

From: Roland Gubisch ES-Box  
Sent: Wednesday, June 29, 2005 5:01 PM  
To: David Chernomordik ES-Mpk  
Cc: Terre Wolak ES-Atl  
Subject: RE: Technical review of Topcon FCC ID: LCB-960801  
David,

Thank you for the responses.

- (1) The input power to the final RF stage as provided is sufficient.
- (2) The tune-up algorithm as supplied is sufficient.
- (3) The emission designator bandwidth is intended to be the necessary bandwidth, as calculated from formulas given in 2.202. If this cannot be calculated, then the 99% occupied bandwidth may be used. The attached sample calculations for MSK modulations from 2.202 predict wider necessary bandwidths than the GMSK measurements provided in the test report, so it is reasonable to use the narrower measured values.
- (4) It appears from a review of the data rates and measured occupied bandwidths summarized in the table below that the equipment meets the FCC's criteria for spectrum efficiency. If so, the applicant only needs to prepare and sign an attestation that the equipment (identified by FCC ID) meets the applicable criteria for spectrum efficiency as specified in 90.203. This attestation would be filed as a cover letter exhibit.

Regards,  
Roland

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

From: David Chernomordik ES-Mpk  
Sent: Tuesday, June 28, 2005 5:02 PM  
To: Roland Gubisch ES-Box  
Subject: Technical review of Topcon FCC ID: LCB-960801

Roland,

I received info from the client

DC Voltage - 4V  
Current - 1 A

Should I put this into report? Please advice.

I also received the document (attached) which may be considered as Tune-up info.  
Is this satisfactory?

<< File: Power\_algol.doc >>  
One is not answered: the spectrum efficiency requirements in 90.203(j)(4)-(5).

I'm not sure that I wrote in the 731 Form for UHF the correct emission designators.

Below is extract from 90.209:

Operations using equipment designed to operate with a 25 kHz channel bandwidth will be authorized a 20 kHz bandwidth. Operations using equipment designed to operate with a 12.5 kHz channel bandwidth will be authorized a 11.25 kHz bandwidth. Operations using equipment designed to operate with a 6.25 kHz channel bandwidth will be authorized a 6 kHz bandwidth.

and from the report

Modulation/data rate	Measured Occupied Bandwidth	Emission Designator
FM-4/19200 *	13.2 kHz	13K2F1D
GMSK/9600 *	10.4 kHz	10K0F1D
FM-4/9600 **	6.3 kHz	6K30F1D
GMSK/4800 **	5.1 kHz	5K10F1D

\* May be authorized at 20 kHz bandwidth  
\*\* May be authorized at 11.25 kHz bandwidth

The question is: what bandwidth shall be written in the Designator - the measured or the authorized?

Thanks  
David