Wi-Fi and EME

ACMA and ARPANSA joint statement

The Australian Communications and Media Authority (the ACMA) and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) are committed to providing clear information about their respective responsibilities in the regulation of radiofrequency electromagnetic energy (RF EME). RF EME is emitted by telecommunications equipment such as smart meters, Wi-Fi devices and base stations.

Based on an assessment of relevant scientific research and international guidance, ARPANSA sets the human exposure limits for RF EME emitted by telecommunications equipment. To make sure RF EME exposure from equipment is kept low, the ACMA then applies the ARPANSA EME exposure limits to consumer devices and telecommunications facilities.

This joint statement about Wi-Fi is one of a series discussing RF EME from telecommunications equipment.

What is Wi-Fi?

Wi-Fi is the generic term used for equipment that can form data networks with other equipment over short distances (usually less than 500 metres) **without** the use of connecting wires. The network is connected using radio waves, or RF EME. Wi-Fi devices are commonly used in residential, public and educational spaces.

How is EME from Wi-Fi regulated?

The ACMA and ARPANSA have distinct but complementary roles in RF EME regulation.

As the government's primary authority on radiation protection and nuclear safety, ARPANSA assesses relevant scientific research and provides expert advice on EME. It uses this information to set a framework for protecting the Australian public from harmful effects of radiation, including the RF EME emitted by Wi-Fi and other telecommunications equipment.

As part of this protection, ARPANSA sets the RF EME human exposure limits within Australia. These are published in the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz (2002) (known as the ARPANSA Standard). The exposure limits in the ARPANSA Standard are only enforceable if they are referenced in other regulatory arrangements.

The ACMA is Australia's communications regulator. Wi-Fi devices with integral antennae supplied to the Australian market must comply with the ACMA's Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2014 (the Human Exposure Standard). The operation of Wi-Fi devices in Australia must also be authorised by the Radiocommunications (Low Interference Potential Devices) Class Licence 2000 (the LIPD class licence). These regulations require Wi-Fi devices to comply with the public exposure limits in the ARPANSA Standard before being supplied in Australia.

Do Wi-Fi devices cause health effects?

Measurement surveys have shown that exposure to RF EME in the environment from various sources is very low, and typically much lower than the allowable limit for safety in the ARPANSA Standard.

ARPANSA and the World Health Organization have assessed the scientific evidence on RF EME exposure from Wi-Fi and health, and concluded there are no established health effects at levels below the ARPANSA Standard.

The ACMA monitors compliance with RF EME obligations by auditing suppliers of Wi-Fi devices. In its audits, the ACMA has found that RF EME exposure from Wi-Fi transmitters is **significantly below** the limits of the ARPANSA Standard. ACMA compliance activities have not raised concerns that these devices pose any risk to public safety.

Where can I get more information?

- > If you have questions about Wi-Fi in schools, State and territory education departments, Catholic education offices, and independent schools and pre-schools are responsible for decisions to install Wi-Fi devices. The design and rollout of Wi-Fi networks is the responsibility of education authorities and individual schools in the relevant jurisdiction. They are best placed to answer questions, so contact your local education authority or school if you have concerns about the installation or use of Wi-Fi.
- > The ARPANSA website.

The ACMA website's EME consumer hub.