000	0.000	0.009			
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	0.279	0.279	0.200	0.000	0.079

DEG	DIM ANGL3= 3D ANGLE (TRUE) FROM PLANE PL NW8 ANTENNA FLANGE TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.535	0.535	0.100	0.100	0.435

MM	DIM LOC6= LOCATION OF CIRCLE CR_NW8_ANTENNA_FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	60.600	60.500	-0.100	0.200	0.200	0.000
Z	0.000	0.942	0.941	0.200	0.200	0.741
D	33.800	33.825	0.025	0.150	0.000	0.000
RN	0.000	0.019	0.019	0.150	0.000	0.000

MM	DIM DIST01= 2D DISTANCE FROM PLANE PL NW8 ANTENNA FLANGE ORING TO PLANE PL NW8 ANTENNA FLANGE PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.500	0.525	0.025	0.050	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	88.090	0.090	0.200	0.200	0.000
V	1.000	0.003	-0.003			
FL	0.000	0.035	0.035	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	0.305	0.305	0.200	0.000	0.105

DEG	DIM ANGL4= 3D ANGLE (COMPLEMENT) FROM PLANE PL NW 40 FLANGE TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.255	0.254	0.100	0.100	0.154

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MM DIM LOC8= LOCATION OF CIRCLE CR_NW_40_FLANGE

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	1186.800	1185.621	-1.179	0.200	0.200	0.979
Z	0.000	0.000	0.000	0.200	0.200	0.000
D	76.000	76.000	0.000	0.200	0.000	0.000
RN	0.000	0.014	0.014	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	60.419	-0.181	0.200	0.200	0.000

MM DIM DIST NW40 MC DEPTH OF ORING GROOVE= 2D DISTANCE FROM PLANE PL NW 40 FLANGE ORING TO PLANE PL NW 40 FLANGE PAR TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.500	0.605	0.105	0.050	0.000	0.055

MM DIM TP NW40 MC BH= TRUE POSITION OF CIRCLE CR NW 40 FLANGE BH

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
PR	31.750	31.648	-0.102				
PA	112.500	112.383	-0.117				
DF	6.700	6.755	0.055	0.200	0.200		0.000
TP	RFS		0.241	0.300		0.000	0.000
RN	0.000	0.027	0.027	0.200	0.000		0.000

HOM-2 FLANGE NW12

MM DIM FLAT4= FLATNESS OF PLANE PL-NW12-FLANGE-HOM2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.007	0.007	0.200	0.000	0.000

MM DIM VECTOR1= LOCATION OF PLANE PL-NW12-FLANGE-HOM2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	-0.545	0.253	0.799			

DEG DIM ANGL6= 2D ANGLE (TRUE) FROM PLANE PL-NW12-FLANGE-HOM2 TO ZAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	35.000	34.286	-0.714	0.500	0.500	0.214

MM DIM LOC9= LOCATION OF CIRCLE CR-NW12-FLANGE-HOM2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-72.334	-72.334	100.000	100.000	0.000
Y	0.000	1188.687	1188.687	2000.000	2000.000	0.000
Z	0.000	-8.341	-8.341	100.000	100.000	0.000
D	33.800	33.710	-0.090	0.150	0.000	0.090
RN	0.000	0.094	0.094	0.150	0.000	0.000

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MM DIM DIST FORMTEIL2 POINT= 2D DISTANCE FROM POINT PT-FORMTEIL2 TO PLANE PL-NW12-FLANGE-HOM2 PERP TO PLANE PL-NW12-FLANGE-HOM2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	28.420	28.400	-0.020	0.100	0.100	0.000

MM DIM DIST FORMTEIL2 TAIL= 2D DISTANCE FROM PLANE PL-FORMTEIL2 TO PLANE PL-NW12-FLANGE-HOM2 PERP TO PLANE PL-NW12-FLANGE-HOM2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	28.420	28.398	-0.022	0.100	0.100	0.000

MM DIM DIST NW12 FLANGE ORING DEPTH= 2D DISTANCE FROM PLANE PL-NW12-FLANGE-HOM2 O-RING TO PLANE PL-NW12-FLANGE-HOM2 PERP TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.500	0.517	0.017	0.050	0.000	0.000

DEG DIM ANGL5= 2D ANGLE (TRUE) FROM PLANE PL-NW12-FLANGE-HOM2 TO LINE LINC ZAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	15.000	14.773	-0.227	0.500	0.500	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	68.612	68.612	100.000	100.000	0.000
Y	60.600	60.507	-0.093	0.200	0.200	0.000
Z	0.000	-40.574	-40.574	100.000	100.000	0.000
D	44.000	43.876	-0.124	0.000	0.100	0.024
RN	0.000	0.075	0.075	0.100	0.000	0.000
V	-0.863	-0.003	0.505			

DEG DIM ANGL9= 2D ANGLE (COMPLEMENT) FROM CYLINDER CY-HOM-1 TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	30.000	30.343	0.343	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	89.833	-0.167	0.500	0.500	0.000

DEG DIM ANGL11= 2D ANGLE (TRUE) FROM CYLINDER CY-HOM-1 TO ZAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	60.000	59.657	-0.343	0.500	0.500	0.000

MM DIM HOM1 POINT= LOCATION OF POINT PT-RT-HOM-1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PR	116.000	115.573	-0.427	0.200	0.200	0.227

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MM	DIM HOM1 PLANE= LOCATION OF PLANE PL HOM-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PR	111.000	110.558	-0.442	0.200	0.200	0.242
FL	0.000	0.003	0.003	0.200	0.000	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	60.600	60.275	-0.325	0.200	0.200	0.125
Z	0.000	-0.411	-0.411	0.200	0.200	0.211

HOM 2 LOCATION

MM	DIM LOC-HOM2= LOCATION OF CYLINDER CY-HOM-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-64.757	-64.757	100.000	100.000	0.000
Y	1186.800	1185.280	-1.520	3.000	3.000	0.000
Z	0.000	-44.958	-44.958	100.000	100.000	0.000
D	44.000	43.945	-0.055	0.000	0.100	0.000
RN	0.000	0.048	0.048	0.100	0.000	0.000
V	-0.825	-0.003	-0.565			

MM	DIM DIST2= 2D DISTANCE FROM CYLINDER CY-HOM-2 TO PLANE PL-FAR-END PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	60.600	60.760	0.160	0.200	0.200	0.000

DEG	DIM ANGL12= 2D ANGLE (TRUE) FROM CYLINDER CY-HOM-2 TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	35.000	34.387	-0.613	0.500	0.500	0.113

DEG	DIM ANGL13= 3D ANGLE (COMPLEMENT) FROM CYLINDER CY-HOM-2 TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	90.000	90.192	0.192	0.500	0.500	0.000

DEG	DIM ANGL14= 2D ANGLE (TRUE) FROM CYLINDER CY-HOM-2 TO ZAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	55.000	55.613	0.613	0.500	0.500	0.113

MM	DIM HOM2 POINT= LOCATION OF POINT PT-HOM-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PR	116.000	116.283	0.283	0.200	0.200	0.083

MM	DIM HOM2 PLANE= LOCATION OF PLANE PL HOM-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PR	111.000	111.262	0.262	0.200	0.200	0.062
FL	0.000	0.000	0.000	0.200	0.000	0.000

INTERSECTION OF HOM2 & YZ PLANE

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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	1186.800	1185.543	-1.257	3.000	3.000	0.000
Z	0.000	-0.640	-0.640	0.200	0.200	0.440

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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	94.518	94.518	2000.000	2000.000	0.000
Z	0.000	0.000	0.000	0.200	0.200	0.000
D	111.000	110.892	-0.108	0.050	0.050	0.058
RN	0.000	0.037	0.037	0.050	0.000	0.000

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.029	0.028	0.200	0.200	0.000
Y	0.000	123.713	123.713	2000.000	2000.000	0.000
Z	0.000	-0.050	-0.050	0.200	0.200	0.000
D	191.200	191.213	0.013	0.200	0.200	0.000
RN	0.000	0.038	0.038	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	0.055	0.055	0.200	0.200	0.000
Y	0.000	156.098	156.098	2000.000	2000.000	0.000
Z	0.000	-0.052	-0.052	0.200	0.200	0.000
D	210.300	210.528	0.228	0.200	0.200	0.028
RN	0.000	0.174	0.174	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	0.013	0.013	0.200	0.200	0.000
Y	0.000	167.534	167.534	2000.000	2000.000	0.000
Z	0.000	-0.102	-0.102	0.200	0.200	0.000
D	210.300	210.470	0.170	0.200	0.200	0.000
RN	0.000	0.231	0.231	0.200	0.000	0.031

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.028	-0.028	0.200	0.200	0.000
Y	0.000	270.770	270.770	2000.000	2000.000	0.000
Z	0.000	-0.346	-0.346	0.200	0.200	0.146
D	210.300	210.509	0.209	0.200	0.200	0.009
RN	0.000	0.250	0.250	0.200	0.000	0.050

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.084	-0.084	0.200	0.200	0.000
Y	0.000	282.512	282.512	2000.000	2000.000	0.000
Z	0.000	-0.372	-0.372	0.200	0.200	0.172
D	210.300	210.444	0.144	0.200	0.200	0.000
RN	0.000	0.181	0.181	0.200	0.000	0.000

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.001	0.001	0.200	0.200	0.000
Y	0.000	386.423	386.423	2000.000	2000.000	0.000
Z	0.000	-0.579	-0.579	0.200	0.200	0.379
D	210.300	210.475	0.175	0.200	0.200	0.000
RN	0.000	0.215	0.215	0.200	0.000	0.015

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.051	-0.051	0.200	0.200	0.000
Y	0.000	398.650	398.650	2000.000	2000.000	0.000
Z	0.000	-0.622	-0.622	0.200	0.200	0.422
D	210.300	210.461	0.161	0.200	0.200	0.000
RN	0.000	0.131	0.131	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	-0.049	-0.049	0.200	0.200	0.000
Y	0.000	501.228	501.228	2000.000	2000.000	0.000
Z	0.000	-0.699	-0.700	0.200	0.200	0.500
D	210.300	210.416	0.116	0.200	0.200	0.000
RN	0.000	0.091	0.091	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	-0.003	-0.003	0.200	0.200	0.000
Y	0.000	513.089	513.089	2000.000	2000.000	0.000
Z	0.000	-0.645	-0.645	0.200	0.200	0.445
D	210.300	210.445	0.145	0.200	0.200	0.000
RN	0.000	0.194	0.194	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	0.049	0.049	0.200	0.200	0.000
Y	0.000	617.604	617.604	2000.000	2000.000	0.000
Z	0.000	-0.783	-0.784	0.200	0.200	0.584
D	210.300	210.525	0.225	0.200	0.200	0.025
RN	0.000	0.181	0.181	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	0.032	0.032	0.200	0.200	0.000
Y	0.000	629.006	629.006	2000.000	2000.000	0.000
Z	0.000	-0.765	-0.765	0.200	0.200	0.565
D	210.300	210.446	0.145	0.200	0.200	0.000
RN	0.000	0.242	0.242	0.200	0.000	0.042

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.093	0.093	0.200	0.200	0.000
Y	0.000	731.683	731.683	2000.000	2000.000	0.000
Z	0.000	-0.730	-0.730	0.200	0.200	0.530
D	210.300	210.483	0.183	0.200	0.200	0.000
RN	0.000	0.181	0.181	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	0.049	0.049	0.200	0.200	0.000
Y	0.000	744.661	744.661	2000.000	2000.000	0.000
Z	0.000	-0.762	-0.763	0.200	0.200	0.563
D	210.300	210.439	0.139	0.200	0.200	0.000
RN	0.000	0.156	0.156	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	0.120	0.120	0.200	0.200	0.000
Y	0.000	847.859	847.859	2000.000	2000.000	0.000
Z	0.000	-0.662	-0.662	0.200	0.200	0.462
D	210.300	210.442	0.142	0.200	0.200	0.000
RN	0.000	0.208	0.208	0.200	0.000	0.008

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.053	0.053	0.200	0.200	0.000
Y	0.000	859.773	859.773	2000.000	2000.000	0.000
Z	0.000	-0.656	-0.656	0.200	0.200	0.456
D	210.300	210.478	0.178	0.200	0.200	0.000
RN	0.000	0.156	0.156	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	0.059	0.059	0.200	0.200	0.000
Y	0.000	963.031	963.031	2000.000	2000.000	0.000
Z	0.000	-0.442	-0.442	0.200	0.200	0.242
D	210.300	210.443	0.143	0.200	0.200	0.000
RN	0.000	0.209	0.209	0.200	0.000	0.009

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.091	0.090	0.200	0.200	0.000
Y	0.000	974.362	974.362	2000.000	2000.000	0.000
Z	0.000	-0.365	-0.365	0.200	0.200	0.165
D	210.300	210.440	0.140	0.200	0.200	0.000
RN	0.000	0.308	0.308	0.200	0.000	0.108

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.121	0.121	0.200	0.200	0.000
Y	0.000	1078.841	1078.841	2000.000	2000.000	0.000
Z	0.000	-0.136	-0.136	0.200	0.200	0.000
D	210.300	210.467	0.167	0.200	0.200	0.000
RN	0.000	0.188	0.188	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	0.054	0.054	0.200	0.200	0.000
Y	0.000	1091.197	1091.197	2000.000	2000.000	0.000
Z	0.000	-0.133	-0.133	0.200	0.200	0.000
D	210.300	210.394	0.094	0.200	0.200	0.000
RN	0.000	0.118	0.118	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	0.000	1119.345	1119.345	2000.000	2000.000	0.000
Z	0.000	-0.070	-0.070	0.200	0.200	0.000
D	200.000	200.010	0.010	0.200	0.200	0.000
RN	0.000	0.035	0.035	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	1150.638	1150.638	2000.000	2000.000	0.000
Z	0.000	0.000	0.000	0.200	0.200	0.000
D	111.000	110.926	-0.074	0.050	0.050	0.024
RN	0.000	0.007	0.007	0.050	0.000	0.000

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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	0.400		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	0.029	0.028				
Z	0.000	-0.050	-0.050				
TP	RFS		0.116	0.400		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	0.055	0.055				
Z	0.000	-0.052	-0.052				
TP	RFS		0.152	0.400		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	0.013	0.013				
Z	0.000	-0.102	-0.102				
TP	RFS		0.206	0.400		0.000	0.000

⊕ MM	DIM LOC-TP-CC5= TRUE POSITION OF CIRCLE CRC-CAV-2-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.028	-0.028				
Z	0.000	-0.346	-0.346				
TP	RFS		0.694	0.400		0.000	0.294

⊕ MM	DIM LOC-TP-CC6= TRUE POSITION OF CIRCLE CRC-CAV-2-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.084	-0.084				
Z	0.000	-0.372	-0.372				
TP	RFS		0.763	0.400		0.000	0.363

⊕ MM	DIM LOC-TP-CC7= TRUE POSITION OF CIRCLE CRC-CAV-3-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.001	0.001				
Z	0.000	-0.579	-0.579				
TP	RFS		1.158	0.400		0.000	0.758

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⊕ MM	DIM LOC-TP-CC8= TRUE POSITION OF CIRCLE CRC-CAV-3-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.051	-0.051				
Z	0.000	-0.622	-0.622				
TP	RFS		1.247	0.400		0.000	0.847

⊕ MM	DIM LOC-TP-CC9= TRUE POSITION OF CIRCLE CRC-CAV-4-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.049	-0.049				
Z	0.000	-0.699	-0.700				
TP	RFS		1.403	0.400		0.000	1.003

⊕ MM	DIM LOC-TP-CC10= TRUE POSITION OF CIRCLE CRC-CAV-4-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	-0.003	-0.003				
Z	0.000	-0.645	-0.645				
TP	RFS		1.290	0.400		0.000	0.890

⊕ MM	DIM LOC-TP-CC11= TRUE POSITION OF CIRCLE CRC-CAV-5-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.049	0.049				
Z	0.000	-0.783	-0.784				
TP	RFS		1.570	0.400		0.000	1.170

⊕ MM	DIM LOC-TP-CC12= TRUE POSITION OF CIRCLE CRC-CAV-5-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.032	0.032				
Z	0.000	-0.765	-0.765				
TP	RFS		1.531	0.400		0.000	1.131

⊕ MM	DIM LOC-TP-CC13= TRUE POSITION OF CIRCLE CRC-CAV-6-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.093	0.093				
Z	0.000	-0.730	-0.730				
TP	RFS		1.473	0.400		0.000	1.073

⊕ MM	DIM LOC-TP-CC14= TRUE POSITION OF CIRCLE CRC-CAV-6-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.049	0.049				
Z	0.000	-0.762	-0.763				
TP	RFS		1.528	0.400		0.000	1.128

⊕ MM	DIM LOC-TP-CC15= TRUE POSITION OF CIRCLE CRC-CAV-7-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.120	0.120				
Z	0.000	-0.662	-0.662				
TP	RFS		1.345	0.400		0.000	0.945

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⊕ MM	DIM LOC-TP-CC16= TRUE POSITION OF CIRCLE CRC-CAV-7-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.053	0.053				
Z	0.000	-0.656	-0.656				
TP	RFS		1.316	0.400		0.000	0.916

⊕ MM	DIM LOC-TP-CC17= TRUE POSITION OF CIRCLE CRC-CAV-8-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.059	0.059				
Z	0.000	-0.442	-0.442				
TP	RFS		0.891	0.400		0.000	0.491

⊕ MM	DIM LOC-TP-CC18= TRUE POSITION OF CIRCLE CRC-CAV-8-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.091	0.090				
Z	0.000	-0.365	-0.365				
TP	RFS		0.752	0.400		0.000	0.352

⊕ MM	DIM LOC-TP-CC19= TRUE POSITION OF CIRCLE CRC-CAV-9-1						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.121	0.121				
Z	0.000	-0.136	-0.136				
TP	RFS		0.364	0.400		0.000	0.000

⊕ MM	DIM LOC-TP-CC20= TRUE POSITION OF CIRCLE CRC-CAV-9-2						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	BONUS	OUTTOL
X	0.000	0.054	0.054				
Z	0.000	-0.133	-0.133				
TP	RFS		0.288	0.400		0.000	0.000

⊕ 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	-0.070	-0.070				
TP	RFS		0.185	0.400		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	0.400		0.000	0.000

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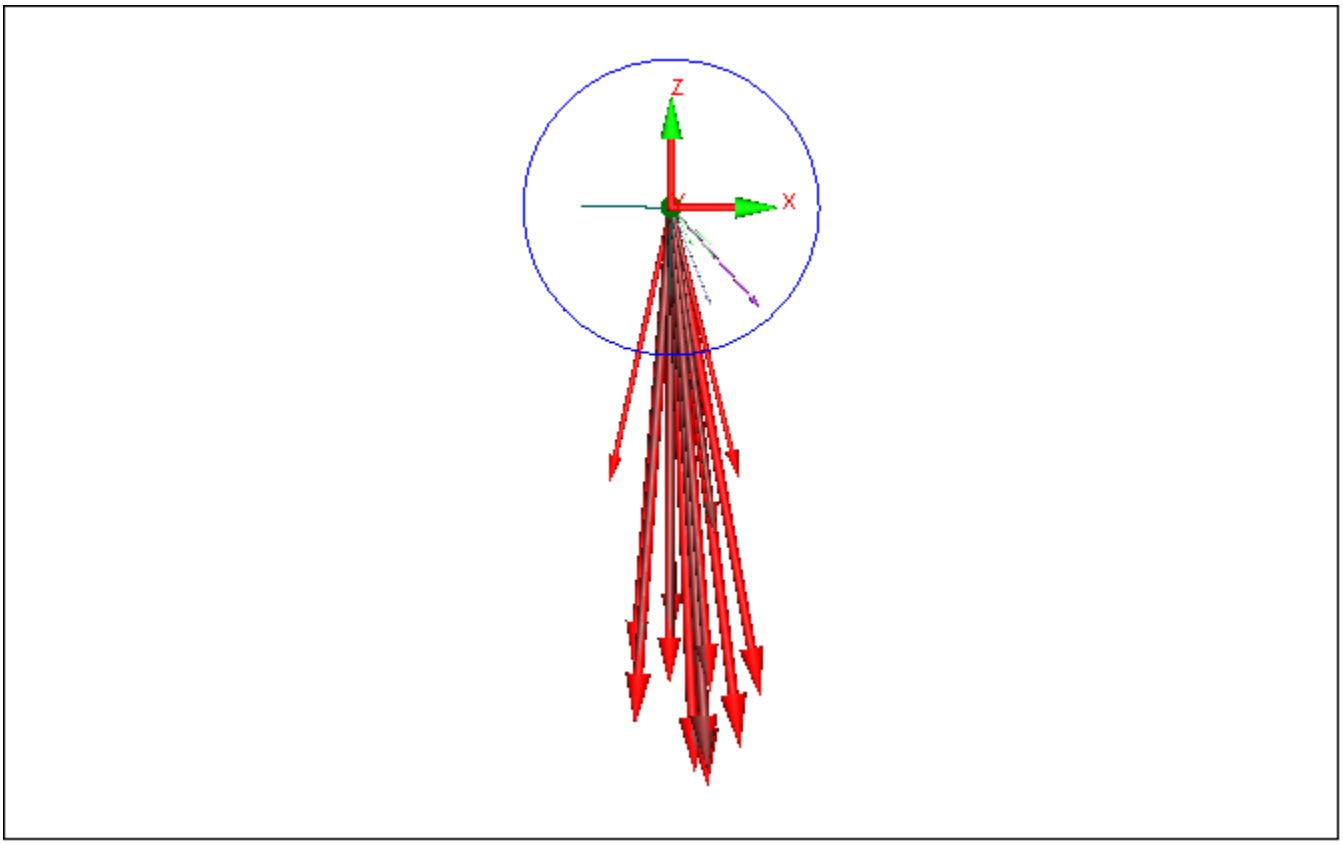
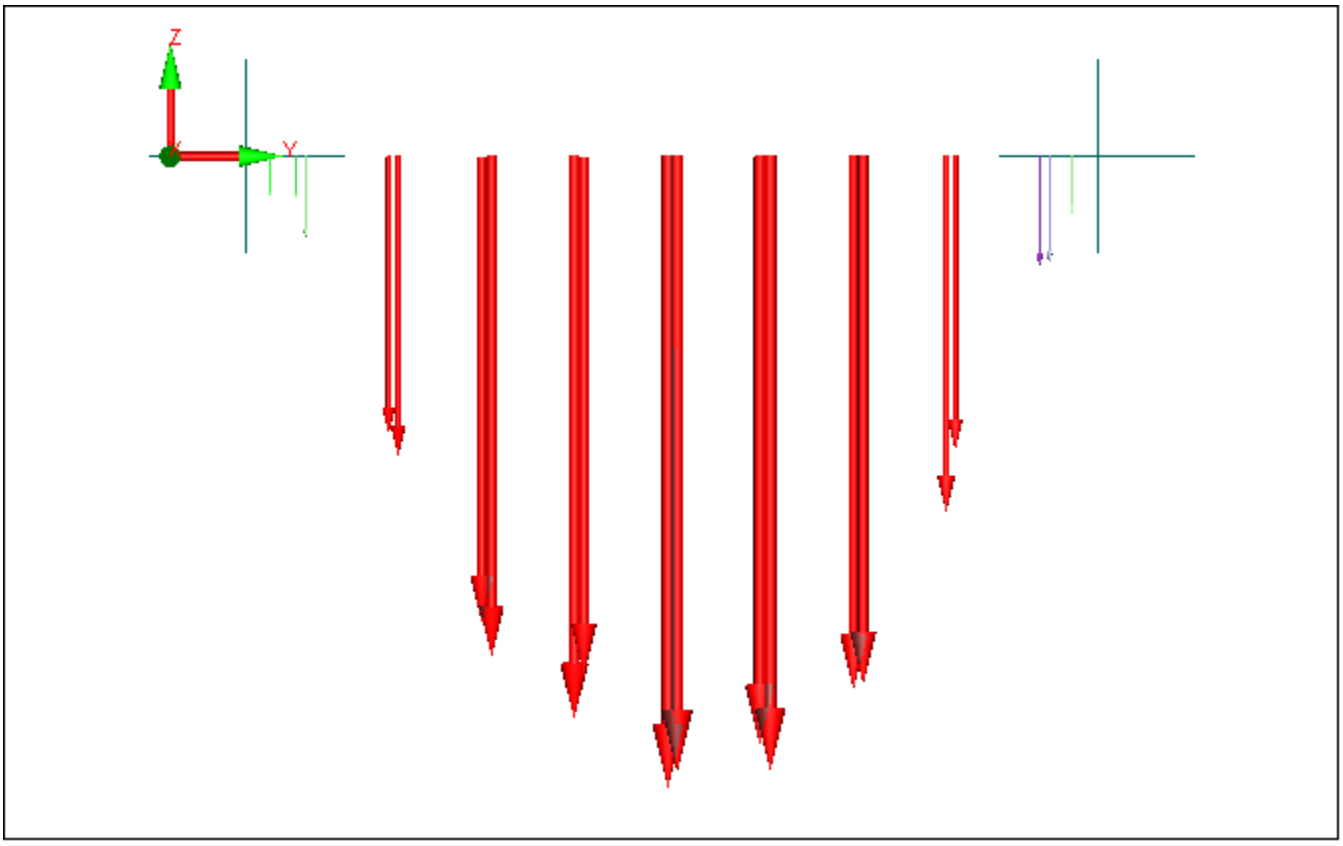
True Position plots from 3 views
x1000

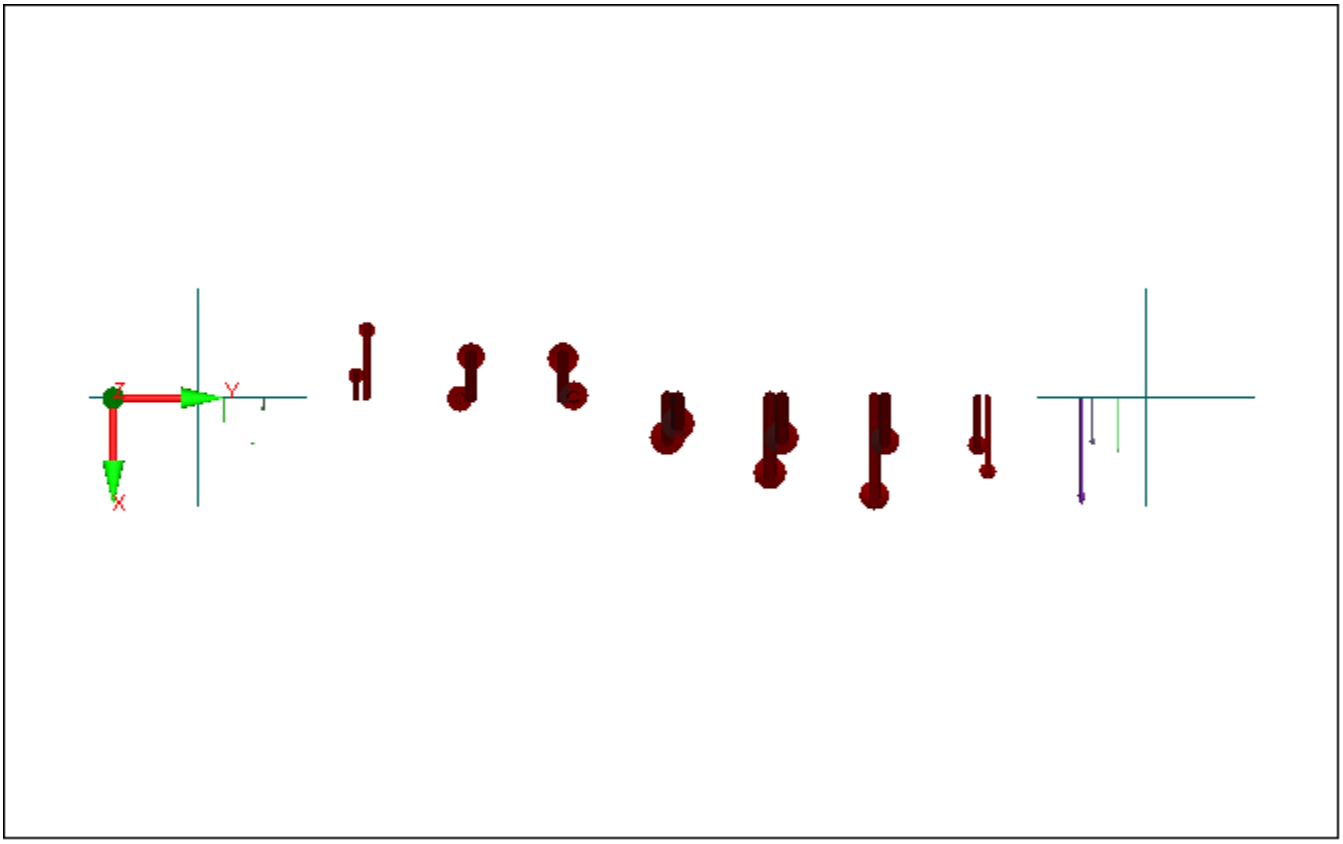


-Y View
x1000

PART NUMBER=PN440004-n ILC 1p3GHZ RF CAVITY ASSEMBLY 000 TB9RI029 v4z IR DATE=6/26/2009



+X View
x1000



PART NUMBER=PN440004-n ILC 1p3GHZ RF CAVITY ASSEMBLY 000 TB9RI029 v4z IR DATE=6/26/2009
+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	0.030	0.030	0.200	0.200	0.000
Y	0.000	622.842	622.842	2000.000	2000.000	0.000
Z	0.000	-0.408	-0.408	0.200	0.200	0.208
ST	0.000	0.817	0.817	0.200	0.000	0.617

SUPPORT RING CIRCLE LOCATIONS
Top (positive -Z-) side

MM	DIM LOC-SUPPORT RING-T1= LOCATION OF CIRCLE CR-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.050	0.050	0.200	0.200	0.000
Y	0.000	219.398	219.398	2000.000	2000.000	0.000
Z	0.000	-0.278	-0.278	0.200	0.200	0.078
R	56.500	56.115	-0.385	0.200	0.200	0.185
RN	0.000	0.014	0.014	0.200	0.000	0.000

MM	DIM LOC-SUPPORT RING-T2= LOCATION OF CIRCLE CR-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.099	-0.099	0.200	0.200	0.000
Y	0.000	334.997	334.997	2000.000	2000.000	0.000
Z	0.000	-0.380	-0.380	0.200	0.200	0.180
R	56.500	56.050	-0.450	0.200	0.200	0.250
RN	0.000	0.006	0.006	0.200	0.000	0.000

MM	DIM LOC-SUPPORT RING-T3= LOCATION OF CIRCLE CR-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.044	-0.044	0.200	0.200	0.000
Y	0.000	449.998	449.998	2000.000	2000.000	0.000
Z	0.000	-0.622	-0.622	0.200	0.200	0.422
R	56.500	56.079	-0.421	0.200	0.200	0.221
RN	0.000	0.010	0.010	0.200	0.000	0.000

MM	DIM LOC-SUPPORT RING-T4= LOCATION OF CIRCLE CR-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.015	0.014	0.200	0.200	0.000
Y	0.000	565.500	565.500	2000.000	2000.000	0.000
Z	0.000	-0.705	-0.706	0.200	0.200	0.506
R	56.500	56.067	-0.433	0.200	0.200	0.233
RN	0.000	0.003	0.003	0.200	0.000	0.000

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MM DIM LOC-SUPPORT RING-T5= LOCATION OF CIRCLE CR-SUPPORT-RING-T56

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.055	0.055	0.200	0.200	0.000
Y	0.000	680.803	680.803	2000.000	2000.000	0.000
Z	0.000	-0.728	-0.728	0.200	0.200	0.528
R	56.500	56.089	-0.411	0.200	0.200	0.211
RN	0.000	0.025	0.025	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-T6= LOCATION OF CIRCLE CR-SUPPORT-RING-T67

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.031	0.030	0.200	0.200	0.000
Y	0.000	796.197	796.197	2000.000	2000.000	0.000
Z	0.000	-0.689	-0.689	0.200	0.200	0.489
R	56.500	56.023	-0.477	0.200	0.200	0.277
RN	0.000	0.060	0.060	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-T7= LOCATION OF CIRCLE CR-SUPPORT-RING-T78

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.045	0.045	0.200	0.200	0.000
Y	0.000	911.696	911.696	2000.000	2000.000	0.000
Z	0.000	-0.454	-0.454	0.200	0.200	0.254
R	56.500	56.087	-0.413	0.200	0.200	0.213
RN	0.000	0.039	0.039	0.200	0.000	0.000

MM DIM LOC-SUPPORT RING-T8= LOCATION OF CIRCLE CR-SUPPORT-RING-T89

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.112	0.112	0.200	0.200	0.000
Y	0.000	1027.499	1027.499	2000.000	2000.000	0.000
Z	0.000	-0.257	-0.257	0.200	0.200	0.057
R	56.500	56.089	-0.411	0.200	0.200	0.211
RN	0.000	0.021	0.021	0.200	0.000	0.000

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SUPPORT RING POINT LOCATIONS
Top (positive -Z-) side

MM	DIM LOC-SUPPORT RING-PTT1= LOCATION OF POINT PT-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.012	0.012	0.200	0.200	0.000
Y	0.000	213.014	213.014	2000.000	2000.000	0.000
Z	56.500	55.847	-0.653	0.200	0.200	0.453

MM	DIM LOC-SUPPORT RING-PTT2= LOCATION OF POINT PT-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.012	0.011	0.200	0.200	0.000
Y	0.000	328.001	328.001	2000.000	2000.000	0.000
Z	56.500	55.701	-0.799	0.200	0.200	0.599

MM	DIM LOC-SUPPORT RING-PTT3= LOCATION OF POINT PT-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.011	0.011	0.200	0.200	0.000
Y	0.000	443.301	443.301	2000.000	2000.000	0.000
Z	56.500	55.475	-1.025	0.200	0.200	0.825

MM	DIM LOC-SUPPORT RING-PTT4= LOCATION OF POINT PT-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.011	0.011	0.200	0.200	0.000
Y	0.000	558.901	558.901	2000.000	2000.000	0.000
Z	56.500	55.361	-1.139	0.200	0.200	0.939

MM	DIM LOC-SUPPORT RING-PTT5= LOCATION OF POINT PT-SUPPORT-RING-T56					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.011	0.010	0.200	0.200	0.000
Y	0.000	673.701	673.701	2000.000	2000.000	0.000
Z	56.500	55.335	-1.165	0.200	0.200	0.965

MM	DIM LOC-SUPPORT RING-PTT6= LOCATION OF POINT PT-SUPPORT-RING-T67					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.010	0.010	0.200	0.200	0.000
Y	0.000	789.101	789.101	2000.000	2000.000	0.000
Z	56.500	55.321	-1.179	0.200	0.200	0.979

MM	DIM LOC-SUPPORT RING-PTT7= LOCATION OF POINT PT-SUPPORT-RING-T78					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.010	0.010	0.200	0.200	0.000
Y	0.000	904.501	904.501	2000.000	2000.000	0.000
Z	56.500	55.605	-0.895	0.200	0.200	0.695

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MM	DIM LOC-SUPPORT RING-PTT8= LOCATION OF POINT PT-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.010	0.010	0.200	0.200	0.000
Y	0.000	1018.301	1018.301	2000.000	2000.000	0.000
Z	56.500	55.841	-0.659	0.200	0.200	0.459

SUPPORT RING CIRCLES IN Z
Top (positive -Z-) side

MM	DIM LOC X SUPPORT RING CIRCLES T1= LOCATION OF CIRCLE CR-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.278	-0.278	0.200	0.200	0.078

MM	DIM LOC X SUPPORT RING CIRCLES T2= LOCATION OF CIRCLE CR-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.380	-0.380	0.200	0.200	0.180

MM	DIM LOC X SUPPORT RING CIRCLES T3= LOCATION OF CIRCLE CR-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.622	-0.622	0.200	0.200	0.422

MM	DIM LOC X SUPPORT RING CIRCLES T4= LOCATION OF CIRCLE CR-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.705	-0.706	0.200	0.200	0.506

MM	DIM LOC X SUPPORT RING CIRCLES T5= LOCATION OF CIRCLE CR-SUPPORT-RING-T56					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.728	-0.728	0.200	0.200	0.528

MM	DIM LOC X SUPPORT RING CIRCLES T6= LOCATION OF CIRCLE CR-SUPPORT-RING-T67					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.689	-0.689	0.200	0.200	0.489

MM	DIM LOC X SUPPORT RING CIRCLES T7= LOCATION OF CIRCLE CR-SUPPORT-RING-T78					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.454	-0.454	0.200	0.200	0.254

MM	DIM LOC X SUPPORT RING CIRCLES T8= LOCATION OF CIRCLE CR-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	0.000	-0.257	-0.257	0.200	0.200	0.057

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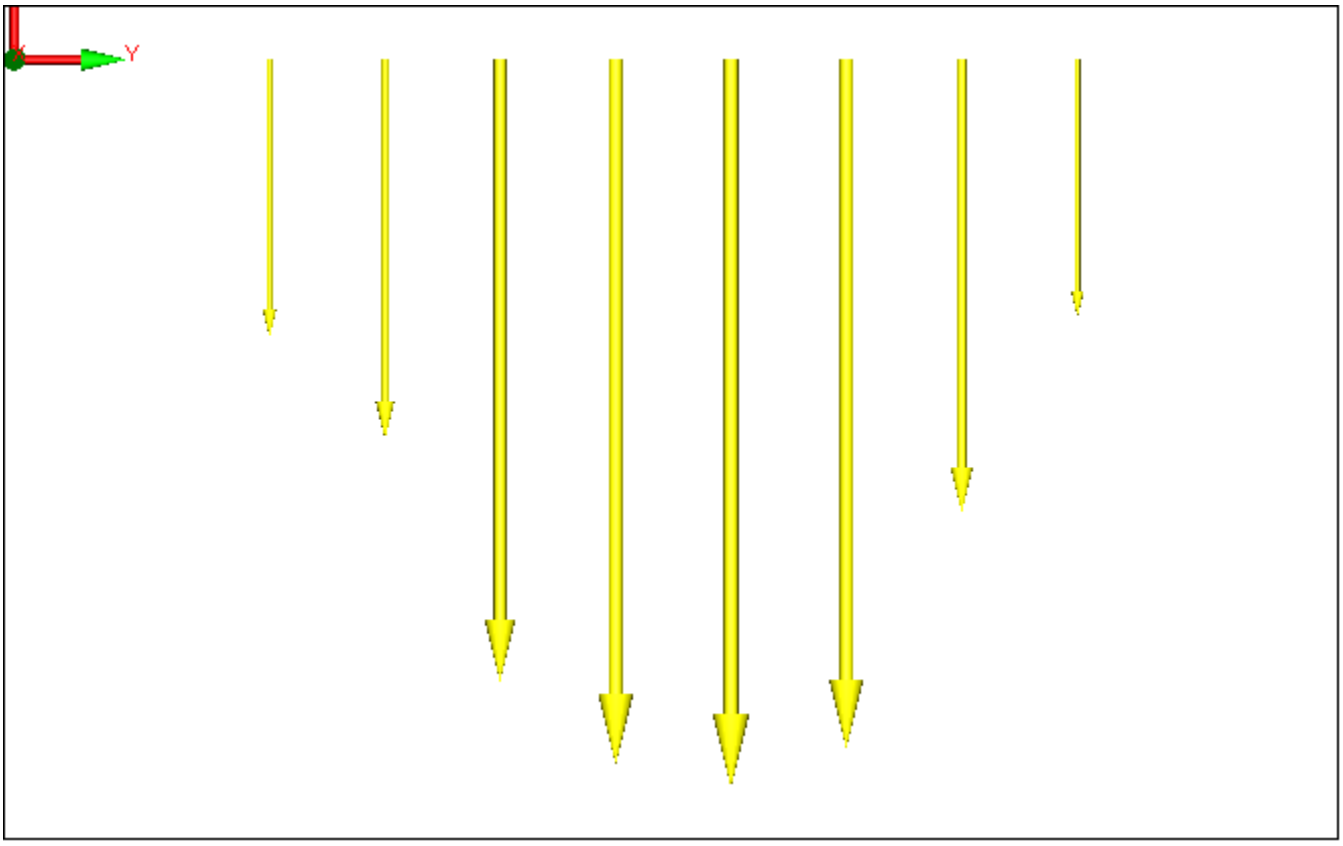

SUPPORT RING CIRCLES IN Z
Top (positive -Z-) side
x1000

SUPPORT RING POINTS IN X
Positive Side

MM	DIM LOC X SUPPORT RING POINTS T1= LOCATION OF POINT PT-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.847	-0.653	0.200	0.200	0.453

MM	DIM LOC X SUPPORT RING POINTS T2= LOCATION OF POINT PT-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.701	-0.799	0.200	0.200	0.599

MM	DIM LOC X SUPPORT RING POINTS T3= LOCATION OF POINT PT-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.475	-1.025	0.200	0.200	0.825

MM	DIM LOC X SUPPORT RING POINTS T4= LOCATION OF POINT PT-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.361	-1.139	0.200	0.200	0.939

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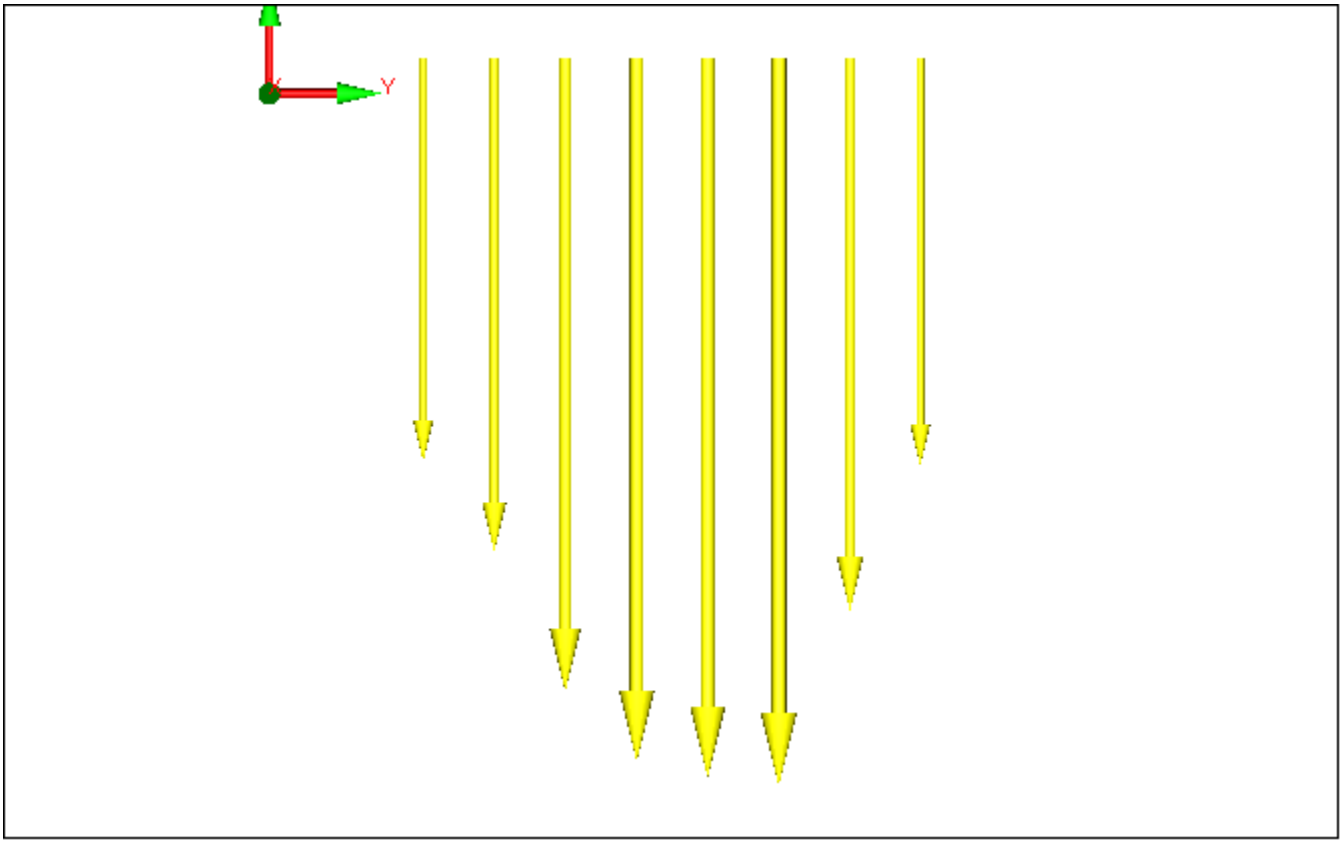
MM	DIM LOC X SUPPORT RING POINTS T5= LOCATION OF POINT PT-SUPPORT-RING-T56					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.335	-1.165	0.200	0.200	0.965

MM	DIM LOC X SUPPORT RING POINTS T6= LOCATION OF POINT PT-SUPPORT-RING-T67					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.321	-1.179	0.200	0.200	0.979

MM	DIM LOC X SUPPORT RING POINTS T7= LOCATION OF POINT PT-SUPPORT-RING-T78					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.605	-0.895	0.200	0.200	0.695

MM	DIM LOC X SUPPORT RING POINTS T8= LOCATION OF POINT PT-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Z	56.500	55.841	-0.659	0.200	0.200	0.459



SUPPORT RING POINTS IN Z
Top (positive -Z-) side
x1000

SUPPORT RING CIRCLE LOCATIONS
Negative side

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---------- Report for Excel ----------

MM	DIM A= 2D DISTANCE FROM PLANE PL-NEAR-END-FLANGE TO PLANE PL-FAR-END PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1247.000	1246.039	-0.961	0.200	0.200	0.761

MM	DIM B= 2D DISTANCE FROM PLANE PLC-DAT-1 TO PLANE PLC-DAT-2 PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1061.060	1059.553	-1.507	0.200	0.200	1.307

MM	DIM C= 2D DISTANCE FROM PLANE PLC-DAT-1 TO CIRCLE CR_NW8_ANTENNA_FLANGE PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	32.240	32.623	0.383	0.200	0.200	0.183

MM	DIM D= 2D DISTANCE FROM PLANE PLC-DAT-2 TO CIRCLE CR_NW_40_FLANGE PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	32.900	32.945	0.045	0.200	0.200	0.000

MM	DIM E= 2D DISTANCE FROM LINE LNC-LEVEL TO PLANE PL NW8 ANTENNA FLANGE PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	53.800	53.963	0.163	0.200	0.200	0.000

MM	DIM F= 2D DISTANCE FROM LINE LNC-LEVEL TO PLANE PL NW 40 FLANGE PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	88.000	88.090	0.090	0.200	0.200	0.000

MM	DIM G= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
T	0.000	0.000	0.000	0.000	0.000	0.000

MM	DIM H= 2D DISTANCE FROM PLANE PL-FORMTEIL2 TO PLANE PL-NW12-FLANGE-HOM2 PERP TO PLANE PL-NW12-FLANGE-HOM2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	28.420	28.398	-0.022	0.100	0.100	0.000

MM	DIM I1= 2D DISTANCE FROM PLANE PL-NEAR-END-FLANGE TO CYLINDER CY-HOM-1 PAR TO YAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	60.600	60.507	-0.093	0.200	0.200	0.000

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MM DIM I2= 2D DISTANCE FROM PLANE PL-NEAR-END-FLANGE TO CYLINDER CY-HOM-2 PAR TO YAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1186.800	1185.280	-1.520	0.200	0.200	1.320

MM DIM I3= 2D DISTANCE FROM PLANE PL-NEAR-END-FLANGE TO CIRCLE CR_NW_40_FLANGE PAR TO YAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1186.800	1185.621	-1.179	0.200	0.200	0.979

MM DIM J1= 2D DISTANCE FROM PLANE PL-NEAR-END-FLANGE-ORING TO PLANE PL-NEAR-END-FLANGE PERP TO PLANE PL-NEAR-END-FLANGE

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1.000	1.072	0.072	0.100	0.100	0.000

MM DIM J2= LOCATION OF POINT NOTINTHISORIENTATION

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
T	0.000	0.000	0.000	0.000	0.000	0.000

MM DIM J3= 2D DISTANCE FROM PLANE PL NW8 ANTENNA FLANGE ORING TO PLANE PL NW8 ANTENNA FLANGE PERP TO PLANE PL NW8 ANTENNA FLANGE

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.500	0.525	0.025	0.050	0.000	0.000

MM DIM J4= 2D DISTANCE FROM PLANE PL-NW12-FLANGE-HOM2 O-RING TO PLANE PL-NW12-FLANGE-HOM2 PAR TO ZAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.500	0.517	0.017	0.050	0.000	0.000

MM DIM J5= 2D DISTANCE FROM PLANE PL NW 40 FLANGE ORING TO PLANE PL NW 40 FLANGE PERP TO PLANE PL NW 40 FLANGE

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.500	0.605	0.105	0.050	0.000	0.055

MM DIM J6= 2D DISTANCE FROM PLANE PL-FAR-END-FLANGE-ORING TO PLANE PL-FAR-END PERP TO PLANE PL-FAR-END

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1.000	1.078	0.078	0.100	0.100	0.000

DEG DIM K= 2D ANGLE (TRUE) FROM CYLINDER CY-HOM-1 TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	30.000	30.343	0.343	0.500	0.500	0.000

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

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	35.000	34.387	-0.613	0.500	0.500	0.113

DEG DIM M= 2D ANGLE (TRUE) FROM LINE LINC_AXIS_NW40 TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
A	0.000	0.000	0.000	0.500	0.500	0.000

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MM	DIM N1= LOCATION OF CIRCLE CR-NEARFLANGE BH 015					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	15.000	13.399	-1.601	1.000	1.000	0.601

MM	DIM N2= LOCATION OF CIRCLE CR-NEARFLANGE BH 045					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	45.000	43.375	-1.625	1.000	1.000	0.625

MM	DIM N3= LOCATION OF CIRCLE CR-NEARFLANGE BH 075					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	75.000	73.408	-1.592	1.000	1.000	0.592

MM	DIM N4= LOCATION OF CIRCLE CR-NEARFLANGE BH 105					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	105.000	103.400	-1.600	1.000	1.000	0.600

MM	DIM N5= LOCATION OF CIRCLE CR-NEARFLANGE BH 135					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	135.000	133.372	-1.628	1.000	1.000	0.628

MM	DIM N6= LOCATION OF CIRCLE CR-NEARFLANGE BH 165					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	165.000	163.396	-1.604	1.000	1.000	0.604

MM	DIM N13= LOCATION OF CIRCLE CR-FARFLANGE BH 015					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	15.000	14.799	-0.201	1.000	1.000	0.000

MM	DIM N14= LOCATION OF CIRCLE CR-FARFLANGE BH 045					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	45.000	44.823	-0.177	1.000	1.000	0.000

MM	DIM N15= LOCATION OF CIRCLE CR-FARFLANGE BH 075					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	75.000	74.794	-0.206	1.000	1.000	0.000

MM	DIM N16= LOCATION OF CIRCLE CR-FARFLANGE BH 105					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	105.000	104.809	-0.190	1.000	1.000	0.000

MM	DIM N17= LOCATION OF CIRCLE CR-FARFLANGE BH 135					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	135.000	134.822	-0.177	1.000	1.000	0.000

MM	DIM N18= LOCATION OF CIRCLE CR-FARFLANGE BH 165					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
PA	165.000	164.824	-0.176	1.000	1.000	0.000

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MM	DIM O1= LOCATION OF CIRCLE CR-NEAR-END-FLANGE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	140.000	140.071	0.071	0.300	0.300	0.000

MM	DIM O2= LOCATION OF CIRCLE CR-FAR-END					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	140.000	140.081	0.081	0.300	0.300	0.000

MM	DIM P1= LOCATION OF CIRCLE CRC-CAV-1-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.528	0.227	0.050	0.050	0.177

MM	DIM P2= LOCATION OF CIRCLE CRC-CAV-1-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.470	0.170	0.050	0.050	0.120

MM	DIM P3= LOCATION OF CIRCLE CRC-CAV-2-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.509	0.208	0.050	0.050	0.158

MM	DIM P4= LOCATION OF CIRCLE CRC-CAV-2-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.444	0.144	0.050	0.050	0.094

MM	DIM P5= LOCATION OF CIRCLE CRC-CAV-3-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.475	0.174	0.050	0.050	0.124

MM	DIM P6= LOCATION OF CIRCLE CRC-CAV-3-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.461	0.161	0.050	0.050	0.111

MM	DIM P7= LOCATION OF CIRCLE CRC-CAV-4-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.416	0.115	0.050	0.050	0.065

MM	DIM P8= LOCATION OF CIRCLE CRC-CAV-4-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.445	0.145	0.050	0.050	0.095

MM	DIM P9= LOCATION OF CIRCLE CRC-CAV-5-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.525	0.224	0.050	0.050	0.174

MM	DIM P10= LOCATION OF CIRCLE CRC-CAV-5-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.446	0.145	0.050	0.050	0.095

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MM	DIM P11= LOCATION OF CIRCLE CRC-CAV-6-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.483	0.183	0.050	0.050	0.133

MM	DIM P12= LOCATION OF CIRCLE CRC-CAV-6-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.439	0.139	0.050	0.050	0.089

MM	DIM P13= LOCATION OF CIRCLE CRC-CAV-7-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.442	0.142	0.050	0.050	0.092

MM	DIM P14= LOCATION OF CIRCLE CRC-CAV-7-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.478	0.178	0.050	0.050	0.128

MM	DIM P15= LOCATION OF CIRCLE CRC-CAV-8-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.443	0.143	0.050	0.050	0.093

MM	DIM P16= LOCATION OF CIRCLE CRC-CAV-8-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.440	0.140	0.050	0.050	0.090

MM	DIM P17= LOCATION OF CIRCLE CRC-CAV-9-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.467	0.166	0.050	0.050	0.116

MM	DIM P18= LOCATION OF CIRCLE CRC-CAV-9-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	210.300	210.394	0.093	0.050	0.050	0.043

MM	DIM Q1= LOCATION OF CIRCLE CR-SUPPORT-RING-T12					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.115	-0.385	0.080	0.080	0.305

MM	DIM Q2= LOCATION OF CIRCLE CR-SUPPORT-RING-T23					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.050	-0.450	0.080	0.080	0.370

MM	DIM Q3= LOCATION OF CIRCLE CR-SUPPORT-RING-T34					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.079	-0.421	0.080	0.080	0.341

MM	DIM Q4= LOCATION OF CIRCLE CR-SUPPORT-RING-T45					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.067	-0.433	0.080	0.080	0.353

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MM	DIM Q5= LOCATION OF CIRCLE CR-SUPPORT-RING-T56					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.089	-0.411	0.080	0.080	0.331

MM	DIM Q6= LOCATION OF CIRCLE CR-SUPPORT-RING-T67					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.023	-0.477	0.080	0.080	0.397

MM	DIM Q7= LOCATION OF CIRCLE CR-SUPPORT-RING-T78					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.087	-0.413	0.080	0.080	0.333

MM	DIM Q8= LOCATION OF CIRCLE CR-SUPPORT-RING-T89					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	56.500	56.089	-0.411	0.080	0.080	0.331

MM	DIM Q9= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

MM	DIM Q10= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

MM	DIM Q11= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

MM	DIM Q12= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

MM	DIM Q13= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

MM	DIM Q14= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

MM	DIM Q15= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

MM	DIM Q16= LOCATION OF POINT NOTINTHISORIENTATION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	0.000	0.000	0.000	0.080	0.080	0.000

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MM	DIM R1= LOCATION OF CIRCLE CRC-VAC-1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	191.200	191.213	0.013	0.200	0.200	0.000

MM	DIM R2= LOCATION OF CIRCLE CRC-VAC-2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	200.000	200.010	0.010	0.200	0.200	0.000

MM	DIM S1= LOCATION OF CIRCLE CRC_BC_NEF					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	60.000	59.947	-0.053	0.300	0.300	0.000

MM	DIM S2= LOCATION OF CIRCLE CRC_BC_FEF					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
R	60.000	59.971	-0.029	0.300	0.300	0.000

MM	DIM T1= KEYED IN DIMENSION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	109.200	109.120	-0.080	0.200	0.200	0.000

MM	DIM T2= KEYED IN DIMENSION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	20.700	20.610	-0.090	0.100	0.000	0.090

MM	DIM T3= KEYED IN DIMENSION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	20.700	20.750	0.050	0.100	0.000	0.000

MM	DIM T4= KEYED IN DIMENSION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	20.700	20.770	0.070	0.100	0.000	0.000

MM	DIM T5= KEYED IN DIMENSION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	55.200	55.000	-0.200	0.200	0.000	0.200

MM	DIM T6= KEYED IN DIMENSION					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	109.200	109.180	-0.020	0.200	0.200	0.000

MM	DIM U1= CONCENTRICITY FROM CIRCLE CR-NEAR-END-FLANGE TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.740	0.740	0.400	0.000	0.340

MM	DIM U2= CONCENTRICITY FROM CIRCLE CR-FAR-END TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.388	0.388	0.400	0.000	0.000

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◎ MM	DIM U3= CONCENTRICITY FROM CIRCLE CRC-CAV-1-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.152	0.152	0.400	0.000	0.000

◎ MM	DIM U4= CONCENTRICITY FROM CIRCLE CRC-CAV-1-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.206	0.206	0.400	0.000	0.000

◎ MM	DIM U5= CONCENTRICITY FROM CIRCLE CRC-CAV-2-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.694	0.694	0.400	0.000	0.294

◎ MM	DIM U6= CONCENTRICITY FROM CIRCLE CRC-CAV-2-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.763	0.763	0.400	0.000	0.363

◎ MM	DIM U7= CONCENTRICITY FROM CIRCLE CRC-CAV-3-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.158	1.158	0.400	0.000	0.758

◎ MM	DIM U8= CONCENTRICITY FROM CIRCLE CRC-CAV-3-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.247	1.247	0.400	0.000	0.847

◎ MM	DIM U9= CONCENTRICITY FROM CIRCLE CRC-CAV-4-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.402	1.402	0.400	0.000	1.002

◎ MM	DIM U10= CONCENTRICITY FROM CIRCLE CRC-CAV-4-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.290	1.290	0.400	0.000	0.890

◎ MM	DIM U11= CONCENTRICITY FROM CIRCLE CRC-CAV-5-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.570	1.570	0.400	0.000	1.170

◎ MM	DIM U12= CONCENTRICITY FROM CIRCLE CRC-CAV-5-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.531	1.531	0.400	0.000	1.131

◎ MM	DIM U13= CONCENTRICITY FROM CIRCLE CRC-CAV-6-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.472	1.472	0.400	0.000	1.072

◎ MM	DIM U14= CONCENTRICITY FROM CIRCLE CRC-CAV-6-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.528	1.528	0.400	0.000	1.128

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◎ MM	DIM U15= CONCENTRICITY FROM CIRCLE CRC-CAV-7-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.345	1.345	0.400	0.000	0.945

◎ MM	DIM U16= CONCENTRICITY FROM CIRCLE CRC-CAV-7-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.316	1.316	0.400	0.000	0.916

◎ MM	DIM U17= CONCENTRICITY FROM CIRCLE CRC-CAV-8-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.891	0.891	0.400	0.000	0.491

◎ MM	DIM U18= CONCENTRICITY FROM CIRCLE CRC-CAV-8-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.752	0.752	0.400	0.000	0.352

◎ MM	DIM U19= CONCENTRICITY FROM CIRCLE CRC-CAV-9-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.364	0.364	0.400	0.000	0.000

◎ MM	DIM U20= CONCENTRICITY FROM CIRCLE CRC-CAV-9-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.287	0.287	0.400	0.000	0.000

◎ MM	DIM U21= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T12 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.564	0.564	0.400	0.000	0.164

◎ MM	DIM U22= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T23 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.785	0.785	0.400	0.000	0.385

◎ MM	DIM U23= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T34 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.247	1.247	0.400	0.000	0.847

◎ MM	DIM U24= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T45 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.411	1.411	0.400	0.000	1.011

◎ MM	DIM U25= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T56 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.459	1.459	0.400	0.000	1.059

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◎ MM	DIM U26= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T67 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	1.380	1.380	0.400	0.000	0.980

◎ MM	DIM U27= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T78 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.912	0.912	0.400	0.000	0.512

◎ MM	DIM U28= CONCENTRICITY FROM CIRCLE CR-SUPPORT-RING-T89 TO LINE LNC-LEVE					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.561	0.561	0.400	0.000	0.161

◎ MM	DIM U29= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

◎ MM	DIM U30= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

◎ MM	DIM U31= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

◎ MM	DIM U32= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

◎ MM	DIM U33= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

◎ MM	DIM U34= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

◎ MM	DIM U35= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

◎ MM	DIM U36= CONCENTRICITY FROM CIRCLE NITO TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.027	0.027	0.400	0.000	0.000

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◎ MM	DIM U37= CONCENTRICITY FROM CIRCLE CRC-DAT-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.000	0.000	0.400	0.000	0.000

◎ MM	DIM U38= CONCENTRICITY FROM CIRCLE CRC-DAT-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.000	0.000	0.400	0.000	0.000

◎ MM	DIM U39= CONCENTRICITY FROM CIRCLE CRC-VAC-1 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.116	0.116	0.400	0.000	0.000

◎ MM	DIM U40= CONCENTRICITY FROM CIRCLE CRC-VAC-2 TO LINE LNC-LEVEL					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.185	0.185	0.400	0.000	0.000

⊥ MM	DIM V1= PERPEND OF PLANE PL-NEAR-END-FLANGE,RFS TO LINE LNC-LEVEL,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.429	0.429	0.200	0.000	0.229

⊥ MM	DIM V2= PERPEND OF PLANE PL-FAR-END,RFS TO LINE LNC-LEVEL,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.530	0.530	0.200	0.000	0.330

END OF MEASUREMENT FOR
PN=PN440004-n ILC 1p3GHZ RF CAVITY ASSEMBLY 000 TB9RI029 v4z IR D
WG= SN=
TOTAL # OF MEAS =50 # OUT OF TOL =27