

Apparatus Licence

Issued by Delegate of the Australian Communications and Media Authority



Licensee details

Customer ID	20013687
Licensee	SYDNEY TRAINS
Licensee address	Attn: Mr Christopher Go Level 2, Clyde Hub, 146-148 Manchester Road, Clyde, NSW 2142

Licence details

Licence service	Land Mobile
Licence subservice	Land Mobile System - > 30MHz
Licence number	1233739/1
Callsign	VL2RW
Date of issue	04/12/2023
Date of effect	04/12/2023
Date of expiry	01/12/2024

Licence conditions

Your licence is subject to conditions set out in the *Radiocommunications Act 1992*. Your licence may also be subject to such other licence conditions as determined by the ACMA (in licence condition determinations) from time to time, and is also subject to special conditions as detailed on this licence.

The conditions that are imposed on a licence vary according to the type of licence issued, the service being operated and the section of the *Radiocommunications Act 1992* under which the licence has been issued. For further information about the conditions that apply to your licence, please contact the ACMA (see contact details below).

Rights of appeal

A decision by the ACMA to impose further conditions or revoke or vary the conditions of your licence may be reviewable. If you are affected by, and dissatisfied with, such a decision you may apply to the ACMA to have the ACMA reconsider the decision under section 288 of the *Radiocommunications Act 1992*.

An application for reconsideration must state the reasons for the request, and should be sent to the Customer Service Centre, Australian Communications and Media Authority, PO Box 78, Belconnen, ACT, 2616. Applications for review of decisions can be made using the R051 - Application for review of Decision form, available on the ACMA website.

Important

An application for the ACMA to reconsider a decision to impose or vary licence conditions must be made to the ACMA within 28 days of the day on which you are informed of the decision. An application for reconsideration made after that time may not be accepted.

ACMA contact details

Customer Service Centre
PO Box 78
BELCONNEN ACT 2616

Telephone: 1300 850 115
Email: info@acma.gov.au

ACMA website: www.acma.gov.au

Advisory Notes applying to licence no.: 1233739/1

Conditions applicable to the operation of Land Mobile System station(s) authorised under this licence can be found in the Radiocommunications Licence Conditions (Apparatus Licence) Determination and the Radiocommunications Licence Conditions (Land Mobile Licence) Determination. Copies of these determinations are available from the ACMA and from the ACMA home page (www.acma.gov.au).

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Main Station Site

Station 1:

Site details

Site ID	40196
Site address	Railway Station, FASSIFERN NSW 2283
Co-ordinates (GDA94)	Latitude: -32.98583442 Longitude: 151.58098259

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690833
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690836
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Special Conditions applying to Station 1

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 2:

Site details

Site ID	5890
Site address	State Rail Authority Communications Tower, Coorumbung Road, BROADMEADOW NSW 2289
Co-ordinates (GDA94)	Latitude: -32.92496183 Longitude: 151.73264157

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690789
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690790
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 2

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 3:

Site details

Site ID	40085
Site address	Railway station, AWABA NSW 2283
Co-ordinates (GDA94)	Latitude: -33.0131628 Longitude: 151.5418997

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690791
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690792
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 3

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 4:

Site details	
Site ID	40173
Site address	City Rail Comms Pole, Railway Station, HAMILTON NSW 2296
Co-ordinates (GDA94)	Latitude: -32.91836283 Longitude: 151.74909735

Transmitter details	
Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690793
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690794
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 4

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 5:

Site details

Site ID	40174
Site address	Railway Station, GOSFORD NSW 2250
Co-ordinates (GDA94)	Latitude: -33.42424891 Longitude: 151.34147202

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690795
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690796
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 5

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 6:

Site details

Site ID	40175
Site address	Railway Station, LISAROW NSW 2250
Co-ordinates (GDA94)	Latitude: -33.3818857 Longitude: 151.37044137

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690797
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690798
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 6

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 7:

Site details

Site ID	40176
Site address	Railway Station, NIAGARA PARK NSW 2250
Co-ordinates (GDA94)	Latitude: -33.3831188 Longitude: 151.35450861

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690799
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690800
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 7

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 8:

Site details

Site ID	40177
Site address	Yates Rd, OURIMBAH NSW 2258
Co-ordinates (GDA94)	Latitude: -33.34920266 Longitude: 151.3744901

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690801
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690802
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 8

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 9:

Site details

Site ID	40178
Site address	Railway Station, TUGGERAH NSW 2259
Co-ordinates (GDA94)	Latitude: -33.32912147 Longitude: 151.40462146

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690807
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690808
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 9

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 10:

Site details

Site ID	40179
Site address	Railway Station, WARNERVALE NSW 2259
Co-ordinates (GDA94)	Latitude: -33.247164 Longitude: 151.44904594

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690809
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690810
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 10

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 11:

Site details

Site ID	40180
Site address	Railway Station, WYONG NSW 2259
Co-ordinates (GDA94)	Latitude: -33.28591425 Longitude: 151.42516677

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690811
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690812
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 11

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 12:

Site details

Site ID	40181
Site address	Railway Station, COORUMBUNG NSW 2283
Co-ordinates (GDA94)	Latitude: -33.02757505 Longitude: 151.51735834

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690813
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690814
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 12

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 13:

Site details

Site ID	40182
Site address	Railway Station, MORISSET NSW 2264
Co-ordinates (GDA94)	Latitude: -33.10866941 Longitude: 151.48845567

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690815
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690816
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 13

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 14:

Site details

Site ID	40183
Site address	Railway Station, VALES POINT NSW 2264
Co-ordinates (GDA94)	Latitude: -33.14159463 Longitude: 151.48156615

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690817
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690818
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 14

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 15:

Site details

Site ID	40184
Site address	Microwave Site, WYEE NSW 2262
Co-ordinates (GDA94)	Latitude: -33.19503958 Longitude: 151.50081125

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690819
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	74
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Colinear Vertical-U

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690820
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	74
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Colinear Vertical-U

Special Conditions applying to Station 15

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 16:

Site details

Site ID	40192
Site address	Railway site, BOORAGUL NSW 2284
Co-ordinates (GDA94)	Latitude: -32.97738923 Longitude: 151.59995111

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690821
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690822
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 16

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 17:

Site details

Site ID	40195
Site address	Railway Station, COCKLE CREEK NSW 2284
Co-ordinates (GDA94)	Latitude: -32.94248406 Longitude: 151.62424756

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690823
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690824
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 17

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 18:

Site details

Site ID	40197
Site address	Newstan Colliery Bridge, FASSIFERN NSW 2283
Co-ordinates (GDA94)	Latitude: -32.99979462 Longitude: 151.56352608

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690825
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690826
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 18

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 19:

Site details

Site ID	40198
Site address	Railway site East Portal, TICKHOLE TUNNEL NSW 2289
Co-ordinates (GDA94)	Latitude: -32.94470279 Longitude: 151.68786022

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690827
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690828
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Special Conditions applying to Station 19

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 20:

Site details

Site ID	40199
Site address	Railcom Site, WICKHAM NSW 2293
Co-ordinates (GDA94)	Latitude: -32.92497784 Longitude: 151.76119615

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690829
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690830
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 20

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 21:

Site details

Site ID	40200
Site address	Railway Station, CARDIFF NSW 2285
Co-ordinates (GDA94)	Latitude: -32.94347586 Longitude: 151.66573565

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690831
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690832
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D

Antenna details

Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 21

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.