RF exposure evaluation

Subject: FCC Application for FCC ID: 2ANH6-STM-SPKR

The device is not a portable device. because this device can only be connected to the PC or NB and, can not be used alone on the body (This device has no battery).

According to 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·

   [$\sqrt{}$ f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

   f(GHz) is the RF channel transmit frequency in GHz

   Power and distance are rounded to the nearest mW and mm before calculation

   The result is rounded to one decimal place for comparison

eirp = pt x gt = $(EXd)^2$ / 30

where:

  pt = transmitter output power in watts,

  gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m --- $10^{((dBuV/m)/20)}$ / 10^6

d = measurement distance in meters (m) --- 3m

So pt = $(EXd)^2$ / (30 x gt)

Field strength = 93.21 dBuV/m @3m (2441 MHz)   (Test Report page 36/71)

Ant gain = 2.0 dBi ;so Ant numeric gain = $10^{(2.0 / 10)}$ = 1.58

So pt = {{ [$10^{(87.55 / 20)}$ / 10^6] x 3 } ^{2} / (30 x 1.58) } x 1000 mW = 0.108 mW

So (0.108 mW / 200 mm) x $\sqrt{}$ 2.441 = 0.00084 < 3

Then SAR testing/evaluation is not required