1. Safety Human exposure

1.1 Radio Frequency Exposure Compliance

1.1.1 Electromagnetic Fields

RESULT: **Passed**

Test standard **:** FCC §2.1091 and 2.1093
FCC KDB Publication 447498 D01 v06
RSS-102 Issue 5

Limit for power density for general population/uncontrolled exposure is 0.558 mW/cm2 for 300 -1500 MHz frequency range:
The power density P (mW/cm2) = P_T / 4π r2, where
P_T is the maximum equivalent isotropically radiated power (EIRP).
The peak output power of 32.71 dBm with -1.1 dBi antenna gain corresponds to the equivalent isotropically radiated power (EIRP) of
32.71 dBm + (-1.1) dBi = 31.61 dBm, which is equal to 1448.77 mW.
The minimum safe distance "r", where RF exposure does not exceed FCC permissible limit, is
r = sqrt { P_T / (Px4π)} = sqrt {2596.36/12.56} = 14.38 cm << 2 m .

Limit for power density for general population/uncontrolled exposure is 1 mW/cm2 for 1500 -100000 MHz frequency range:
The power density P (mW/cm2) = P_T / 4π r2, where
P_T is the maximum equivalent isotropically radiated power (EIRP).
The peak output power of 29.31 dBm with -1.1 dBi antenna gain corresponds to the equivalent isotropically radiated power (EIRP) of
29.31 dBm + (-1.1) dBi = 28.21 dBm, which is equal to 662.21 mW.
The minimum safe distance "r", where RF exposure does not exceed FCC permissible limit, is
r = sqrt { P_T / (Px4π)} = sqrt {2596.36/12.56} = 7.26 cm << 2 m .

The minimum distance for the EUT is greater than 14.38cm.