TÜV SÜD, Octagon House,
Concorde Way, Segensworth North, Fareham,
Hampshire, United Kingdom, PO15 5RL
Tel: +44 (0) 1489 558100
Website: www.tuv-sud.co.uk

SAR EXCLUSION DOCUMENT

Document 75944242-13 Issue 02

2.4 GHz Transmitter:

FCC Standalone SAR Test Exclusion Considerations (KDB 447498 D01) Section 4.3.1 b)

100 MHz – 6 GHz – Separation Distance >50 mm

The SAR Test exclusion thresholds for 1500 MHz to 6 GHz test separation distances >50 mm are determined by:

Step a) Threshold result from Formula in Section 4.3.1 a);

Step b) requires formula to be re-arranged to give power allowed at numeric threshold at 50 mm test separation distance:

Power Allowed At Numeric Threshold = {(Numeric Threshold / $\sqrt{f_{(GHz)}}$) x 50 mm Separation Distance} mW

- Numeric threshold = 3 for Head/Body or 7.5 for Extremities
- 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

Step b) 2) 1500MHz to 6GHz

Power threshold = {[Power allowed at numeric threshold for 50 mm {Formula Step A})] + [(test separation distance – 50 mm)·10]} mW

- Power and distance are rounded to the nearest mW and mm before calculation.
- The result is rounded to one decimal place for comparison

Approved by P Harrison ..... **Date** 15 May 2019 .....

Phil Harrison
Authorised Signatory

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SAR Exclusion Result:

Frequency (MHz)	Maximum Power (Tune up Value) * (mW)	Test Separation Distance (mm)	SAR Exclusion Power Threshold (mW)	SAR Test Exclusion (Yes/No)
2425	6	200	1596	Yes
2480	6	200	1595	Yes

*Tune-up value is the maximum declared output power of the device (conducted output power).

The SAR exclusion threshold has been evaluated using the formula described above from information supplied by the manufacturer below. Based on the calculation above, the EUT is categorically excluded from SAR testing.

Manufacturer's Declaration of Product information (extract):

EQUIPMENT DESCRIPTION	
Model Name/Number	iMPF
Part Number	N/A
Hardware Version	00818-DA_05 iMPF General Assembly (_05: revision 05)
Software Version	Firmware 01233_FF (but special version for TUV SUD testing)
FCC ID (if applicable)	XO9-IMF00-001
Industry Canada ID (if applicable)	8906A-IMPF0001
Technical Description (Please provide a brief description of the intended use of the equipment)	Feeder connected by 2.4 GHz RF to a hub which is connected to the internet. Allows the conditional access to food based on the animal RFID tags. Usually situated on the floor in a kitchen..

In case of non-adaptive Equipment:
The maximum RF Output Power (e.i.r.p.): 7.5 dBm
The maximum (corresponding) Duty Cycle: 1 %
Equipment with dynamic behaviour, that behaviour is described here. (e.g. the different combinations of duty cycle and corresponding power levels to be declared):
N/A
The worst case operational mode for each of the following tests:
RF Output Power: conducted 4.5 dBm
Power Spectral Density:
Duty cycle, Tx-Sequence, Tx-gap: 1%

Note: As the device is not intended for use close to the body, a separation distance of 20 cm or more is assumed.