

30th April 2014

Telecommunication Certification Body
UL Verification Services Ltd
Pavillion A
Ashwood Business Park
Basingstoke
Hampshire
RG23 8BG

RE: Band 14 V6 eNode B FCC ID: PKTNODEBAPF MPE Calculation.

To Whom It May Concern,

The General Dynamics Broadband Band 14 V6 eNode B is considered to be fixed equipment and intended for operation with separation distances greater than 20cm between the user and the equipment. Therefore the RF Exposure performance can be assessed by a Maximum Permissible Exposure (MPE) calculation using the limits defined in Part 1.1310 Table 1B for the General Population/Uncontrolled Exposure category.

The General Dynamics Broadband Band 14 V6 eNode B uses frequency division duplex (FDD) technology in normal operation with a duty cycle of 100%, therefore source based averaging is not applied in the MPE calculation.

MPE Distance Calculation		10MHz Channel	
Antenna Gain		20	dBi
Line Loss		0	dB
Antenna Gain Ratio		100	
V6 eNode B Tx Output Power (per branch)		40	dBm
Upper Power Tolerance (per branch)		2	dB
Number of Transmitter Branches		2	
Total Output Power - all branches		31697.86	mW
Maximum EIRP - all branches		3169786.38	mW
Frequency		758	MHz
MPE Limit from 1.1310		0.505	mw/cm ²
Un-controlled/General Public Limit			
Minimum Distance to meet MPE Limit		706.51	cm
(100% Duty Cycle)		277.94	inches

Table 1: 100% Duty Cycle Calculation

The calculations above show the General Dynamics Broadband Band 14 V6 eNode B complies with the un-controlled /General Public limit of 0.505mW/cm^2 at a minimum distance of 7.07m for operation using a 10MHz channel size.

Yours Faithfully



P Warburg
Principal Engineer
General Dynamics Broadband.