

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

From: Roland Gubisch ES-BOX
Sent: Monday, June 05, 2006 10:53 AM
To: David Schramm ES-ATL
Cc: Terre Wolak ES-ATL; Shawn McGuinness ES-ATL
Subject: RE: Hitachi FCC ID: HDLUSA-60750-KE-E and HDLUSA-60751-KE-E

David,

Thank you for the information and the revised test block diagrams. Some substantiation is needed for the claim of occupied bandwidth <= the input bandwidth in item 1).

Thanks,
Roland

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

From: David Schramm ES-ATL
Sent: Friday, June 02, 2006 5:21 PM
To: Roland Gubisch ES-BOX
Cc: Terre Wolak ES-ATL; Shawn McGuinness ES-ATL
Subject: RE: Hitachi FCC ID: HDLUSA-60750-KE-E and HDLUSA-60751-KE-E

Roland,

- 1) Occupied bandwidth was <= the input bandwidth from the Agilent signal generators. I did not list the input BW and don't have the exact input BW readings.
- 2) The three tones were on for each plot. We had to zoom into the two adjacent tones at the low end of the band to prove there were indeed two tones. The labels beneath the plots indicate what the plots show (i.e. 3 carriers, showing lower 2 carriers). For CW Intermod, the tones used were 1930.2 MHz, 1930.4 MHz, and 1989.8 MHz. For WCDMA the tones used were 1932.5 MHz, 1938 MHz, and 1987.5 MHz.
- 3) There were three Agilent E4438C signal generators coupled together using isolators and combiners. Please see attached block diagram that shows the signal generator connection to the amplifier. Shawn can get the serial numbers of the second and third signal generators, if needed.
- 4) The signal source for radiated spurious was the Agilent signal generator. The frequencies for GSM were 1930.2, 1960, and 1989.8 MHz. The frequencies used for WCDMA were 1932.5, 1960 and 1987.5 MHz.

<< File: block diagram5.ppt >>
<< File: block diagram4.ppt >>

Please let me know if additional information is needed.

Best regards,

David

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From: Roland Gubisch ES-BOX
Sent: Friday, June 02, 2006 4:42 PM
To: David Schramm ES-ATL
Cc: Terre Wolak ES-ATL
Subject: RE: Hitachi FCC ID: HDLUSA-60750-KE-E and HDLUSA-60751-KE-E

David,

Thank you. I don't know if the FCC will have any particular questions about a WCDMA AMP - but I will ask just to be sure. Here are a few questions:

- 1) occupied bandwidth test on an AMP should demonstrate that output BW \leq input BW. I see only output BW. Is input BW listed somewhere?
- 2) Three-tone IM test was apparently used for conducted spurious measurement, but only 2 tones are shown in plots (except for plot p. 26); please explain and indicate frequencies used.
- 3) what was signal source for IM test? It does not appear on block diagram, p. 21.
- 4) What was signal source and frequency(ies) for radiated spurious emissions? Not shown on block diagram, p. 37.

Regards,
Roland