INTERTEK TESTING SERVICES

For RF exposure evaluation of the parent unit, the output power for portable transmitters is defined as the higher of the conducted or radiated (EIRP) source-based time averaging output power. And the threshold is equal to (60/f_{GHz}) mW, where f_{GHz} is mid-band frequency in GHz.

For the parent of the tested model of MBP15, the measured peak conducted power was 109.14 mW. The maximum source-based time averaging duty factor in double slot operation is 16.4%.

> The conducted source-based time averaging output power
> = (109.14 * 0.1640) mW
> = 17.90 mW

The measured maximum field strength (FS) was 115.6 dBμV/m. The distance (D) between the antenna and the equipment under test (EUT) was 3 meters. From these data, the radiated (EIRP) source-based time-averaging output power can be calculated by:

> The radiated power = $(FS*D)^2$ / 30 mW
> = 108.92 mW
>
> The radiated (EIRP) source-based time-averaging output power
> = (108.92 * 0.1640) mW
> = 17.86 mW

The low threshold in the 2400 – 2483.5MHz band is 24.57 mW.

From the above calculation, output power 17.86mW obtained in both method is less than the threshold 24.57mW, it is concluded that the parent unit can be exempted from SAR evaluation.