

The PE3012 Module has been investigated in inquiry and page mode for the following parameters: Power Spectral Density, Peak power, Spurious Emissions and 6 dB Bandwidth. Conducted measurements were taken at the point where the transmitter/receiver circuitry connects to the antenna. The antenna was not connected while measurements were taken. The measurements were taken using a Rhode & Schwarz ESI 40 EMI Receiver/Analyzer, calibrated November 14, 2000. A total of 10 db of attenuation was placed in line prior to the input of the receiver. The device complied with all applicable limits

15.247 (d) Power Spectral Density

The DUT could only be place in inquiry mode for brief periods of time (12 – 15 seconds). Therefore two sets of measurements were done for power spectral density. The first was done using the noise feature of the measurement instrument on a trace with a wide span (Figure 1). The second was done using a 3 KHz resolution bandwidth on a narrow span centered around the identified peak (Figure 2). The trace was taken in max hold and the inquiry cycle repeated enough times to insure it was active at all points across the trace at some time. Both methodologies resulted in net measurements below the +8 dBm limit.

The DUT could be placed in a continuous page mode so only a wide span trace with the 3 KHz resolution bandwidth was performed (Figure 3). The Net level was below the +8 dBm limit.

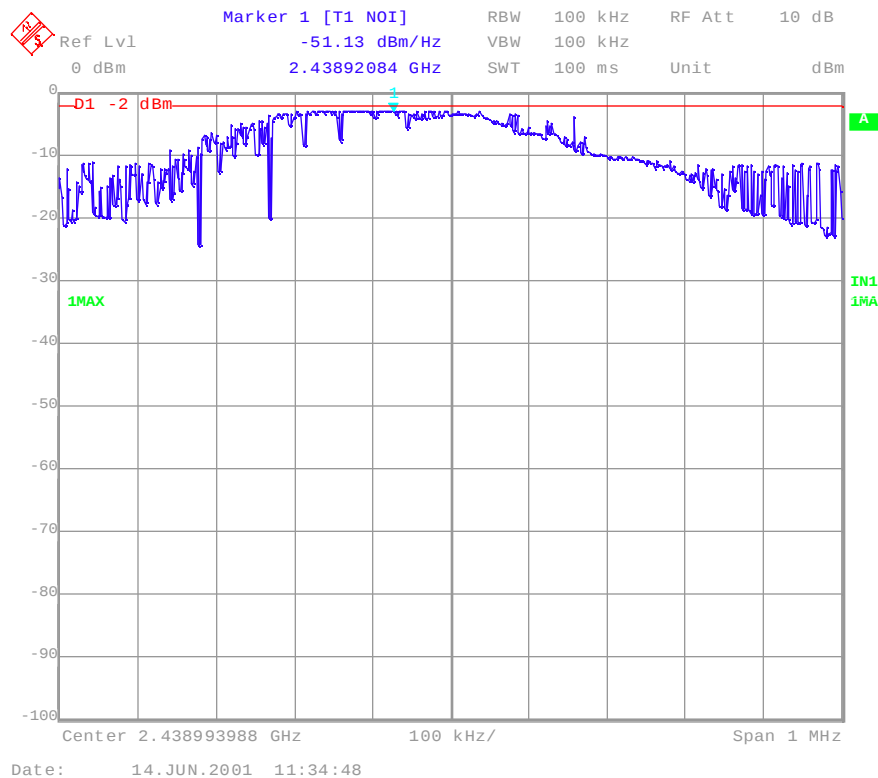


Figure 1 – Noise (Inquiry)
Net level = -51.12 + 30 + 10 = -11.12 dBm

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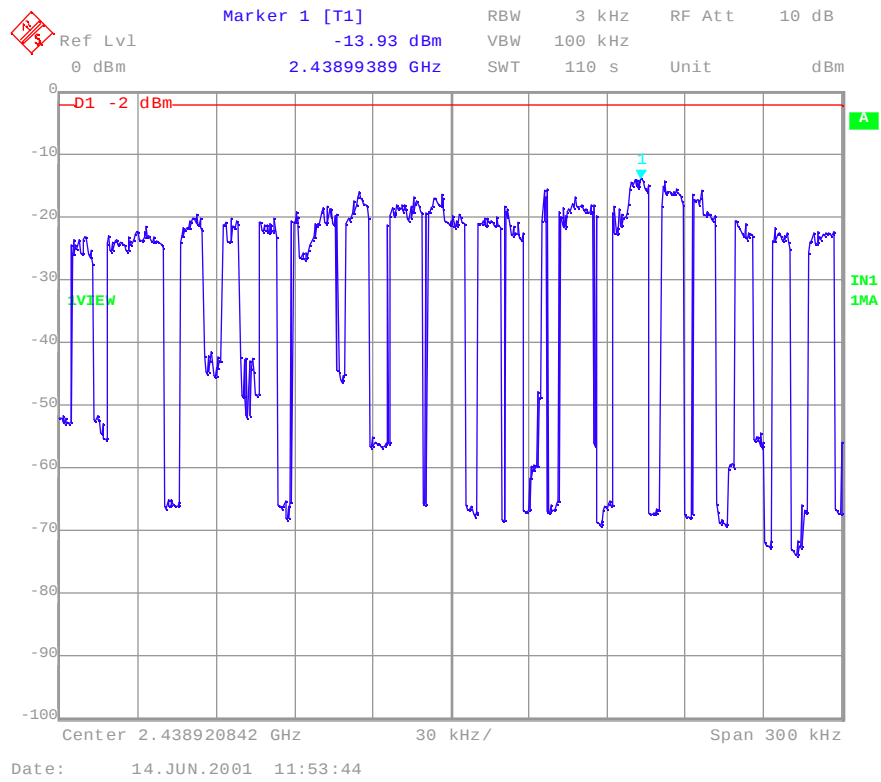


Figure 2 – Power Density (inquiry)
 Net level = $-13.93 + 10 = -3.93$ dBm

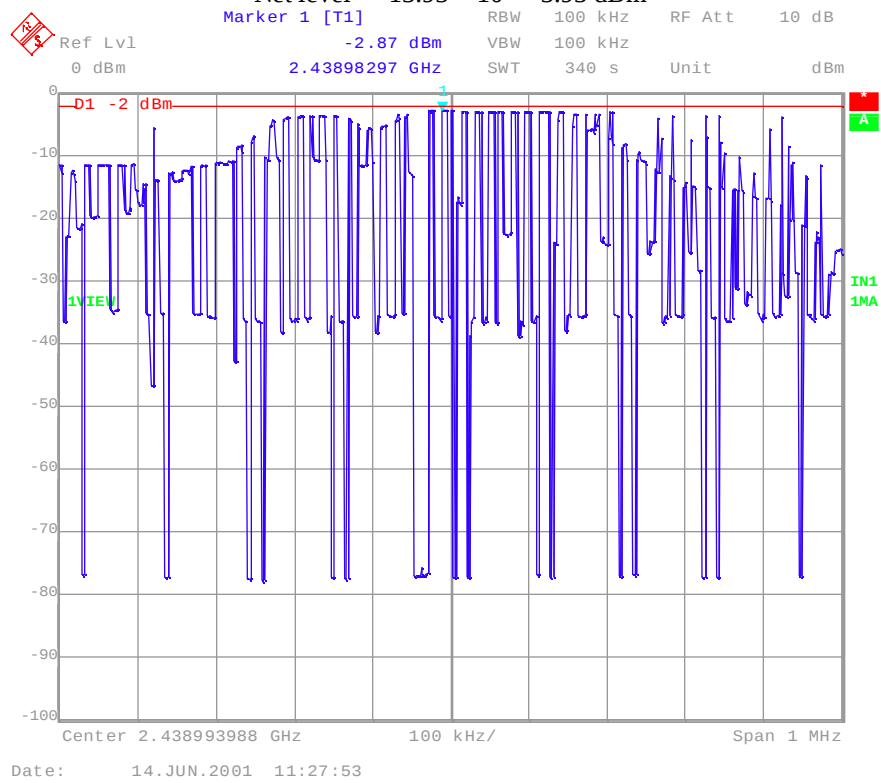


Figure 3 – Power Density (page)
 Net level = $-2.87 + 10 = 7.13$ dBm

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15.247 (b) Peak Power

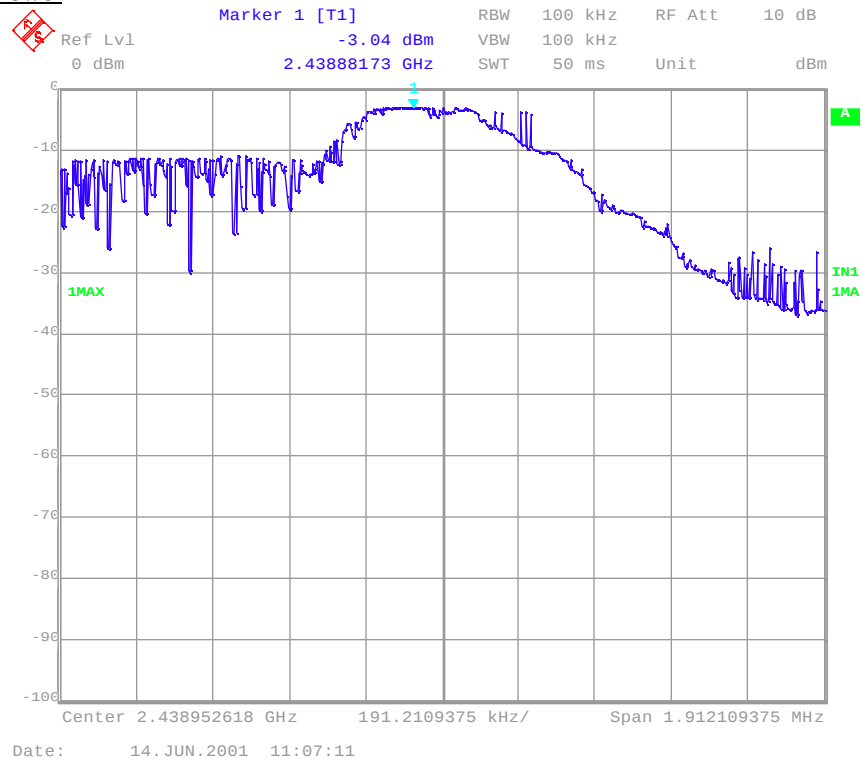


Figure 4 – Peak Power (inquiry)
Net level = $-3.04 + 10 = 6.96$ dBm

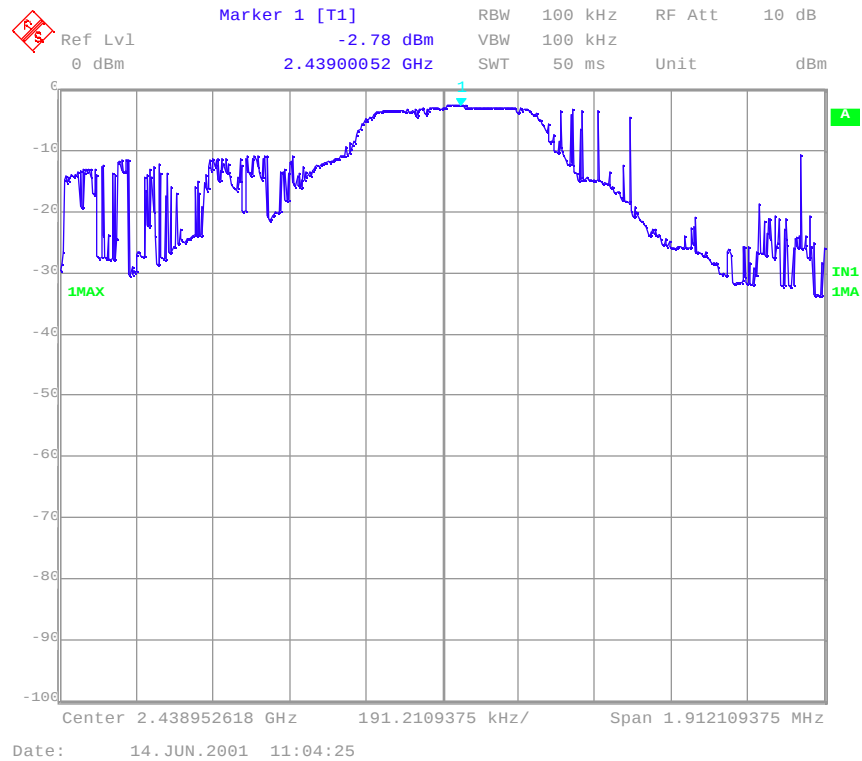


Figure 5 – Peak Power (page)
Net level = $-2.78 + 10 = 7.22$ dBm

15.247 (a) (2) 6 dB Bandwidth

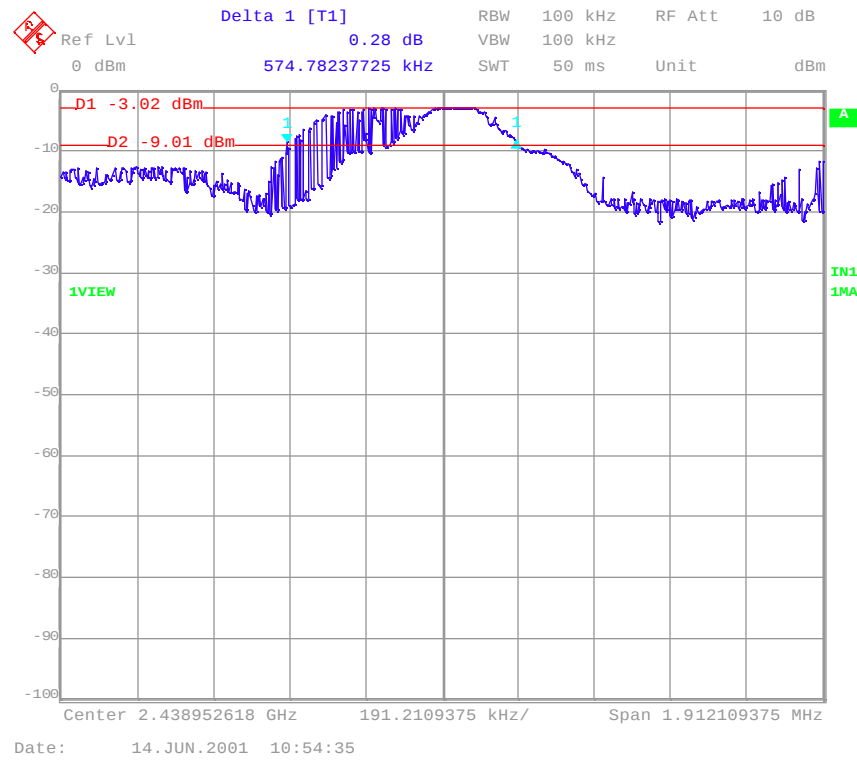


Figure 7 – 6 dB Bandwidth (inquiry)

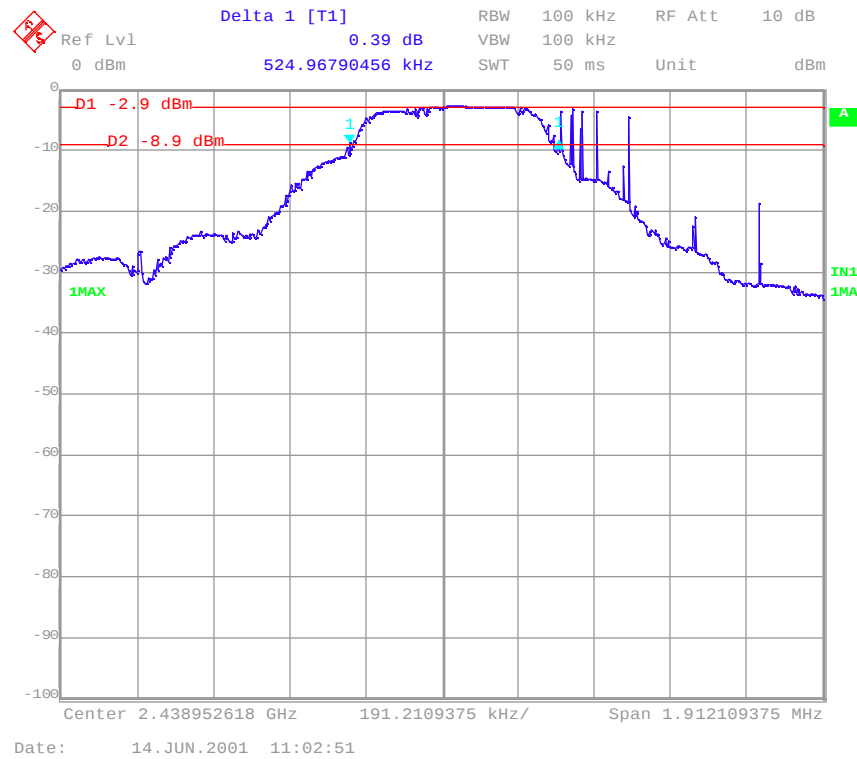


Figure 8 – 6 dB Bandwidth (page)