FERMILAB Technical Division

QUALITY CONTROL REPORT

DATE=1/29/2009 TIME=8:52:25 AM

PART NAME : PN1_04_4623_0p000_v5-IL TE1ACC-003
REV NUMBER :
SER NUMBER :
STATS COUNT : 1

457528-n
DESY 1.3GHZ TESLA
SINGLE CELL RF CAVITY
ASSEMBLY

'Inspected by ' : Oscar Lira
'Sample Number' : RF89029 TE1ACC-03
' ' : 012909

MM DIM LOC1= LOCATION OF PLANE PLNC FLANGE1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	196.000	196.376	0.376	0.500	0.500	0.000
FL	0.000	0.132	0.132	0.400	0.000	0.000

MM DIM LOC2= LOCATION OF PLANE PLNC FLANGE2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-196.000	-196.378	-0.378	0.500	0.500	0.000
FL	0.000	0.036	0.036	0.400	0.000	0.000

MM DIM LOC3= LOCATION OF PLANE PLNC SS F1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	195.000	195.262	0.262	0.500	0.500	0.000
FL	0.000	0.117	0.117	0.400	0.000	0.000

MM DIM LOC4= LOCATION OF PLANE PLNC SS F2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-195.000	-195.238	-0.238	0.500	0.500	0.000
FL	0.000	0.061	0.061	0.400	0.000	0.000

MM DIM LOC5= LOCATION OF PLANE PLNC BT F1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	196.000	196.169	0.169	0.500	0.500	0.000
FL	0.000	0.105	0.105	0.400	0.000	0.000

MM DIM LOC6= LOCATION OF PLANE PLNC BT F2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-196.000	-196.195	-0.195	0.500	0.500	0.000
FL	0.000	0.093	0.093	0.400	0.000	0.000

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⊥ MM	DIM PERP1= PERPEND OF PLANE PLNC FLANGE1,RFS TO LINE LINC BEAM AXIS,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.317	0.317	0.400	0.000	0.000

⊥ MM	DIM PERP2= PERPEND OF PLANE PLNC FLANGE2,RFS TO LINE LINC BEAM AXIS,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.627	0.627	0.400	0.000	0.227

// MM	DIM PARL1= PARALLEL OF PLANE PLNC FLANGE1,RFS TO PLANE PLNC FLANGE2,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.504	0.504	0.400	0.000	0.104

⊕ MM	DIM LOC7= LOCATION OF PLANE PLNC FLANGE1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	1.0000	0.0007	-0.0019			

⊕ MM	DIM LOC8= LOCATION OF PLANE PLNC FLANGE2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	-1.0000	0.0013	0.0045			

⊕ MM	DIM LOC9= LOCATION OF PLANE PLNC SS F1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	1.0000	0.0007	-0.0020			

⊕ MM	DIM LOC10= LOCATION OF PLANE PLNC SS F2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	-1.0000	0.0013	0.0046			

⊕ MM	DIM LOC11= LOCATION OF PLANE PLNC BT F1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	1.0000	0.0003	0.0007			

⊕ MM	DIM LOC12= LOCATION OF PLANE PLNC BT F2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	-1.0000	0.0003	0.0028			

↔ MM	DIM DIST1= 2D DISTANCE FROM PLANE PLNC FLANGE1 TO PLANE PLNC FLANGE2 PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	392.000	392.754	0.754	1.000	1.000	0.000

↔ MM	DIM DIST2= 2D DISTANCE FROM PLANE PLNC FLANGE1 TO PLANE PLNC SS F1 PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1.000	1.114	0.114	0.100	0.000	0.014

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MM DIM DIST3= 2D DISTANCE FROM PLANE PLNC FLANGE2 TO PLANE PLNC SS F2 PAR TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1.000	1.140	0.140	0.100	0.000	0.040

MM DIM DIST4= 2D DISTANCE FROM POINT PNT FLANGE1-2 TO POINT PNT FLANGE2-2 PAR TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	392.000	392.540	0.540	1.000	1.000	0.000

MM DIM DIST5= 2D DISTANCE FROM POINT PNT FLANGE1-5 TO POINT PNT FLANGE2-5 PAR TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	392.000	392.712	0.712	1.000	1.000	0.000

MM DIM DIST6= 2D DISTANCE FROM POINT PNT FLANGE1-8 TO POINT PNT FLANGE2-8 PAR TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	392.000	392.992	0.992	1.000	1.000	0.000

MM DIM DIST7= 2D DISTANCE FROM POINT PNT FLANGE1-11 TO POINT PNT FLANGE2-11 PAR TO XAXIS

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	392.000	392.763	0.763	1.000	1.000	0.000

MM DIM LOC13= LOCATION OF CIRCLE CIR BT ID1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	193.000	193.509	0.509	10.000	10.000	0.000
Y	0.000	0.000	0.000	0.000	0.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	78.000	78.231	0.231	0.000	0.000	0.231
RN	0.000	0.195	0.195	0.050	0.000	0.145

MM DIM LOC14= LOCATION OF CIRCLE CIR BT ID2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-193.000	-193.137	-0.137	10.000	10.000	0.000
Y	0.000	0.000	0.000	0.000	0.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	78.000	78.182	0.182	0.050	0.000	0.132
RN	0.000	0.174	0.174	0.050	0.000	0.124

MM DIM LOC15= LOCATION OF CIRCLE CIRC BC D1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	193.000	193.509	0.509	10.000	10.000	0.000
Y	0.000	0.143	0.143	0.150	0.150	0.000
Z	0.000	0.009	0.009	0.150	0.150	0.000
D	120.000	119.937	-0.063	0.150	0.150	0.000
RN	0.000	0.047	0.047	0.150	0.000	0.000

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MM DIM LOC16= LOCATION OF CIRCLE CIRC BC D2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-193.000	-193.137	-0.137	10.000	10.000	0.000
Y	0.000	-0.025	-0.025	0.150	0.150	0.000
Z	0.000	0.344	0.344	0.150	0.150	0.194
D	120.000	119.949	-0.051	0.150	0.150	0.000
RN	0.000	0.039	0.039	0.150	0.000	0.000

MM DIM LOC17= LOCATION OF CIRCLE CIRC HC1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	4.500	4.503	0.003	1.000	1.000	0.000
Y	0.000	0.015	0.014	0.100	0.100	0.000
Z	0.000	0.032	0.032	0.100	0.100	0.000
D	210.300	210.559	0.258	0.050	0.000	0.208
RN	0.000	0.208	0.208	0.050	0.000	0.158

MM DIM LOC18= LOCATION OF CIRCLE CIRC HC2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-4.500	-4.500	0.000	1.000	1.000	0.000
Y	0.000	0.048	0.047	0.100	0.100	0.000
Z	0.000	0.031	0.031	0.100	0.100	0.000
D	210.300	210.547	0.247	0.050	0.000	0.197
RN	0.000	0.235	0.235	0.050	0.000	0.185

MM DIM LOC19= LOCATION OF CIRCLE CIRC BTOD1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	61.000	60.999	-0.001	1.000	1.000	0.000
Y	0.000	0.017	0.016	0.100	0.100	0.000
Z	0.000	0.137	0.137	0.100	0.100	0.037
D	83.600	83.959	0.359	0.100	0.050	0.259
RN	0.000	0.175	0.175	0.150	0.000	0.025

MM DIM LOC20= LOCATION OF CIRCLE CIRC BTOD2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-61.000	-60.999	0.001	1.000	1.000	0.000
Y	0.000	-0.096	-0.097	0.100	0.100	0.000
Z	0.000	0.154	0.154	0.100	0.100	0.054
D	83.600	84.169	0.569	0.100	0.050	0.469
RN	0.000	0.266	0.266	0.150	0.000	0.116

DEG DIM ANGL1= 2D ANGLE (TRUE) FROM LINE LINC OFFSET1 TO LINE LINC OFFSET2

AX	NOMINAL	MEAS	DEV
A	0.000	0.247	0.247

MM DIM LOC21= LOCATION OF LINE LINC OFFSET1

AX	NOMINAL	MEAS	DEV
V	0.00085	-0.00000	1.00000

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MM	DIM LOC22= LOCATION OF LINE LINC OFFSET2		
AX	NOMINAL	MEAS	DEV
V	0.00086	-0.00432	0.99999

MM	DIM LOC25= LOCATION OF CIRCLE CIR F1 SS ID					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	109.200	109.184	-0.016	0.200	0.000	0.016
RN	0.000	0.017	0.017	0.200	0.000	0.000

MM	DIM LOC26= LOCATION OF CIRCLE CIR F2 SS ID					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
D	109.200	109.185	-0.015	0.200	0.000	0.015
RN	0.000	0.015	0.015	0.200	0.000	0.000

MM	DIM LOC28 ATTACH RING LEFT BOTT= LOCATION OF PLANE PLNC ARLB					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-112.000	-111.030	0.970	0.500	0.500	0.470
FL	0.000	0.006	0.006	0.400	0.000	0.000

MM	DIM LOC29 ATTACH RING LEFT TOP= LOCATION OF PLANE PLNC ARLT					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-112.000	-110.845	1.155	0.500	0.500	0.655
FL	0.000	0.003	0.003	0.400	0.000	0.000

MM	DIM LOC30 ATTACH RING RIGHT BOTT= LOCATION OF PLANE PLNC ARRB					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	112.000	110.991	-1.009	0.500	0.500	0.509
FL	0.000	0.007	0.007	0.400	0.000	0.000

MM	DIM LOC31 ATTACH RING RIGHT TOP= LOCATION OF PLANE PLNC ARRT					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	112.000	111.045	-0.955	0.500	0.500	0.455
FL	0.000	0.008	0.008	0.400	0.000	0.000

MM	DIM PERP3= PERPEND OF PLANE PLNC ARLB,RFS TO LINE LINC BEAM AXIS,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.083	0.083	0.500	0.000	0.000

MM	DIM PERP4= PERPEND OF PLANE PLNC ARLT,RFS TO LINE LINC BEAM AXIS,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.025	0.025	0.500	0.000	0.000

MM	DIM PERP5= PERPEND OF PLANE PLNC ARRB,RFS TO LINE LINC BEAM AXIS,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.054	0.054	0.500	0.000	0.000

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⊥ MM	DIM PERP6= PERPEND OF PLANE PLNC ARRT,RFS TO LINE LINC BEAM AXIS,RFS EXTEND=0.000					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.102	0.102	0.500	0.000	0.000

↔ MM	DIM DIST8 ATTACH RING LEFT BOTT= 2D DISTANCE FROM PLANE PLNC FLANGE2 TO PLANE PLNC ARLB PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	84.000	85.348	1.348	0.500	0.500	0.848

↔ MM	DIM DIST9 ATTACH RING LEFT TOP= 2D DISTANCE FROM PLANE PLNC FLANGE2 TO PLANE PLNC ARLT PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	84.000	85.533	1.533	0.500	0.500	1.033

↔ MM	DIM DIST10 ATTACH RING RIGHT BOTT= 2D DISTANCE FROM PLANE PLNC FLANGE1 TO PLANE PLNC ARRB PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	84.000	85.386	1.386	0.500	0.500	0.886

↔ MM	DIM DIST11 ATTACH RING RIGHT TOP= 2D DISTANCE FROM PLANE PLNC FLANGE1 TO PLANE PLNC ARRT PAR TO XAXIS					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	84.000	85.331	1.331	0.500	0.500	0.831

****** REPORT ABBREVIATIONS MEANINGS******

AR= Attachment Ring

BT= Beam Tube

HC= Half Cell

SS= Sealing Surface

END OF MEASUREMENT FOR

PN=PN1 04 4623 0p000 v5-IL TE1ACC-003 DWG= SN=

TOTAL # OF MEAS =20 # OUT OF TOL =10