

FCC Form 442
Omni-Point Data Company, Inc.

Exhibit 1

RESPONSES TO QUESTIONS FOUR, FIVE, SIX, TEN, ELEVEN, AND THIRTEEN

I. Introduction

Spread spectrum technology offers the opportunity to make greater use of existing frequencies. Omni-Point Data Company, Inc. has developed a series of techniques and system designs which it believes will allow for a more efficient acquisition of a spread spectrum signal while reducing both circuitry and power consumption below levels required by other systems and maintaining an equivalent high degree of tolerance to interference and multiple users. Omni-Point Data Company wishes to experiment with spread spectrum technology as applied to a variety of uses such as wireless data transmission for transaction entry systems such as credit card readers and cash registers, wireless industrial sensing and remote metering devices, and wireless telephone products.

II. Particulars Of Operation (Question 4)

A. Omni-Point Data Company wishes to operate within the frequency bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz to deploy, demonstrate and market-test its spread spectrum communication devices.

B. The maximum R.F. output power at the transmitter terminals will be less than one watt.

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C. The maximum effective radiated power will be less than one watt.

D. The maximum effective radiated power will be less than one watt at peak power as defined at 47 C.F.R. § 5.3(n).

E. Modulation: Binary PSK Direct Sequence

Spread Spectrum

[See Exhibit 2].

F. Necessary Bandwidth: = 2x PN Chip Rate
= 2x 12.228 Mb/s
= 24.575 MHz.

III. Directional Antenna (Question 6)

For one of Omni-Point Data Company's proposed experimental objectives, a directional antenna will be used:

Vertical Beam Width 43°

Horizontal Beam Width 52°
(Normally vertically polarized.)

Antenna Specialists (Model ASP-962)

8 dB gain

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IV. Description Of Equipment And Theory Of Operation

Omni-Point Data Company is developing a unique spread spectrum communications module to be incorporated into a broad range of mobile or non-mobile devices such as cordless or CT2 type devices and other personal communication network devices, wireless data transmission for transaction systems such as credit card readers and cash registers, wireless industrial sensing and remote metering devices, and cordless telephone products. Omni-Point Data Company also believes the module will permit development of low cost, wireless local area network modem. The contemplated modem would make possible such application-specific networks as transaction entry systems (credit verification readers, cash registers, portable bar code readers, warehouse inventory data devices or nurses data entry systems) all exchange information between a central database and remote nodes whose locations do not remain fixed.

Omni-Point Data Company's planned spread spectrum components and subsystems could also be used in data transmission applications that do not require communications with a central database. Many industrial production processes rely on distributed sensing devices that measure such parameters as temperature, flow rates, fill levels, pressure and motion and then transfer that information to one or more control devices

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that regulate various processes. Here, the experimentation and testing would involve the use of spread spectrum techniques to avoid the interference conditions of an industrial environment that hamper traditional wireless radio frequency techniques in many industrial applications.

The telephonic alternatives such as CT2, CT3 and DECT might also benefit from the use of spread spectrum technology. Ideally, the spread spectrum transmission would enable more telephonic devices to operate within the same area with more resistance to interference than conventional cordless telephones. This experimentation would require mobile testing with an output of power well below the one-watt limit. Omni-Point Data Company does not expect the number of units used to exceed ten for any particular instance of experimentation. If more than ten units were to be used, Omni-Point Data Company would seek additional approval from the Commission.

V. Specific Objectives

As stated above, Omni-Point Data Company wishes to experiment with spread spectrum technology as applied to a variety of uses including wireless data transmission for transaction entry systems such as credit card readers and cash

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registers, wireless industrial sensing and remote metering devices, and wireless telephone products.

VI. Program Of Investigation Promises Contribution To The Development And Increased Utilization Of Radio Frequencies.

Omni-Point Data Company believes that the techniques and devices which it will be testing under the experimental license will increase utilization of spread spectrum frequencies with greater resistance to certain types of interference and allow longer communication time with lower power consumption.

VII. Proposed Location (Question 5 (d)&(e))

The nature of the experimentation requires that Omni-Point Data Company be able to test its devices in a wide variety of environments in an equally wide variety of locations. For technical reasons, Omni-Point Data Company requires the flexibility to test its mobile transmitters in various parts of the continental United States. If the Commission deems it necessary, Omni-Point Data Company will provide twenty-four hours prior notice of each test, and the location of each test, to the FCC office or offices specified by the Commission.

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VIII. Length Of Time Required To Complete Program
of Experimentation (Question 11)

Omni-Point Data Company requests that the Experimental
License extend for a duration of two years.