

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.

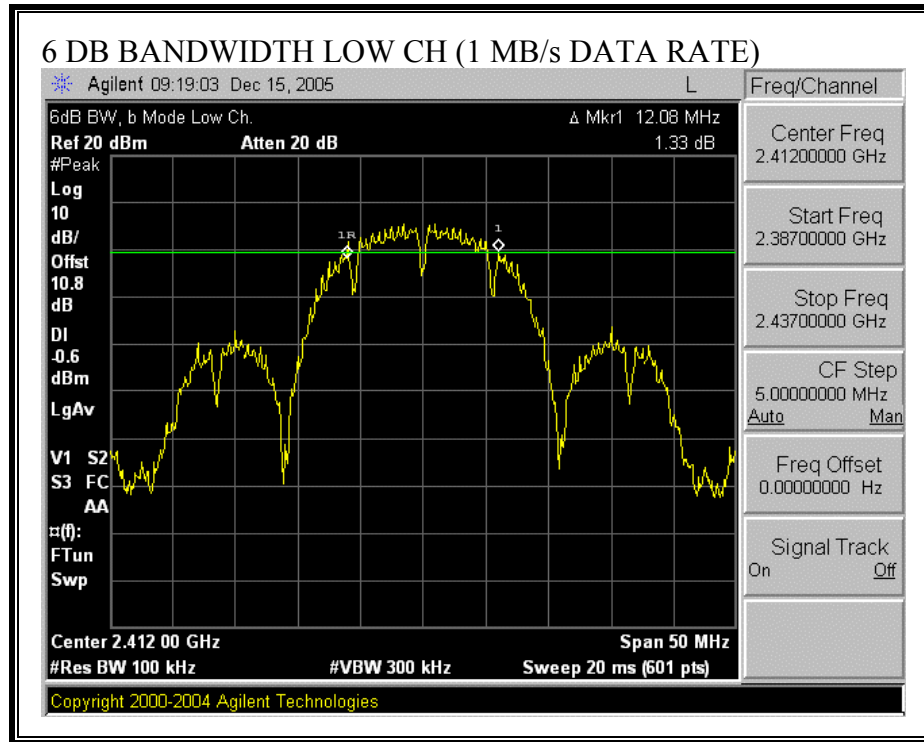
TEST PROCEDURE

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.

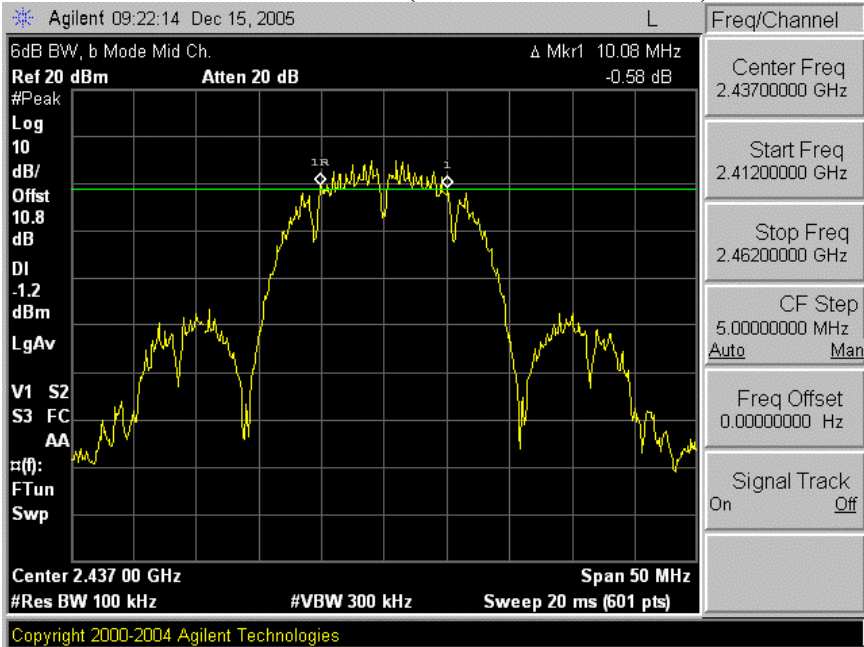
RESULTS

No non-compliance noted:

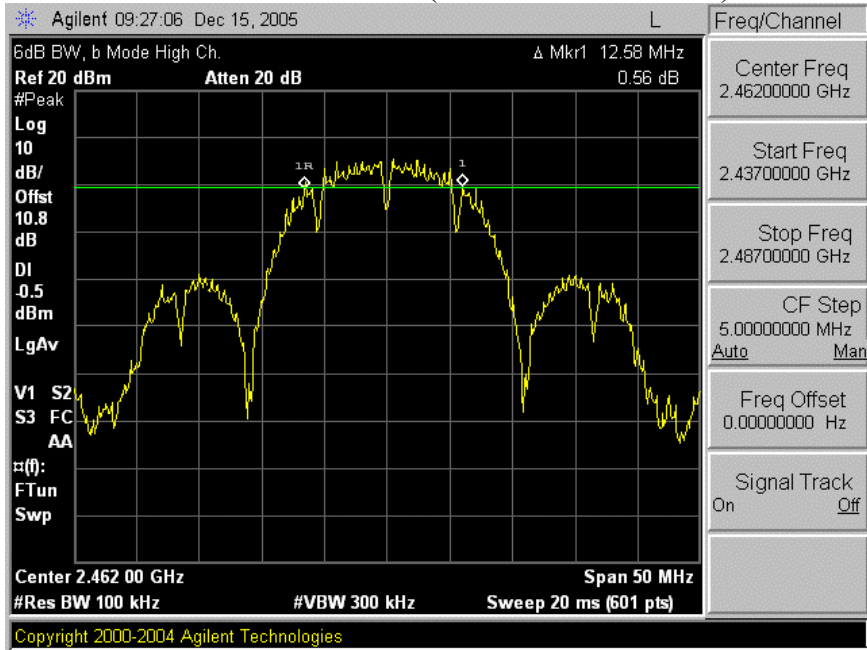
6 DB BANDWIDTH (1 MB/s DATA RATE)



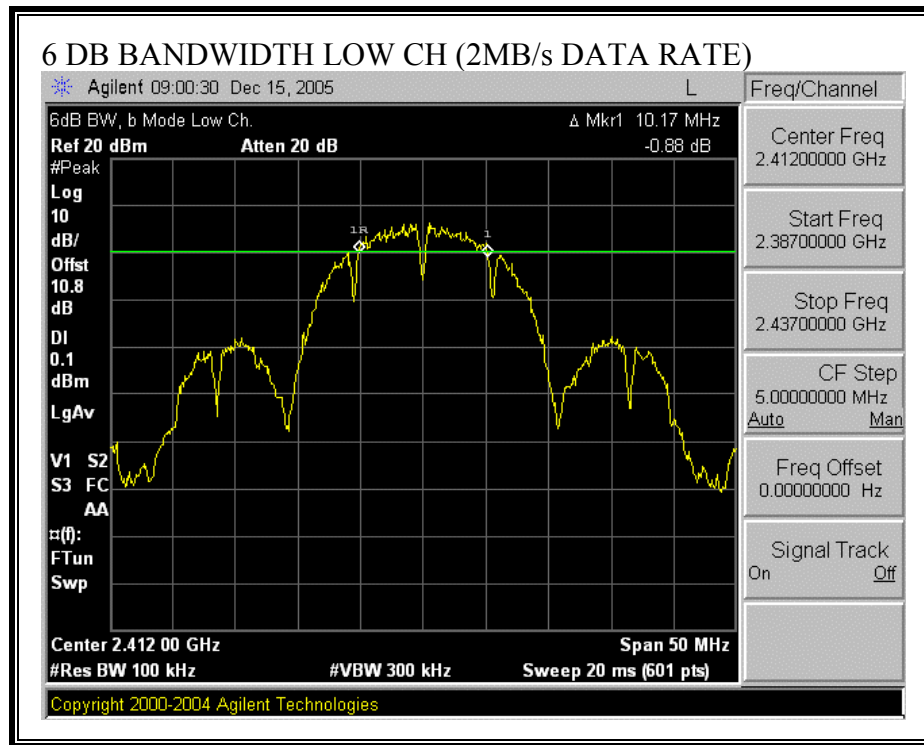
6 DB BANDWIDTH MID CH (1 MB/s DATA RATE)



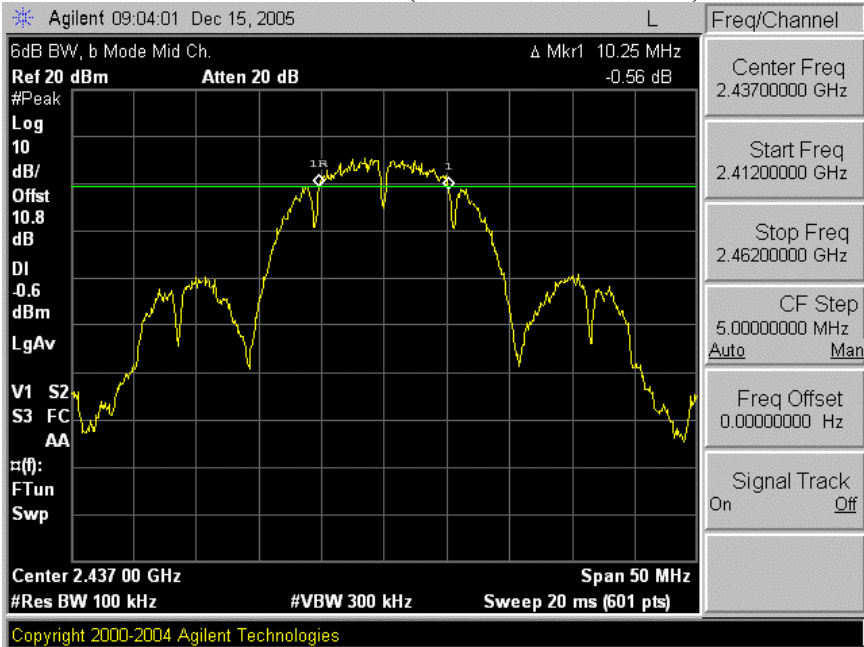
6 DB BANDWIDTH HIGH CH (1 MB/s DATA RATE)



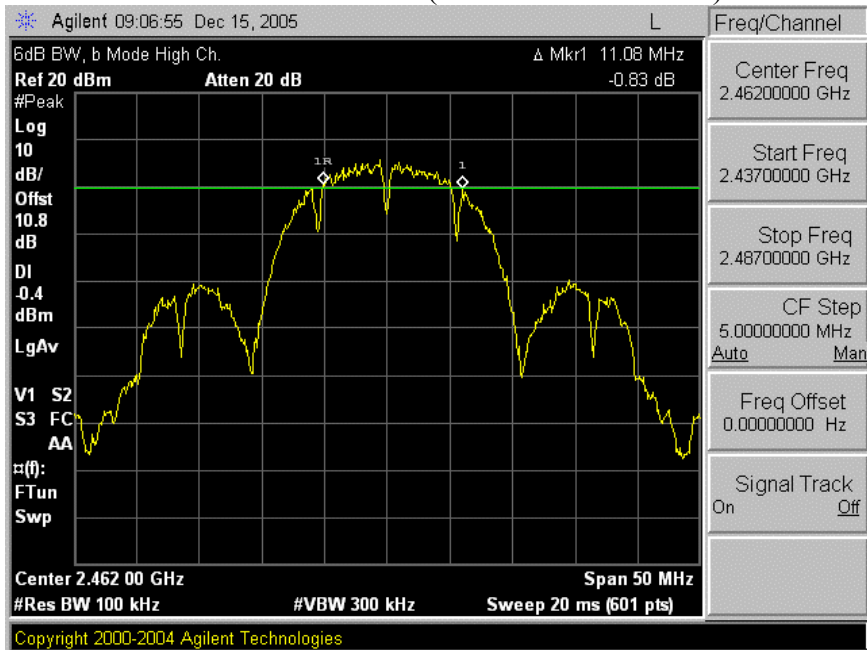
6 DB BANDWIDTH (2 MB/s DATA RATE)



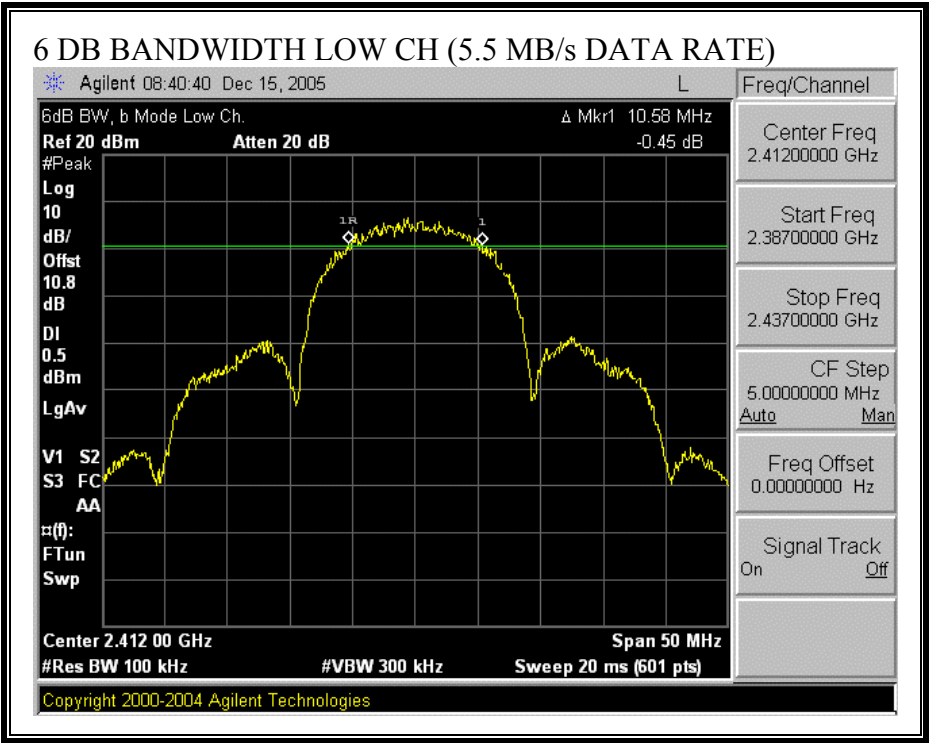
6 DB BANDWIDTH MID CH (2MB/s DATA RATE)



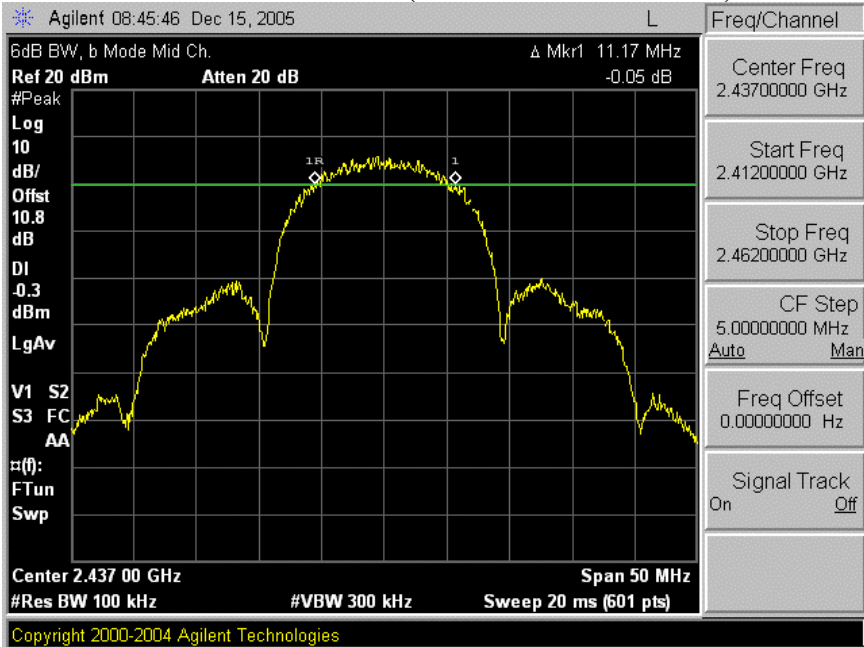
6 DB BANDWIDTH HIGH CH (2MB/s DATA RATE)



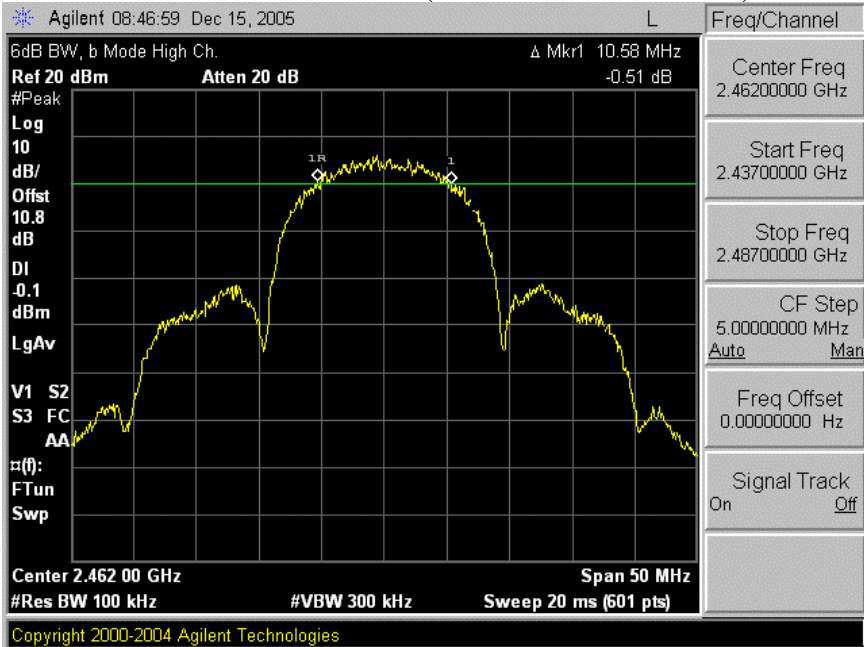
6 DB BANDWIDTH (5.5 MB/s DATA RATE)



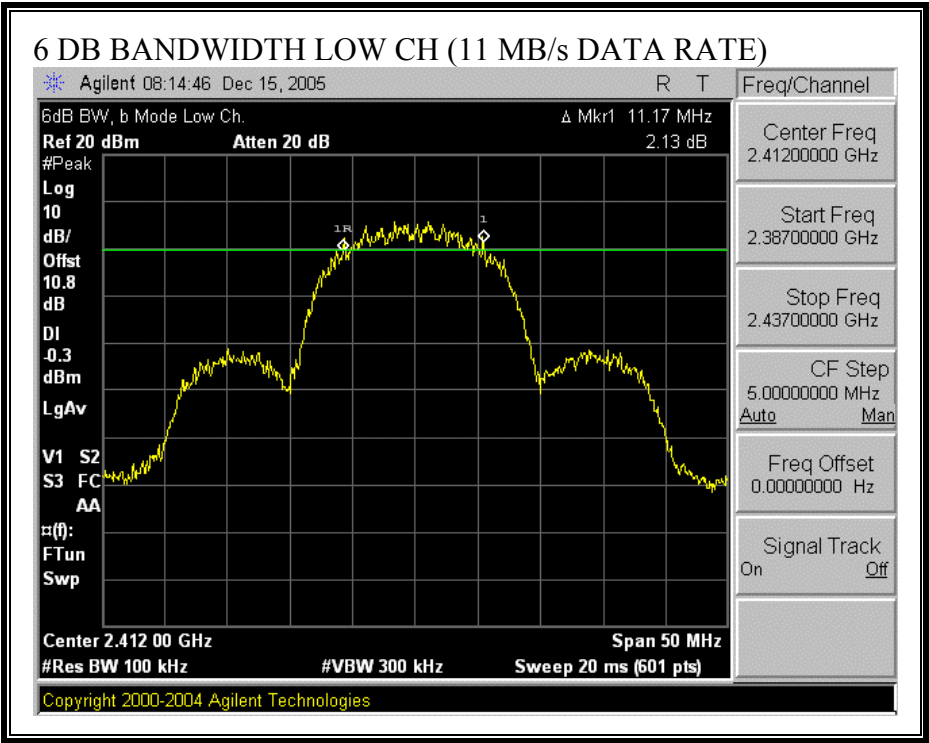
6 DB BANDWIDTH MID CH (5.5 MB/s DATA RATE)



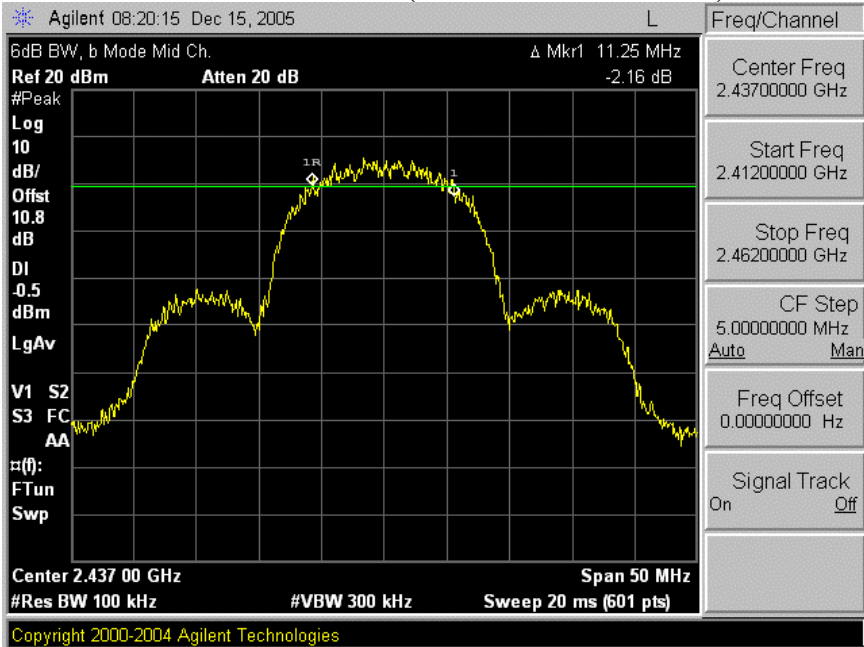
6 DB BANDWIDTH HIGH CH (5.5 MB/s DATA RATE)



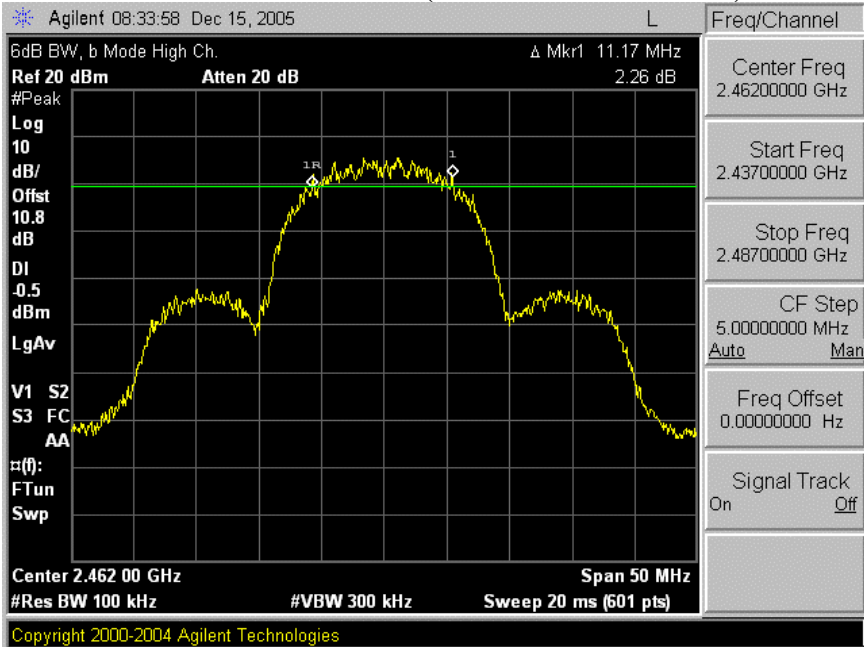
6 DB BANDWIDTH (11 MB/s DATA RATE)



6 DB BANDWIDTH 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.

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§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

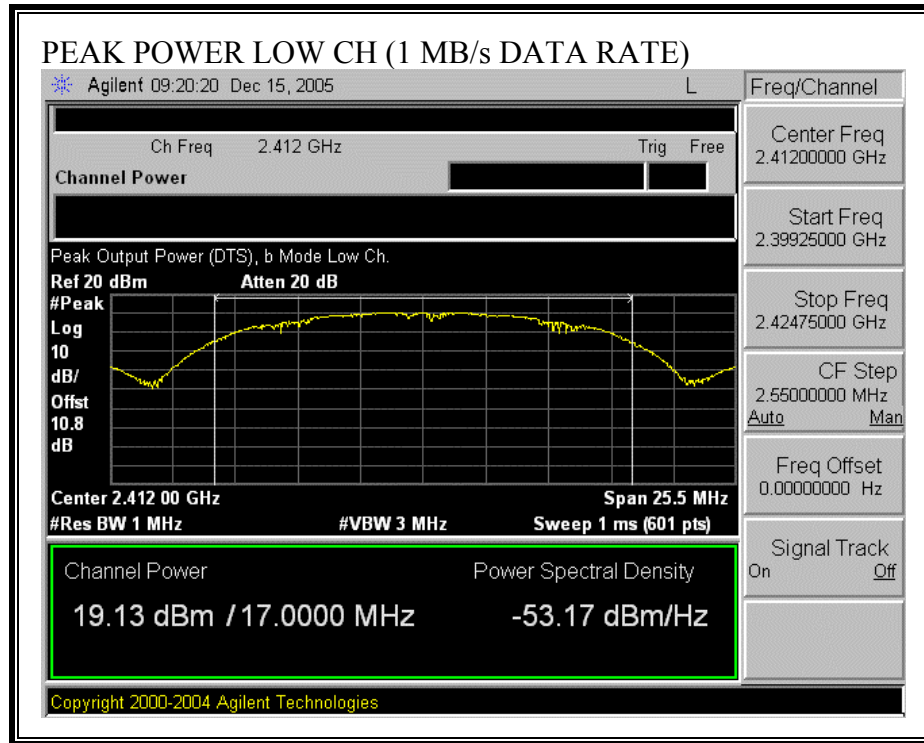
5 Mb/s Data Rate

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

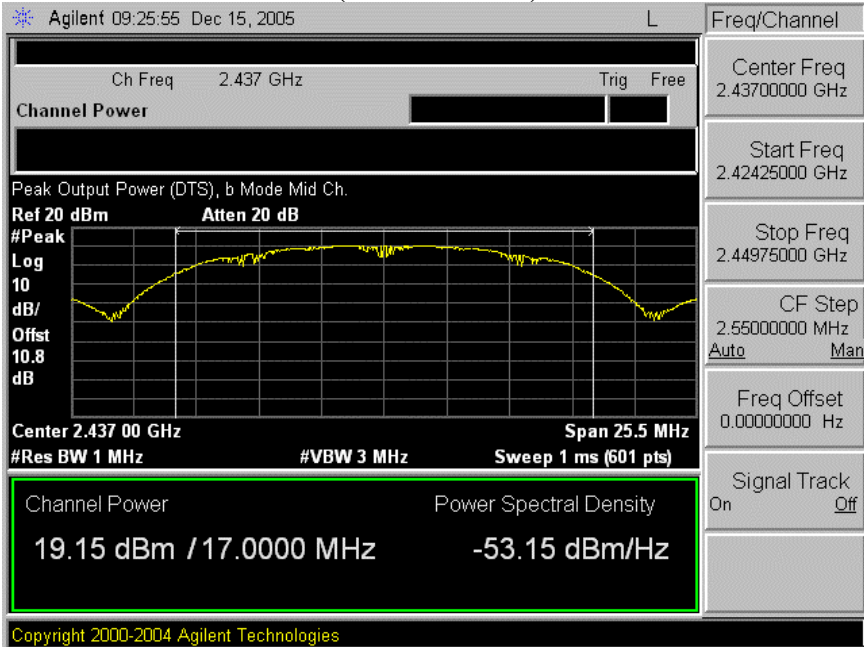
11 Mb/s Data Rate

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

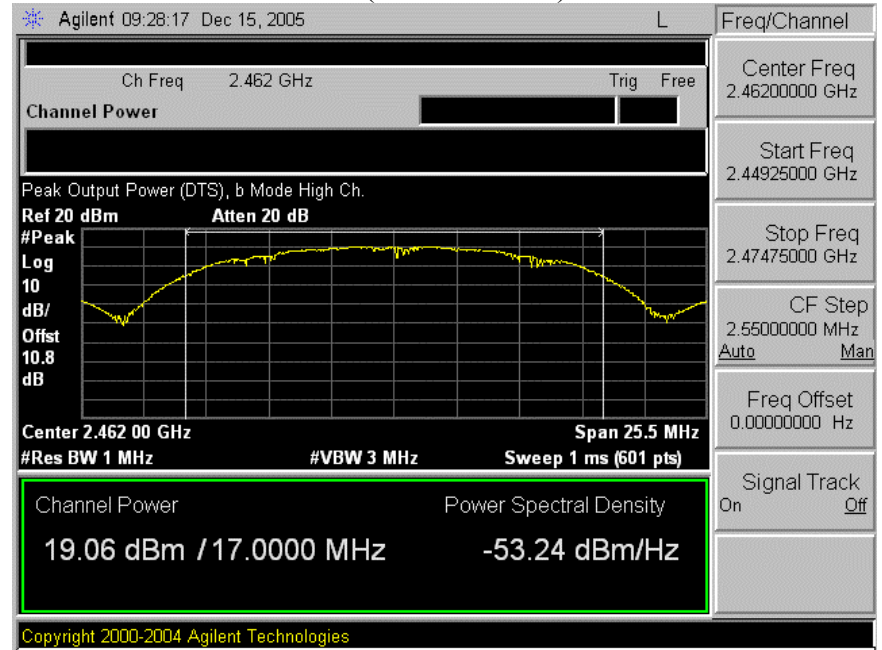
OUTPUT POWER (1 MB/s DATA RATE)



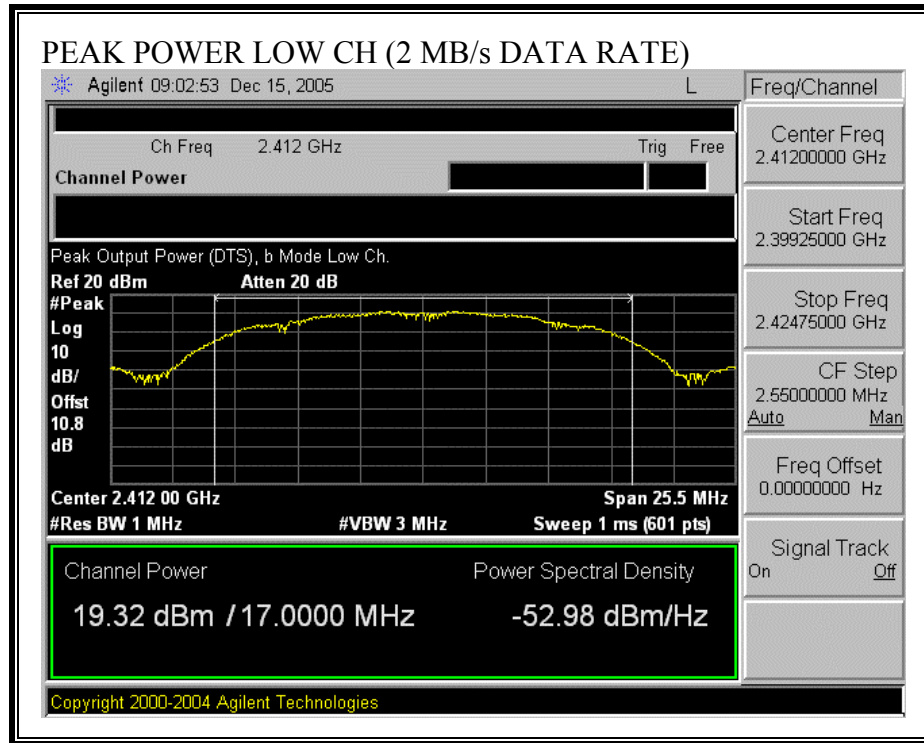
PEAK POWER MID CH (802.11b mode)



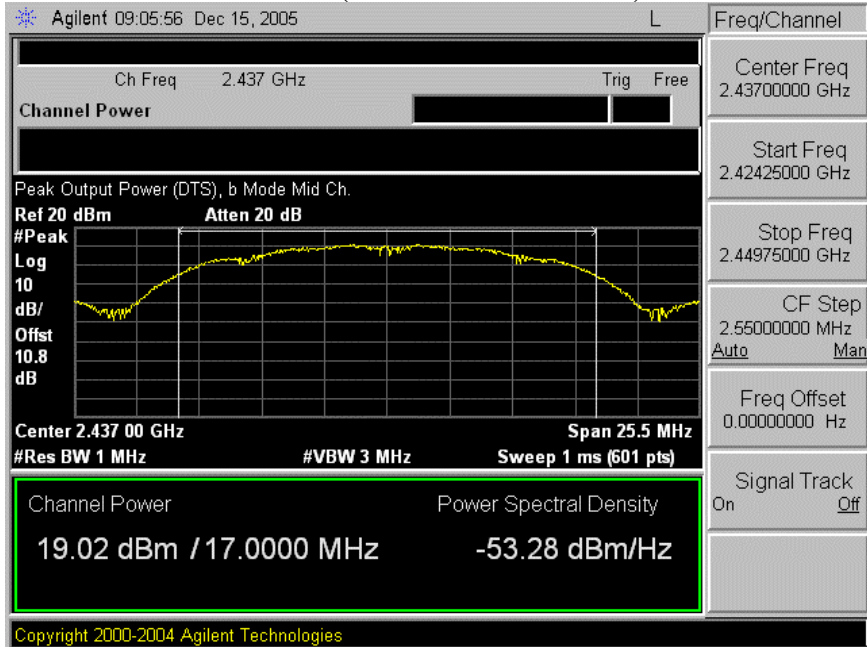
PEAK POWER HIGH CH (802.11b mode)



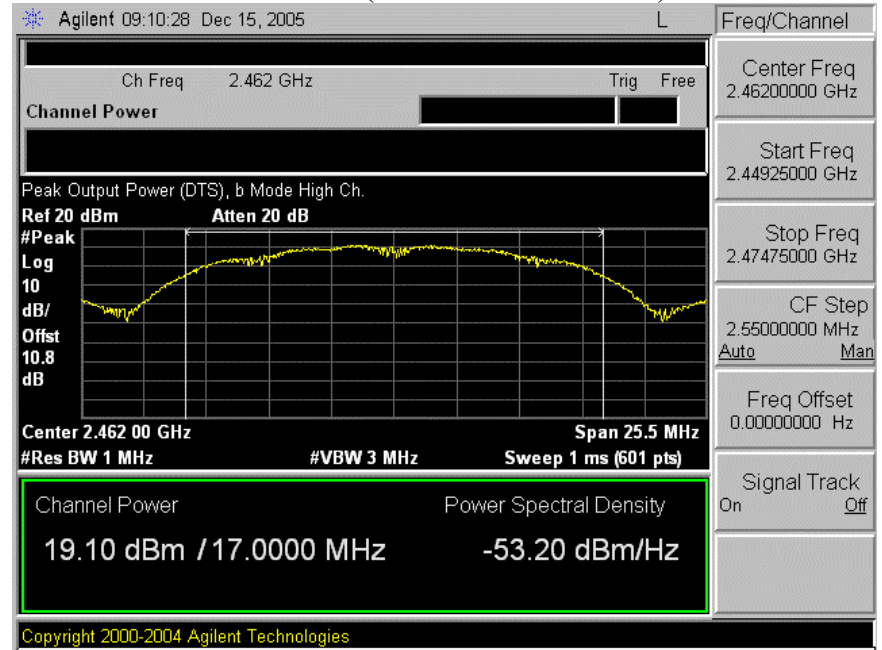
OUTPUT POWER (2MB/s DATA RATE)



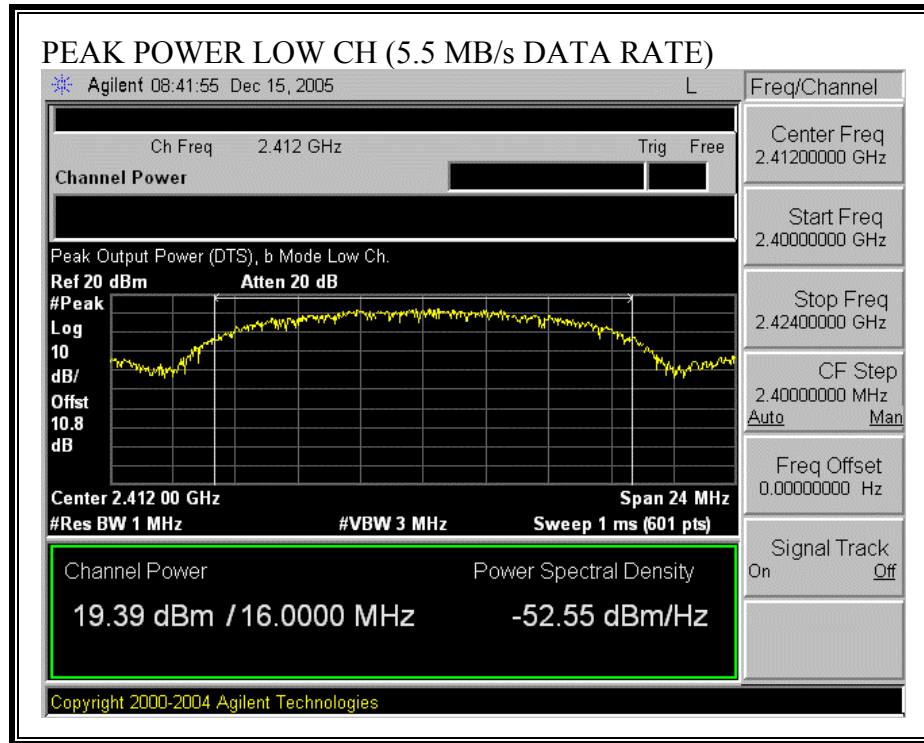
PEAK POWER MID CH (2 MB/s DATA RATE)



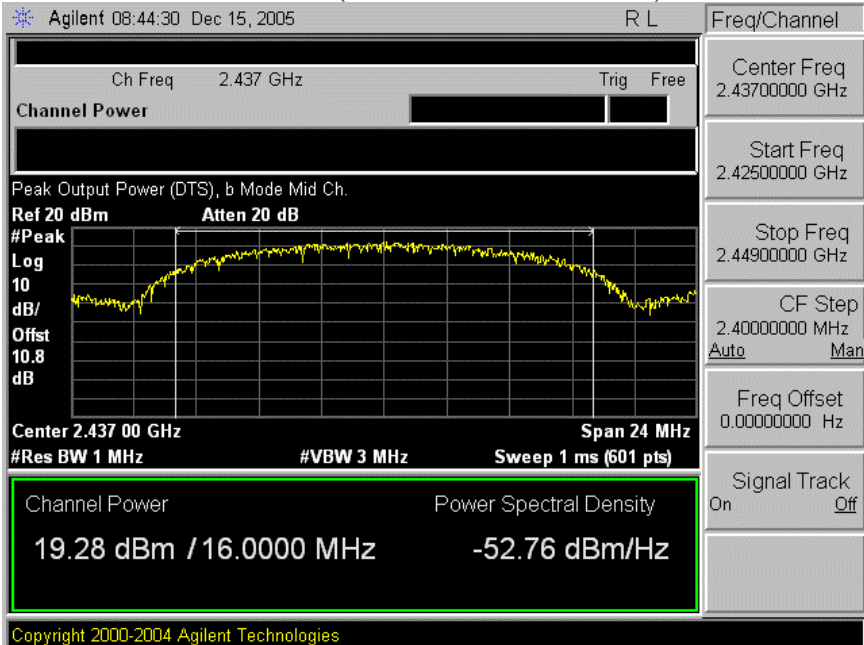
PEAK POWER HIGH CH (2 MB/s DATA RATE)



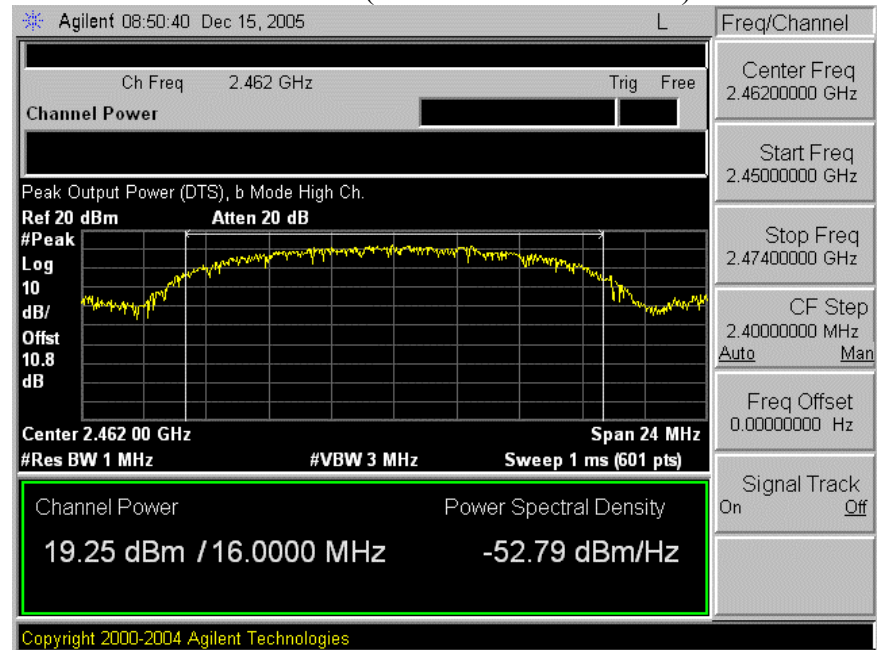
OUTPUT POWER (5.5 MB/s DATA RATE)



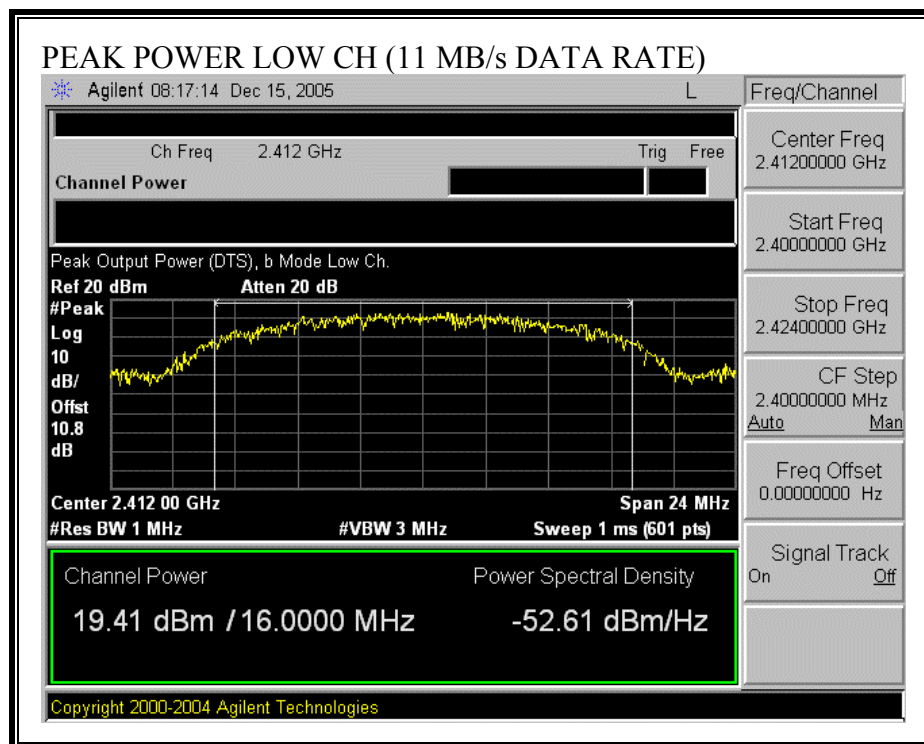
PEAK POWER MID CH (5.5 MB/s DATA RATE)



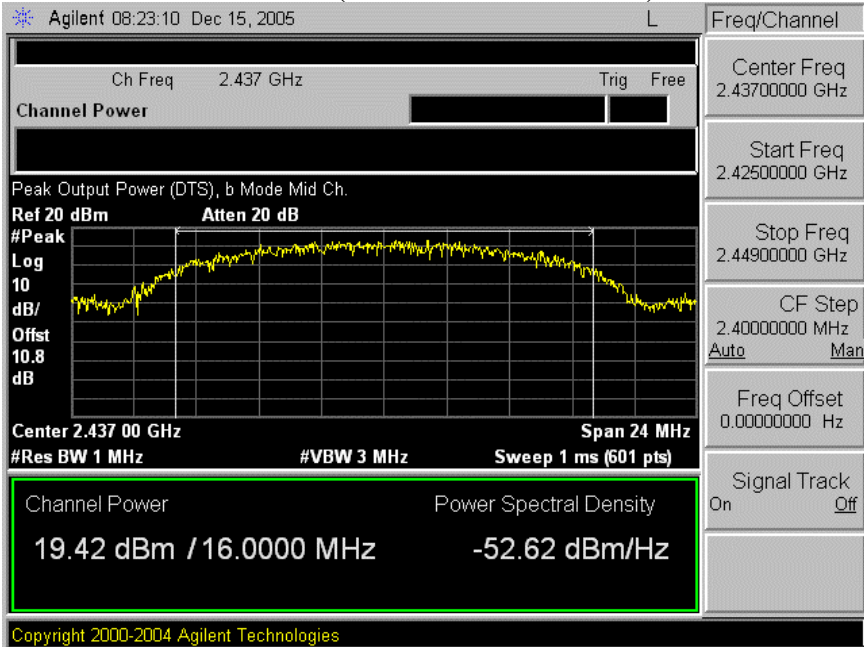
PEAK POWER HIGH CH (5.5 MB/s DATA RATE)



OUTPUT POWER (11 MB/s DATA RATE)



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



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

