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	1233845/1
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.: 1233845/1

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	40138
Site address	Railway Station, FLEMINGTON NSW 2140
Co-ordinates (GDA94)	Latitude: -33.86392123 Longitude: 151.06645839

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691206
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691209
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	3930
Site address	Railway site, TEMPE NSW 2044
Co-ordinates (GDA94)	Latitude: -33.92445325 Longitude: 151.1563848

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691146
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691147
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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 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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	5353
Site address	Railway Station, ROCKDALE NSW 2216
Co-ordinates (GDA94)	Latitude: -33.95175349 Longitude: 151.13696859

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691148
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691149
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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 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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40154
Site address	Railway site, Boronia 1 Tnl Sth Pl, COWAN NSW 2081
Co-ordinates (GDA94)	Latitude: -33.58245638 Longitude: 151.18308588

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691152
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691155
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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 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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40155
Site address	Railway site, Boronia Tnl 2 Nth Pl, COWAN NSW 2081
Co-ordinates (GDA94)	Latitude: -33.5761863 Longitude: 151.19215966

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691156
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691157
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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 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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40156
Site address	Railway site, Boronia Tnl 3 Sth Pl, BROOKLYN NSW 2083
Co-ordinates (GDA94)	Latitude: -33.55415026 Longitude: 151.19606542

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691158
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691159
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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 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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40157
Site address	Railway Station, Pacific Highway, COWAN NSW 2081
Co-ordinates (GDA94)	Latitude: -33.59359848 Longitude: 151.17154916

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691160
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691161
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40165
Site address	Railway Station, MOUNT KURING-GAI NSW 2080
Co-ordinates (GDA94)	Latitude: -33.65381176 Longitude: 151.13640732

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691162
Transmitter power	10.00 W
EIRP	17.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691163
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40170
Site address	Railway Station, BEROWRA NSW 2081
Co-ordinates (GDA94)	Latitude: -33.62146061 Longitude: 151.15585968

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691164
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691165
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
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 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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40185
Site address	Tnl4 Nth Pl, BORONIA NSW 2083
Co-ordinates (GDA94)	Latitude: -33.55204922 Longitude: 151.20041733

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691166
Transmitter power	10.00 W
EIRP	17.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691167
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40186
Site address	Broadcast & communications Site, LONG ISLAND NSW 2083
Co-ordinates (GDA94)	Latitude: -33.53955701 Longitude: 151.22835175

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691168
Transmitter power	10.00 W
EIRP	17.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691169
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40187
Site address	Tnl Nth Pl, MULLET CREEK NSW 2083
Co-ordinates (GDA94)	Latitude: -33.52569498 Longitude: 151.23014261

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691170
Transmitter power	10.00 W
EIRP	17.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691171
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40188
Site address	Railway site, WONDABYNE NSW 2250
Co-ordinates (GDA94)	Latitude: -33.49358572 Longitude: 151.25522893

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691172
Transmitter power	10.00 W
EIRP	17.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691173
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40190
Site address	Tnl Nth Pl, WOY WOY NSW 2256
Co-ordinates (GDA94)	Latitude: -33.49433844 Longitude: 151.28976335

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691174
Transmitter power	10.00 W
EIRP	17.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691175
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	40191
Site address	Tnl Sth Pl, WOY WOY NSW 2250
Co-ordinates (GDA94)	Latitude: -33.48634757 Longitude: 151.27280857

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691176
Transmitter power	25.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691177
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	70085
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Dipole-D

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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	54349
Site address	Railway Station, BARDWELL PARK NSW 2206
Co-ordinates (GDA94)	Latitude: -33.93137556 Longitude: 151.12518841

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691178
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691179
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	54351
Site address	Railway Station, DULWICH HILL NSW 2203
Co-ordinates (GDA94)	Latitude: -33.91068643 Longitude: 151.14035088

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691180
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691181
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	54353
Site address	Railway site, KINGSGROVE NSW 2208
Co-ordinates (GDA94)	Latitude: -33.94064691 Longitude: 151.100535

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691182
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691183
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3WWN
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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	54355
Site address	Railway Station, NARWEE NSW 2209
Co-ordinates (GDA94)	Latitude: -33.94756346 Longitude: 151.06986976

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691184
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691185
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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 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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	54356
Site address	Railway Station, PADSTOW NSW 2211
Co-ordinates (GDA94)	Latitude: -33.95166287 Longitude: 151.03266446

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691186
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691187
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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	54461
Site address	Railway Station, QUAKERS HILL NSW 2763
Co-ordinates (GDA94)	Latitude: -33.72895916 Longitude: 150.88646157

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691191
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691193
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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 22:**

Site details	
Site ID	54462
Site address	Railway Station (Staff carpark), RICHMOND NSW 2753
Co-ordinates (GDA94)	Latitude: -33.5996147 Longitude: 150.75367345

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691194
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691195
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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 22

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

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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 23:**

Site details	
Site ID	54463
Site address	Railway Station, RIVERSTONE NSW 2765
Co-ordinates (GDA94)	Latitude: -33.67872648 Longitude: 150.86029839

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691196
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691197
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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 23

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

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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 24:**

Site details	
Site ID	54474
Site address	Railway Station, VINEYARD NSW 2765
Co-ordinates (GDA94)	Latitude: -33.65026061 Longitude: 150.85097616

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691198
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691199
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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 24

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

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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 25:**

Site details	
Site ID	54476
Site address	Railway Station, WINDSOR NSW 2756
Co-ordinates (GDA94)	Latitude: -33.61361812 Longitude: 150.81099855

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691200
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
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	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691201
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
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 25

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

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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 26:**

Site details	
Site ID	202261
Site address	Tunnel Opening City Rail, CENTRAL NSW 2010
Co-ordinates (GDA94)	Latitude: -33.88879884 Longitude: 151.20272633

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691202
Transmitter power	100 mW
EIRP	8.40 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	1
Antenna polarisation	M - Mixed
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691203
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	1
Antenna polarisation	M - Mixed
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Special Conditions applying to Station 26

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

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

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 27:**

Site details	
Site ID	202841
Site address	Wolli Rail Station, TURRELLA NSW 2205
Co-ordinates (GDA94)	Latitude: -33.93010327 Longitude: 151.15431592

Transmitter details	
Assigned frequency	418.487500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691204
Transmitter power	200 mW
EIRP	8.40 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	1
Antenna polarisation	M - Mixed
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Receiver details	
Assigned frequency	409.037500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691205
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	1
Antenna polarisation	M - Mixed
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Special Conditions applying to Station 27

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

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.