R.F. EXPOSURE/SAFETY

FCC ID: VQSAMN42012

IC: 7680A-AMN42012

The device's intended use is to operate in a user home environment, linked to the home router, allowing a two way video call and upload of files to the network.
The typical distance between the E.U.T. and the user is at least 20cm. Transmission occurs when the device is placed on a surface.

Calculation of Maximum Permissible Exposure (MPE)
Based on 47CFR1 Section 1.1307(b)(1) and RSS 102 Issue 5, Table 4 Requirements

(a) FCC: The limit for the 5.0 GHz band is: $1\frac{mW}{cm^2}$

Using Table 1 of 47CFR1 Section 1.1310 limit for general population/uncontrolled exposures, the above levels are an average over 30 minutes.
The power density produced by the E.U.T. is:

$$S = \frac{P_t G_t}{4\pi R^2}$$

P_t = Conducted Transmitted Power 21.4 dBm = 138.04 mW
G_t = Antenna Gain 11dBi = 12.59 numeric
R = Distance From Transmitter 20 cm

The peak power density produced by the E.U.T. is:
$S = 138.04*12.59/4\pi(20)^2 = 0.034$ mW/cm^2
This is below the FCC limit.

(a) ISED: The limit: 300-6000MHz = $0.02619 \times f^{0.6834}$ W/m^2 = $0.02619 \times 5840^{0.6834}$
W = 0.02619 x 374.9 = 9.8 W/m^2

The peak power density produced by the E.U.T. is
$S = 0.138*12.59/4\pi(0.2)^2 = 3.46$ W/m^2
This result is below the ISED limit.