

# Australian Amateur Frequencies . Bandwidths, Power and Limitations

Users	Band	Frequency	Mode	Power
A	<b>2200m</b>	135.7 kHz - 137.8 kHz	Any mode. BW< 2.1 kHz	As per Note 1
A	<b>630m</b>	472 kHz - 479 kHz	Any mode. BW< 3 kHz	As per Note 2
A	<b>160m</b>	1.8 MHz – 1.875 MHz	Any Mode BW<8 kHz	As per Note 3 & 4
F - S - A	<b>80m</b>	3.5 MHz – 3.7 MHz	Any Mode BW<8 kHz	As per Note 3 & 4
A		3.776 MHz – 3.8 MHz	Any Mode BW < 8 kHz	As per Note 3
	<b>60m</b>	5 MHz	Not yet available	
F - S - A	<b>40m</b>	7.0 MHz – 7.1 MHz	Any Mode BW < 8 kHz	As per Note 3 & 4
		7.1 MHz – 7.3 MHz	Any Mode BW < 8 kHz	As per Note 3
A	<b>30m</b>	10.1 MHz – 10.15 MHz	Any Mode BW < 8 kHz	As per Note 3
S - A	<b>20m</b>	14.0 MHz – 14.35 MHz	Any Mode BW<8 kHz	As per Note 3 & 4
A	<b>17</b>	18.068 MHz – 18.168 MHz	Any Mode BW<8 kHz	As per Note 3 & 4
F - S - A	<b>15m</b>	21.0 MHz – 21.45 MHz	Any Mode BW<8 kHz	As per Note 3 & 4
A	<b>12m</b>	24.89 MHz – 24.99 MHz	Any Mode BW<8 kHz	As per Note 3 & 4
F - S - A	<b>10m</b>	28.0 MHz – 29.7 MHz	Any Mode BW < 16 kHz	As per Note 3 & 4
S - A		50.0 MHz - 52.0 MHz	Any Mode BW < 100 kHz	As per Note 3
S - A	<b>6m</b>	52.0 MHz - 54.0 MHz	Any Mode	As per Note 3
F - S - A	<b>2m</b>	144.0 MHz - 148.0 MHz	Any Mode	As per Note 3
F - S - A	<b>70cm</b>	430.0 MHz - 450.0 MHz	Any Mode	As per Note 3
S - A	<b>23cm</b>	1.24 GHz - 1.3 GHz	Any Mode	As per Note 3
A	<b>13cm</b>	2.3 GHz – 2.302 GHz	Any Mode	As per Note 3
S - A		2.4 GHz - 2.45 GHz	Any Mode	As per Note 3 & 5
A	<b>9cm</b>	3.3 GHz - 3.4 GHz	Any Mode	As per Note 3
		3.4 GHz - 3.6 GHz	Any Mode	As per Note 3 & 6
S - A	<b>6cm</b>	5.65 GHz - 5.85 GHz	Any Mode	As per Note 3
A	<b>3cm</b>	10.0 GHz – 10.5 GHz	Any Mode	As per Note 3
A	<b>12 mm</b>	24.0 GHz - 24.25 GHz	Any Mode	As per Note 3
A	<b>6 mm</b>	47.0 GHz – 47.2 GHz	Any Mode	As per Note 3
A	<b>4 mm</b>	76.0 GHz – 81.0 GHz	Any Mode	As per Note 3
A	<b>2.5mm</b>	122.25 GHz – 123.0 GHz	Any Mode	As per Note 3
A	<b>2mm</b>	134.0 GHz – 141.0 GHz	Any Mode	As per Note 3
A	<b>1.25mm</b>	241.0 GHz – 250.0 GHz	Any Mode	As per Note 3

**Note 1** - A maximum Effective Isotropic Radiated Power (EIRP) of 1 watt pX.

**Note 2** - A maximum Effective Isotropic Radiated Power (EIRP) of 5 watts pX. Excluded from use in the "Timor Non Directional Beacon Area". Refer to LCD Part 3 (1)

**Note 3**  
**Foundation** transmitter power - 10 watts pX for all modes

**Standard** Transmitter power - 100 watts pX for J3E - SSB telephony  
R3E - SSB variable carrier telephony  
Other modes 30 watts pY

**Advanced** transmitter power - 400 watts pX for C3F - Vestigial sideband television  
J3E - SSB telephony  
R3E - SSB variable carrier telephony  
Other modes - 120 watts pY.

**Note 4** - If the band width is exceeded, the Power Spectral Density (PSD) of the signal must not exceed 1 watt per 100kHz.

**Note 5** - Other services must accept any harmful interference from Industrial, Scientific & Medical devices.

**Note 6** - Excluded from operating in areas defined by Schedule 5 of the LCD.

**pX** - Peak envelope power (PEP).

**pY** - The average power

**pZ** - Carrier Power.

## Regulations

Radiocommunications Licence Conditions  
(Amateur Licence) Determination  
**LCD**

Radiocommunications (Amateur Stations)  
Class Licence 2023.  
**RCL**

Radiocommunications Licence Conditions  
(Apparatus Licence) Determination 2015  
**LCALD**

## HF Conventions

SSB >10MHz = USB  
SSB <10MHz = LSB  
RTTY use LSB  
Data use USB

## 2 Metre Conventions

<= 147MHz use - 600Hz offset  
>147MHz use + 600Hz offset

## ARRL HF Calling Frequencies

**80m** 3.985Mhz SSB  
**40m** 7.285Mhz SSB  
**20m** 14.285Mhz SSB  
**15m** 21.385Mhz SSB  
**10m** 28.385Mhz SSB  
Just starting point for contacts.

## Emission Modes - LCD Scedule 1 & RCL Part 1 Subsection 2

Represented by a sequence of nine characters in the following grouping - 4 3 2.  
First four characters define bandwidth  
Next three characters define the modulation.  
Last two characters (These are optional) define the nature of the signal and multiplexing.

Refer to the ACMA document "Emission characteristics of radio transmissions" and ITU Radio Regulations Appendix 1.

## Continuous Tone Coded Squelch System (CTCSS)

Thirty possible frequencies to use - LCD Schedule 4.

## Dual Tone Multi Frequency (DTMF)

Twelve possible combinations from four low tones and three high tones - LCD Schedule 4.

## Hierarchical Cell Identification Scheme (HCIS) - LCD Schedule 5.

The HCIS is a structured naming convention applied to the cells in the Australian Spectrum Map Grid 2012 (ASMG 2012) to provide a succinct way of describing groups of ASMG cells.

## Permitted frequencies, power limits and limitations

Advanced licence - LCD Schedule 2 & RCL Schedule 2 Table C  
Standard licence - LCD Schedule 3 & RCL Schedule 2 Table B  
Foundation licence - LCD Schedule 3A & RCL Schedule 2 Table A

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