From: Roland Gubisch ITS/ES-Box
Sent: Friday, January 31, 2003 12:54 PM
To: David Chernomordik ITS/ES-Mpk
Cc: Danielle Gravelle ITS/ES-Box
Subject: Review Comments Telian FCC ID: NPQMTD-3500

David:

Technical review of this application is complete. Please respond to the comments below:

ADMINISTRATIVE

1) Form 731 rated RF power - should be ERP, 0.263 W as shown in test report for both AMPS and TDMA modes
2) From 731 emissions designators
a) Please provide necessary bandwidth calculations Bn = 2(M + DK) to justify selection of 40K0 and 30K0.
b) Most 22H grants include emission 40K0F1D (wideband data) for AMPS mode; consider adding with same ERP.
3) Cannot locate information on DC power into final RF stages per 2.1033(c)(8); please provide.
4) Cannot locate attestation to system interoperability for AMPS mode per OET-53, see 22.933.

EMC REPORT

1) The Table under section 1.2 shows TDMA conducted power as 26.3 dBm. Test results under section 2.3, and plot 2.6, show 849 MHz power in TDMA mode as 26.6 dBm. Please comment on difference.
2) Plots 6.4 and 6.5 do not appear to indicate compliance with -26 dB attenuation at - 20 kHz for 22.917(b)-(c); plot resolution is marginal.
3) It is not clear if spurious conducted emissions were measured at low power as well as high power. FCC guidance: "Tests to be done at one operating frequency at maximum power output - except for antenna terminals measurements to be done at both highest and lowest power output levels."
4) For measurement of conducted output in base frequency range per 22.917(f), noise floor of plots is above -80 dBm requirement. Please indicate how requirement is met.
5) Report should indicate that accessory headset was attached during cabinet radiation measurement. The setup photos appear to confirm.

SAR REPORT

1) User manual page 9 says: " Extend your antenna fully." SAR tests show only one antenna position. Please resolve difference.
2) Section 19 of User manual refers to "up to 600 mW" maximum power. This does not agree with EMC report or SAR measurements.
3) EMC conducted measurement of 26.6 dBm at 849 MHz TDMA is not replicated in SAR report; corresponding SAR report value at that frequency is 26.3 dBm. Conducted values in SAR report should be => values in EMC report.
4) Please indicate how ambient RF emissions were considered in SAR testing.
5) Cannot find flat phantom physical parameters (size, shell thicknesses, bottom sag, tolerances) in test report.
6) Was EUT tested in both orientations to flat phantom (keyboard facing, and away from, phantom? Please clarify.

Thank you,
Roland