1.1.1. 6 dB BANDWIDTH (DATA RATE EVALUATION)

LIMIT

§15.247 (a) (2) For direct sequence systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

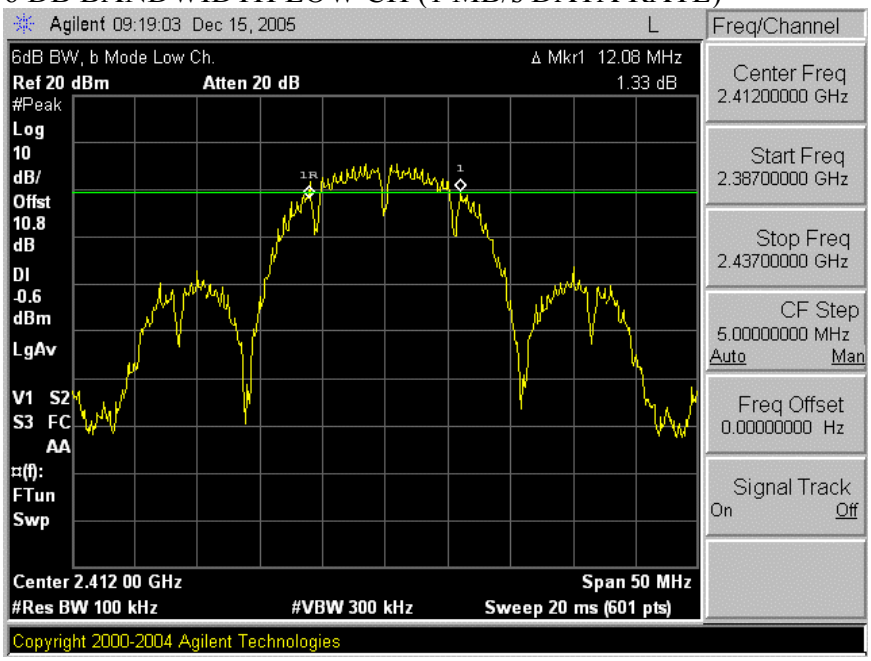
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

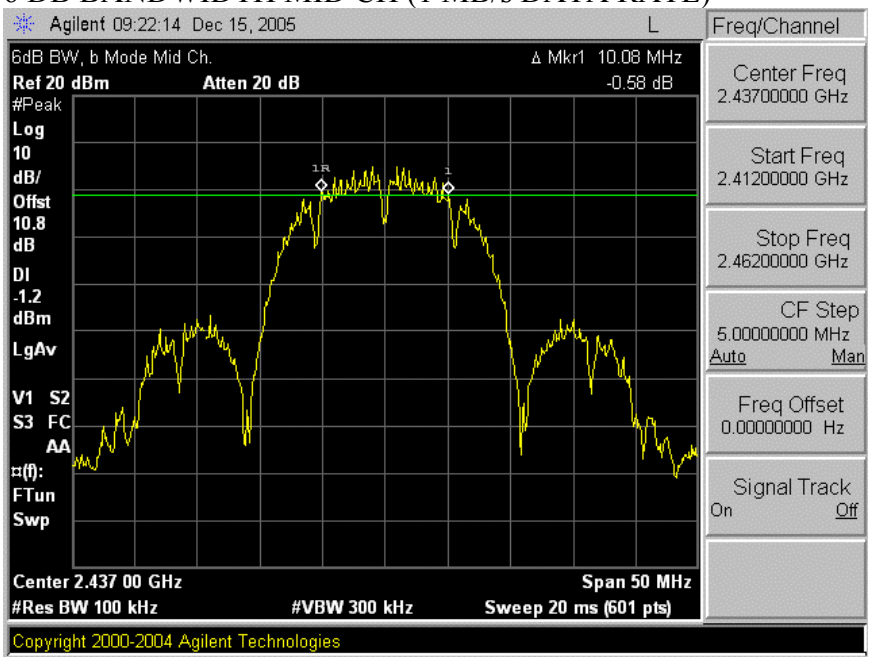
No non-compliance noted:

6 DB BANDWIDTH (1 MB/s DATA RATE)

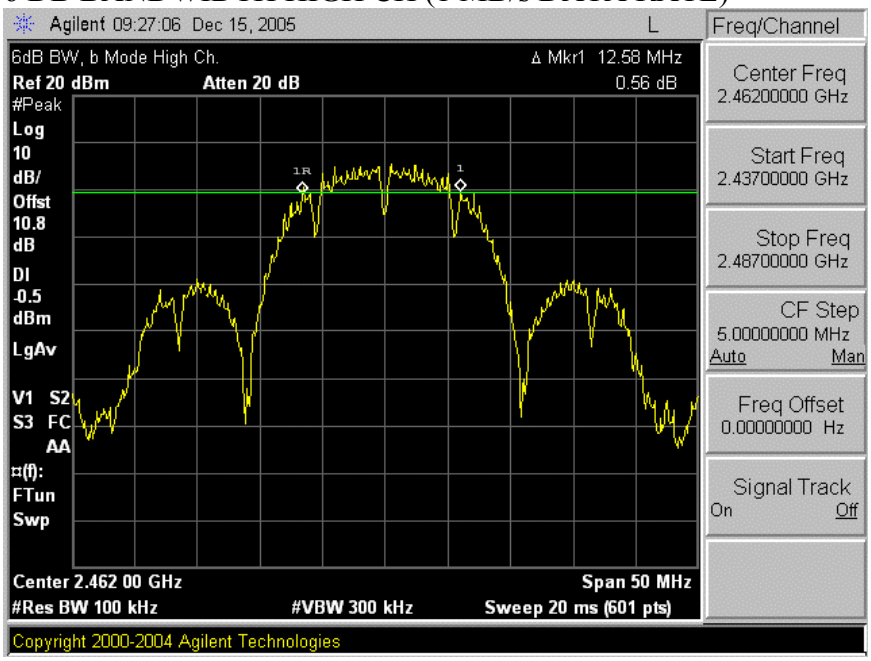
6 DB BANDWIDTH LOW CH (1 MB/s DATA RATE)



6 DB BANDWIDTH MID CH (1 MB/s DATA RATE)

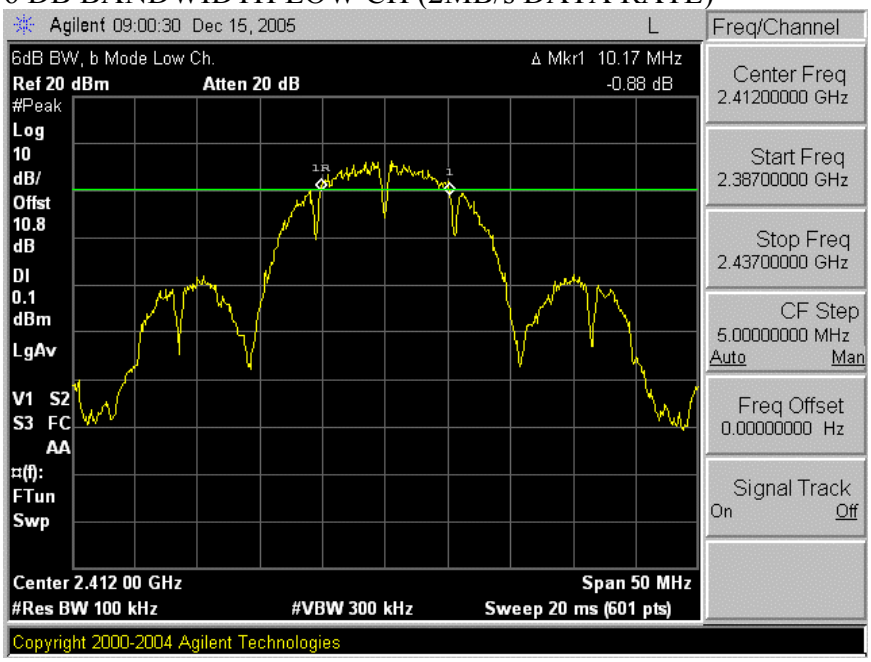


6 DB BANDWIDTH HIGH CH (1 MB/s DATA RATE)

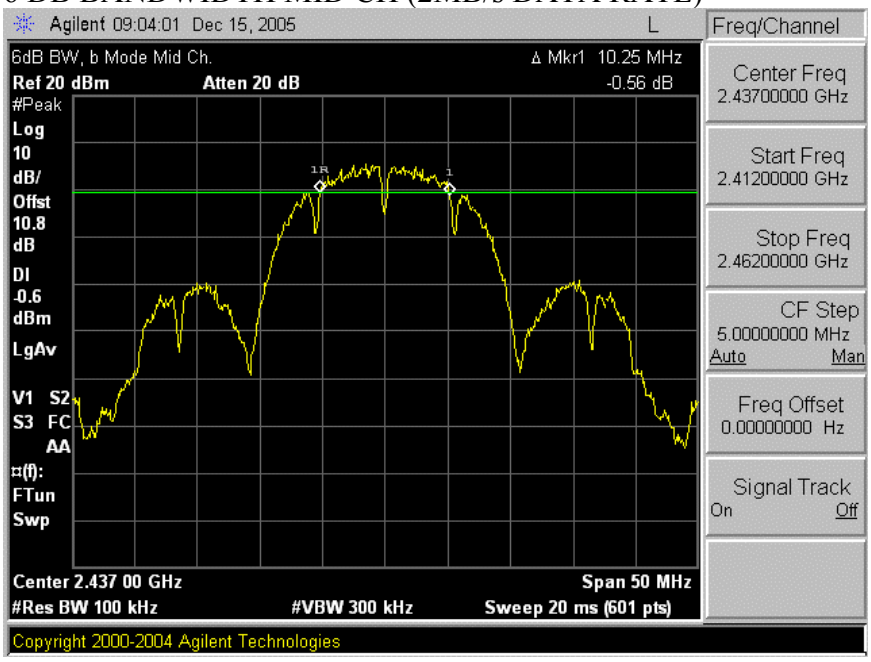


6 DB BANDWIDTH (2 MB/s DATA RATE)

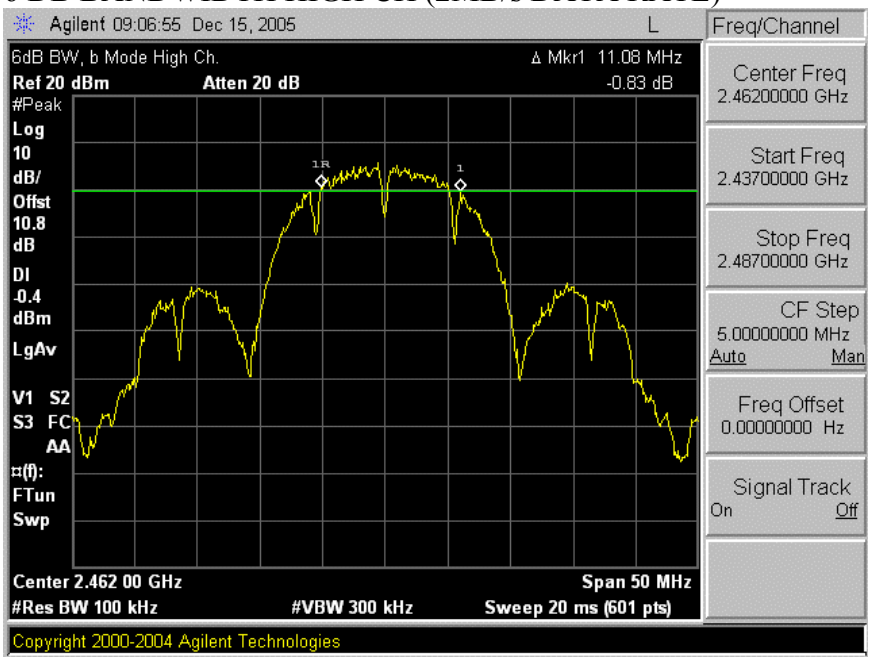
6 DB BANDWIDTH LOW CH (2MB/s DATA RATE)



6 DB BANDWIDTH MID CH (2MB/s DATA RATE)

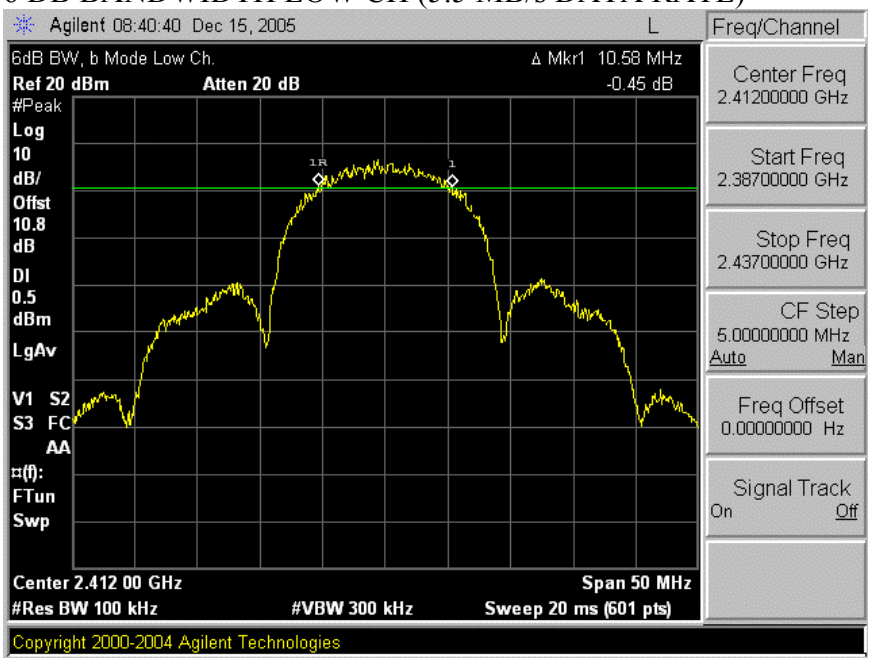


6 DB BANDWIDTH HIGH CH (2MB/s DATA RATE)

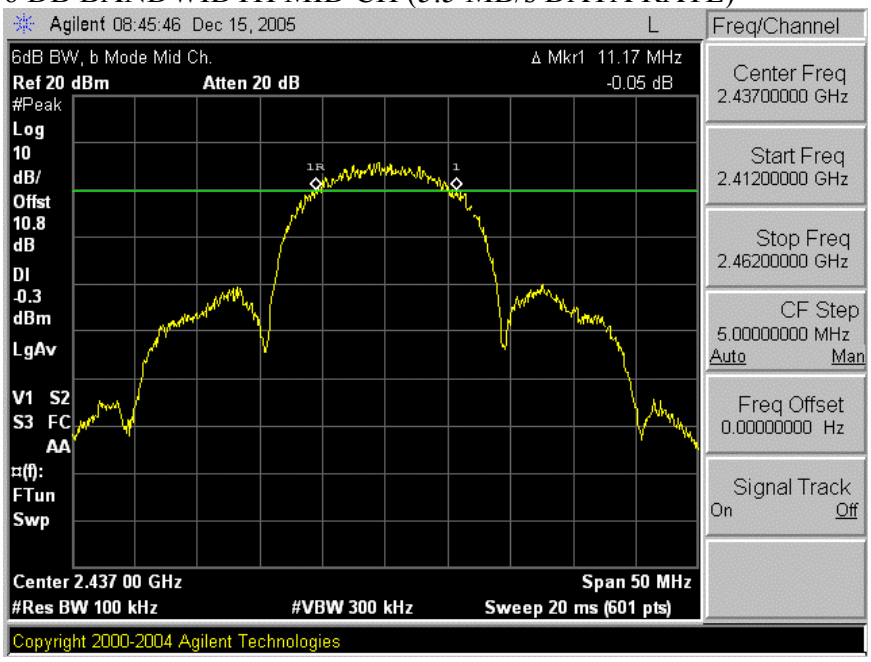


6 DB BANDWIDTH (5.5 MB/s DATA RATE)

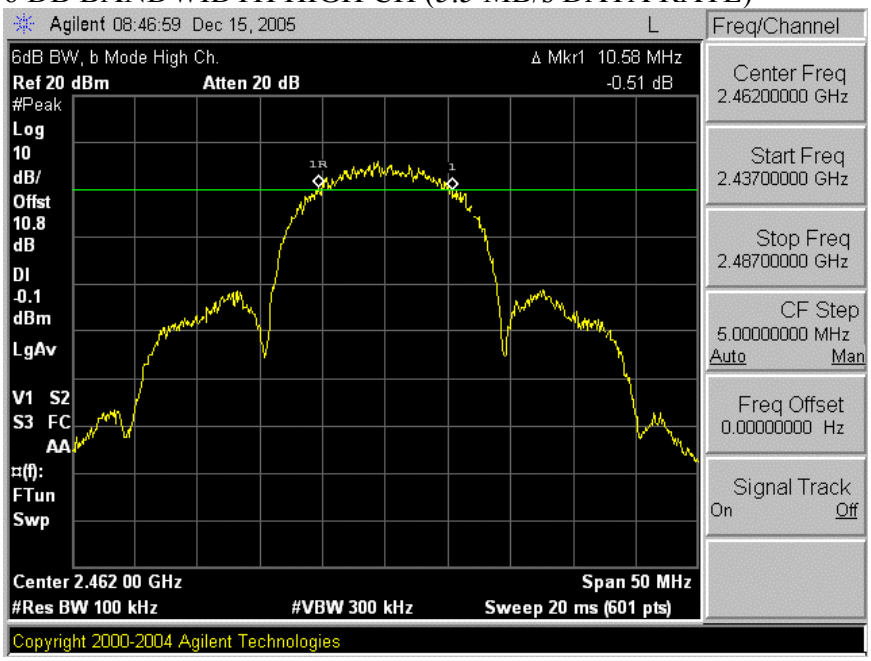
6 DB BANDWIDTH LOW CH (5.5 MB/s DATA RATE)



6 DB BANDWIDTH MID CH (5.5 MB/s DATA RATE)

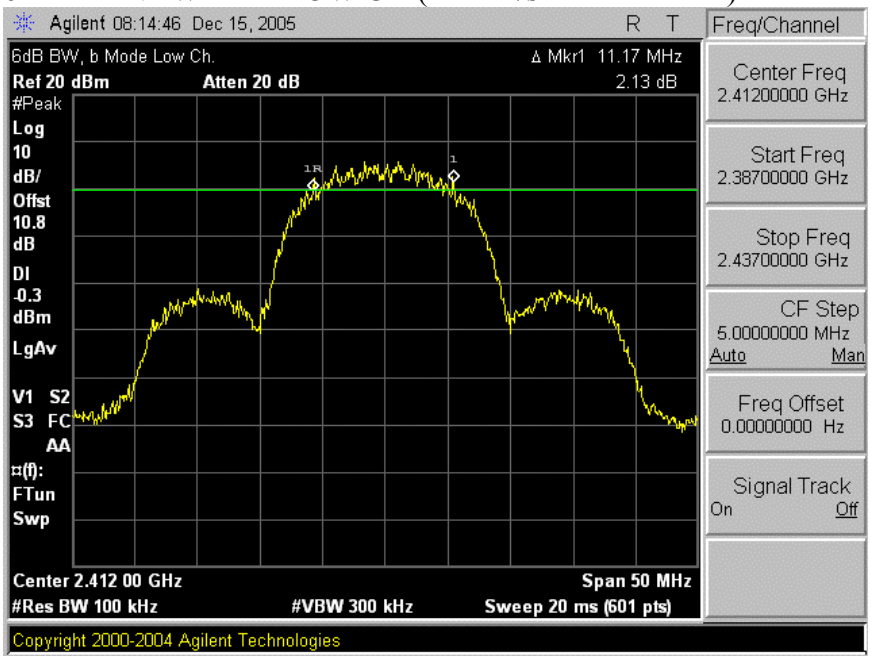


6 DB BANDWIDTH HIGH CH (5.5 MB/s DATA RATE)

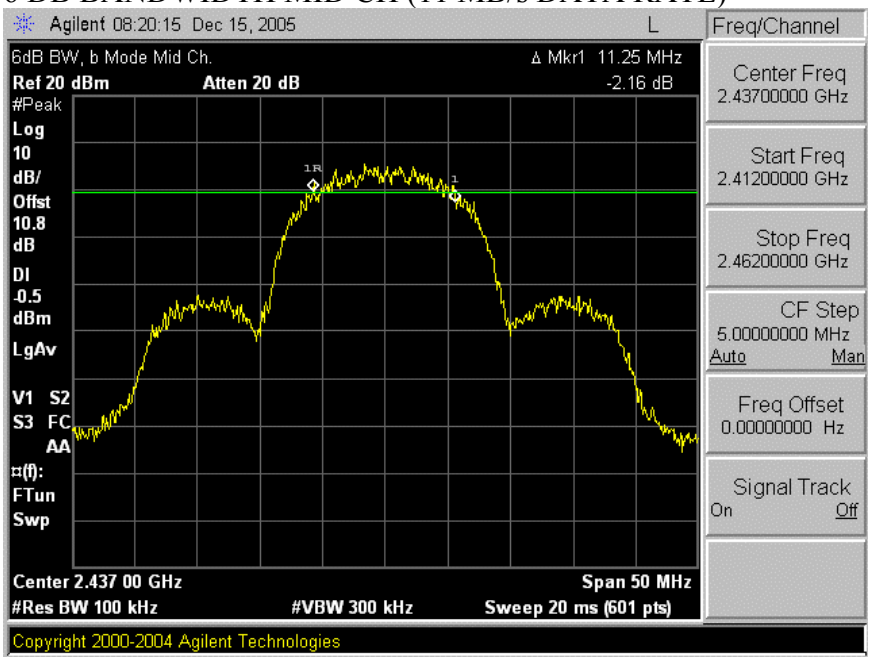


6 DB BANDWIDTH (11 MB/s DATA RATE)

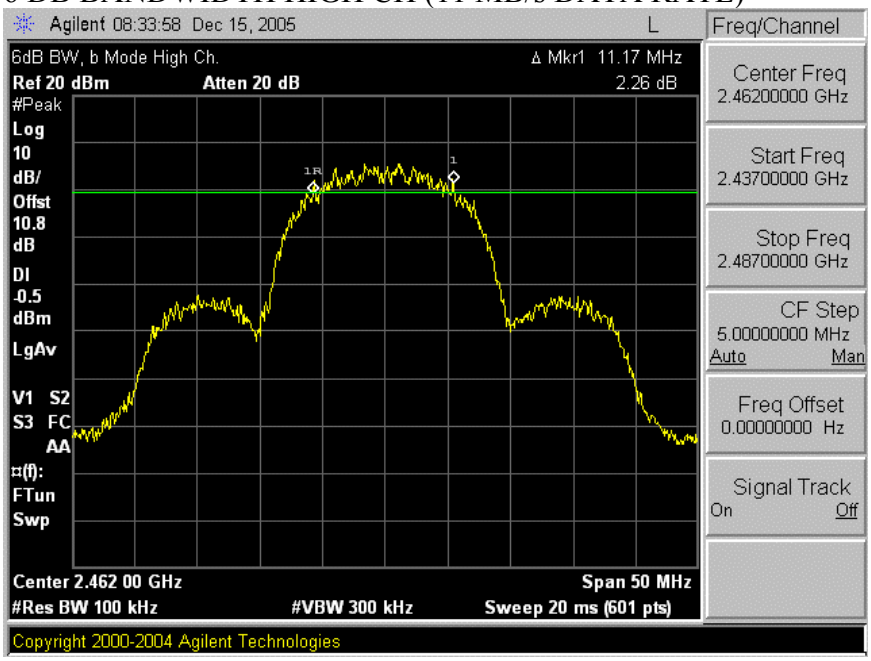
6 DB BANDWIDTH LOW CH (11 MB/s DATA RATE)



6 DB BANDWIDTH MID CH (11 MB/s DATA RATE)



6 DB BANDWIDTH HIGH CH (11 MB/s DATA RATE)



1.1.2. PEAK OUTPUT POWER (DATA RATE EVALUATION)

PEAK POWER LIMIT

§15.247 (b) The maximum peak output power of the intentional radiator shall not exceed the following:

§15.247 (b) (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz , and 5725-5850 MHz bands: 1 watt.

§15.247 (b) (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz , and 5725-5850 MHz bands: 1 watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

§15.247 (b) (4) (i) Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer and the analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99% bandwidth.

RESULTS

The maximum antenna gain is 0 dBi for other than fixed, point-to-point operations, therefore the limit is 30 dBm.

No non-compliance noted:

1 Mb/s Data Rate

Channel	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Margin (dB)
Low	2412	19.13	30	-10.87
Middle	2437	19.15	30	-10.85
High	2462	19.06	30	-10.94

2.2 Mb/s Data Rate

Channel	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Margin (dB)
Low	2412	19.32	30	-10.68
Middle	2437	19.02	30	-10.98
High	2462	19.10	30	-10.90

5 Mb/s Data Rate

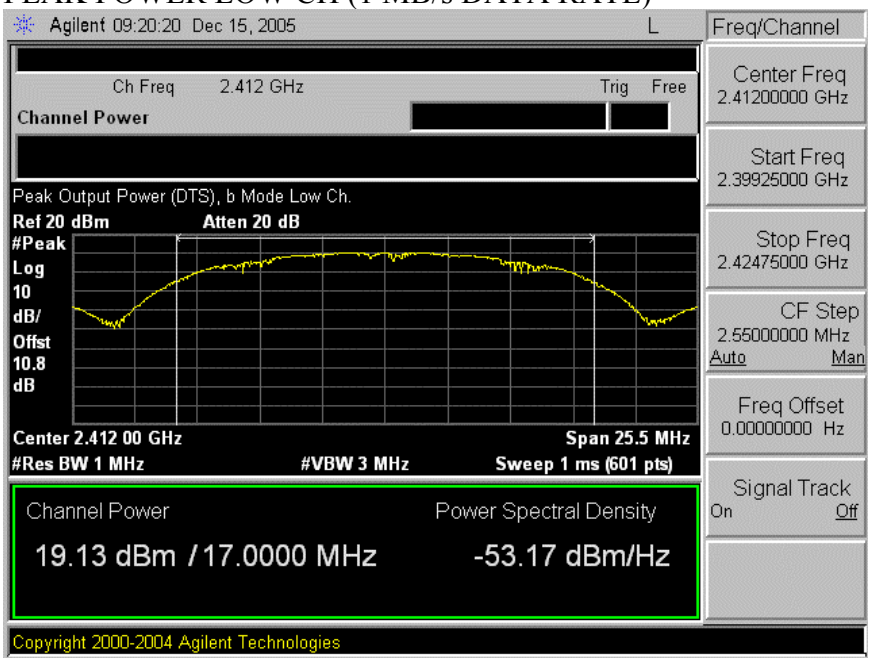
Channel	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Margin (dB)
Low	2412	19.38	30	-10.62
Middle	2437	19.28	30	-10.72
High	2462	19.25	30	-10.75

11 Mb/s Data Rate

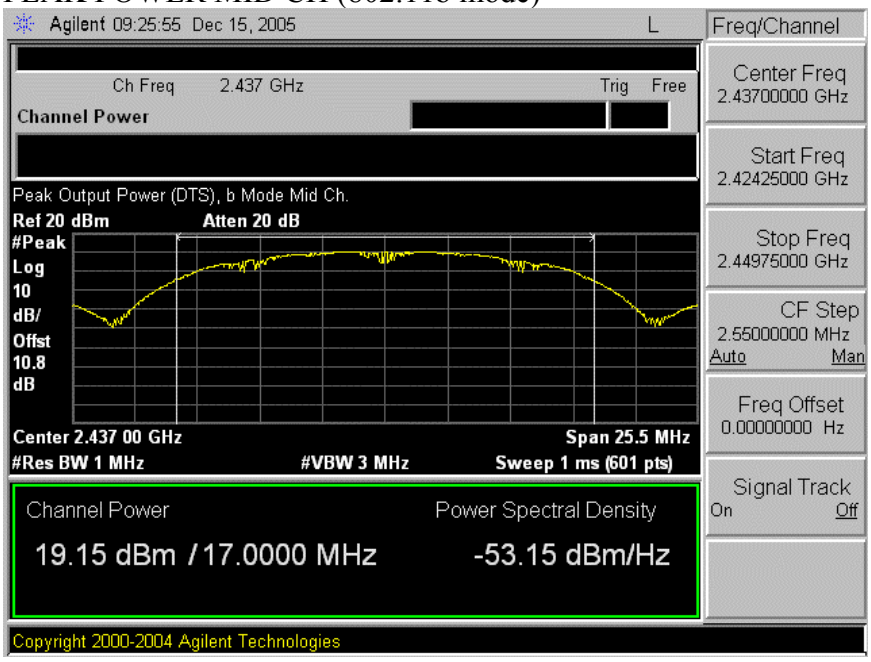
Channel	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Margin (dB)
Low	2412	19.41	30	-10.59
Middle	2437	19.42	30	-10.58
High	2462	19.31	30	-10.69

OUTPUT POWER (1 MB/s DATA RATE)

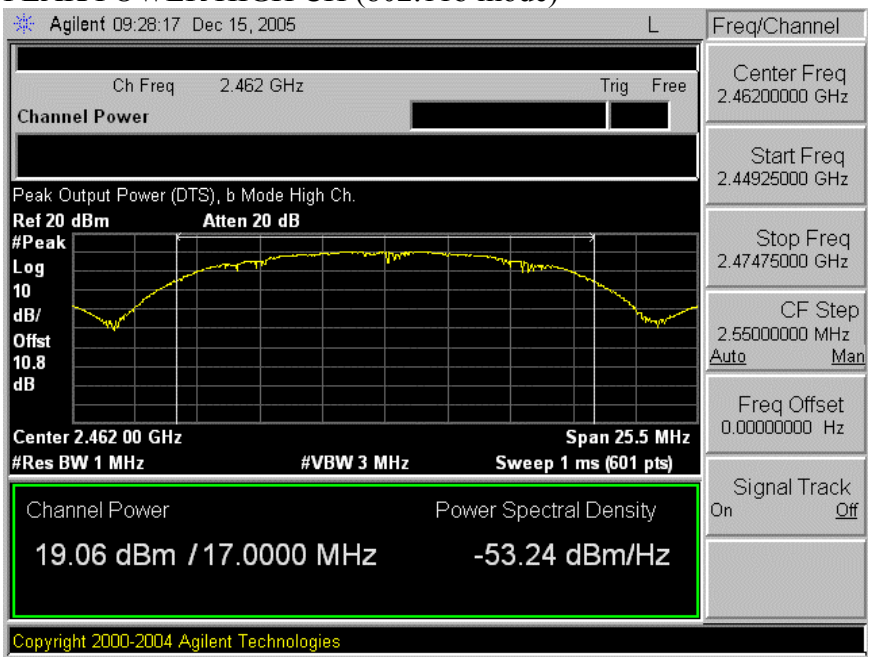
PEAK POWER LOW CH (1 MB/s DATA RATE)



PEAK POWER MID CH (802.11b mode)

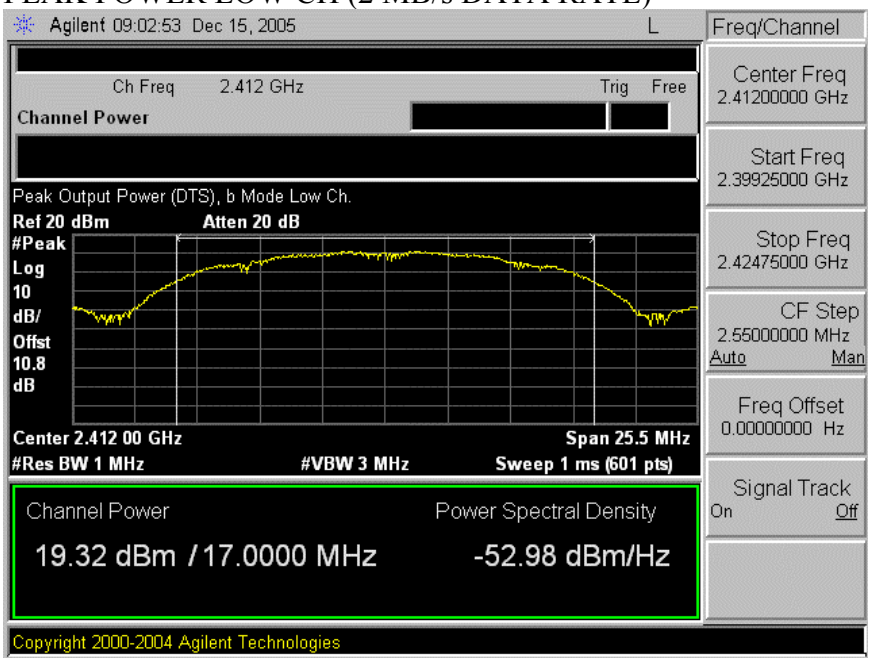


PEAK POWER HIGH CH (802.11b mode)

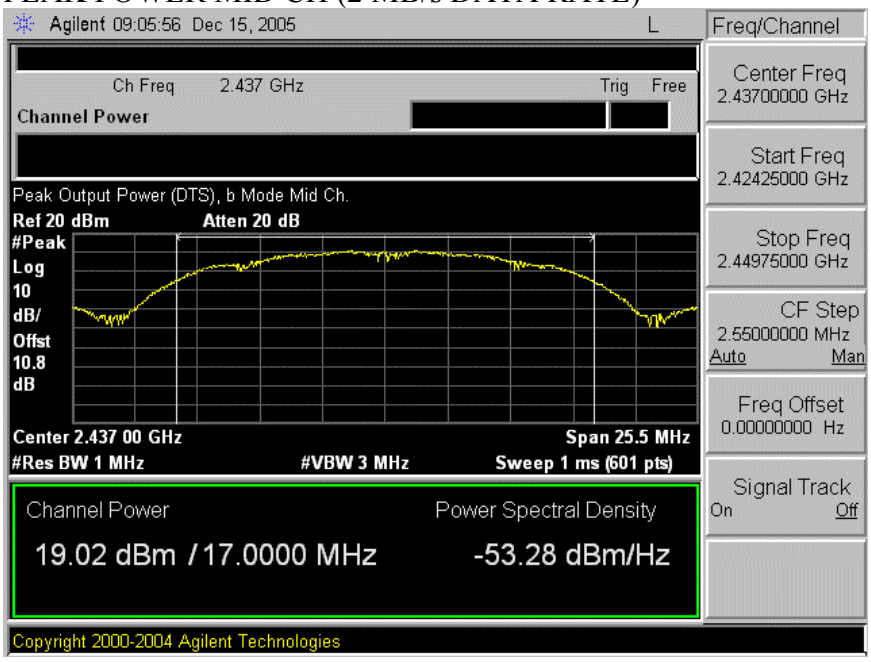


OUTPUT POWER (2MB/s DATA RATE)

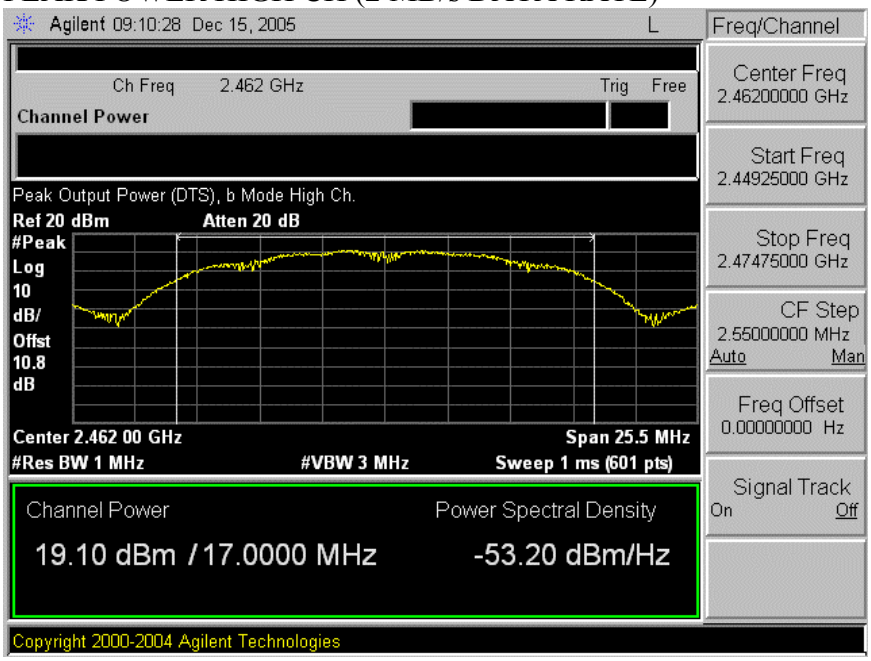
PEAK POWER LOW CH (2 MB/s DATA RATE)



PEAK POWER MID CH (2 MB/s DATA RATE)

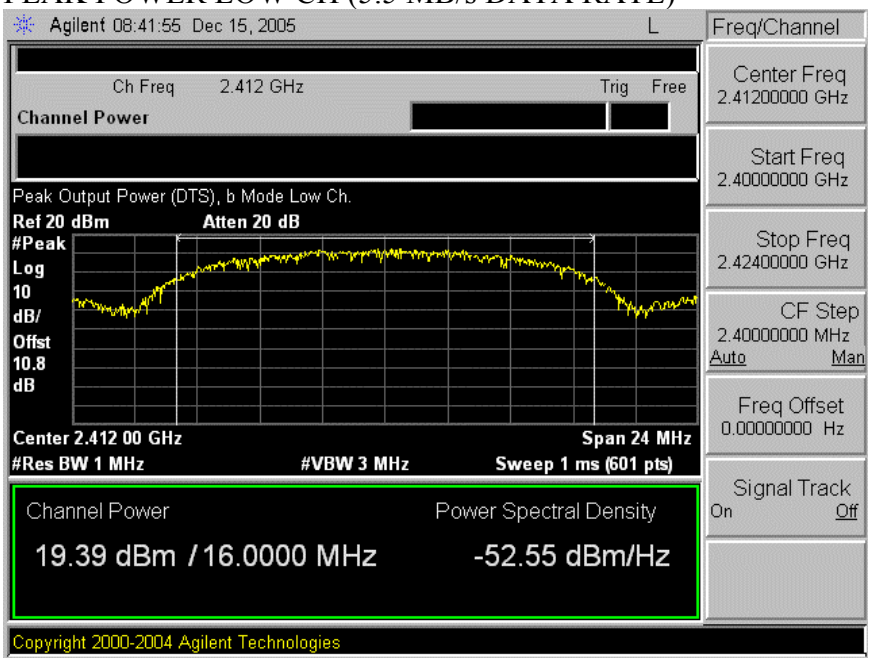


PEAK POWER HIGH CH (2 MB/s DATA RATE)

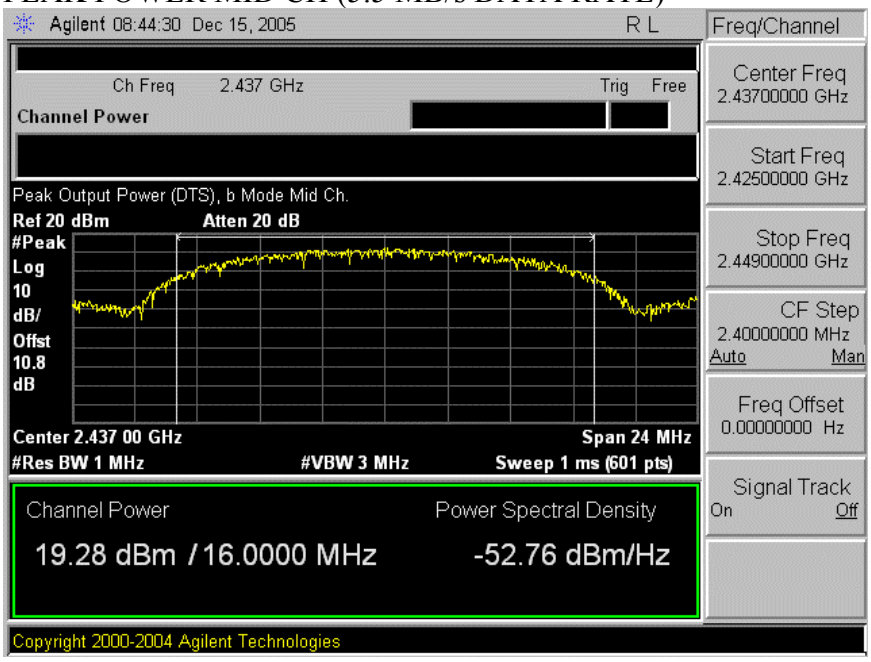


OUTPUT POWER (5.5 MB/s DATA RATE)

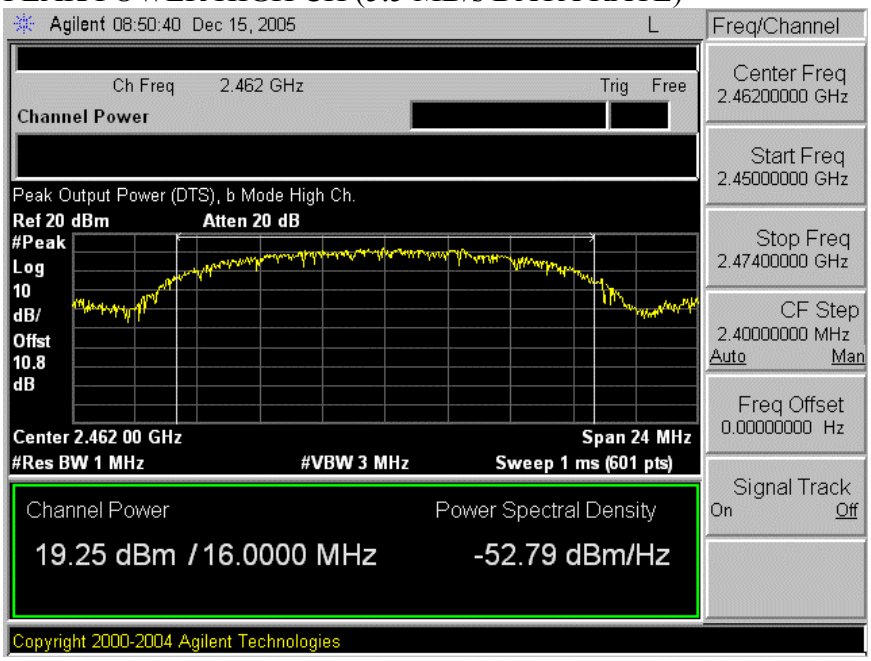
PEAK POWER LOW CH (5.5 MB/s DATA RATE)



PEAK POWER MID CH (5.5 MB/s DATA RATE)

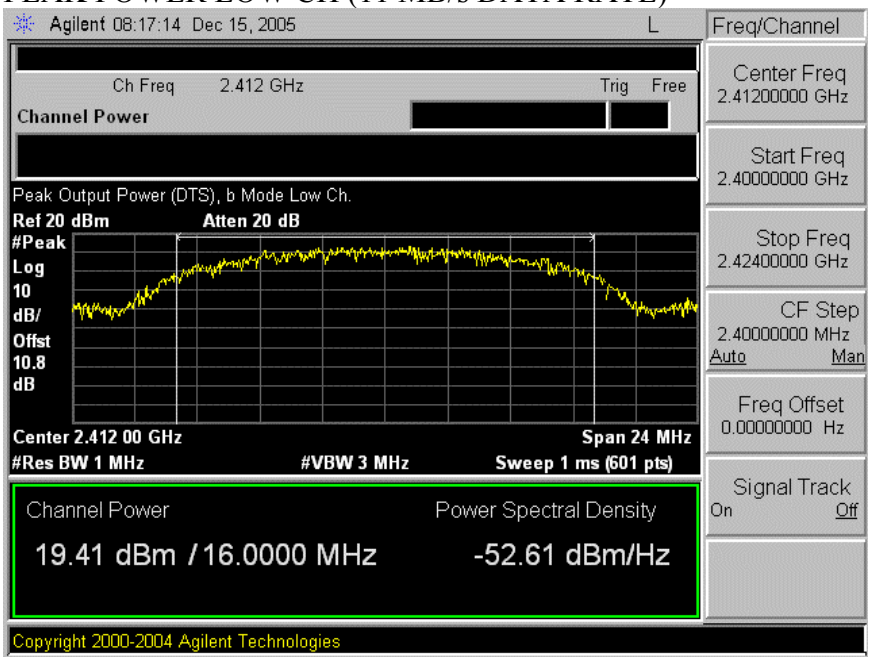


PEAK POWER HIGH CH (5.5 MB/s DATA RATE)

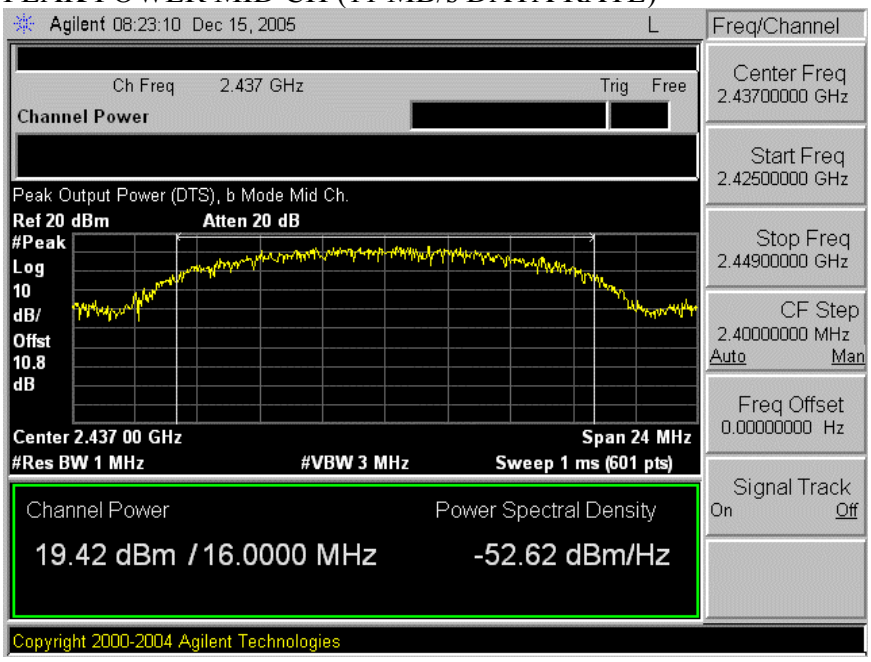


OUTPUT POWER (11 MB/s DATA RATE)

PEAK POWER LOW CH (11 MB/s DATA RATE)



PEAK POWER MID CH (11 MB/s DATA RATE)



PEAK POWER HIGH CH (11 MB/s DATA RATE)