

**Thomas N. Cokenias**      *EMC & Radio Type Approvals*  
*Test & Consulting Services for Commercial, Military, International Compliance*  
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2 March 1999

Greg,

Copy of your email asking for additional info. Answers follow each question.

Date: Mon, 22 Feb 1999 15:00:46 -0500  
From: oetech@fccsun07w.fcc.gov (OET)  
To: trephonc@macconnect.com  
Subject:

To: Thomas Cokenias, T.N. Cokenias Consulting  
From: Greg Czumak  
gczumak@fcc.gov  
FCC Application Processing Branch

Re: FCC ID KINDM2  
Applicant: P Com Inc  
Correspondence Reference Number: 6227  
731 Confirmation Number: EA92590  
Date of Original E-Mail: 02/22/1999

1. Spectral plots indicate obvious noncompliance of radiated emissions in restricted bands above and below the authorized band, when the EUT is tuned to hi and low channels. Please address.

**A1.** Please refer to page 2 of *KINDM2 FCC Rev2* , the updated test plan submitted to the FCC webpage on 3 March. Note that power levels are lower than 29 dBm for channels near the bandedges where restricted bands are located. These are the maximum power levels that can be transmitted and still have the restricted bands meet the radiated limits of 15.205. These maximum levels will be listed in the supplement to the user manual.

2. Please remeasure output power with a PEAK power meter. The emission is too wide to use a spectrum analyzer.

**A2.** Output power was also measured with a power meter but data was not included in the original test report. Refer to page 16 of *KINDM2 FCC Rev2* for power meter test data.

3. Please submit data which indicates compliance with the processing gain requirement. What is the theoretical processing gain, based on spreading and data rates?

**A3.** Refer to *DataMetro Process Gain PDF*, submitted 3 March to FCC

4. With what antennas was the EUT tested? What antennas will be marketed for use with the EUT? What gains?

**A4.** Refer to page 2 of *KINDM2 FCC Rev 2*

5. Please justify the statement that the device will be professionally installed. Section 15.203 states that professional installation must be required for the device in order for standard connectors to be used. Page 1-1 of the user's manual states that the EUT is "easy to install and configure." This does not appear to require professional installation!

**A5.** This radio is very similar to the Cylink radios that have been submitted for certification for the last 4 - 5 years, all of which qualified for "professional installation" for the same reasons:

The radios are sold to telephone companies, ISPs, and businesses establishing WLANs. They are not marketed to the general public. With respect to adding a radio to a network, it requires training and expertise to bring an RF node on line. If not configured properly, a new radio can bring down an entire network. Installation of antennas is also critical, as a misaligned directional antenna, or a wrongly placed omni antenna, can result in additional problems to the network. The installation and upgrading of P-Com-equipped WLANs requires professionals.

6. Please submit the block diagram and theory of operation listed in the confidentiality request.

**A6.** Theory of Operations was submitted 3 March to FCC.

7. It does not appear that any RF section schematics were submitted. Please do so.

**A7.** RF schematics were submitted to FCC on 1 March.

8. Please resubmit the Agent Authorization letter, that which was submitted is illegible.

**A8.** Agent Authorization letter was submitted 1 March.

Hopefully you have the information you need to grant this certification. If I can be of further assistance, please let me know.

Best regards

Tom Cokenias

