

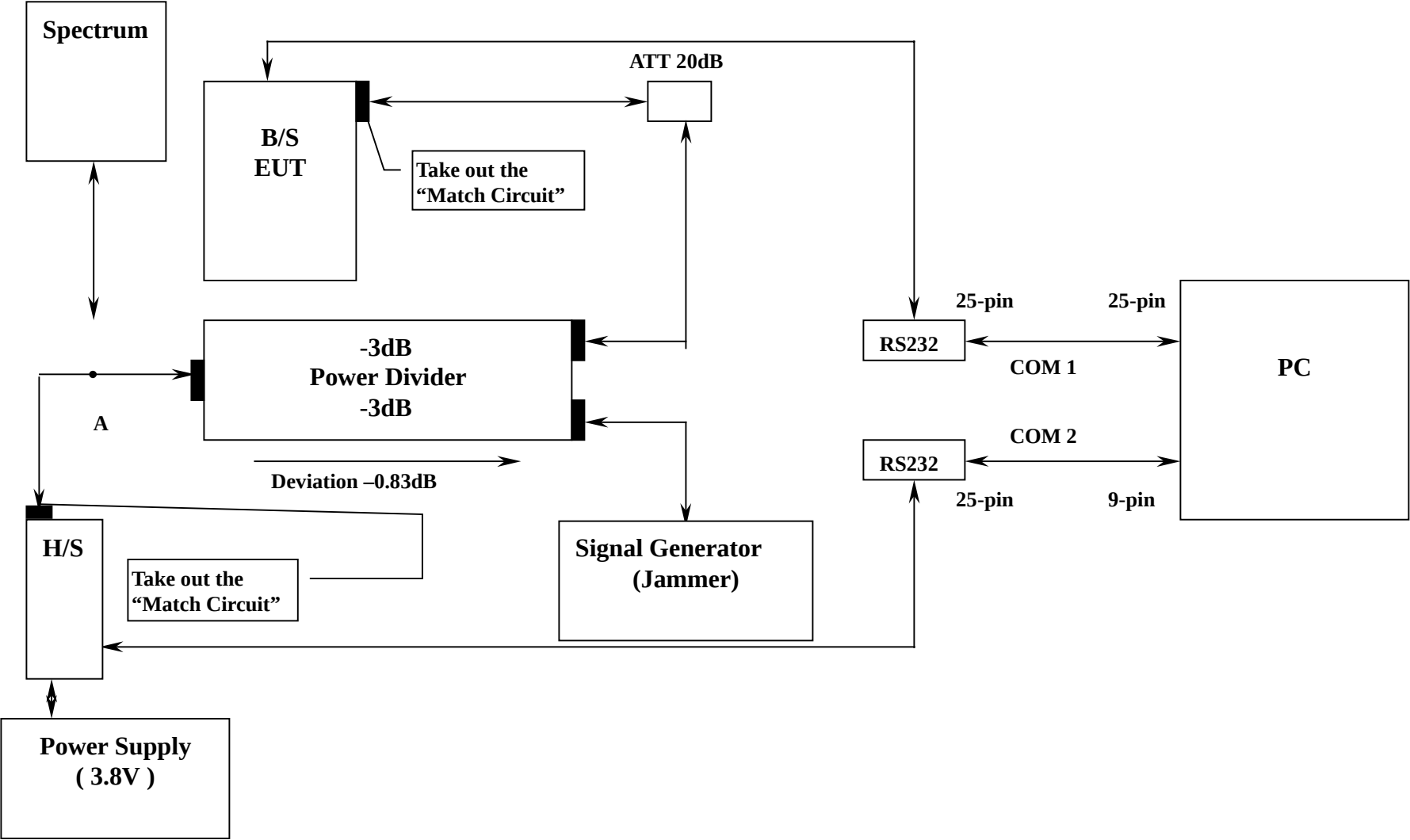
## DB-8214 / 9400A Processing Gain Test Data

| Frequency<br>( MHz ) | Power       | Jamming Level |        |       | Mj   |        |      | Processing Gain |        |      |
|----------------------|-------------|---------------|--------|-------|------|--------|------|-----------------|--------|------|
|                      | Low/Med/Hi  | Low           | Medium | Hi    | Low  | Medium | Hi   | Low             | Medium | Hi   |
| 914.2                | -54/-45/-37 | -42.5         | -32.2  | -24.8 | 11.5 | 12.8   | 12.2 | 21.5            | 22.8   | 22.2 |
| 914.25               | -54/-45/-37 | -42.8         | -34.5  | -24.5 | 11.2 | 10.5   | 12.5 | 21.2            | 20.5   | 22.5 |
| 914.3                | -54/-45/-37 | -43.8         | -34.3  | -25.5 | 10.2 | 10.7   | 11.5 | 20.2            | 20.7   | 21.5 |
| 914.35               | -54/-45/-37 | -44           | -34.5  | -25.3 | 10   | 10.5   | 11.7 | 20              | 20.5   | 21.7 |
| 914.4                | -54/-45/-37 | -18           | -7.5   | -0.5  | 36   | 37.5   | 36.5 | 46              | 47.5   | 46.5 |
| 914.45               | -54/-45/-37 | -43.5         | -34.5  | -25.3 | 10.5 | 10.5   | 11.7 | 20.5            | 20.5   | 21.7 |
| 914.5                | -54/-45/-37 | -47.2         | -34.8  | -26.5 | 6.8  | 10.2   | 10.5 | 16.8            | 20.2   | 20.5 |
| 914.55               | -54/-45/-37 | -47           | -35    | -27   | 7    | 10     | 10   | 17              | 20     | 20   |
| 914.6                | -54/-45/-37 | -44.8         | -32.5  | -25   | 9.2  | 12.5   | 12   | 19.2            | 22.5   | 22   |
| 914.65               | -54/-45/-37 | -47.5         | -36.5  | -27.9 | 6.5  | 8.5    | 9.1  | 16.5            | 18.5   | 19.1 |
| 914.7                | -54/-45/-37 | -48.5         | -36.3  | -29   | 5.5  | 8.7    | 8    | 15.5            | 18.7   | 18   |
| 914.75               | -54/-45/-37 | -48.8         | -36.8  | -28   | 5.2  | 8.2    | 9    | 15.2            | 18.2   | 19   |
| 914.8                | -54/-45/-37 | -47.8         | -36.5  | -28   | 6.92 | 8.5    | 9    | 16.92           | 18.5   | 19   |
| 914.85               | -54/-45/-37 | -39.4         | -29.5  | -21   | 14.6 | 15.5   | 16   | 24.6            | 25.5   | 26   |
| 914.9                | -54/-45/-37 | -48.2         | -36    | -28   | 5.8  | 9      | 9    | 15.8            | 19     | 19   |
| 914.95               | -54/-45/-37 | -48.5         | -35.7  | -28   | 5.5  | 9.3    | 9    | 15.5            | 19.3   | 19   |
| 915                  | -54/-45/-37 | -46.5         | -33.8  | -26   | 7.5  | 11.2   | 11   | 17.5            | 21.2   | 21   |
| 915.05               | -54/-45/-37 | -45.2         | -33.8  | -25   | 8.8  | 11.2   | 12   | 18.8            | 21.2   | 22   |
| 915.1                | -54/-45/-37 | -44           | -32.8  | -24   | 10   | 10.2   | 13   | 20              | 20.2   | 23   |
| 915.15               | -54/-45/-37 | -37.2         | -25.5  | -17   | 16.8 | 19.5   | 20   | 26.8            | 29.5   | 30   |
| 915.2                | -54/-45/-37 | -39.5         | -26.5  | -17.2 | 14.5 | 18.5   | 19.8 | 24.5            | 28.5   | 29.8 |

## Test Equipment List

| Equipment            | Manuf.  | Model No. | Serial No. | Cal Date | Due Date |
|----------------------|---------|-----------|------------|----------|----------|
| POWER<br>SUPPLY      | TOPWARD | 6603D     | 977220     | 11/97    | 98/11    |
| SINGNAL<br>GENERATOR | H.P.    | HP8648A   | 3623A01966 | 8/98     | 8/99     |
| SPECTRUM<br>ANALYZER | H.P.    | 8594E     | 3624A03200 | 8/98     | 8/99     |
| POWER<br>DIVIDER     | H.P.    | 87302C    | 3239A00192 | 8/98     | 8/99     |
| ATTENUATOR<br>/70db  | H.P.    | 8495B     | 3308A18136 | 8/98     | 8/99     |

Test Instruments Configuration



## **TEST PROCEDURE**

### **A. Test setup for Transmit-Only-Test**

- 1.Connected power source for B/S and S/H. “ Park” B/S and S/H.**
- 2.Connected B/S to COM1 of RS232 Adapter board, connected H/S to COM2 of RS232 adapter board.**
- 3. Activate Test Program and select power level and channel number. Enable B/S and S/H so both are in normal operating condition.**

### **B. Test setup for BER Test and Jamming Margin Test**

- 1. Disconnected antenna connection points for B/S and H/S.**
- 2. Connected B/S and H/S as diagram shown above.**
- 3. Activate Test program ( FCCV3\_2.exe) and select Transmit-only Test. Disconnected Signal Generator from point “A” of diagram as shown above. Connected Spectrum analyzer to point “A”. Activate program and record Maximum reading and record as “S”.**
- 4. Disconnected Spectrum analyzer from Point “A” and reconnect back to Signal Generator.**
- 5. “Park” B/S and H/S for one minute and activate test program provided by Rockwell for BER test mode.**
- 6. Press “Start S1-S2 BS Master” starts the tests.**
- 7. Set Signal generator in accordance to FCC requirement with 5kHz step(up to 960KHz away in RI’s DCT), at the same time record level ( Jamming level (J))with Bit Error Rate=10e-3**
- 8. Stop BER, increase 5kHz and repeat step 5.**