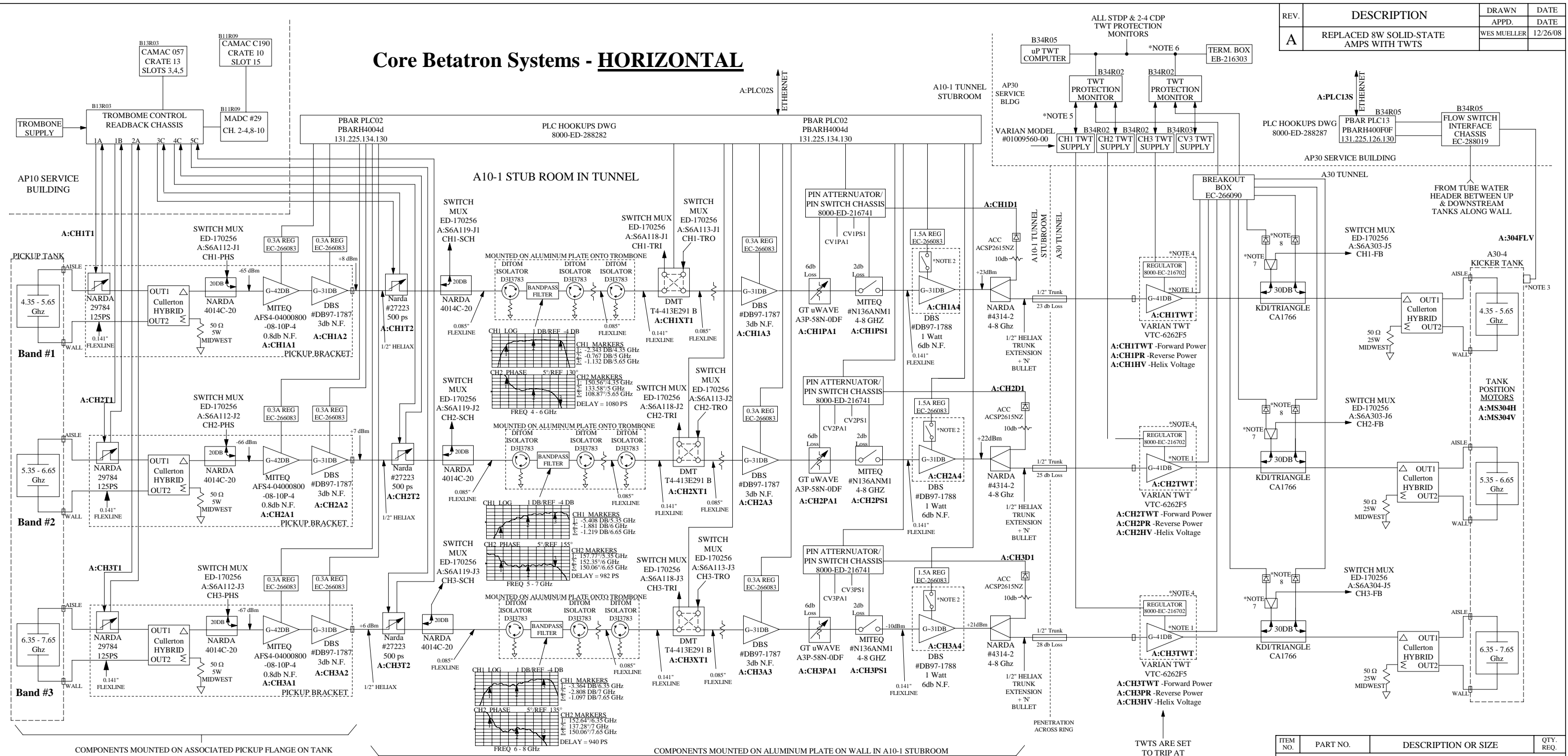


Core Betatron Systems - HORIZONTAL



REV.	DESCRIPTION	DRAWN	DATE
A	REPLACED 8W SOLID-STATE AMPS WITH TWTs	WES MUELLER	12/26/08

- NOTES:**
- 1) AN EXTERNAL TEMPERATURE KLIXON IS ATTACHED TO THE HOT (COLLECTOR) END OF TWT. KLIXON BY ELMWOOD SENSORS, MODEL 3100-56-162L250. NORMALLY CLOSED, SET TO OPEN AT ~ 250°F ±9°F.
 - 2) TEMPERATURE KLIXONS ARE MOUNTED ON COPPER CHILL PLATE WITH AMP AND OPEN AT 120°F, MODEL #3100-3-1439, FROM ELMWOOD SENSORS. AMP IS WATER COOLED OFF OF -90°F TUNNEL MAGNET WATER.
 - 3) TANK FLOW SWITCHES ARE VORTEX TYPE BY UNIVERSAL FLOW MONITORS, INC. COOLPOINT MODEL CP-1/4. THEY ARE MOUNTED NEAR CEILING ABOVE THEIR ASSOCIATED TANK.
 - 4) TWT AND TWT REGULATOR ARE MOUNTED ON A WATER COOLED COPPER CHILL PLATE (DWG. 2214-MC-187479).
 - 5) TWT/TPM (TRAVELLING WAVE TUBE PROTECTION MONITOR), DWG. 8000-ED-170660, CABLING TO TWT POWER SUPPLY CONSISTS OF THREE RG58 COAX FOR HELIX VOLTAGE MONITOR, HELIX MODULATION, AND FAULT INTERLOCK, TWO 10C/22 AWG CABLES TY-RAPPED INTO ONE CONNECTOR FOR REMOTE CONTROL/STATUS. THERE ARE ALSO FOUR RG-174 COAX FROM DIODE DETECTORS FOR FORWARD/REVERSE POWER PROTECTION AND TWO RG-108 (TWINAX) FOR CHILL PLATE (OVERTEMP) FAULTS (SEE NOTE 9 ALSO).
 - 6) EXTERNAL DATA BUS IS A 50C RIBBON CABLE DAISY-CHAINED THRU ALL THE TWT/TPMs TO TPM.
 - 7) SPLITTERS ON TWT COUPLERS ARE BY XXXXX, MODEL XXXXX.
 - 8) TWT FORWARD AND REVERSE DIODE DETECTORS ARE BY HEROTEK, INC., MODEL DHM124NBM.

8/30/09

ITEM NO.	PART NO.	DESCRIPTION OR SIZE	QTY. REQ.
PARTS LIST			
UNLESS OTHERWISE SPECIFIED		ORIGINATOR	RALPH PASQUINELLI
FRACTIONS	DECIMALS	ANGLES	DRAWN
			WES MUELLER
			4/29/02
1.	BREAK ALL SHARP EDGES	CHECKED	
2.	DO NOT SCALE DRAWING	APPROVED	
3.	DIMENSIONING IN ACCORD WITH ANSI Y14.5 STD'S	USED ON	
✓	MAX. ALL MACHINED SURFACES	MATERIAL-	
FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY			
ANTI-PROTON SOURCE 4-8 GHZ CORE BETATRON HORIZONTAL COOLINGS SYSTEMS			
SCALE	FILMED	DRAWING NUMBER	REV.
		8000 - ED - 288201	A