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	1233838/1
Callsign	VL2RW
Date of issue	12/11/2021
Date of effect	12/11/2021
Date of expiry	01/12/2022

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.: 1233838/1

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	40116
Site address	Railway Station, COAL CLIFF NSW 2508
Co-ordinates (GDA94)	Latitude: -34.241921 Longitude: 150.977728

Transmitter details	
Assigned frequency	418.437500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690953
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	107
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.987500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690956
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	107
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	40153
Site address	Railway Station, WOLLSTONECRAFT NSW 2065
Co-ordinates (GDA94)	Latitude: -33.832642 Longitude: 151.191855

Transmitter details	
Assigned frequency	418.437500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690941
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	408.987500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690942
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 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	40160
Site address	Railway Station, EASTWOOD NSW 2122
Co-ordinates (GDA94)	Latitude: -33.789328 Longitude: 151.082392

Transmitter details	
Assigned frequency	418.437500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690943
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	408.987500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690944
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 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	54267
Site address	Railway Station, GUILDFORD NSW 2161
Co-ordinates (GDA94)	Latitude: -33.854133 Longitude: 150.984540

Transmitter details	
Assigned frequency	418.437500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690945
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	408.987500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690946
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	54268
Site address	Railway Station, HOLSWORTHY NSW 2173
Co-ordinates (GDA94)	Latitude: -33.962863 Longitude: 150.956332

Transmitter details	
Assigned frequency	418.437500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690947
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	408.987500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690948
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	54349
Site address	Railway Station, BARDWELL PARK NSW 2206
Co-ordinates (GDA94)	Latitude: -33.931376 Longitude: 151.125188

Transmitter details	
Assigned frequency	418.437500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690949
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	408.987500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690950
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	200839
Site address	Museum, Underground Rail Station, SYDNEY NSW 2000
Co-ordinates (GDA94)	Latitude: -33.876098 Longitude: 151.209858

Transmitter details	
Assigned frequency	418.437500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690951
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	77
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Receiver details	
Assigned frequency	408.987500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690952
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	77
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

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.