

From: =?big5?B?QS1Kb2UgTGI1IFu8QqnTqXZd?= <ajoeliu@quietek.com>  
To: =?big5?B?s6/CRbIG ...snip...  
<tjohnson@AmericanTCB.com>  
Cc: =?big5?B?wva4Z7J6?= <kevinchueh@quietek.com>  
Subject: Re: Review of BenQ, FCC ID: JVP56E18

Dear Tim

Please see our reply as following.  
If you require any further information, please let us know.

Thanks

Regards.

A-Joe

3) Please provide agency authorization letter.

**Not ready yet**

12) Please provide further details in the report regarding the interpolation and extrapolation algorithms used by the system in area and zoom scans.

**Please see the attached from APREL**

18) Users Manual information does not appear to address body spacing and limitations placed on body worn accessories.

**Please see the revised SAR Test report**

**P24**

**revised Data and note**

**Note: A leather between the back of the device and a flat phantom for test.**

**P69-86**

**Test Data --Touch**

**P90**

**(Body worn. Channel 6610 instead of Channel 810**

**Cancel Z-Axis Plot**

**P93**

**Body worn bottom (distance 1.5mm)---Touch**

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

From: A-Joe Liu [劉承宗]

To: 陳鴻達 ; georgechen(總監) ; tjohnson@AmericanTCB.com

Cc: 闕經理

Sent: Monday, January 31, 2005 3:19 PM

Subject: Re: Review of BenQ, FCC ID: JVP56E18

Dear Tim

Please see email below and help us to check it , if you require any further information.  
Please let me know asap.

Thanks a lot

Best regards

A-Joe

1) Please update the 731 form to include the emissions designator (300GXW) and Frequency Tolerance.

**upload ,Please see the revised 731 form**

2) Please provide an operational description exhibit.

**upload**

3) Please provide agency authorization letter.

**Not ready yet**

4) Please provide a Parts list for the radio portion of the device.

**upload**

5) The cover letters only ask for confidentiality on the schematics. However, typically for a cellphone,

this also includes Block Diagrams, Technical Descriptions, Parts List, and Tune Up Procedure Information. Please provide or correct as necessary.

upload

6) It is uncertain which label is the FCC label in the labeling exhibit. Please confirm. Additionally, it is uncertain if the label is placed on the battery or in the battery compartment or similar surface. Please confirm.

in the battery compartment

7) Please confirm if GPRS mode can operate while positioned on the head or can only operate in body worn condition.

Please see SAR Report P.4

add Test Mode GSM Mode: Voice

GPRS Mode: Data

Note: It is not intended to be used by the head during the data operation mode.

8) GPRS power appears to be incorrectly reported as mW.

Please see SAR Report

9) Please explain if more than 1 battery pack type is available for this device. If so, then SAR testing must be checked with both.

just one battery pack type

10) SAR report should reference FCC ID of device it is relative to.

Please see SAR Report P.1 P.5

add FCC ID : JVP56E18

11) SAR report should define if device tested is production unit or identical prototype.

Please see- P.1

add SAR test report is for production unit.

12) Please provide further details in the report regarding the interpolation and extrapolation algorithms used by the system in area and zoom scans.

Geroge will discuss with you for this issue

13) If available, please provide tissue parameters across frequency range of measurements.

Please see P.13

14) What was the forward power into the dipoles during SAR validation measurements?

Please see P.15 add ote: All SAR values are normalized to 1W forward power.

15) A statement of compliance to 1528 and §2.1093 does not appear to be provided in the SAR report.

Please see P.2

Applicable Standard : FCC Oet65 Supplement C June 2001

IEEE Std. 1528-2003

IEEE Std. 2.1093

16) For SAR Test dates do not appear on the plots. It can not be determined how many days testing was performed over. Note the FCC requires validation for each day of testing.

Please see P.15

17) Z-axis plots do not appear to be labeled and it is uncertain which test they are associated with..

Please see P.87 ~ P.90

18) Users Manual information does not appear to address body spacing and limitations placed on body worn accessories.

not ready yet , I will send it to you asap

19) Head conversion factors appear to be 3.65, but this does not match the plots. This may require retesting using proper factors. Please explain or correct as necessary.

Please see P.26 ~ P.84

Head conversion factor.Body conversion factor及Probe sensitivity

20) Probe sensitivity given on the cal cert. does not appear to match the plots.

Please see P.26 ~ P.84

Head conversion factor.Body conversion factor及Probe sensitivity

21) Body conversion factors appear to be 3.8, but this does not match the plots. This may require retesting using proper factors. Please explain or correct as necessary.

Please see P.26 ~ P.84

Head conversion factor.Body conversion factor及Probe sensitivity

22) FYI...FCC logo is reserved only for specific types of approvals. This logo is shown on the AC adapter and it is uncertain as to why and how this logo applies to the AC adapter. Unless specific reasoning can be shown, this should be removed.

23) FYI....In the future, please show the actual measured occupied bandwidth on the plots (section 4.5 of the test report.

24) FYI....Please consider reporting the Measurement uncertainty in the SAR report for both the validation and normal test measurements.

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

From: "陳鴻達" <[major@tradeint.com.tw](mailto:major@tradeint.com.tw)>

To: "A-Joe Liu [劉承宗]" <[ajoeliu@quietek.com](mailto:ajoeliu@quietek.com)>; "georgechen(總監)" <[georgechen@quietek.com](mailto:georgechen@quietek.com)>

Sent: Tuesday, January 25, 2005 5:03 PM

Subject: FW: Review of BenQ, FCC ID: JVP56E18

FYI.

Major

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

From: Timothy R. Johnson [mailto:[tjohnson@AmericanTCB.com](mailto:tjohnson@AmericanTCB.com)]

Sent: Tuesday, January 25, 2005 12:20 PM

To: [mchen@AmericanTCB.com](mailto:mchen@AmericanTCB.com)

Subject: Fwd: Review of BenQ, FCC ID: JVP56E18

Major,

The uploads only resolved 2 comments. I'm sending the updated comments to you.....see attached..

From the comments, I imagine most are easy to respond to....ones that are likely to be an issue, depending on the response would be items 9, 16, 19, 20, 21. They should try and address these issues first..

Tim

>Date: Mon, 24 Jan 2005 02:23:12 -0500

>To: (QuieTek) A-Joe Liu

>From: "Timothy R. Johnson" <[tjohnson@AmericanTCB.com](mailto:tjohnson@AmericanTCB.com)>

>Subject: Review of BenQ, FCC ID: JVP56E18

>Cc: (ATCB) Major only

>

>A-Joe Liu,

>

>Attached are comments regarding review of this application.

>

>Thank You,

>

>Timothy R. Johnson, NARTE Certified EMC Engineer (No. EMC-002205-NE)

>Examining Engineer

>American TCB, Inc.

>6731 Whittier Ave.

>McLean, VA 22101

>

>email: [tjohnson@AmericanTCB.com](mailto:tjohnson@AmericanTCB.com)

>alternate email: [TRJ@adelphia.net](mailto:TRJ@adelphia.net)

>USA direct number: 404-414-8071 & 678-648-3191

>USA corporate phone: 703-847-4700

>USA corporate fax: 703-847-6888

Timothy R. Johnson, NARTE Certified EMC Engineer (No. EMC-002205-NE)

Examining Engineer

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McLean, VA 22101

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USA direct number: 404-414-8071 & 678-648-3191

USA corporate phone: 703-847-4700

USA corporate fax: 703-847-6888

Return-Path: <stuartn@aprel.com>

Received: from exch\_apr.aprel.ca (mail.aprel.com [209.87.231.218])  
by mail.quietek.com (8.12.11/8.12.11) with ESMTP id j0VLW7gP000607;  
Tue, 1 Feb 2005 05:32:09 +0800

Content-class: urn:content-classes:message

MIME-Version: 1.0

Content-Type: multipart/related;  
boundary="----=\_NextPart\_001\_01C507DB.E9B5A9DA";  
type="multipart/alternative"

Subject: RE: Please answer the issue from American TCB

X-MimeOLE: Produced By Microsoft Exchange V6.5.7226.0

Date: Mon, 31 Jan 2005 16:29:15 -0500

Message-ID: <3E1B4AF37C1E5541B579ED23C52F46E03DE259@exch\_apr.aprel.ca>

X-MS-Has-Attach: yes

X-MS-TNEF-Correlator:

Thread-Topic: Please answer the issue from American TCB

Thread-Index: AcUHnvlItwAR7fWcQEG+aoVxB95IMgAO/J0Q

From: "Stuart Nicol" <stuartn@aprel.com>

To: "georgechen[??]" <georgechen@quietek.com>

Cc: "Yi Pan" <y.pan@aprel.com>, "roy" <royhsieh@quietek.com>,  
"ajoeliu" <ajoeliu@quietek.com>

X-mail.quietek.com-MailScanner-Information: Please contact the ISP for more information

X-mail.quietek.com-MailScanner: Found to be clean

X-MailScanner-From: stuartn@aprel.com

Status: O

X-UID: 4049

Content-Length: 34248

X-Keywords:

**Dear George,**

**Please see the response below with regards the questions asked by Tim from ATCB.**

**Could you please find out for me what version of DASy-4 software was used when you compared the time needed to complete a SAR scan against the ALSAS-10U? This information is really urgent and will help me with a current client.**

**Thanks,  
Stuart.**

### **3.3 Field scans**

ALSAS-10U can provide multiple scan types including Measurements along lines (X, Y, Z), multiple planes, curved surfaces (normalize probe to surface), volumes in free space or restricted volumes (phantoms). Cube measurements with surface extrapolation and spatial SAR evaluation for 1g and/or 10g. Time measurements (source power drift). Probe rotation measurements (isotropy) and many others in line with the requirements of any given standard or procedure.

#### **3.3.1 Area Scans**

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10mm<sup>2</sup> step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

A maximum area scan size is set at 280mm x 200mm which can be changed to a smaller size dependent on the field distribution of the device under test. The area scan size is documented within the SAR report which is delivered by the SAR system software.

Where the system identifies multiple SAR peaks (which are within 25% of peak value) the system will provide the user with the option of assessing each peak location individually for zoom scan averaging.

### 3.3.2 Zoom Scan (Cube Scan Averaging)

The averaging zoom scan volume utilized in the ALSAS-10U software is in the shape of a cube and the side dimension of a 1 g or 10 g mass is dependent on the density of the liquid representing the simulated tissue. A density of 1 000 kg/m<sup>3</sup> is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

When the cube intersects with the surface of the phantom, it is oriented so that 3 vertices touch the surface of the shell or the centre of a face is tangent to the surface. The face of the cube closest to the surface is modified in order to conform to the tangent surface.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 5x5x9 (8mmx8mmx4mm) providing a volume of 32mm in the X & Y axis, and 36mm in the Z axis. All points remain tangential to the surface by utilizing the normalize (probe tilt) feature so as to reduce measurement uncertainty.

### 3.5 ALSAS-10U Interpolation and Extrapolation Uncertainty

Extrapolation to the surface of the phantom is conducted using a fourth order polynomial fit. The overall uncertainty for the methodology and algorithms the used during the SAR calculation was evaluated using the data from IEEE 1528 based on the example f3 algorithm:

Sincerely,  
--//---

Stuart Nicol  
APREL Laboratories,  
51 Spectrum Way,  
Ottawa, Ontario,  
Canada, K2R 1E6  
Tel: (613) 820-2730  
Fax: (613) 820-4161  
Email: [s.nicol@aprel.com](mailto:s.nicol@aprel.com)

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**From:** georgechen@quietek.com [mailto:georgechen@quietek.com]  
**Sent:** Monday, January 31, 2005 9:12 AM  
**To:** Stuart Nicol  
**Cc:** Yi Pan; roy; ajoeliu  
**Subject:** Please answer the issue from American TCB

Dear Stuart,

Please answer the following issue from American TCB's Tim, who is reviewing the BenQ mobile phone SAR test report.

Please provide further details in the report regarding the interpolation and extrapolation algorithms

used by the system in area and zoom scans.

Best regards,

George Chen



[image0014.wmz](#)