

DAMM AUSTRALIA Response to ACMA Options Paper

The Manager
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Australian Communications and Media Authority
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Planning for wireless broadband use in urban areas in the 3400–3475 MHz band

Introduction

DAMM Australia is a Southeast Queensland based distribution division of DAMM Cellular Systems, with permanent field sales and technical staff located throughout Australia, pre and post-sales engineering support services, we are committed to providing the very best and fully supported professional Mission Critical Digital PMR solutions to our customers.

DAMM Australia has achieved market leadership in the distribution and deployment of TETRA solutions in Australia by building a reputation of excellence from a reliable and innovative product range, bolstered by an experienced knowledge base and strong customer support focus. These attributes teamed with a highly respected network of PMR partners and tier 1 system integrators, has formed the backbone to the delivery of more than 8000 base station channels, installed across a diverse collection of industries such as mining, transport, oil and gas, industrial plant, air and sea ports, hospitality and healthcare.

With our connection to campus based critical communications solutions of various sizes, DAMM Australia welcomes the opportunity to provide comment on the ACMA Options paper.

DAMM AUSTRALIA Response to Issues for comment 1- 7

Question 1

Comment is sought on the draft amendments to the s.145(4) Determination contained at Appendix B (separate attachment in key documents section of this consultation).

Should additional measures be included to also grandfather device registrations when minor modifications are made?

If so, what minor modifications should be permitted? For example, changes that results in the same or lower horizontal radiated power for the purposes of device boundary calculations? Alternatively, changes that result in the same or smaller device boundary as originally calculated when registering a device?

DAMM Australia does not support the use of this spectrum for Macro-cell usage, we feel that the outlines as presented are acceptable given that they will become obsolescent with our preferred option.

Question 2

Comment is sought on the proposed changes to receiver spurious emission limits on 3.4 GHz spectrum licences detailed in Tables 4 and 5 for non-AAS and AAS receivers respectively.

DAMM Australia supports the proposition to bring the spurious emission limits in line with 3GPP standards as a common-sense approach for all wireless broadband applications. We believe that the NBN Co equipment should also meet the same specifications.

Question 3

Comment is sought on the draft amendments to RALI MS44 contained in Appendix C (found separately in key documents section of this consultation).

DAMM Australia believes the proposition outlined in the draft amendments to RALIMS44 is an appropriate approach.

Question 4

Comment is sought on the options developed for use of spectrum in urban excise areas.

DAMM Australia believes that not all relevant factors have been given sufficient consideration. Our opinion is based on the following factors:

- a) The potential for interference from Macro-cell systems has been outlined but then left for the licensees to manage, a situation that is not realistic when the actual outcomes are considered. It must be kept in mind that the interference will be suffered by the NBN Co users much more than the users of the wide-area broadband services. The NBN Co users will not be able to be catered for by moving to other cell sites or carrier spectrum, they will be locked in to the NBN Co service.

- b) DAMM Australia proposes that the adoption of Option 3 with Restricted-cell operation will mean that the management of interference will be a much better approach because of firstly the localised problems caused by low-power services, and secondly because the actual equipment locations and service model will be defined under the terms of the apparatus licence allocation.
- c) The development of the options paper has not provided any real recognition of the demand for private or enterprise wireless broadband systems in the mid-band; future spectrum availability in the 26 GHz band should not be a substitute for the needs for mid-band spectrum for these services.
- d) It may be easy to assume that since there are very few of these services in the major urban areas that this is an indicator of demand. In fact, this is the very reason that there needs to be a re-consideration of the ACMA planning outcomes as until now there has effectively been no available spectrum for private LTE services in these urban areas.
- e) DAMM Australia believes that the adoption of Option 3 with restricted-cell operation will open new markets for Private LTE/5G services, very much along the lines recently outlined by the Minister for Communications with the 5G incentive options announced earlier this year.

Question 5

Comment is sought on the desirable planning outcomes for use of spectrum in urban excise areas.

DAMM Australia understands that the various options outlined in the ACMA document cover the possible methods of utilising the available spectrum as part of the review of NBN Co licences, however, as outlined in our responses to Question 4.

- a) We believe that the ACMA has not given sufficient weight to the negative issues that macro-cell services will cause to existing NBN Co licensees in adjacent areas, nor to the benefits that would accrue from dedicating the spectrum for restricted-cell operations.
- b) We understand there is already interest from the operators of maritime ports and aviation areas for having their own wireless broadband services, as well as new markets that will open as spectrum becomes available. We believe that the ACMA would in fact not be realising the best public use of the spectrum by simply taking the fees from an auction of spectrum licences rather than permitting the economy to be enhanced by the efficiency gains from private wireless broadband access for industry.

Question 6

Views are sought on the possible interference management approaches for both co-channel mechanisms (including ducting) and adjacent channel mechanisms (including adjacent band coexistence) contained at Appendix E.

DAMM Australia believes that the preferred option of the ACMA would create a significant risk of interference against the outlined restricted-cell models. When the format of use is examined as per 4 a) above, the potential for poor diagnosis of interference issues and the effect that may have on NBN Co users that could effectively denigrate the service they have been promised by their retail suppliers, then the interference mitigation for any of the macro-cell solutions presents unacceptable risks to the NBN Co grade of service.

With a combination of NBN Co, possible retail providers and the ACMA all having limited resources and capacity to track down and manage interference, we believe that anything other than the restricted-cell solution is fraught with risks.

Question 7

Comment is sought on the ACMA's preliminary preferred option. Are other options preferred, and if so, why?

DAMM Australia believes that the only acceptable utilisation of this spectrum should be as per Option 3, this addresses the interference management risks and assists industry to create and supply markets for private and enterprise wireless broadband solutions. There is already interest by companies in having their own wireless broadband services, as well as new markets that will open as spectrum becomes available.

Option 3. realises the best public use of the spectrum that will enhance economic growth by the efficiency gains from private wireless broadband access for industry to build their own private 4G or 5G network that is secure, provides full autonomy in terms of scaling the network and can using widely available terminals, plug in your own "private" SIM card (physical or eSIM) and manage your own devices and your own network.

The DAMM Australia as a member of the **Australian Radio Communications Association (ARCI)** and the **Australasian Critical Communications Forum (ACCF)** support both submission for their preference for **option 3 be adopted** and create the opportunity for new innovative services rather than providing more capacity on existing public cellular services.

Yours sincerely

DAMM AUSTRALIA