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	1234267/1
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.: 1234267/1

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	5533
Site address	Railway site, WATERFALL NSW 2233
Co-ordinates (GDA94)	Latitude: -34.13391264 Longitude: 150.99483574

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694024
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694027
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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693958
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693959
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	5523
Site address	Railway site, GOOMERA RIDGE NSW 2233
Co-ordinates (GDA94)	Latitude: -34.14707561 Longitude: 150.9947419

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693960
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693961
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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	5527
Site address	Railway Station, HEATHCOTE NSW 2233
Co-ordinates (GDA94)	Latitude: -34.0879626 Longitude: 151.00805793

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693962
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693963
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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40111
Site address	Tnl Nth Pl, BALD HILL NSW 2508
Co-ordinates (GDA94)	Latitude: -34.21960951 Longitude: 150.9917207

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693964
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	106
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Horizontal Polarisation)-Y

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693965
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	106
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Horizontal 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40112
Site address	Railway Station, BULLI NSW 2516
Co-ordinates (GDA94)	Latitude: -34.33525729 Longitude: 150.91429767

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693966
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693967
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40113
Site address	Railway site, CAWLEY NSW 2508
Co-ordinates (GDA94)	Latitude: -34.16079963 Longitude: 150.99040414

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693972
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693973
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40114
Site address	Railway site, CLIFTON NSW 2508
Co-ordinates (GDA94)	Latitude: -34.24690471 Longitude: 150.96838037

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693974
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	106
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Horizontal Polarisation)-Y

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693975
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	106
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Horizontal Polarisation)-Y

Special Conditions applying to Station 8

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

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40115
Site address	Tnl Sth Pl, CLIFTON NSW 2515
Co-ordinates (GDA94)	Latitude: -34.25641668 Longitude: 150.9710834

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693976
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693977
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40116
Site address	Railway Station, COAL CLIFF NSW 2508
Co-ordinates (GDA94)	Latitude: -34.24192063 Longitude: 150.97772814

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693978
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693979
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40117
Site address	Railway Station, CORRIMAL NSW 2518
Co-ordinates (GDA94)	Latitude: -34.37558745 Longitude: 150.90535922

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693980
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693981
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40118
Site address	Tnl Nth Pl, GARDINERS CREEK NSW 2508
Co-ordinates (GDA94)	Latitude: -34.20192139 Longitude: 151.00733326

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693982
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693983
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40119
Site address	Rail Corp Site, Nth Pl, HELENSBURGH NSW 2508
Co-ordinates (GDA94)	Latitude: -34.17410748 Longitude: 151.00473306

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693984
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693985
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40120
Site address	Railway Station, HELENSBURGH NSW 2508
Co-ordinates (GDA94)	Latitude: -34.17691257 Longitude: 150.99425226

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693986
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693987
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40121
Site address	Railway site, South Tunnel Pl, LILYVALE NSW 2508
Co-ordinates (GDA94)	Latitude: -34.19051344 Longitude: 151.00445521

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693988
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693989
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40122
Site address	Railway site, Metropolitan tunnel, HELENSBURG NSW 2508
Co-ordinates (GDA94)	Latitude: -34.18190844 Longitude: 151.00758708

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693990
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693991
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40123
Site address	Cutting 53.7 km Station, OTFORD NSW 2508
Co-ordinates (GDA94)	Latitude: -34.21534448 Longitude: 150.99562159

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693992
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693993
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40124
Site address	Railway Terrace, SCARBOROUGH NSW 2515
Co-ordinates (GDA94)	Latitude: -34.26763276 Longitude: 150.96234258

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693994
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693995
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40125
Site address	Tnl Nth/Pl, STANWELL PARK NSW 2508
Co-ordinates (GDA94)	Latitude: -34.22881965 Longitude: 150.97608805

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693996
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693997
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40126
Site address	Railway site 57.5km, TREE TOPS NSW 2508
Co-ordinates (GDA94)	Latitude: -34.23289963 Longitude: 150.97751006

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693998
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	71
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Coaxial Dipole-D

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000693999
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	71
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Coaxial Dipole-D

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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40127
Site address	Railway site, WOLLONGONG NSW 2500
Co-ordinates (GDA94)	Latitude: -34.42695768 Longitude: 150.88841005

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694000
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694001
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40128
Site address	SRA 21m Lattice Tower, Berkeley Water Reservoir,, Jarvie Rd, CRINGILA NSW 2506
Co-ordinates (GDA94)	Latitude: -34.47004306 Longitude: 150.85883806

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694006
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694007
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 22

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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 23:**

Site details	
Site ID	40129
Site address	Railway Station, AUSTINMER NSW 2515
Co-ordinates (GDA94)	Latitude: -34.3057671 Longitude: 150.92980327

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694008
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694009
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	40130
Site address	Railway Station, DAPTO NSW 2530
Co-ordinates (GDA94)	Latitude: -34.49331992 Longitude: 150.79178358

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694010
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694011
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 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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	203154
Site address	Rail Access Site, ROSEMONT NSW 2529
Co-ordinates (GDA94)	Latitude: -34.58343153 Longitude: 150.84216188

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694012
Transmitter power	10.00 W
EIRP	41.00 W
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694013
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	203155
Site address	Rail Access Site, ALBION PARK RAIL NSW 2527
Co-ordinates (GDA94)	Latitude: -34.56240192 Longitude: 150.7979684

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694014
Transmitter power	10.00 W
EIRP	41.00 W
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694015
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Yagi (Vertical Polarisation)-Y

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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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	203156
Site address	Rail Access Site, KIAMA DOWNS NSW 2533
Co-ordinates (GDA94)	Latitude: -34.64417582 Longitude: 150.85367932

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694016
Transmitter power	10.00 W
EIRP	41.00 W
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694017
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Yagi (Vertical Polarisation)-Y

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.

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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 28:**

Site details	
Site ID	203157
Site address	Kiama Railway Station, KIAMA NSW 2533
Co-ordinates (GDA94)	Latitude: -34.67383393 Longitude: 150.8534596

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694018
Transmitter power	10.00 W
EIRP	41.00 W
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694019
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 28

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

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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 29:**

Site details	
Site ID	204017
Site address	North End Railway Tunnel, BOMBO NSW 2533
Co-ordinates (GDA94)	Latitude: -34.66354091 Longitude: 150.85257952

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694020
Transmitter power	10.00 W
EIRP	41.00 W
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	15
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694021
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F2D
Antenna details	
Antenna ID	60126
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	15
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 29

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

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

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 30:

Site details	
Site ID	206198
Site address	Railway Station Site COLEDALE, Between Middle Heights Rd & Railway St, COLEDALE NSW 2515
Co-ordinates (GDA94)	Latitude: -34.28919695 Longitude: 150.94327896

Transmitter details	
Assigned frequency	418.312500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694022
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	408.862500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000694023
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 30

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

This licence authorises the operation of a supplementary station to be used in conjunction with the main transmitter solely to improve reliability within the service area of the main transmitter.

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

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.