

4 Test Results

4.1 RF Power Output

For devices within the scope of FCC §15.247, the peak power conducted from the intentional radiator to the antenna shall not be greater than one watt (30 dBm).

The output from the transmitter was connected to a diode detector and oscilloscope. The peak deflection was measured on the oscilloscope and recorded. A signal generator was then substituted in place of EUT and set to the same frequency as the transmitter. The CW output of the signal generator was increased until the same deflection was noted on the oscilloscope. A power meter was then connected to the output of the signal generator to determine the output power of the signal generator. This level is then recorded as the output power of the EUT at the specified frequency.

The EUT carrier was modulated during this test.

Table 3. RF Power Output

Frequency	Level	Limit	Pass/Fail
Plan A			
Channel 1 5734.00 MHz	19.6 dBm	30 dBm	Pass
Channel 2 5743.80 MHz	19.1 dBm	30 dBm	Pass
Channel 3 5753.00 MHz	18.8 dBm	30 dBm	Pass
Plan B			
Channel 1 5814.70 MHz	19.2 dBm	30 dBm	Pass
Channel 2 5824.00 MHz	18.9 dBm	30 dBm	Pass
Channel 3 5833.10 MHz	18.5 dBm	30 dBm	Pass

4.2 RF Peak Power Spectral Density

For DSSS devices, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band.

The output from the transmitter was connected to an attenuator and then to the input of the RF Spectrum Analyzer. The analyzer offset was adjusted to compensate for the attenuator and other losses in the system.

The carrier was modulated.

Table 4. RF Power Output

Frequency	Level	Limit	Pass/Fail
Plan A			
Channel 1 5734.00 MHz	3.5 dBm	8 dBm	Pass
Channel 2 5743.80 MHz	3.0 dBm	8 dBm	Pass
Channel 3 5753.00 MHz	3.0 dBm	8 dBm	Pass
Plan B			
Channel 1 5814.70 MHz	2.3 dBm	8 dBm	Pass
Channel 2 5824.00 MHz	2.8 dBm	8 dBm	Pass
Channel 3 5833.10 MHz	2.0 dBm	8 dBm	Pass

4.3 Occupied Bandwidth

Occupied bandwidth was performed by coupling the output of the EUT to the input of a spectrum analyzer.

For Direct Sequence Spread Spectrum Systems, FCC Part 15.247 requires that the minimum 6 dB bandwidth be at least 500 kHz.

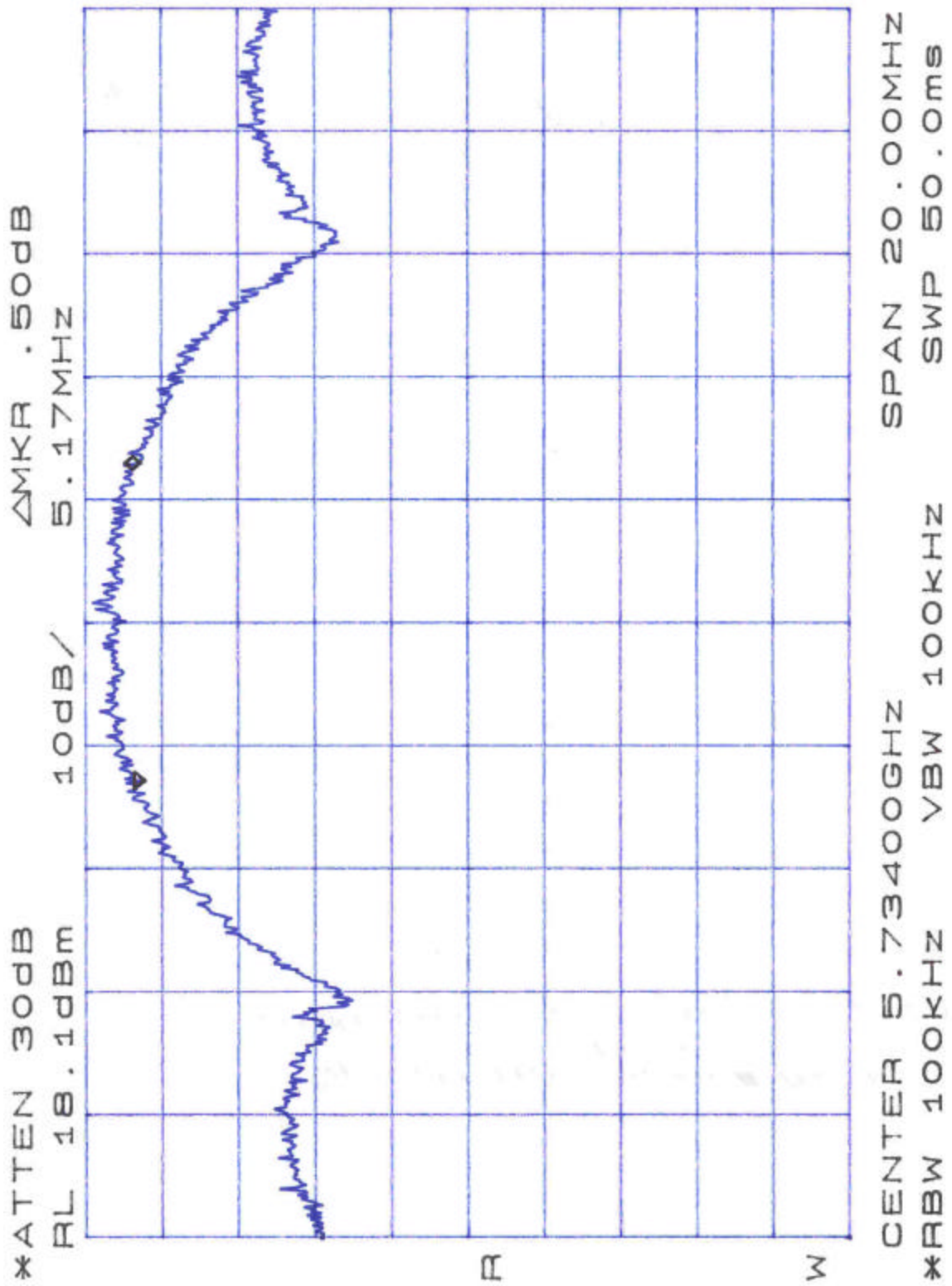


Figure 1. Occupied Bandwidth, Plan A, Channel 1

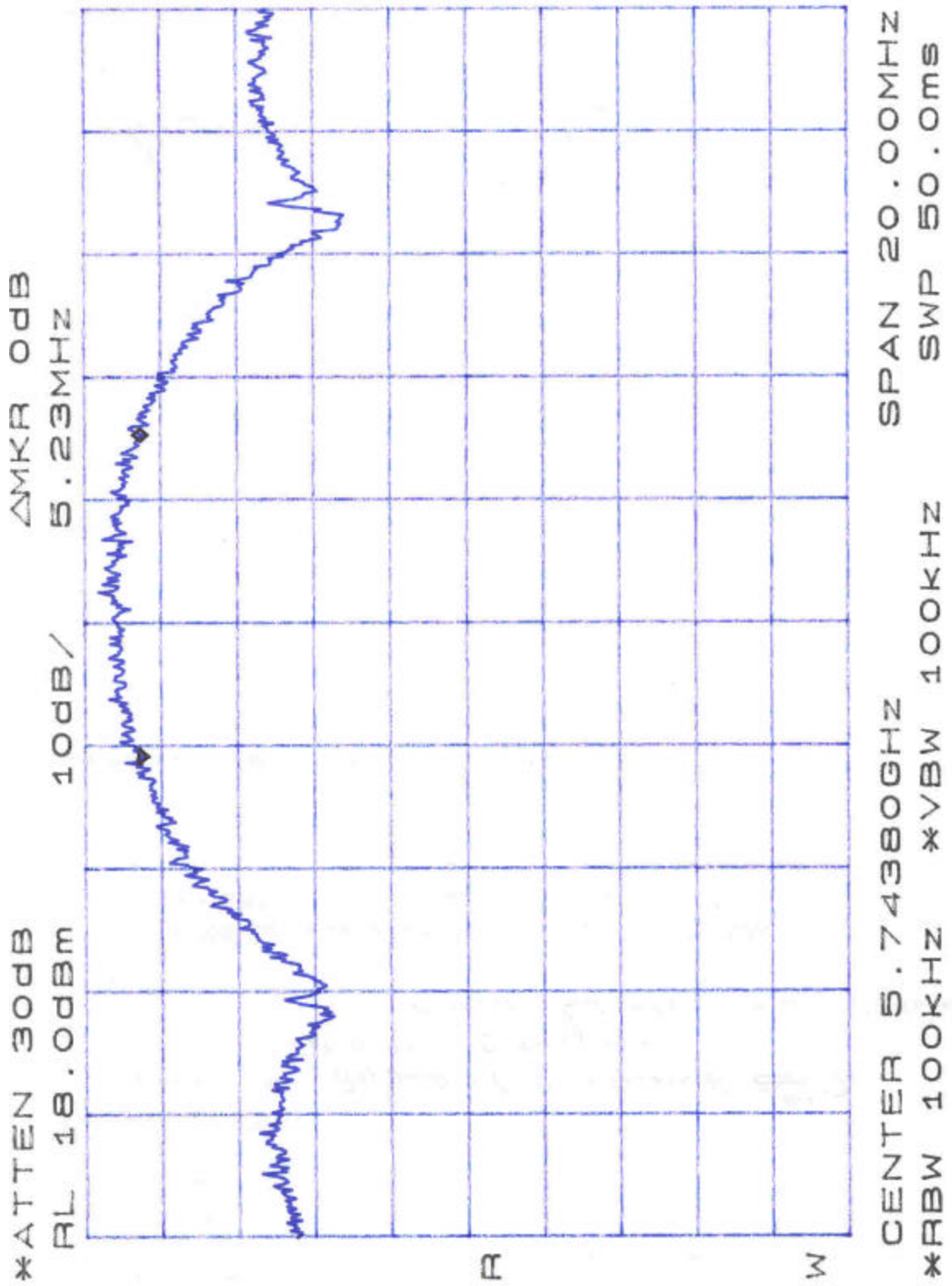


Figure 2. Occupied Bandwidth, Plan A, Channel 2

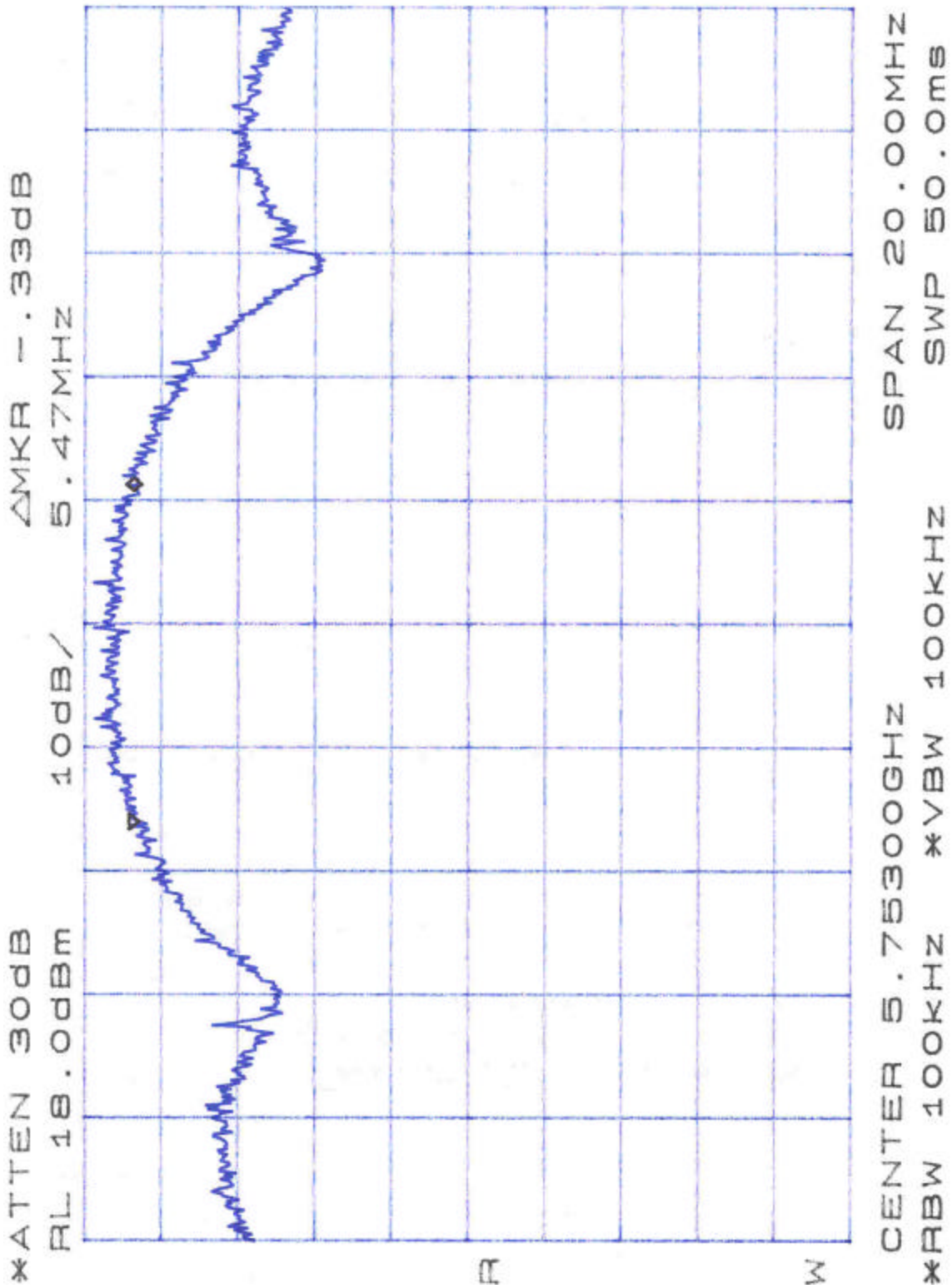


Figure 3. Occupied Bandwidth, Plan A, Channel 3

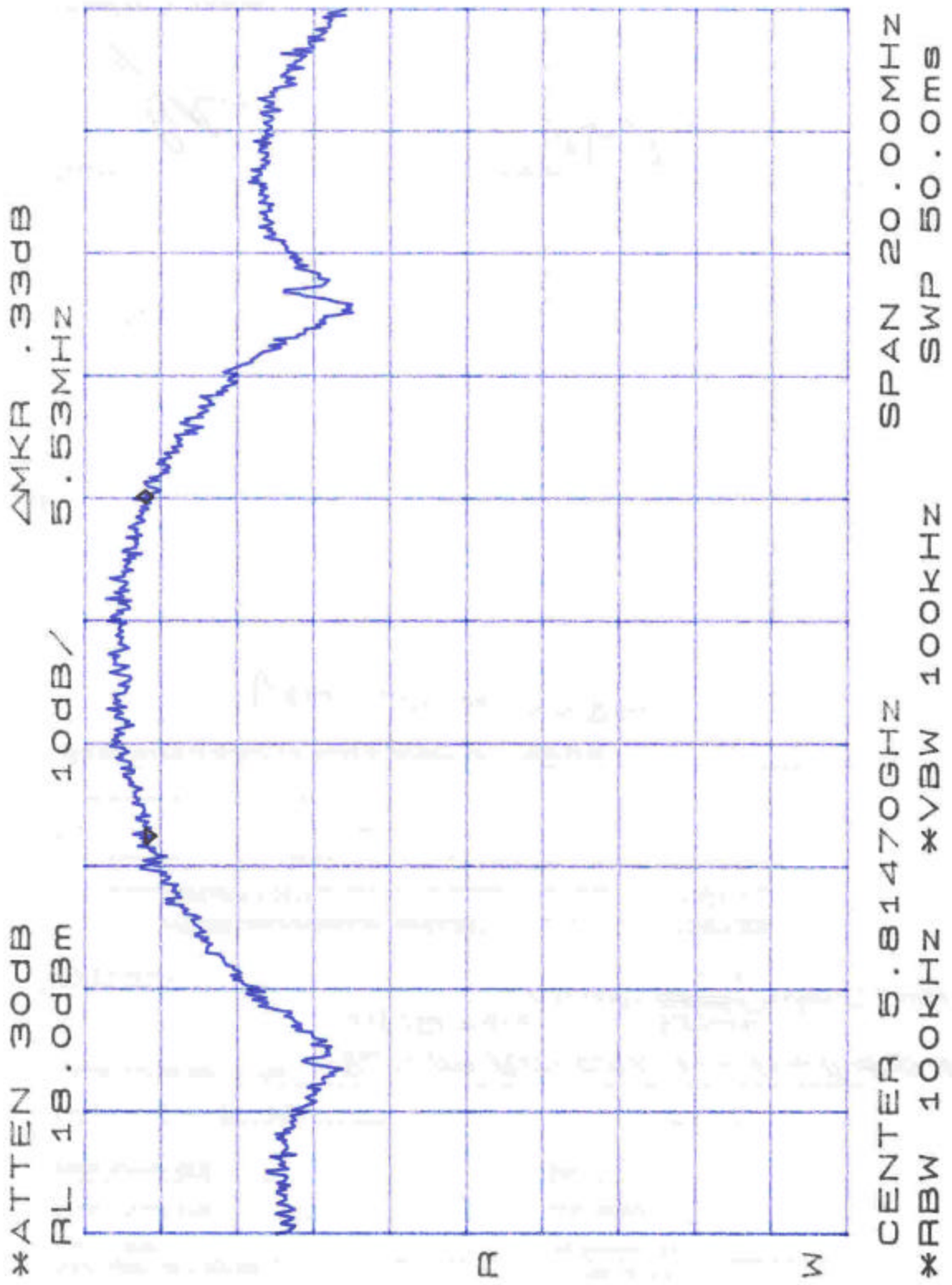


Figure 4. Occupied Bandwidth, Plan B, Channel 1

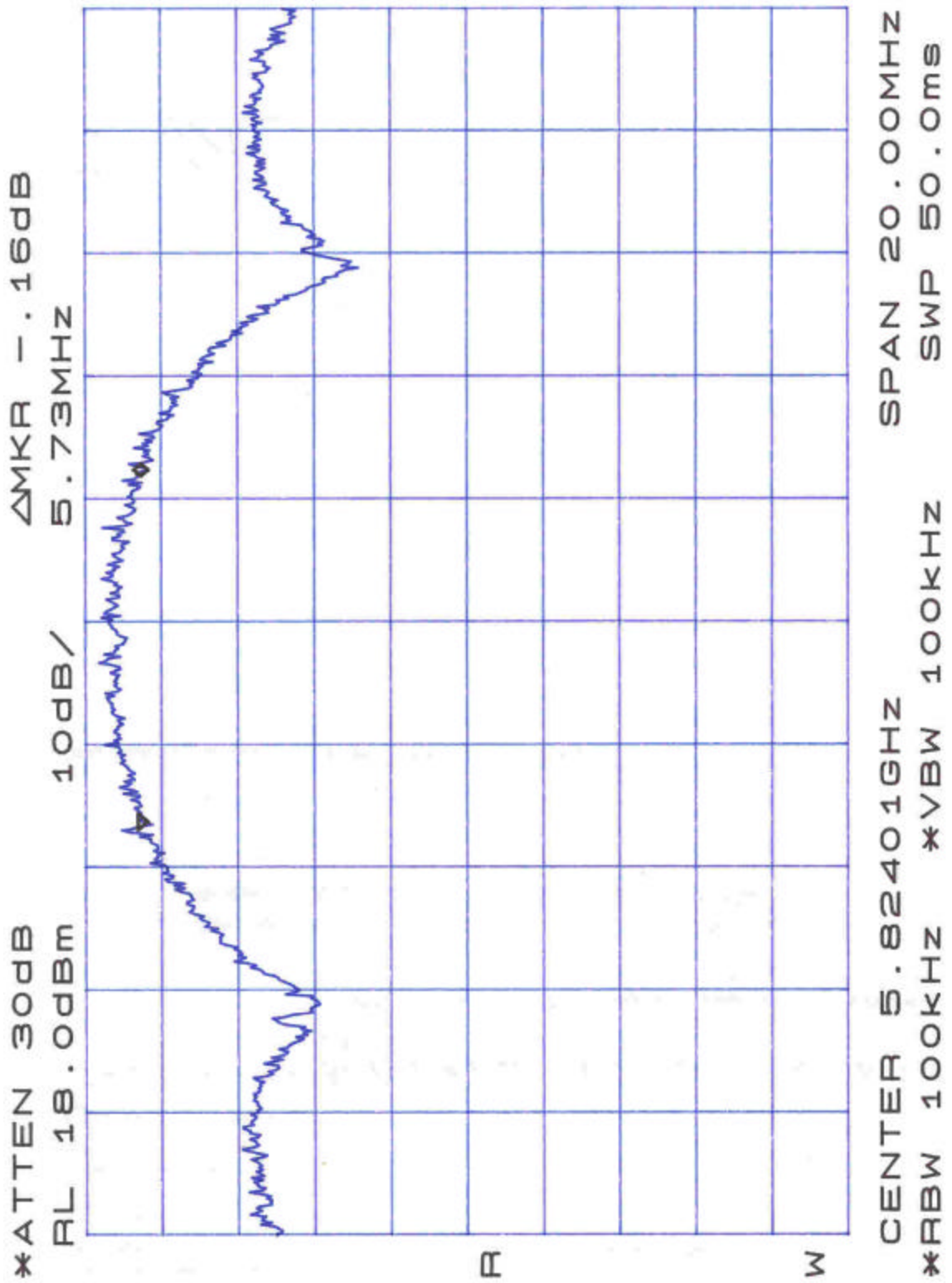


Figure 5. Occupied Bandwidth, Plan B, Channel 2

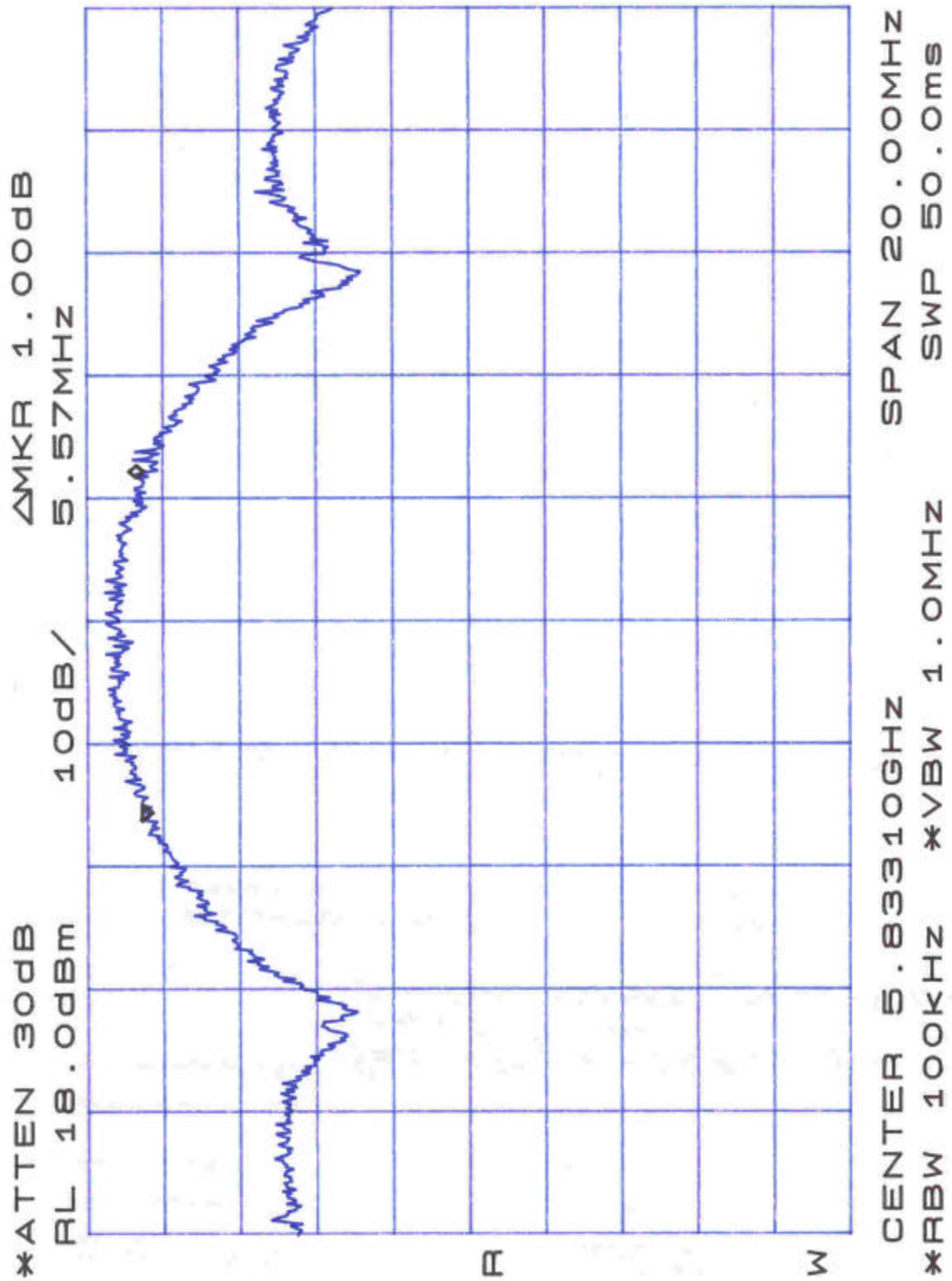


Figure 6. Occupied Bandwidth, Plan B, Channel 3