



Issue 12 / February 2004

Dear Colleague,

We have provided typical questions and answers that represent in most cases technical opinions with justification in FCC and CE Requirements. The particulars of the product for certification must be considered with respect to the applicability of these questions and answers. Thus, we hope you find our updates valuable, and welcome your calls and or emails if you have any special needs or questions. Please call at 703-689-0368 or email us at <mailto:multiPoint@rheintech.com>

Also, please see our website at www.rheintech.com for MultiPoint archives, [facility virtual tour](#), and other helpful information.

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FCC Identifier:

Question:

We would like to create our FCC identifier ending with a dash (-); does the FCC or TCB allow FCC ID's ending in dashes (-)?

Response:

The FCC/TCB does not permit FCC identifiers ending in dashes (-); this is confusing because the FCC/TCB gets many calls from users who expect something after the dash. The FCC/TCB would not issue a grant where the FCC identifier ends in a dash (-).

Request for Dismissal of Application:

Question:

We currently have an application with our TCB that we would like to have dismissed. Please explain how a TCB can dismiss an application that was granted.

Response:

A correspondence requesting application dismissal must be uploaded into any TCB-filed application that needs to be dismissed. This must be done within 30 days of the grant for each application needing dismissal. The reason for the dismissal of the application must be clearly stated in a cover letter exhibit. If the dismissal request is because the wrong FCC ID was entered into the database, the reason must be stated by the TCB. ANSI and the EU have requested that FCC dismissal letters contain explicit information concerning the application dismissal. A request for dismissal of an application that has been granted longer than 30 days must come from the applicant/grantee. Such a request must be made on the applicant/grantee letterhead. The TCB must upload this letter to the FCC; the grantee cannot upload such a request themselves since the filing is password protected and only available to TCBs.

SAR Testing:**Question:**

Can you explain the following FCC notes relative to co-location SAR?

- 1) Test SAR with dominant transmitter ON, other co-located transmitter OFF and identify configuration with highest SAR.
- 2) Test with dominant transmitter and all relevant groups of co-located transmitters (one group at a time) ON using the configuration that produced the highest SAR for the dominant transmitter.
- 3) The procedure is only applicable when the dominant transmitter is always ON along with one or more of the co-located transmitters. Otherwise, a TCB may not be able to approve the application and the application may have to be submitted to the FCC for approval.

Response:

An application can be approved by a TCB if the dominant transmitter is on while other non-dominant transmitters are transmitting and this configuration produces the worse case SAR co-located condition. The TCB cannot certify the configuration where the non-dominant transmitter might actually be the worse case condition when the dominant transmitter is off. This is unlikely, but it is possible depending on where the dominant and non-dominant transmitters are located with respect to the phantom during testing. Note 1 requires testing with the dominant transmitter ON only, while the other non-dominant transmitters is OFF in order to determine the highest SAR levels. Note 2 requires testing the dominant transmitter with the highest SAR configuration from Note 1 with all relevant co-located transmitters one group at a time. If as an example you have an 802.11a/b/g and Bluetooth WLAN device co-location SAR report, unless the 802.11a/b/g is always on when the Bluetooth is on, a TCB cannot approve such a device. Note 3 explains that the FCC would allow the aforementioned SAR co-located dominant and non-dominant configuration report to be approved by a TCB, otherwise the application report must be submitted to the FCC.

SAR Probe Conversion Factor:**Question:**

We received our SAR test report recently from our test laboratory with reference to a Probe Conversion Factor; can you shed some light into what this is?

Response:

In SAR measurements, special probes are used to map electromagnetic fields in which the probe disturbs the field under measurement. A phantom representing the human head and body often filled by liquid possessing properties similar to the human brain or body tissue is used in conjunction with the probes to map out the field. Proper calibration techniques are necessary to account for probe imperfections as well as to remove probe effects from measured data. This calibration is referred to as a Probe Conversion Factor. Below are typical Probe Conversion Factor values for 3 GHz probes. These values represent the X/Y/Z values when a 0.25 W CW signal feeding a "perfect" dipole (-26 dB return loss) is placed 15 mm below 1 GHz and 10 mm above 1 GHz from the liquid (not the phantom). The three axis isotropic probe voltages must be algebraically summed to arrive at the final total value.

Frequency Range (MHz)	X-axis	Y-axis	Z-axis
800~950 (Head)	6.7mV	6.7mV	6.7mV
800~950 (Body)	6.6mV	6.6mV	6.6mV
1700~1910 (Head)	5.3mV	5.3mV	5.3mV
1700~1910 (Body)	5.0mV	5.0mV	5.0mV
2400~2500 (Head)	4.9mV	4.9mV	4.9mV
2400~2500 (Body)	4.5mV	4.5mV	4.5mV

Worldwide updates:

FCC Update

FCC PROPOSES RULES FOR BROADBAND OVER POWER LINES (BPL) TO PROMOTE BROADBAND SERVICE

On 2/12/04, the FCC proposed changes to certain technical rules that will foster broadband deployment using the significantly untapped capabilities of the nation's power grid, while safeguarding existing services against harmful interference.

The proposed rule changes set forth procedures to measure the radio frequency (RF) energy emitted by equipment used to provide broadband service over power lines and establish particularized interference mitigation requirements.

The Notice proposes the following: 1) rules requiring BPL devices to employ adaptive interference mitigation techniques to prevent harmful interference to existing users, 2) the development of a public database that would include such information as location, operational frequencies, and modulation type of BPL devices in order to facilitate the resolution of interference issues in a timely fashion, 3) comment on specific RF measurement guidelines for BPL devices and other carrier current systems. (Such guidelines would ensure that emission measurements for these systems are made in a consistent manner. Note: while the Notice addresses RF measurement guidelines, it does not propose any changes to existing applicable emission limits.)

Some existing electric utilities already use a lower speed version of BPL technology to manage their own internal networks. ET Docket No. 04-37

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243879A1.doc

Amendment of Part 2 of the Commission's Rules to Realign the 76-81 GHz and the Frequency Range Above 95 GHz Consistent with International Allocation Changes

On 2/4/02, the Commission adopted an amendment to reallocate spectrum in the 76-81 GHz frequency band and the frequency bands above 95 GHz in order to align the United States Table of Frequency Allocations (U.S. Table) with recent changes to the International Table of Frequency Allocations (International Table) maintained by the International Telecommunication Union (ITU).

The primary intent of realignment of allocations was to place scientific services, such as the Earth-exploration satellite service (EESS) and radio astronomy service (RAS), in spectrum better suited to their needs. With regard to 76-77 GHz band, the Commission adopted a primary RAS allocation and secondary space research service (SRS) allocation that will share this band with unlicensed vehicle radar systems.

The Commission is not implementing the proposed secondary amateur-satellite allocation in this band due to anticipated interference concerns with vehicle radar systems. In order to protect passive services in the 55.78-56.26 GHz band, the Commission adopted a limit on the maximum power spectral density that can be delivered to a fixed service transmitter antenna.

The overall objective of the Commission is to implement rule amendments that will promote future developments in technology and equipment and provide consumers with access to new products and communications services. ET Docket No. 03-102

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-20A1.doc

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RTL has provided EMC compliance engineering & testing services since 1988 and has a superior reputation with both the Federal Communications Commission and others in the industry. RTL provides testing services to meet the emissions, immunity, and safety requirements of the European EMC Directive and the EU R&TTE Directive, all FCC rules and regulations, VCCI (Japan), ACA (Australia), and other international standards.

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