

Apparatus Licence

Issued by Delegate of the Australian Communications and Media Authority



Licensee details

Customer ID	525851
Licensee	NEW SOUTH WALES GOVERNMENT TELECOMMUNICATIONS AUTHORITY
Trading name	Telco Authority (PSN)
Licensee address	Locked Bag 2, HAYMARKET, NSW 1240

Licence details

Licence service	Land Mobile
Licence subservice	Land Mobile System - > 30MHz
Licence number	1215159/4
Callsign	VH2RAH
Date of issue	27/11/2023
Date of effect	27/11/2023
Date of expiry	30/06/2024

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.: 1215159/4

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	200836
Site address	Wynyard Railway Station (Underground), SYDNEY NSW 2000
Co-ordinates (GDA94)	Latitude: -33.86571694 Longitude: 151.20596389

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681347
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681350
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Advisory Notes applying to Station 1

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 1

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	3457
Site address	Redfern Railway Station (Underground), REDFERN NSW 2016
Co-ordinates (GDA94)	Latitude: -33.89217306 Longitude: 151.19934694

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681331
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681332
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Advisory Notes applying to Station 2

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 2

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	3540
Site address	Railway Station, KINGS CROSS NSW 2011
Co-ordinates (GDA94)	Latitude: -33.87467963 Longitude: 151.22091464

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681333
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681334
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Advisory Notes applying to Station 3

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 3

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	3736
Site address	Bondi Junction, Railway Station (Underground), BONDI JUNCTION NSW 2022
Co-ordinates (GDA94)	Latitude: -33.89119806 Longitude: 151.248645

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681335
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681336
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Advisory Notes applying to Station 4

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 4

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	5371
Site address	Railway Station, KOGARAH NSW 2217
Co-ordinates (GDA94)	Latitude: -33.96223756 Longitude: 151.13262784

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681337
Transmitter power	5.00 W
EIRP	8.40 W
Emission designator	10K1F9W

Antenna details

Antenna ID	80091
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	5
Antenna type	Dipole-D

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681338
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F9W

Antenna details

Antenna ID	80091
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	5
Antenna type	Dipole-D

Advisory Notes applying to Station 5

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 5

An efficient cavity filter must be fitted between the receiver and the antenna.

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

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	5386
Site address	Railway Station, HURSTVILLE NSW 2220
Co-ordinates (GDA94)	Latitude: -33.967363 Longitude: 151.10221343

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681339
Transmitter power	5.00 W
EIRP	8.40 W
Emission designator	10K1F9W

Antenna details

Antenna ID	80091
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	5
Antenna type	Dipole-D

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681340
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F9W

Antenna details

Antenna ID	80091
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	5
Antenna type	Dipole-D

Advisory Notes applying to Station 6

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 6

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	5507
Site address	Sutherland Railway Station, SUTHERLAND NSW 2232
Co-ordinates (GDA94)	Latitude: -34.03166986 Longitude: 151.0570283

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681341
Transmitter power	5.00 W
EIRP	8.40 W
Emission designator	10K1F9W

Antenna details

Antenna ID	80091
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	15
Antenna type	Dipole-D

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681342
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F9W

Antenna details

Antenna ID	80091
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	15
Antenna type	Dipole-D

Advisory Notes applying to Station 7

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 7

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	134145
Site address	North Ryde Metro Station (Underground), NORTH RYDE NSW 2113
Co-ordinates (GDA94)	Latitude: -33.79453806 Longitude: 151.13795194

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681343
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F9W

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681344
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F9W

Antenna details

Antenna ID	77
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Advisory Notes applying to Station 8

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 8

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	200839
Site address	Museum, Underground Rail Station, SYDNEY NSW 2000
Co-ordinates (GDA94)	Latitude: -33.87609774 Longitude: 151.20985793

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681345
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Receiver details

Assigned frequency	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000681346
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E

Antenna details

Antenna ID	77
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Radiax (Leaky feeder)-Z

Advisory Notes applying to Station 9

This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or to cease transmission.

Special Conditions applying to Station 9

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.

An efficient cavity filter must be fitted between the transmitter and the antenna.

An efficient cavity filter must be fitted between the receiver and the antenna.

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	9026265
Site address	NWRL Underground Repeater, Castle Hill Railway Station, CASTLE HILL NSW 2154
Co-ordinates (GDA94)	Latitude: -33.73151679 Longitude: 151.0077237

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002328082
Transmitter power	8.30 W
EIRP	8.30 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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002328083
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

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	9026261
Site address	Kingsley Close, WAHROONGA NSW 2076
Co-ordinates (GDA94)	Latitude: -33.72059588 Longitude: 151.10821284

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788723
Transmitter power	5.00 W
EIRP	5.00 W
Emission designator	7K60FXE

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788724
Transmitter power	N/A
EIRP	N/A
Emission designator	7K60FXE

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 11

The level of power in the adjacent channel must not exceed -16dBm.

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	9026260
Site address	Loch Maree Avenue, THORNLEIGH NSW 2120
Co-ordinates (GDA94)	Latitude: -33.72731305 Longitude: 151.08473831

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788725
Transmitter power	5.00 W
EIRP	5.00 W
Emission designator	7K60FXE

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788726
Transmitter power	N/A
EIRP	N/A
Emission designator	7K60FXE

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 12

The level of power in the adjacent channel must not exceed -16dBm.

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	9026262
Site address	Killaloe Avenue, PENNANT HILLS NSW 2120
Co-ordinates (GDA94)	Latitude: -33.73967921 Longitude: 151.06135985

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788727
Transmitter power	5.00 W
EIRP	5.00 W
Emission designator	7K60FXE

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788728
Transmitter power	N/A
EIRP	N/A
Emission designator	7K60FXE

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 13

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.

The level of power in the adjacent channel must not exceed -16dBm.

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	9026258
Site address	cnr M2 and Pennant Hills Road, WEST PENNANT HILLS NSW 2125
Co-ordinates (GDA94)	Latitude: -33.75739234 Longitude: 151.04823831

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788729
Transmitter power	5.00 W
EIRP	5.00 W
Emission designator	7K60FXE

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788730
Transmitter power	N/A
EIRP	N/A
Emission designator	7K60FXE

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 14

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.

The level of power in the adjacent channel must not exceed -16dBm.

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	9026259
Site address	cnr M2 and Barclay Road, NORTH ROCKS NSW 2151
Co-ordinates (GDA94)	Latitude: -33.76487371 Longitude: 151.01449895

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788731
Transmitter power	5.00 W
EIRP	5.00 W
Emission designator	7K60FXE

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788732
Transmitter power	N/A
EIRP	N/A
Emission designator	7K60FXE

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 15

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.

The level of power in the adjacent channel must not exceed -16dBm.

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	9026260
Site address	Loch Maree Avenue, THORNLEIGH NSW 2120
Co-ordinates (GDA94)	Latitude: -33.72731305 Longitude: 151.08473831

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788733
Transmitter power	5.00 W
EIRP	5.00 W
Emission designator	7K60FXE

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002788734
Transmitter power	N/A
EIRP	N/A
Emission designator	7K60FXE

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 16

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.

The level of power in the adjacent channel must not exceed -16dBm.

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	9026257
Site address	Bareena Avenue, WAHROONGA NSW 2076
Co-ordinates (GDA94)	Latitude: -33.71169584 Longitude: 151.11513159

Transmitter details

Assigned frequency	416.687500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002791049
Transmitter power	5.00 W
EIRP	5.00 W
Emission designator	7K60FXE

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	407.237500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0002791050
Transmitter power	N/A
EIRP	N/A
Emission designator	7K60FXE

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 17

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.

The level of power in the adjacent channel must not exceed -16dBm.