

## Helen Zhao

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**Subject:** FW: Uni Art Precise Products Ltd, FCC ID: MVADH100-001T , Assessment NO.: AN04T4424, Notice#1

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

From: Yu Xinlu  
Sent: Thursday, March 24, 2005 4:42 PM  
To: Helen Zhao  
Subject: Re: Uni Art Precise Products Ltd, FCC ID: MVADH100-001T ,  
Assessment NO.: AN04T4424, Notice#1

Dear Helen,

The following is our reply for the captioned project:

Question #1: Please resubmit a complete test report. The report in the filing has only 20 pages.

Answer: I resubmitted a complete test report to your website.

Question #2: The user manual does not contain RF exposure statement. The possible statement would be: "The antenna(s) used for the device must not be co-located or operating in conjunction with any other antenna or transmitter."

Answer: Please see the revised user manual.

Question #3: Please verify whether this certification covers both DH100 and HP990. If so please revise your test report to include two models, and revise attestation statement to indicate that PCB, Schematics, BOM are exactly the same, only cosmetic change for marketing purpose.

Answer: We confirm that the certification covers only DH100. See the attached test report.

Question #4: If the answer to #3 is Yes, please note the internal Photos you sent me this time are slight different from the ones in your original filing. It seems the PCB size and shape is different. Please indicate clearly which ones are for DH100, which ones are for HP990. Please do not send individual image files to me, please convert it into a complete pdf file. Please also remove the metal shield and retake pictures.

Answer: We confirm that the certification covers only DH100. See the attached test report.

Question #5: If the answer to #3 is Yes, please provide a complete pdf or word file for all the external photos, please remove headphones as it is a receiver, not the transmitter in the filing. Please indicate clearly which ones are for DH100, which ones are for HP990. Please include picture of AC/DC adaptor, please clearly show whether any suppression compoments (e.g. ferrite core) is used.

Answer: Same as the #4.

Question #6: Please include FCC ID label location information on the FCC ID label format.

Answer: Please see the document uploaded to your website.

Question #7: Please send all the attachments related to this application in your return email, please do not include other documents that not related to this application, never put the documents for two applications together.

Answer:OK

New question #8: This device has 15 channels in transmission mode. But section 4.2 of the test report shows 13 channels only. Please provide the data for the other two channels, please update frequency separation test table accordingly.

Answer: Please see the revised test report.

New question #9: Section 4.6 of the test report only reports the measurement of middle channel. Please note you need to always report measurement at low, middle and high channels. Please add data for low and high channels.

Answer: Please see the revised test report.

New question #10: Section 4.8 of the test report does not show the measurement at Low, middle and high channels. Actually the test report does not clearly indicate the channel. Please provide measurement at L, M, H channels.

Answer: Please see the revised test report.

New question #11: You claim this is a frequency hopping system, as described in Section 15.247(a)(1). The specific requirements in Section 15.247(a)(1) are: 1) A minimum channel separation. 2)Pseudo-random hop sequence. 3) Equal use of each frequency. 4) Receiver matching bandwidth and Synchronization.

Please provide detailed operational description to address these requirements. For your quick reference, here I provide you FCC guideline.

#### Pseudorandom Frequency Hopping Sequence

Describe how the hopping sequence is generated. Provide an example of the hopping sequence channels, in order to demonstrate that the sequence meets the requirement specified in the definition of a frequency hopping spread spectrum system, found in Section 2.1.

#### Equal Hopping Frequency Use

Describe how each individual EUT meets the requirement that each of its hopping channels is used equally on average (e.g., that each new transmission event begins on the next channel in the hopping sequence after the final channel used in the previous transmission event).

#### System Receiver Input Bandwidth

Describe how the associated receiver(s) complies with the requirement that its input bandwidth (either RF or IF) matches the bandwidth of the transmitted signal.

#### System Receiver Hopping Capability

Describe how the associated receiver(s) has the ability to shift frequencies in synchronization with the transmitted signals.

Answer:

1) A minimum channel separation.  
The minimum Channel Separation is 2 MHz.

2) Pseudo-random hop sequence.

It's an adaptive frequency hopping device. The Pseudo Random Sequence is generated according to the Best Channel Table. Firstly, the transmitter created a Best Channel Table and Bad Channel Table based on the channel's SNR. The better channel is ahead in the tables. And the Best Channel Table includes 15 channel sequence number. Secondly, after link succeed the transmitter informed the receive device the Best Channel Table. Finally, both transmitter and receive device hop frequency according the same table. If some channel became too bad to communication, the transmitter will update the Best Channel Table and Bad Channel Table.

3) Equal use of each frequency.

Each transmission on every channel is the same (about 5.33 milliseconds), we use every channel equally, which is in the Best Channel Table. Each new transmission event begins on the following channel and after final channel used in the previous transmission event.

4) Receiver matching bandwidth and Synchronization.

The transmitter continuously hopping in the same sequence defined by the Best Channel Table as described above. When the transmitter transmits in the frequency that the receiver is waiting on, the receiver locks onto the transmitter, and because it knows the sequence after it received the Best Channel Table ahead and timing the receiver starts hopping together with the transmitter.

Question #12: Section 4.8 Spurious emission: Please provide the value of all the factors you need to convert the reading to actual FS. Please make sure to list all the correction factors: Final Field Strength = Reading + Antenna + Cable - Preamp + Filter - Distance. Please note the readings must agree with the plots provided.

Answer: Note for Transducer Factor: Correction Factor included Antenna Factor and Cable Attenuation. All factors were inputted into the ESI 26 testing receiver, for frequencies between the known sampling points the transducer factor is approximated using modified spline interpolation by software of ESI 26. So, the readings displayed in the graphs are the final testing results we needed without any calculation.

We had added this explain in page 36 of the report.

Thank you,  
Yu Xinlu

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 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.