FERMILAB Technical Division

QUALITY CONTROL REPORT

DATE=1/29/2009 TIME=10:09:00 AM

PART NAME : PN1_04_4623_0p000_v4-IL TE1ACC-001
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-01
' ' : 012809

MM DIM LOC1= LOCATION OF PLANE PLNC FLANGE1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	196.000	196.253	0.253	0.500	0.500	0.000
FL	0.000	0.075	0.075	0.400	0.000	0.000

MM DIM LOC2= LOCATION OF PLANE PLNC FLANGE2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-196.000	-196.253	-0.253	0.500	0.500	0.000
FL	0.000	0.075	0.075	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	195.126	0.126	0.500	0.500	0.000
FL	0.000	0.087	0.087	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	-195.133	-0.133	0.500	0.500	0.000
FL	0.000	0.088	0.088	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	196.136	0.136	0.500	0.500	0.000
FL	0.000	0.098	0.098	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	-196.116	-0.116	0.500	0.500	0.000
FL	0.000	0.048	0.048	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	0.241	0.241	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	0.263	0.263	0.400	0.000	0.000

// 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	0.458	0.458	0.400	0.000	0.058

⊕ MM	DIM LOC7= LOCATION OF PLANE PLNC FLANGE1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	1.0000	-0.0017	-0.0004			

⊕ MM	DIM LOC8= LOCATION OF PLANE PLNC FLANGE2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	-1.0000	-0.0018	-0.0002			

⊕ MM	DIM LOC9= LOCATION OF PLANE PLNC SS F1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	1.0000	-0.0017	-0.0005			

⊕ MM	DIM LOC10= LOCATION OF PLANE PLNC SS F2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	-1.0000	-0.0018	-0.0002			

⊕ MM	DIM LOC11= LOCATION OF PLANE PLNC BT F1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	1.0000	-0.0013	0.0002			

⊕ MM	DIM LOC12= LOCATION OF PLANE PLNC BT F2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
V	-1.0000	-0.0010	0.0008			

↔ 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	392.507	0.507	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	1.127	0.127	0.100	0.000	0.027

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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	1.120	0.120	0.100	0.000	0.020

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	392.739	0.739	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	392.342	0.342	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	392.334	0.334	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	392.615	0.615	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	193.292	0.292	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	78.325	0.325	0.000	0.000	0.325
RN	0.000	0.325	0.325	0.050	0.000	0.275

MM DIM LOC14= LOCATION OF CIRCLE CIR BT ID2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-193.000	-193.371	-0.371	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	78.154	0.154	0.050	0.000	0.104
RN	0.000	0.421	0.421	0.050	0.000	0.371

MM DIM LOC15= LOCATION OF CIRCLE CIRC BC D1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	193.000	193.292	0.292	10.000	10.000	0.000
Y	0.000	-0.089	-0.089	0.150	0.150	0.000
Z	0.000	-0.076	-0.076	0.150	0.150	0.000
D	120.000	119.916	-0.084	0.150	0.150	0.000
RN	0.000	0.049	0.049	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	-193.371	-0.371	10.000	10.000	0.000
Y	0.000	-0.032	-0.032	0.150	0.150	0.000
Z	0.000	0.198	0.198	0.150	0.150	0.048
D	120.000	119.927	-0.073	0.150	0.150	0.000
RN	0.000	0.033	0.033	0.150	0.000	0.000

MM DIM LOC17= LOCATION OF CIRCLE CIRC HC1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	4.500	4.501	0.001	1.000	1.000	0.000
Y	0.000	-0.011	-0.011	0.100	0.100	0.000
Z	0.000	-0.003	-0.003	0.100	0.100	0.000
D	210.300	210.546	0.246	0.050	0.000	0.196
RN	0.000	0.207	0.207	0.050	0.000	0.157

MM DIM LOC18= LOCATION OF CIRCLE CIRC HC2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-4.500	-4.501	-0.001	1.000	1.000	0.000
Y	0.000	-0.007	-0.007	0.100	0.100	0.000
Z	0.000	0.013	0.013	0.100	0.100	0.000
D	210.300	210.665	0.365	0.050	0.000	0.315
RN	0.000	0.227	0.227	0.050	0.000	0.177

MM DIM LOC19= LOCATION OF CIRCLE CIRC BTOD1

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	61.000	60.998	-0.002	1.000	1.000	0.000
Y	0.000	-0.099	-0.099	0.100	0.100	0.000
Z	0.000	0.025	0.025	0.100	0.100	0.000
D	83.600	83.813	0.213	0.100	0.050	0.113
RN	0.000	0.257	0.257	0.150	0.000	0.107

MM DIM LOC20= LOCATION OF CIRCLE CIRC BTOD2

AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	-61.000	-61.001	-0.001	1.000	1.000	0.000
Y	0.000	0.159	0.159	0.100	0.100	0.059
Z	0.000	0.049	0.049	0.100	0.100	0.000
D	83.600	83.930	0.330	0.100	0.050	0.230
RN	0.000	0.187	0.187	0.150	0.000	0.037

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

AX	NOMINAL	MEAS	DEV
A	0.000	0.113	0.113

MM DIM LOC21= LOCATION OF LINE LINC OFFSET1

AX	NOMINAL	MEAS	DEV
V	0.00077	-0.00000	1.00000

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MM	DIM LOC22= LOCATION OF LINE LINC OFFSET2		
AX	NOMINAL	MEAS	DEV
V	0.00077	-0.00197	1.00000

MM	DIM LOC25= LOCATION OF CIRCLE CIR F1 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	0.011	0.011	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	109.182	-0.018	0.200	0.000	0.018
RN	0.000	0.011	0.011	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	-111.265	0.735	0.500	0.500	0.235
FL	0.000	0.009	0.009	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	-111.265	0.735	0.500	0.500	0.235
FL	0.000	0.025	0.025	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	110.773	-1.227	0.500	0.500	0.727
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	110.887	-1.113	0.500	0.500	0.613
FL	0.000	0.006	0.006	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	0.188	0.188	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	0.145	0.145	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	0.122	0.122	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	0.096	0.096	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	84.988	0.988	0.500	0.500	0.488

↔ 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	84.988	0.988	0.500	0.500	0.488

↔ 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	85.481	1.481	0.500	0.500	0.981

↔ 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	85.366	1.366	0.500	0.500	0.866

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

AR= Attachment Ring

BT= Beam Tube

HC= Half Cell

SS= Sealing Surface

END OF MEASUREMENT FOR

PN=PN1 04 4623 0p000 v4-IL TE1ACC-001 DWG= SN=

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