

Courtenay Geraghty

From: Gregory Czumak [gregory@pctestlab.com]
Sent: Monday, October 24, 2005 11:50 AM
To: PCTEST - Courtenay
Subject: EV-DO request for guidance

From: Generic Office of Engineering Technology [mailto:oetech@fccsun27w.fcc.gov]
Sent: Friday, October 21, 2005 8:51 AM
To: gregory@pctestlab.com
Subject: Response to Inquiry to FCC (Tracking Number 178238)

Inquiry:

I am currently reviewing a phone with EV-DO capability (CDMA 1xEV-DO 800MHz), and so I am contacting the FCC to seek guidance on the review. I would like to point out that it is unlikely that any SAR would be applicable to EV-DO operation- as a data only service (unlike full-fledged cdma2000, there is no voice option here), it is used for emails, browsing the internet, etc., which would require that the phone be held in the hands for normal operation (thus, a mobile configuration, not portable). If used with a laptop pc, it is connected by cable, so, again, it is unlikely that someone would be wearing the phone on their belt during normal EV-DO operation. Please let me know what, if anything, we should be checking during our review- as always, grant time is critical to the applicant, so if you could respond at your earliest convenience, it would be much appreciated.

Response:

We understand that the device in question is a cellular band handset (assuming CDMA 2000 1x) with EV-DO capability (assuming Rev. 0; i.e. 153.6 kbps maximum uplink). Also assume that the maximum average output for EV-DO is less than or equal to any of the CDMA 2000 modes. SAR for head and body exposure should be tested according to applicable CDMA 2000 Radio configurations (RC 1-4 etc.) and Service Options provided previously.

Body-worn SAR should be repeated in EV-DO (Rev. 0 only) using the CDMA 2000 body-worn channel configuration that resulted in the highest SAR among the various Radio Configurations in this frequency band (that is, just a single SAR test for EV-DO, as a sanity check). If this EV-DO SAR is greater than the highest body-worn SAR in CDMA 2000, perform body-worn SAR for the other 2 channels (among the required H, M, L channels).

Note: EV-DO operates independently of CDMA 2000 with different modulation, channel and protocol structures. It is not an integral part (seamless) of the CDMA 2000 structure, but overlays the 1x structure. EV-DO Rev A allows 307 kbps and higher order modulations; therefore, may need additional considerations. The above procedures applies to single band CDMA 2000 1x handsets with built-in EV-DO (Rev. 0) using the same transmit path hardware. Please contact us if the device in question operates in other configurations or EV-DO does not apply to body-worn conditions. The above should be considered interim procedures while it remains to be determined if CDMA 2000 or EV-DO should be considered the dominant body-worn operating condition (i.e. test SAR in EV-DO mode and check CDMA 2000 at highest SAR configuration etc.)

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