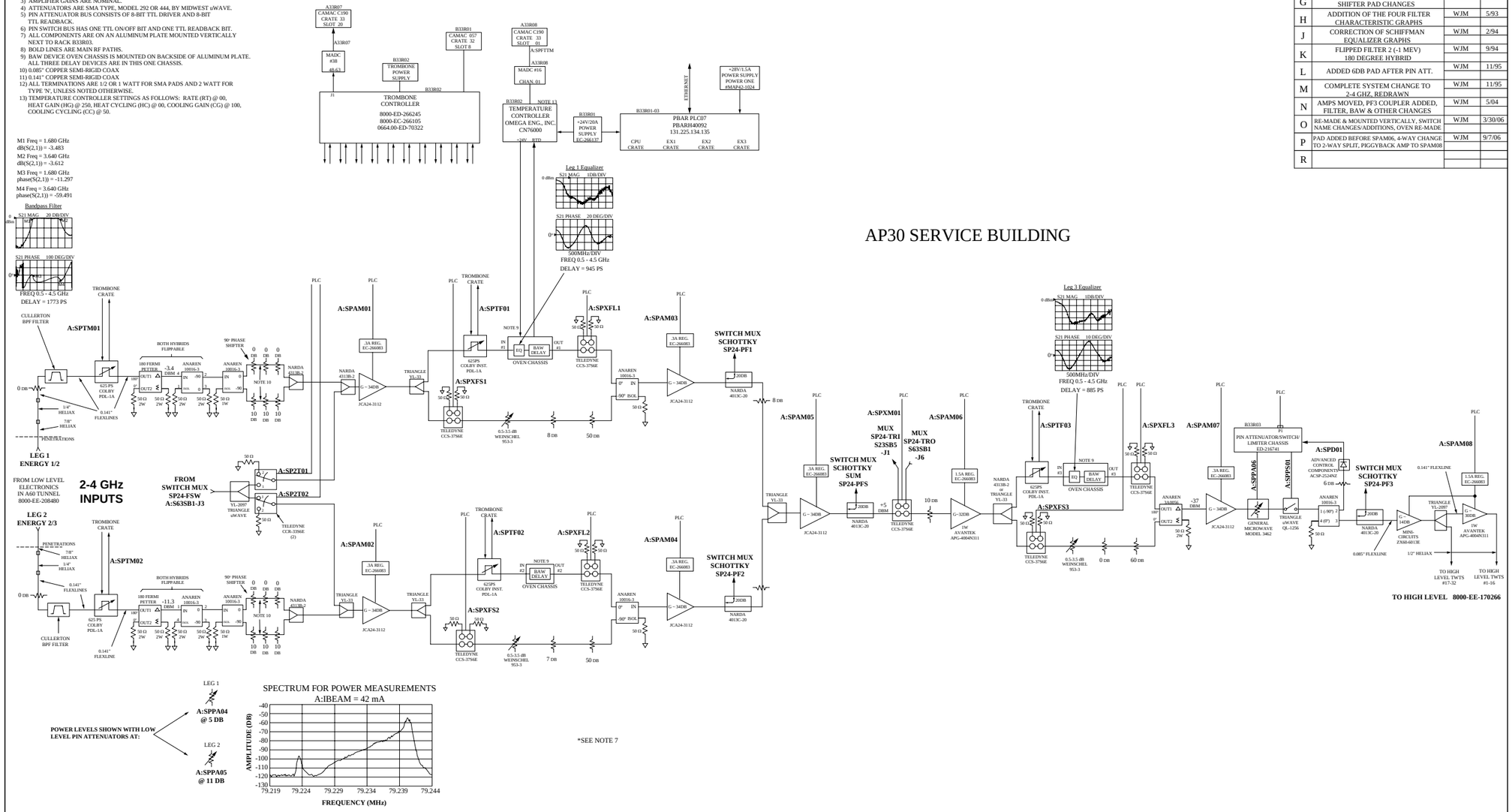
NOTES:
1) AMPLIFIER REGULATOR BUS HAS ON/OFF CONTROL, HIGH/LOW VOLTAGE STATUS, AND HIGH/LOW CURRENT STATUS.
2) TROMBONE POWER BUS HAS MOTOR CONTROL. READBACK BUS HAS LIMIT SWITCH AND POSITION STATUS.
3) AMPLIFIER GAINS ARE NOMINAL.
4) ATTENUATORS ARE SMA TYPE, MODEL 292 Q0 44A, BY MIDWEST uWAVE.
5) PIN ATTENUATOR BUS CONSISTS OF 8-BIT TTL DRIVER AND 8-BIT TTL READBACK.
6) PIN SWITCH BUS HAS ONE TTL ON/OFF BIT AND ONE TTL READBACK BIT.
7) ALL COMPONENTS ARE ON AN ALUMINUM PLATE MOUNTED VERTICALLY NEXT TO RACK B33R03.
8) BOLD LINES ARE MAIN RF PATHS.
9) BAW DEVICE OVEN CHASSIS IS MOUNTED ON BACKSIDE OF ALUMINUM PLATE. ALL THREE DELAY DEVICES ARE IN THIS ONE CHASSIS.
10) 0.085" COPPER SEMI-RIGID COAX
11) 0.141" COPPER SEMI-RIGID COAX
12) ALL TERMINATIONS ARE 1/2 OR 1 WATT FOR SMA PADS AND 2 WATT FOR TYPE N, UNLESS NOTED OTHERWISE.
13) TEMPERATURE CONTROLLER SETTINGS AS FOLLOWS: RATE (RT) @ 00, HEAT GAIN (HG) @ 250, HEAT CYCLING (HC) @ 00, COOLING GAIN (CG) @ 100, COOLING CYCLING (CC) @ 50.

M1 Freq = 1.680 GHz
dB(S(2,1)) = -3.483
M2 Freq = 3.640 GHz
dB(S(2,1)) = -3.612
M3 Freq = 1.680 GHz
phase(S(2,1)) = -11.297
M4 Freq = 3.640 GHz
phase(S(2,1)) = -59.491

| REV. | DESCRIPTION | DRAWN / APPD. | DATE |
|---|---|---|---|
| F | PIN ATT. LIMIT & DIODE NAMES ADDED | WJM | 10/92 |
| G | REPLACED A:SPPA05 AND PHASE SHIFTER PAD CHANGES | WJM | 12/92 |
| H | ADDITION OF THE FOUR FILTER CHARACTERISTIC GRAPHS | WJM | 5/93 |
| J | CORRECTION OF SCHIFFMAN EQUALIZER GRAPHS | WJM | 2/94 |
| K | FLIPPED FILTER 2 (-1 MEV) 180 DEGREE HYBRID | WJM | 9/94 |
| L | ADDED 6DB PAD AFTER PIN ATT. | WJM | 11/95 |
| M | COMPLETE SYSTEM CHANGE TO 2-4 GHZ, REDRAWN | WJM | 11/95 |
| N | AMPS MOVED, PF3 COUPLER ADDED, FILTER, BAW & OTHER CHANGES | WJM | 5/04 |
| O | RE-MADE & MOUNTED VERTICALLY, SWITCH NAME CHANGES/ADDITIONS, OVEN RE-MADE | WJM | 3/30/06 |
| P | PAD ADDED BEFORE SPAM06, 4-WAY CHANGE TO 2-WAY SPLIT, PIGGYBACK AMP TO SPAM08 | WJM | 9/7/06 |
| R | | | |




AP30 SERVICE BUILDING

9/7/06

| ITEM NO. | PART NO. | DESCRIPTION OR SIZE | QTY. REQ. |
|---|---|---|---|
| PARTS LIST | | | |

| | | | |
|---|---|---|---|
| UNLESS OTHERWISE SPECIFIED | | ORIGINATOR | R. J. PASQUINELLI |
| FRACTIONS | DECIMALS | ANGLES | DRAWN: WES MUELLER 2/20/92 |
| +/- | +/- | +/- | CHECKED |
| 1. BREAK ALL SHARP EDGES 1/64 MAX. | | | APPROVED |
| 2. DO NOT SCALE DRAWING 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

PBAR SOURCE
2-4 GHz STACKTAIL MOMENTUM
MEDIUM LEVEL ELECTRONICS

| SCALE | FILMED | DRAWING NUMBER | REV. |
|---|---|---|---|
| | | 8000 - EE - 170265 | P |