

**Ericsson submission to the Australian  
Communications and Media Authority's  
Review of the 700 MHz Spectrum Licence  
Technical Framework Consultation Paper  
December 2024**

**February 2025**

## Introduction

- Ericsson welcomes the opportunity to respond to the Australian Communications Media Authority's (ACMA) Review of the 700 MHz Band Spectrum License Technical Framework Consultation Paper (December 2024) (**Review**).
- We appreciate the ACMA engaging with spectrum licence holders and equipment suppliers via this Review and earlier inquiries into the 700 MHz band's technical framework via the 2023-24 Spectrum Licensing Technical Framework (SLTF) and Radiocommunications Assignment and Licensing Instruction (RALI) Technical Liaison Group.
- This submission responds to the December 2024 ACMA Review of the 700 MHz Band Spectrum License Technical Framework Consultation Paper (**Consultation Paper**).
- In sum Ericsson:
  - Supports the Australian Mobile Telecommunications Association's (AMTA) submission to this Review generally and provides specific comments on some aspects below.
  - Commends the proposal to align some 700MHz licence conditions with 3GPP.
  - Requests relief on emissions limits at the upper end of the 700MHz band.

## Ericsson background and recent developments

- Provided below is background to Ericsson in Australia and relevant recent developments:
  - Ericsson has been a trusted, secure supplier of critical technology to the Australian market for over 135 years.
  - We support 183 live 5G networks 77 countries including as Telstra's, and as a key supplier to nbn, Optus and TPG.<sup>1</sup>
  - Ericsson and Telstra recently announced a new programmable network partnership, bringing Advanced 5G networks at scale to the Asia-Pacific for the first time.<sup>2</sup>

## 5G global market update

- Provided below are key findings from the November 2024 Ericsson Mobility Report:
  - By the end of 2024, population coverage for 5G mid-band reached 40 percent – outside mainland China.
  - 5G is expected to carry 80 percent of total mobile data traffic by the end of 2030.
  - Global 5G subscriptions are forecast to reach around 6.3 billion in 2030, representing 67 percent of total mobile subscriptions.<sup>3</sup>

## General comments

- Ericsson notes the ACMA has partly agreed with our previous recommendations - in response to the August 2023 consultation to the 700 MHz SLTF and RALI Updates

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<sup>1</sup> Ericsson, 2025, [Explore Ericsson 5G Advanced](#)

<sup>2</sup> Ericsson. 2025, Media Release: [Ericsson and Telstra partner on 5G SA programmable network](#).

<sup>3</sup> Ericsson, 2024, [Ericsson Mobility Report November2 2024](#).

consultation – and has proposed to update some licence conditions for the 700MHz band to align with 3GPP

- As stated in that submission, alignment of licence requirements with 3GPP standards allows Australian mobile network operators (**MNOs**), and in turn consumers, to benefit from state-of-the-art radio products characterised by lighter weight solutions, driving reduced wind loadings on mobile base stations, lower energy use, more efficient spectrum use, and improved data throughput to end users and reduced cost.
- In particular we acknowledge the Review has proposed harmonisation of ACMA licence conditions (e.g. TRP) and 3GPP standards which will provide needed certainty to industry.
- We acknowledge the proposed change in licence requirements for AAS equipment to better align with 3GPP. However, we believe it is non-AAS equipment with which suppliers face challenges as these are the currently deployed radio transmitters within the band. We urge the ACMA to support a change to licence conditions for non-AAS equipment to better align to 3GPP standards for non-AAS, where this is not already proposed by ACMA.
- The Review states:

*“For the upper (downlink) segment of the 700 MHz band, out-of-band emissions are those that fall outside the lower and upper frequency limits of the licence and within the 748–813 MHz frequency range (that is, within the operating band and 10 MHz either side).”*(p. 8).

- Noting the proposed allocation of trunked services above 806 MHz, and in the context of the proposed the ACMA position, Ericsson foresees a need for additional external bespoke radio frequency (**RF**) filtering for equipment operating in the 700MHz band to comply with the proposed out of band emission limits.
- Such requirements will increase capital, operating expenditure costs and additional complexity for MNOs operating within the band. Accordingly, we request the ACMA provide some relief to in place out of band (3GPP-defined in-band) emissions levels to reduce unnecessary costs and complexity for the industry.
- In Review also states that

*“The TLG proposed a range of options to relax the unwanted emission limit, however the impact on PMP services would be an increase of between 20 and 50 km in separation distance between these services” and*

*“We propose to adopt the 3GPP standard limit up to 805.5 MHz, where separation distance calculations show a lower potential of interference to PTP services, but maintain existing limits for the remaining frequency range.”* (p. 9)

- While Ericsson supported a relaxation of emissions at the top of the band in our August 2023 submission that was rejected by the ACMA, we note that no alternative has been proposed.
- Ericsson recommends that the severe reduction of emissions proposed at 806 MHz should be reviewed to align more closely with how RF filtering performs in base station radios. For example, a sloped reduction in emissions in the 806 MHz region would reduce the impacts on base station radio equipment in terms of cost, complexity, power consumption, weight, wind loadings, throughput and data efficiency.

- Ericsson also supports **AMTA's** proposal on this issue as detailed in their response to this Review.<sup>4</sup>

## Conclusion

- Ericsson acknowledges the shift toward aligning with 3GPP standards proposed by the AMCA and urges the ACMA to make further alignments as recommended.
- Ericsson requests the ACMA amend licence conditions related to emission limits above 803 MHz, as proposed by AMTA's submission to the Review.

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<sup>4</sup> We understand AMTA's position is supported by all vendors and 700 MHz licence holders on this issue.