

From: "Kurt Fischer" <Kurt.Fischer@hyperinterop.com>  
To: "dward" <dward@direcway.com>  
Cc: "Jean Chin" <Jean.Chin@hyperinterop.com>; "Diana Eberhard" <Diana.Eberhard@hyperinterop.com>  
Subject: FW: manual requirements for a Bluetooth device with respect toRF safety  
Date: Monday, July 29, 2002 4:11 PM

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

From: Stephen Stegner [mailto:sstegner@microsoft.com]  
Sent: Mon 7/29/2002 4:07 PM  
To: Kurt Fischer  
Cc: Kevin Marquess; Diana Eberhard; jeanchin@hyperinterop.com  
Subject: FW: manual requirements for a Bluetooth device with respect toRF safety

Forwarding response from the FCC.

Stephen Stegner  
EMC/Safety Engineer  
Microsoft Corporation  
(425) 706-2697

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

From: Tim Harrington [mailto:THARRING@fcc.gov]  
Sent: Monday, July 29, 2002 2:54 PM  
To: Stephen Stegner  
Cc: Rfsafety  
Subject: Re: manual requirements for a Bluetooth device with respect toRF safety

FCC rules are not explicit regarding documentation required to accompany products. In evaluating reports submitted for documentation of routine RF exposure compliance, we consider various aspects to determine the level of cautions or warnings required. Review items may include reported SAR or MPE levels relative to limit, device size, shape, normal use patterns, antenna location, accessories, etc. We cannot suggest generic manual statements because it depends on final product configurations.

Usually we request that RF exposure info is placed in a conspicuous location of applicable manuals, indicating to responsible parties, end-users etc., that the listed procedures, requirements, or caution statements are included for satisfying FCC RF exposure requirements and/or to meet FCC RF exposure limits.

For handheld-only devices, limit for hand SAR is 4 mW/g averaged in 10g. Using the rule of thumb that SAR~P, for all P transferred into 10g then 4 mW/g requires 40 mW; similarly for body-worn devices with limit 1.6 mW/g in 1g needs 1.6mW (no radiation into air).

>>> "Stephen Stegner" <sstegner@microsoft.com> 07/29/02 02:28PM >>>

Hi,

Using the guidelines of OET 65 supplement C and the FCC CFR 47 regulations I have determined the following information below is necessary with respect to the RF exposure safety requirements for our low power Bluetooth devices (mouse, keyboard and USB adapter that connects to a PC). [I've also included all of the necessary information for the EMC portion for FCC but have not shown here for clarity.]

I'm e-mailing to confirm if I have included all of the necessary information with respect to the FCC RF exposure information. Could you please reply to my e-mail?

Thank you,

Stephen Stegner  
EMC/Safety Engineer  
Microsoft Corporation  
(425) 706-2697

[Information in manual below]

Note: Any changes or modifications not expressly approved by Microsoft could void the user's authority to operate the device.

#### FCC Declaration of Conformity for RF Exposure

The radio module has been evaluated under FCC Bulletin OET 65C and found compliant to the requirements as set forth in CFR 47 Sections 2.1091, 2.1093, and 15.247 (b) (4) addressing RF Exposure from radio frequency devices.

#### RF Technical specifications

RF output power: +4dBm (maximum)  
Protocol: Bluetooth standard compliant  
Frequency Range: 2.4 - 2.4835GHz  
Type of Modulation: FSK  
Signal Type: Frequency Hopping Spread Spectrum (FHSS)