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	1233860/1
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.: 1233860/1

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	54475
Site address	Railway Station, WENTWORTH FALLS NSW 2782
Co-ordinates (GDA94)	Latitude: -33.71681242 Longitude: 150.38408465

Transmitter details	
Assigned frequency	418.475000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691546
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	409.025000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691549
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 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	54443
Site address	Railway Station, BLAXLAND NSW 2774
Co-ordinates (GDA94)	Latitude: -33.74412381 Longitude: 150.61054224

Transmitter details	
Assigned frequency	418.475000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691534
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	409.025000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691535
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 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	54453
Site address	Railwaya site, LAWSON NSW 2783
Co-ordinates (GDA94)	Latitude: -33.71911282 Longitude: 150.42922095

Transmitter details	
Assigned frequency	418.475000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691536
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	409.025000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691537
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 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	54454
Site address	Railway Station, LINDEN NSW 2778
Co-ordinates (GDA94)	Latitude: -33.71507078 Longitude: 150.5046456

Transmitter details	
Assigned frequency	418.475000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691538
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	409.025000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691539
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 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	54465
Site address	Railway site, SPRINGWOOD NSW 2776
Co-ordinates (GDA94)	Latitude: -33.69584895 Longitude: 150.54877847

Transmitter details	
Assigned frequency	418.475000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691540
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	409.025000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691541
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 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	54473
Site address	Railway Station, VALLEY HEIGHTS NSW 2777
Co-ordinates (GDA94)	Latitude: -33.70729648 Longitude: 150.58524007

Transmitter details	
Assigned frequency	418.475000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691542
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	409.025000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691543
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 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	54477
Site address	Railway Station, WOODFORD NSW 2778
Co-ordinates (GDA94)	Latitude: -33.73579007 Longitude: 150.48160036

Transmitter details	
Assigned frequency	418.475000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691544
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	409.025000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691545
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 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.