

From: ckc [kcchenxx@ms5.hinet.net]  
Sent: Monday, June 17, 2002 8:44 PM  
To: Mike Kuo  
Subject: Re: Z-COM, INC., FCC ID:M4Y-03500, AN02T2053

Hello! Mike,

Attached please find the revised information for RF safety.

But I can not understand why the EIRP I provided is not EIRP?  
As using a signal generator connected to a HORN antenna and transmit the power to gain the same radiated level on measurement instrument (SA) as the EUT's.  
The EIRP is a method of substitutive measurement.

However, only narrow band SG is available, so we can only use the RBW of 1MHz to measure both of the signals of EUT and SG.

So, the EIRP data provided in last e-mail, I just want to show you we use the RBW at 1MHz.

Of course, it can be calculated to wideband value (total channel power):  
narrow band value + 10log(emission BW/measurement BW)

So, the result will be:

CH01: 5.2 dBm / MHz + 10.8dB = 16.0 dBm

CH07: 4.5 dBm / MHz + 10.8dB = 15.3 dBm

CH11: 3.6 dBm / MHz + 10.9dB = 14.5 dBm

If you have further questions, please let me know.

Best regards,

K. C.

----- Original Message -----

From: Mike Kuo

To: 'ckc'

Sent: Tuesday, June 18, 2002 10:36 AM

Subject: RE: Z-COM, INC., FCC ID:M4Y-03500, AN02T2053

Hi K.C.:

Question #9: In the revised RF exposure warning statement, you specified 20 cm separation distance. As I indicated in my question #1, this device when used with notebook computer, the end user can not maintain 20cm separation distance. Please change this separation distance from 20cm to 2.5cm and provide revised RF exposure statement.

Question #10: The readings that you provided in addressing question #3 are not EIRP ( fundamental ) at low ,middle and high channels. Please provide EIRP readings.

Best Regards

Mike Kuo

-----Original Message-----

From: ckc [mailto:kcchenxx@ms5.hinet.net]

Sent: Monday, June 17, 2002 3:32 AM  
To: Mike Kuo  
Subject: Re: Z-COM, INC., FCC ID:M4Y-03500, AN02T2053

Dear Mike,

Sorry fir the delay. I am going to clear all projects in my hands.

Please find below for our reply to your questions:

Question #1: This device is tested and to be used with laptop computer. The end user will not able to maintain 20cm away from all person. The RF exposure statement indicates in the user manual is not applicable to laptop computer usage. Please revise RF exposure warning statement.

ANS.: Please find attached file regarding the warning statement for RF exposure.

This will be added into the user's manual. (File name: Information.pdf)

Question #2: Please provide antenna conducted spurious emission up to 10th harmonic for low, middle and high channel.

ANS.: Attached please find the plots for conducted spuious emissions. (File name: XI-350-Conducted.pdf)

Question #3: Per TCB RF review procedure, this device can only be certified as portable transmitter device operates at more than 2.5cm from a person's body with the peak conducted and peak radiated (EIRP) output not exceeding 50mW for 2.4GHz band. Since the highest reported antenna conducted output power is 16.9dBm ( 48.98mW) which is very near TCB limitations. Please provide EIRP measurement on low, middle and high channel.

ANS.: For the antenna used with this transmitter has a typical gain of 0dBi, the radiated power is still under TCB limitation.

The highest EIRP measurement is as follows:

As referring to the nerrow band signal from SG, the EIRP on peak point of each channel:

CH01: 5.2 dBm / MHz

CH07: 4.5 dBm / MHz

CH11: 3.6 dBm / MHz

Question #4: What is the antenna gain in dBi ?

ANS.: The antenna used with this transmitter is integral PCB type. The typical gain is 0dBi.

Question #5: Please provide additional radiated spurious emission with high channel at restricted frequency of 2483.5MHz.

ANS.: please find attachment for the radiated measurement data. (file name: edge.pdf)

Question #6: Internal photos are listed as one of confidential document. Please remove this item from your request. It is FCC policy not to grant internal photos as confidential document.

ANS.: Sure, please remove it for us.

Question #7: Please provide a detail operational description to demonstrate

this device complied with the definition of direct sequence spread spectrum.  
ANS.: PLS find the attachment for the description of spread spectrum IC.  
(File name : ti\_acx100.pdf)

Question #8: Please redo Mpe evaluation by using the separation distance as 2.5cm.

ANS.: Please find the attachment for the required test data. (file name: MPE-retest.pdf)

If you need any further information, please let me know as soon as possible.

Best regards,

K. C. Chen

----- Original Message -----

From: Mike Kuo  
To: K. C. (E-mail) ; Will Yauo (E-mail) ; Will Yauo-Personal (E-mail)  
Sent: Tuesday, June 11, 2002 8:01 AM  
Subject: FW: Z-COM, INC., FCC ID:M4Y-03500, AN02T2053

-----Original Message-----

From: CERTADM  
Sent: Monday, June 10, 2002 5:00 PM  
To: 'mkuo@ccsemc.com'  
Subject: Z-COM, INC., FCC ID:M4Y-03500, AN02T2053

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Best Regards

Mike Kuo / TCB Certifier

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 60 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.