



Spectrum Availability Plan

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1 Disclaimer

This document has been prepared by the Milano Cortina 2026 Spectrum Management Team and it does not constitute a commitment by Ministero delle Imprese e del Made in Italy (MIMIT).

It is intended to serve as a resource for stakeholders in spectrum planning, including the allocation of frequencies and radio equipment. It is important to note, however, that the detailed inventory of available bands and their corresponding capacities for the duration of the Games is provisional and may be subject to adjustments. These adjustments are due to the dynamic nature of the radio-frequency service landscape and the emergence of new technologies and requirements.

Please note that the frequency availability reported in this document does not guarantee the successful assignment of each frequency-request application, as sharing between services will progressively reduce the available capacity. Therefore, frequency assignments will be allocated on a first-come, first-served basis.

In the National Plan for Frequency Allocation (P.N.R.F.), some services are granted secondary status within frequency bands reserved for primary services. Consequently, the use of frequencies for temporary links requires prior and positive coordination with the primary users, including the Ministry of Defence. This coordination is necessary to avoid causing interference to primary services and to minimise the risk of interference to Milano Cortina 2026 spectrum stakeholders.

Please note that due to the nature of a major event like Milano Cortina 2026, it is in the MIMIT's power to make any derogations to these guidelines and assign additional frequencies that are not covered by this document with respect to the national and international existing regulatory framework.

2 Introduction

2.1 Background

The Olympic and Paralympic Winter Games Milano Cortina 2026 will be hosted between 6 February and 15 March 2026. This event is expected to attract approximately 2,800 athletes from over 90 countries, around 10,000 accredited media personnel, 20,000 volunteers, and millions of spectators. Milano Cortina 2026 presents a significant challenge for spectrum management and will be one of the most extensive exercises in Italy since the Olympic and Paralympic Winter Games Torino 2006.

2.2 Purpose

The Spectrum Availability Plan for Milano Cortina 2026 is targeted at all accredited stakeholders who are entitled to request a temporary frequency license. Moreover, it outlines the overarching guidelines and conditions for the use of wireless equipment during the Games. This document includes information on all wireless services that can be used and their technical specifications, such as frequency bands, bandwidth, and power levels. It aims to promote orderly spectrum usage by informing stakeholders about the available spectrum, the related spectrum application procedures and policies, the implementation of 'test and tagging', and the enforcement of radio-spectrum monitoring.

To anticipate the spectrum needs for Milano Cortina 2026, the studies conducted by the Fondazione Milano Cortina 2026 Spectrum Management Team are based on the data from the past Winter Games and other major international sports events held in Italy. The frequency bands available for Milano Cortina 2026, as presented in this guide, were selected based on the existing spectrum allocation and assignment in Italy.

MIMIT is responsible for ensuring that there is no harmful interference between the wireless systems of the different stakeholders involved in the Games and between these systems and other wireless systems already in operation across the country. The available bands in the guide are dedicated to specific usage for specific radio-frequency equipment to comply with this target.

To ensure compliance with Italian spectrum regulations, Milano Cortina 2026 and its stakeholders must adhere to them. Failure to comply may lead to sanctions as per article 102 of the Italian Electronic Communication Code.

This document outlines the available bands and clarifies the conditions for spectrum assignment, providing an initial inventory.

2.3 Status of Spectrum Usage at the Games Venues

The radio spectrum is currently congested, so it is strongly recommended that all stakeholders involved in the Games use a wired communication system whenever possible, especially for microphones and cameras. The radio spectrum should only be requested when there is no other option for communication.

To facilitate frequency coordination, local spectrum stakeholders are required to apply for frequency allocation, even if they have previously obtained spectrum authorisation.

No person shall operate any radio equipment or use radio frequencies within Games venues without obtaining a temporary general authorisation from the MIMIT Olympic Delivery Team (MIMIT ODT), which can be:

I. **Temporary Individual Authorisation** with the assignment of specific individual rights to use frequencies. The authorised operator must comply with the terms and conditions specified in the radio spectrum-authorisation document¹, including location and technical parameters.

II. **Temporary General Authorisation** for the use, on unlicensed bands, of low-power and short-range devices (for example, wireless microphones) complying with CEPT ERC/REC recommendation 70-03 (and subsequent amendments). Radio equipment operating in the specified spectrum under the general authorisation regime, including Wireless LAN, must be declared, and authorised by Milano Cortina 2026 to avoid potential interference. The radio-frequency devices operating under the general authorisation regime may experience interference from other stations unrelated to the Games operation. According to the frequency tables, all radio equipment must comply with the applicable European harmonised standard. Even if usage is allowed on **a non-interference and non-protection basis**, to mitigate interference risks, the Milano Cortina 2026 Spectrum Management Team (SMT) and the MIMIT ODT will coordinate and control RF devices under general authorisation whenever possible.

2.4 Wireless Services

The following wireless services can be deployed during the Olympic and Paralympic Winter Games and are subject to temporary authorisation:

- private mobile radio (land mobile radio, handheld radio with base station, walkie talkie);
- telemetry & telecommand;
- audio intercommunication system (talkback with narrow band signal, full duplex digital system);
- wireless microphones;
- in-ear monitors;
- wireless video camera;

¹ This refers to the official document delivered after approval and frequency assignment. It is a digital document that can be printed.

- microwave fixed point-to-point link;
- microwave mobile link;
- permanent and transportable satellite earth station;
- wireless LAN (access point);
- wireless photographer camera (trigger remote)²; and
- other services (see 3.12).

2.5 Frequency Assignment Concept

It is crucial to maintain flexibility in the assignment of frequencies during the Games to deal with exceptional circumstances where many broadcasters require frequencies to cover the event. However, the implementation of this spectrum plan necessitates the cooperation of various stakeholders, including the Italian agencies responsible for homeland security, disaster prevention and public safety.

Frequencies will be assigned to spectrum users on a venue basis, considering topography, geography, and physical surroundings where the frequencies are used. Furthermore, frequency sharing, defined as the use of the same radio frequency by two or more transmitters, will be considered where practical to maximize the efficiency usage of a scarce resource like the radio spectrum.

If an applicant requires specific frequencies to ensure the smooth operation of competitions or to add value to the media coverage of the Games, it is important to understand that MIMIT ODT will assess each request on an individual basis. However, it should be emphasised that such an assessment does not guarantee the fulfilment of the request for specific frequencies. Should no alternative options be available, MIMIT ODT will explore the possibility of assigning and authorising frequencies in bands or for types of usage not listed in the tables below. The feasibility of such solutions will hinge on the outcome of negotiations with other Italian agencies, such as the Ministry of Defence (MD), or with holders of private permanent rights to use. However, stricter conditions on transmission power, location, and time may be imposed in such cases.

2.6 Spectrum Allocation Priorities

Ensuring the safety and security of the venue takes precedence, with spectrum allocation playing a pivotal role. In the assignment of frequencies, the OCOG Command, Control, and Communications (C3) systems, reliant on radio applications, will be prioritised to uphold venue security.

² Photographer's wireless camera triggers can be deployed as long as the device operates within the frequencies permitted in Italy. For further details, refer to section 0 of this document. Please note that Milano Cortina 2026 will not provide spectrum authorisation for the photographer camera trigger remote.

The timing and results applications, critical for delivering data on athletes' performances, will also receive priority in frequency allocation. Specific bands will be exclusively assigned to Omega, the official Timing and Scoring Partner for Milano Cortina 2026.

Moreover, the host broadcaster's operations in distributing international feeds to millions of TV viewers are of utmost importance. OBS, the IOC supplier, will thus be given priority in frequency allocation to ensure seamless global broadcasting.

2.7 Authorisation Exemptions

The exemptions for radio equipment that do not require spectrum authorisation and are exempt from testing include the following:

- smartphones – mobile phones;
- key fob;
- Bluetooth headset, connected watches, smart bracelets;
- cordless phone;
- laptop or tablet;
- wireless keyboard or wireless mouse;
- other wearable smart devices;
- wireless photographer equipment; and
- livestream devices via cellular broadcasting products over 3G/4G/5G mobile networks (The use of these devices doesn't need spectrum authorisation. Using local SIM cards and being aware of network congestion and contention is recommended. It is not permitted to connect broadcast equipment to the Games WLAN; this service will be automatically blocked to prevent such usage).

However, "*do not consider*" tags may be provided to facilitate security checks at the screening areas.

2.8 Prohibited Wireless Equipment

Some equipment is strictly forbidden in and around the venues:

- jammers
- radio scanners
- laser pointers
- personal barcode readers

According to Italian regulation, the following bands for remote-control cameras are not permitted. However, an inquiry with the Italian authority is underway.

- 312 MHz–317 MHz (Japan)
- 344.04 MHz–354 MHz (USA)

3 Types of Wireless Services and Expected Spectrum Availability

This document provides regulations for radio equipment utilisation during Milano Cortina 2026, in consideration of the existing frequency assignments. Spectrum users must plan their spectrum needs in advance with care. Milano Cortina 2026 strongly recommends using cables as much as possible to optimise radio resource allocation. Spectrum users must use systems that comply with harmonised European standards to ensure efficient coordination and the assignment of temporary authorisations.

The subsequent sections detail each wireless service that can be deployed during the Olympic and Paralympic Winter Games, including:

- A brief overview of the service.
- The general usage conditions for the spectrum allocated to this service.
- A spectrum availability table for the service, detailing each pertinent frequency range:
 - the lower and upper limits of the frequency range;
 - the application type (where applicable);
 - the transmission type (simplex/duplex, where applicable);
 - the maximum allowed transmission power (where applicable); and
 - an availability indicator for each venue cluster, offering a preliminary assessment of the expected available bandwidth for Milano Cortina 2026.

In particular, the availability indicator should be interpreted as follows:

- **“Restricted”** denotes frequency ranges that may only be requested by specific stakeholders for specific services (grey colour).
- **“Not Available”** indicates frequency ranges that are strongly discouraged for application due to their availability being highly contingent on external coordination and having an extremely low likelihood of a successful assignment (red colour).
- **“Very Low”** refers to frequency ranges with very limited expected availability, corresponding to a very low likelihood of a successful assignment (dark orange colour).
- **“Low”** signifies frequency ranges with limited expected availability, corresponding to a low likelihood of a successful assignment (orange colour).
- **“Medium”** indicates frequency ranges with partial expected availability or those that require further inquiry, corresponding to a medium likelihood of a successful assignment (yellow colour).
- **“High”** refers to frequency ranges expected to be mostly available, corresponding to a high likelihood of a successful assignment (green colour).
- **“Very High”** describes frequency ranges expected to be completely available, corresponding to a very high likelihood of a successful assignment (dark green colour).

3.1 Private Mobile Radio

Private mobile radio (PMR) is a mobile communication service that covers all activities needed to organise successful operations. This includes broadcasters, 'Milano Cortina 2026 Functional Areas, Partners and accredited suppliers. It mainly uses a push-to-talk system for voice-based communication, except for talk-back applications that require continuous transmission.

The VHF and UHF bands suitable for PMR already have a considerably high use in and around the Milano area. Additionally, some parts of these bands are expected to be shared with the talk-back system, and telemetry and telecommand services during the Games.

It is recommended to use digital systems to facilitate the frequency assignment and to avoid interference. However, Milano Cortina 2026 and MIMIT ODT know that digital systems cause an audio delay, which may not be suitable for specific safety and artistic communications. In cases where a delay is unacceptable, an analogue system can be requested with proper justification.

3.1.1 Land Mobile Radio

Land mobile radio (LMR) encompasses mobile communication systems and associated relay equipment, such as repeaters and base stations, used for terrestrial data or voice communication by multiple users. This includes handheld radios connected to base stations, mobile communication devices, and relay systems. LMR systems facilitate communication through either duplex or simplex channels, supporting both direct mode operation (DMO) and trunked mode operation (TMO).

3.1.2 Handheld Radio

Handheld radios can be employed in either direct mode operation (DMO), enabling straightforward, direct communication without reliance on network infrastructure, or in trunking mode, where a centralised control system effectively oversees and distributes frequencies among users. These radios should avoid high-power transmission to ensure practical spectrum usage. The power should be at most 2W. An alternate tuneable frequency will be assigned from the radio's frequency range if the preferred frequency is unavailable.

3.1.3 PMR Bands Availability

General Usage Conditions:

- Handheld radios using analogue technologies (PMR) and digital mobile radio (DMR) are allowed.
- A **duplex spacing** of 4MHz (VHF) or 10 MHz (UHF) is required.
- Radios using 6.25 kHz and 12.5 kHz channel spacing are allowed.
- Radios using 25 kHz channel spacing may be granted based on applicant justification.
- Transmit power (EIRP) must be sized for the coverage needed.
- Base station filtering is recommended.
- PMR 446 (446.000 to 446.200MHz) is **permitted on a non-interference and non-protection basis**.
- FRS/GMRS (462.5625 to 462.7250MHz and 467.5625 to 467.7125MHz) is **permitted** under individual authorisation.
- The CB/PRS band 476.41875 to 477.41250 MHz **is not permitted** for PMR.

- The 863–870 MHz band **is not permitted** for PMR.
- The 915–935 MHz **band is not permitted** for PMR.

Table 1 provides detailed information about frequency bands allocated for private mobile radios in the VHF bands.

Table 1: Available VHF Bands for PMR

Spectrum [MHz]		Type of Transmission	Availability Indicator				
From	To		Milano	Valtellina	Val di Fiemme	Cortina	Verona
39	40	Duplex (emissions from mobile stations)	Very High	Very High	Very High	Very High	Very High
43.6	44.6	Duplex (emissions from base stations or repeaters)	Very High	Very High	Very High	Very High	Very High
44.6	45	Simplex	Very High	Very High	Very High	Very High	Very High
156.025	156.275	Duplex (emissions from mobile stations)	Low	Low	Medium	Medium	Very High
156.325	156.35	Duplex (emissions from mobile stations)	Medium	Medium	Very High	Very High	Very High
156.8875	160	Duplex (emissions from mobile stations)	Low	Low	Medium	Low	High
160.0125	160.6	Simplex	Low	Low	Low	Low	High
160.6125	160.875	Duplex (emissions from base stations or repeaters)	Low	Very High	Very High	Medium	Very High
160.925	160.95	Duplex (emissions from base stations or repeaters)	Very High	Medium	Very High	Very High	Very High
161.4875	164.6	Duplex (emissions from base stations or repeaters)	Low	High	High	High	Very High
164.6125	165.3875	Simplex	Medium	Medium	Low	Low	Very High
165.4	166.2125	Duplex (emissions from mobile stations)	Very High	Very High	Very High	Very High	Very High
167.225	169.3875	Duplex (emissions from mobile stations)	High	High	Very High	High	Very High
169.4	169.9875	Simplex	High	High	Very High	High	Very High
170	170.8125	Duplex (emissions from base stations or repeaters)	Very High	Very High	Very High	Very High	Very High
171.825	173.9875	Duplex (emissions from base stations or repeaters)	High	Very High	Very High	Very High	Very High

Table 2 provides detailed information about frequency bands allocated for private mobile radios in the UHF bands.

Table 2: Available UHF Bands for PMR

Spectrum [MHz]		Type of Transmission	Availability Indicator					Notes
From	To		Milano	Valtellina	Val di Fiemme	Cortina	Verona	
436.2125	439.9875	Duplex (emissions from Fixed base stations)	Very High	Very High	Very High	Very High	Very High	
440	442.9875	Simplex	High	High	Very High	High	Very High	
445	445.9875	Simplex	Medium	High	High	Medium	Very High	
446.00625	446.2	Simplex	Restricted	Restricted	Restricted	Restricted	Restricted	NOC priority
446.2125	449.9875	Duplex (emissions from Fixed base stations)	Very High	Very High	Very High	Very High	Very High	
450.0125	450.375	Duplex (emissions from mobile stations)	High	High	Very High	Very High	Very High	
450.3875	450.5	Simplex	High	High	Very High	High	Very High	
450.5125	459.9875	Duplex (emissions from mobile stations)	High	High	Very High	High	Very High	
460.0125	460.375	Duplex (emissions from base stations or repeaters)	Medium	Very High	Very High	Very High	High	
460.3875	460.5	Simplex	Very High	Very High	Very High	Very High	Very High	
460.5125	469.9875	Duplex (emissions from base stations or repeaters)	High	Very High	Very High	Very High	Very High	
462.5625	462.725	Simplex	Low	High	Very High	Very High	High	
467.5625	467.7125	Simplex	High	Very High	Very High	Very High	Very High	

3.2 Telemetry and Telecommand

Telemetry and telecommand refer to wireless radio equipment that is designed or adapted for remote control of various programme-making equipment such as cameras (video parameters and mechanical head), audio/sound engineering, lighting settings, tracking systems, pyrotechnic remotes, and timing & scoring devices. These devices usually transmit data using a narrow bandwidth that does not exceed 25 kHz and often uses FSK modulation. Systems requiring wide bandwidth for rapid signal transmission tend to use low transmission power.

3.2.1 Telemetry and Telecommand Bands Availability

General Usage Conditions:

- The maximum channel size allowed in the PMR band is 12.5kHz. Any channel spacing requests beyond 12.5kHz will be studied on a case-by-case basis.
- Transmission power must be sized for the coverage needed.
- RF devices under the SRD-UWB regulations must be certified to ETSI Harmonised European Standards.

Table 3 provides detailed information about frequency bands allocated for telemetry, telecommand and small capacity data.

Table 3: Available Bands for Telemetry

Spectrum [MHz]		Type of Application	Maximum Power / Magnetic Field	Availability Indicator					Notes
From	To			Milano	Valtellina	Val di Fiemme	Cortina	Verona	
0.119	0.135	SRD: INDUCTIVE APPLICATIONS	66 dB μ A/m at 10m	Very High	Very High	Very High	Very High	Very High	
34.995	35.225	SRD: Model control (air)	100 mW e.r.p.	Very High	Very High	Very High	Very High	Very High	
40.66	40.7	NON-SPECIFIC SHORT-RANGE DEVICES	10 mW e.r.p.	Very High	Very High	Very High	Very High	Very High	
156	160	Assigned Frequency in the PMR range	2 W e.r.p.	Low	Low	High	Low	High	
169.4	169.475	SRD: TRACKING, TRACING AND DATA ACQUISITION	500 mW e.r.p.	Very High	Very High	Very High	Very High	Very High	
169.475	169.8125	NON-SPECIFIC SHORT-RANGE DEVICES	10 mW e.r.p.	Very High	Very High	Very High	Very High	Very High	
433.05	434.79	NON-SPECIFIC SHORT-RANGE DEVICES	1 mW e.r.p.	Very High	Very High	Very High	Very High	Very High	
450.3875	450.5	Allocated Frequency in the PMR range –Video Camera Remote	2 W e.r.p.	High	High	Very High	High	Very High	
2400	2483.5	SRD: WIDEBAND DATA TRANSMISSION SYSTEMS	25 mW e.i.r.p.	Very High	Very High	Very High	Very High	Very High	

6000	9000	UWB: TRACKING, TRACING AND DATA ACQUISITION	-30 dBm / 50MHz	Very High	Very High	Very High	Very High	Very High	
24050	24250	SRD: NON- SPECIFIC SHORT-RANGE DEVICES	100 mW e.i.r.p.	Restricted	Restricted	Restricted	Restricted	Restricted	OMEGA priority
33400	36000	SRD: NON- SPECIFIC SHORT-RANGE DEVICES	100 mW e.i.r.p.	Very High	Very High	Very High	Very High	Very High	

3.3 Audio Intercommunication System

Broadcasters primarily use a **full-duplex** intercommunication system to provide directions to the director and to instantly communicate with all those involved in making a programme, including production team members such as camera operators, reporters, interviewers, presenter assistants, sound operators and lighting operators. This system can also be used in continuous transmit configurations; a wireless system that is designed specifically for an operation that requires no delay in transmission.

Two types of system can be requested:

1. a communication system called "Talkback" that uses VHF or UHF PMR bands with a bandwidth offering a narrow-band audio quality; and
2. a new-generation digital system called "Base Station system Wireless Intercom".

A full-duplex communication system that offers high-fidelity audio quality within a building or local area is available. The system includes a receiver for listening and a microphone (headset) for speaking at two or more points. It can be interfaced via an audio matrix or locally with a standalone antenna.

3.3.1 Audio Intercommunication System Bands Availability

General Usage Conditions:

- The maximum channel size allowed for Talkback is 12,5 kHz in the PMR band requests.
- The transmit power (EIRP) must be sized for the coverage needed and not more than 2W.
- It is not recommended to use equipment with preset frequencies that cannot be reprogrammed.
- External additional filtering is recommended, particularly for systems operating in the DECT band. These systems will be authorised under the "non-interference and non-protection" basis.
- Operating a Talkback system in the 470–694MHz band using 200kHz bandwidth is **prohibited**.

Table 4 shows detailed information regarding possible frequency bands assigned to the audio intercommunication systems.

Table 4: Available Bands for Audio Intercommunication

Spectrum [MHz]		Type of Transmission	Availability Indicator					Notes
From	To		Milano	Valtellina	Val di Fiemme	Cortina	Verona	
156.025	156.275	Talkback - Duplex (emissions from mobile stations)	Low	Low	Medium	Medium	Very High	Shared with PMR
160.6	160.875	Talkback - Duplex (emissions from base stations or repeaters)	Low	Very High	Very High	Medium	Very High	Shared with PMR
450.5	459.9875	Duplex (emissions from mobile stations)	High	High	Very High	High	Very High	Shared with PMR
460	460.375	Duplex (emissions from base stations or repeaters)	Medium	Very High	Very High	Very High	High	Shared with PMR
1880	1900	Base Station System Wireless Intercom – full duplex – mobile belt pack and base transmitters	Restricted	Restricted	Restricted	Restricted	Restricted	DIVA Priority and Ceremonies

3.4 Wireless Video Camera

The wireless video camera enables broadcasters to cover a wide area without risking injury to athletes or the public via loose cables. The second purpose of the wireless video camera is to transmit an aerial view of the field of play, usually from the helicopter, “spider camera,” or drone. The primary requester for allocation of frequencies will be the host broadcaster, with priority given to them.

Due to the expansion of mobile-network operators, the band dedicated to wireless video cameras under 3GHz has been reduced.

3.4.1 Wireless Video Camera Bands Availability

General Usage Conditions:

- A **10MHz** channel size is the standard for high-definition video, but other bandwidths can be requested and studied on a case-by-case basis. (e.g. for 4k)
- The maximum power allowed is **100mW** (EIRP). Any request to increase the power will also be studied on a case-by-case basis.
- The 2400–2485MHz band and the 5150–5800MHz band **are not permitted**.
- It is recommended to perform system programming with a **1MHz** channel step.
- Incorporating a filtering system into the receiver process is highly recommended and, more specifically, mandatory for all 2GHz wireless-camera systems.

Table 5 shows detailed information regarding possible frequency bands assigned to the wireless video cameras.

Table 5: Available Bands for Wireless Video Cameras

Spectrum [MHz]		Availability Indicator					Notes
From	To	Milano	Valtellina	Val di Fiemme	Cortina	Verona	
2010	2025	Restricted	Restricted	Restricted	Restricted	Restricted	Coordination with local users; OBS priority
2025	2110	Low	Very High	Very High	Very High	Very High	Coordination with local users
2200	2290	Low	Very High	Very High	Very High	Very High	Coordination with local users
2290	2300	Restricted	Restricted	Restricted	Restricted	Restricted	Coordination with local users; OBS priority
2300	2400	Very High	Very High	Medium	Medium	High	Coordination with local users
6400	7100	High	High	Very High	High	High	
7100	7250	Very High	High	Not Available	Low	Very High	
10000	10680	Low	Medium	Low	Low	Medium	Subject to planning and geographic restrictions

3.4.2 Airborne Use of Wireless Video Cameras:

Milano Cortina 2026 SMT predicts that wireless aerial cameras will be used to cover events in areas such as ceremonies and Alpine skiing that require an aerial view. This might involve using wireless cameras on helicopters and drones. However, since wireless cameras are operated at high altitudes, opportunities for spectrum reuse are limited and the possibility of interference increases. The usable spectrum range is also limited in exchange for the mobility of wireless cameras. Due to these factors, MIMIT ODT will limit the number of channels available for airborne use.

MIMIT ODT will study the most suitable frequency range assigned for airborne-video link transmission, requiring only a simple study of interference. Additionally, operational conditions will be analysed to protect defence, security and public safety operations. Furthermore, MIMIT will recommend the best location to deploy the terrestrial receivers.

Milano Cortina 2026 recommends wiring the "[beauty shot cameras](#)" as the frequency resources are very limited.

3.5 Wireless Microphones

Spectrum for wireless microphones is a very scarce resource, and requests will be carefully assessed. Media users should use cabled microphones wherever possible.

The use of wireless microphones will not be permitted within Olympic and Paralympic venues except for the following exceptions:

- ceremonies and sports presentation purposes;
- media-rights holders in studios and stand-up positions; and
- OCOG, IOC, OBS and associated stakeholders where required for the organisation and

delivery of the Olympic and Paralympic Winter Games.

Broadcasters or event organisers mainly use wireless microphones to capture interviews, conference talks, music, or ambience. They can be handheld or body-worn, with integrated or body-worn transmitters. It is also anticipated that the demand for spectrum for wireless microphones at music concerts or festival events close to the venue areas will increase during the Games.

The wireless microphones in Italy typically operate in the 470–694MHz band, which is shared with DVB-T and includes some guard bands for mobile phones in the 694–870MHz band. In order to assign frequencies correctly, it is essential to distinguish between two types of usage: fixed deployment at a single venue (such as FoP, TV platform, studio, mix zone, or unilateral position) and mobile usage between multiple venues (such as the ones used by ENG crews). The necessary details will be requested through the Spectrum Booking Portal (SBP).

The frequency band dedicated to ENG crews will also be studied in collaboration with MIMIT, taking into account the existing DVB-T2 transmitters at each venue cluster. Various options are currently under evaluation, which include:

- reservation of frequencies for ENG crews within the guard bands of the public-radio mobile service; and
- establishment of distinct frequencies to be utilised by the ENG crew outside the venues, separate and distinct from any other frequencies.

Further details will be provided in a subsequent version of this document.

3.5.1 Wireless Microphone Bands Availability

General Usage Conditions:

- Wireless microphones shall be used only when wired microphones cannot be used.
- Digital wireless microphone systems that are usually more tolerant to interference should be used.
- Robust active filtering and a dedicated frequency range antenna should be used to reject any high-noise floor levels.
- The permitted wireless microphone power is **50mW maximum** in the 470–698MHz band; other requirements over 50mW will be studied on a case-by-case basis.
- Microphones that use analogue technology are permitted, but digital technology is recommended.
- The maximum bandwidth allowed is **200 kHz** per channel.
- Wireless microphones operating on the 2400–2483 MHz band are not permitted.
- Wireless microphones operating on the 1880–1900 MHz band are not permitted.

Table 6 shows detailed information regarding possible frequency bands assigned to wireless microphones.

Table 6: Available Bands for Wireless Microphones

Spectrum [MHz]		Availability Indicator					Notes
From	To	Milano	Valtellina	Val di Fiemme	Cortina	Verona	
174	175.75	Very High	Very High	Very High	Very High	Not Available	Shared With DAB – on a tuning-range basis
175.75	177.5	Very High	Very High	Very High	Very High	Low	
177.5	179.25	Very High	Very High	Very High	Very High	Low	
179.25	181	Very High	Very High	Very High	Very High	Low	
181	182.75	Very High	Very High	Very High	Very High	Very High	
182.75	184.5	Very High	Very High	Very High	Very High	Very High	
184.5	186.25	Very High	Very High	Very High	Very High	Very High	
186.25	188	Very High	Very High	Very High	Very High	Very High	
188	189.75	Not Available	Very High	Very High	Very High	Very High	
189.75	191.5	Not Available	Very High	Very High	Very High	Very High	
191.5	193.25	Not Available	Very High	Very High	Very High	Very High	
193.25	195	Not Available	Very High	Not Available	Not Available	Low	
195	196.75	Very High	Very High	Very High	Not Available	Low	
196.75	198.5	Very High	Very High	Very High	Very High	Low	
198.5	200.25	Very High	Very High	Very High	Very High	Low	
200.25	202	Very High	Very High	Very High	Very High	Very High	
202	203.75	Not Available	Not Available	Not Available	Very High	Very High	
203.75	205.5	Very High	Very High	Very High	Very High	Very High	
205.5	207.25	Not Available	Very High	Very High	Very High	Very High	
207.25	209	Not Available	Very High	Very High	Very High	Very High	
209	210.75	Very High	Very High	Not Available	Not Available	Very High	
210.75	212.5	Very High	Very High	Not Available	Not Available	Very High	
212.5	214.25	Very High	Very High	Not Available	Not Available	Very High	
214.25	216	Very High	Very High	Not Available	Not Available	Very High	
216	217.75	Very High	Very High	Very High	Very High	Very High	
217.75	219.5	Not Available	Very High	Very High	Very High	Very High	
219.5	221.25	Very High	Very High	Very High	Very High	Very High	
221.25	223	Very High	Very High	Very High	Very High	Very High	
470	478	Very High	Not Available	Very High	Not Available	Very High	
478	486	Not Available	Not Available	Very High	Not Available	Very High	
486	494	Not Available	Not Available	Very High	Very High	Very High	
494	502	Very High	Very High	Not Available	Not Available	Low	
502	510	Not Available	Not Available	Not Available	Not Available	Low	
510	518	Not Available	Not Available	Not Available	Not Available	Low	
518	526	Very High	Very High	Very High	Very High	Very High	
526	534	Not Available	Not Available	Very High	Not Available	Very High	
534	542	Very High	Very High	Very High	Not Available	Very High	
542	550	Not Available	Not Available	Very High	Not Available	Very High	
550	558	Very High	Very High	Very High	Not Available	Very High	

558	566	Very High	Very High	Not Available	Not Available	Very High	
566	574	Very High	Very High	Very High	Very High	Very High	
574	582	Not Available	Not Available	Very High	Not Available	Very High	
582	590	Very High	Very High	Very High	Very High	Very High	
590	598	Not Available	Not Available	Not Available	Not Available	Low	
598	606	Very High	Very High	Very High	Not Available	Low	
606	614	Not Available	Not Available	Not Available	Not Available	Low	
614	622	Very High	Very High	Very High	Very High	Very High	
622	630	Not Available	Not Available	Not Available	Not Available	Low	
630	638	Very High	Very High	Not Available	Very High	Very High	
638	646	Very High	Very High	Very High	Not Available	Low	
646	654	Very High	Very High	Not Available	Very High	Very High	
654	662	Not Available	Not Available	Not Available	Not Available	Low	
662	670	Not Available	Not Available	Not Available	Not Available	Very High	
670	678	Not Available	Not Available	Not Available	Not Available	Low	
678	686	Very High	Very High	Very High	Not Available	Low	
686	694	Not Available	Not Available	Not Available	Not Available	Low	
694	698	Very High	Very High	Very High	Very High	Very High	
736	738	Very High	Very High	Very High	Very High	Very High	
823	826	Very High	Very High	Very High	Very High	Very High	
826	832	Very High	Very High	Very High	Very High	Very High	
863	865	Restricted	Restricted	Restricted	Restricted	Restricted	Shared with Telemetry
1785	1805	Very High	Very High	Very High	Very High	Very High	

3.6 In-Ear Monitors

Broadcasters and staff involved with sports presentations and ceremonies mainly use wireless in-ear monitors to get feedback on their voice, interviews, music, or sounds. It is a body-worn device with an integrated receiver. Audio description and mass-cast services are also considered PMSE systems and will be treated differently than IEM. Their frequencies are identified in section 2.1.12.

3.6.1 In-Ear Monitor Bands Availability

General Usage Conditions:

- It is recommended to avoid using wireless in-ear monitors as much as possible, particularly in outdoor areas.
- It is recommended to use digital wireless IEM systems as they are more resistant to interference, although analogue transmitters are still allowed.
- The maximum power allowed for in-ear monitors is **50mW**. In exceptional cases, the limit can be increased to 250mW when a valid reason is given.

To facilitate frequency assignment, each channel is allowed a maximum bandwidth of **200kHz**.

Table 7 shows detailed information regarding possible frequency bands assigned to in-ear monitors.

Table 7: Available Bands for In-Ear Monitors

Spectrum [MHz]		Technical Specifications	Availability Indicator					Notes
From	To		Milano	Valtellina	Val di Fiemme	Cortina	Verona	
169.4	169.5875	500 mW e.r.p. - ≤ 50 kHz	Very High	Very High	Very High	Very High	Very High	Assistive listening device used for PMSE application – SRD regulation
173.965	216	10 mW e.r.p. - ≤ 50 kHz	High	Very High	High	High	High	ALD is used for PMSE applications on a tuning-range basis. There is a possibility of 50mW power by individual authorisation, and the band is shared with DAB
470	694	50 mW e.r.p. - ≤ 200 kHz	Medium	Medium	Medium	Low	Medium	Shared with DVB-T and microphones – subject to geographic restrictions

3.7 Permanent Earth Stations and Transportable Earth Stations

This equipment conveys audio and video signals during external reporting to studios or national and international broadcasting networks as satellite news gathering (SNG) services. Permanent satellite services may be permanent satellite earth stations installed in a known location at “MMC sat Farm” or transportable satellite earth stations established in the broadcast compound inside Games venues. Transportable satellite services are an uplink between an earth station, hub or VSAT and a satellite, used for transmitting broadcast-quality video/audio and data signals in primarily KU/KA bands.

MIMIT ODT is in the process of identifying satellites within the C-band, Ku-band, and Ka-band frequencies. Satellite contribution links that already provide services in southern Europe will be considered for authorisation. In addition, the frequency band for satellite navigation systems will be protected to avoid interference to its receivers on the ground and to the measuring instrument used for the Games.

Satellite internet access inside venues is permitted subject to request and authorisation via the SBP. The location of the antenna must be pre-approved by Milano Cortina 2026, and the Wi-Fi functionality must be disabled. Milano Cortina 2026 will perform random checks to enforce this policy.

Table 8 shows detailed information regarding possible frequency bands assigned to fixed or transportable earth stations.

Table 8: Available Bands for Satellite Earth Stations

BANDS	Available Bands		Availability Indicator	Notes
	EARTH TO SPACE [GHz]	SPACE TO EARTH [GHz]	All - Venues	
L Band	1.61 - 1.61875	2.4835 - 2.5	High	
	1.67 - 1.675	1.518 - 1.525	High	
	1.6265 - 1.6605	1.525 - 1.559	High	
C Band	5.85 - 7.075	3.6 - 4.2	Medium	
Ku band	12.75 - 13.25	10.7 - 11.7	Low	Coordination with local fixed-link installation is required
	14 - 14.5	11.7 - 12.75	High	
Ka band	27 - 27.5	17.3 - 17.7	High	
	29.2 - 30	19.7 - 20.2	High	

3.8 Microwave Mobile Links

Transportable and mobile point-to-point links create temporary connections between fixed points, such as an outdoor broadcasting site and a studio. These links transmit broadcast-quality audio and video signals and operate within specific frequency bands. However, they are not available for wireless cameras and mobile airborne links.

Link terminals can be mounted on tripods, temporary platforms, purpose-built vehicles, or hydraulic hoists. Often, two-way links are required. The equipment supporting these links is transportable, and the transmitter/receiver coordinates are not predetermined.

When a frequency assignment is delivered for transportable point-to-point links, it defines the geographical area where transmitters and receivers can be installed. However, the frequency authorisation process does not involve coordination between temporary links.

Table 9 shows detailed information regarding possible frequency bands assigned to microwave mobile links.

Table 9: Available Bands for Microwave Mobile Links

Spectrum [GHz]		Technical Specifications	Availability Indicator					Notes
From	To		Milano	Valtellina	Val di Fiemme	Cortina	Verona	
21	22	Channels: 28 MHz or 14MHz with specific frequency carrier – Max transmit power: 70 dBm	Very High	Very High	Very High	Very High	Very High	EN 302 217
57	71	40 dBm e.i.r.p. – 23 dBm/MHz e.i.r.p. density	Very High	Very High	Very High	Very High	Very High	Adequate spectrum sharing mechanism shall be implemented – fixed outdoor installations are not allowed – EN 302 567

3.9 Fixed Point-to-Point Link

A fixed point-to-point microwave link connects two stations at known locations using a specific frequency channel. The channel's bandwidth and transmission power may vary depending on the radio's mode of operation. The assigned channel is determined by choosing a frequency range that meets the requirements of each application.

Sharp directional antennas are recommended to ensure accurate results. For P-P links, MIMIT aims to select frequencies already used for fixed or temporary links. Therefore, the technical coordination for this service should follow standard procedures in Italy. The frequency bands proposed for fixed point-to-point links are shown in Table 10³.

Table 10: Available Bands for Microwave Fixed Links

Uplink Bands	Downlink Bands	Specifications	Availability Indicator					Notes
			From - To [GHz]	From - To [GHz]	Milano	Valtellina	Val di Fiemme	
5.925 – 6.425	6.425 – 7.125	Narrow Channels 3.5 MHz / 1.75 MHz / 0.5 MHz / 0.25 MHz / 0.025 MHz – Max transmit power: 70 dBm	Very Low	Very High	Very High	Medium	High	Shared with UWB LT2
6.763 – 6.777	7.1055 – 7.1195	Narrow Channels 3.5 MHz / 1.75 MHz / 0.5 MHz / 0.25 MHz / 0.025 MHz – Max transmit power: 70 dBm	High	High	Very High	High	Medium	Shared with WVC

³ Further bands are currently under investigation and will be communicated in the next version.

10.715-11.155	11.245- 11.685	Channels: 28MHz / 40MHz / 56MHz / 80MHz / 112MHz - Max transmit power: 70 dBm	Not Available	Medium	Very Low	Not Available	Very Low	Shared with PES
17.700-18.700	18.700-19.700	Channels: 13.75MHz / 27.5MHz / 55MHz/ 110 MHz - Max transmit power: 70 dBm - use of antennae class3	Very High	Very High	Very High	Medium	Very High	
37.268-38.220	38.528-39.480	Channels: 3.5MHz / 7MHz / 14MHz / 28 MHz/ 56MHz / 112MHz- Max transmit power: 70 dBm - Use of antennae class4 for Bw ≥56MHz	High	Very High	Very High	High	Medium	

3.10 Wireless LAN

Wireless LAN is a system that allows wireless access to the internet with high-capacity and small-scale coverage. In all venues, **only** the Wireless LAN installed by Milano Cortina 2026 is permitted.

Milano Cortina 2026 provides free access to the Games' Wi-Fi network in all Olympic and Paralympic venues. The SSID and password will be given on site.

Private Wi-Fi access points and MIFI personal hotspots **are NOT permitted in Olympic and Paralympic competition venues and in any case close to the Games' WLAN.**

However, in some situations, Milano Cortina 2026 may approve authorisation for additional private wireless LAN services for stakeholders' Games operations (e.g. in the MMC), as long as they do not interfere with the Games' WLAN devices and other authorised RF devices using the same band. The authorisation will be given on a case-by-case basis.

- Access point's basic features should allow transmitted power control (TPC), channel assignment, and SSID programming.
- Private Wi-Fi access points will be granted authorisation under the SRD-UWB regulations **based on non-protection and non-interference.**
- Channel allocation will be managed by Milano Cortina 2026.

Table 11 summarises the frequency bands identified for the operation of Wireless LAN.

Table 11: WLAN Available Bands

From-To (MHz)	Technical Specifications	Availability Indicator All Venues	Notes
2400–2483.5	100 mW e.r.p. – ≤ 20MHz – transmitter power control	Restricted	Shared with telemetry RF devices
5470–5725	100 mW e.r.p. – ≤ 20MHz – transmitter power control	Restricted	Games Wi-Fi network exclusivity
5945–6425	200 mW e.r.p. – ≤ 20MHz – transmitter power control indoor use only – low-power indoor access points exclusively (LPI)	Restricted	Shared with telemetry RF devices

3.11 Photographer's Wireless Camera

The wireless release trigger for photographers, like the Pocket Wizard, is a device that sends a control signal to activate or deactivate the shutter release of a digital camera. This control signal includes data for the exposure control settings, such as the aperture value and strobe synchronisation. These settings are coordinated within the control signal that triggers the on/off release.

- This equipment does not require Milano Cortina 2026 spectrum authorisation or 'test and tagging'.
- For the frequency range authorised within the 433.05 MHz–434.79 MHz band, the maximum transmitter output permitted is **10mW**. The channel must be selectable to use a free channel on site.
- The bands **312 MHz–317 MHz (Japan) and 344.04 MHz–354 MHz (USA) are NOT permitted** in Italy. However, investigation with the Italian authorities is underway.
- The 2400 MHz–2483.5 MHz frequency range is allowed on a non-interference and non-protection basis.

The wireless release triggers are licensed under the SRD regulations that exempt them from interference protection. However, they cannot interfere with individual spectrum users that have been authorised. The photographers at the Media Centre will self-coordinate the channel assignments with the assistance of the Media Manager. Each photographer must record their preferred channel on the list available at the Media Centre.

3.12 Other Services

All other wireless equipment that is not included in the above types must follow the application process as a regular spectrum application and gain approval from Milano Cortina 2026 before use.

Other services will be treated on a case-by-case basis if they constitute a critical necessity for the Games.

Below are the recommendations for further services identified at the previous Olympic and Paralympic Games.

3.12.1 Audio Description – Mass-Cast Transmitters

The audio-description service (ADS) is used to retransmit material already prepared for public use. It covers events and other temporary functions inside the venue. ADS can also be used live to facilitate the viewing of entertainment for people with hearing impairments and sight disabilities.

Transmitters for mass cast are used for ceremonies to send audio simultaneously to a large group.

- Milano Cortina 2026 Recommendation: It is strongly advised **to avoid** using the frequency range of **87.5–108 MHz** in urban areas since the "Radio FM Band" is already overcrowded. MIMIT ODT is currently exploring the feasibility of using lower frequency bands. Requests must be submitted as early as possible. This will allow MIMIT ODT to engage in a specific study and negotiation with the spectrum owners, which usually takes a long time.

3.12.2 Radio-Frequency Identification

Radio-frequency identification (RFID) uses electromagnetic fields to identify objects automatically and track tags attached to them. An RFID system consists of a tiny radio transponder, a radio receiver, and a transmitter.

- Milano Cortina 2026 Recommendation: The frequency of RFID applications can be found in Telemetry Bands Availability Table 3.

3.12.3 Unmanned Aerial Vehicle

An unmanned aerial vehicle, which is commonly known as a **drone**, is an aircraft that operates without any human pilot, crew, or passengers on board. Broadcasters widely use these drones to transmit live video footage from the sky, and event organisers also use them to create three-dimensional visual displays during ceremonies.

- Milano Cortina 2026 Recommendation: it is highly recommended to request the frequency video link referenced in the WVC Bands Availability Table 5, Section 2.4.1; an alternative solution can be studied in the 5800–5900MHz band under a non-protection and non-interference basis. **Regarding remote flying control, it is recommended to request a frequency in the telemetry PMR band under the [individual authorisation regime](#).**

3.12.4 Interpretation Service

An audio translation system that can be used in conferences, as an audio guide, or for one-way communications.

- Milano Cortina 2026 Recommendations:

- For fixed location deployments, such as in a conference press room, it is recommended to operate equipment using the infrared band. No spectrum authorisation is required.

For mobile use, it is recommended to avoid the 470–694MHz band and to apply for application using 860–862 MHz.

4 Spectrum Policies and Processes

4.1 Radio-Frequency Devices Games-Venue Access.

Only accredited persons can bring radio-frequency equipment into the Milano Cortina 2026 Olympic and Paralympic venues. Any wireless equipment that does not have spectrum authorisation will be intercepted by security during the security process at the dedicated pedestrian screening area (PSA) or vehicle screening area (VSA). Spectrum authorisation and the related approved spectrum tag are required to access and use the wireless equipment in the venues. It will be necessary to show the spectrum authorisation document on a smartphone (pdf) or printed out. For accredited users who missed applying for authorisation, security will redirect the RF equipment's user to the spectrum team. The spectrum team will support the user in obtaining spectrum authorisation.

4.2 Radio Spectrum Authorisation

It is prohibited for any individual to operate any radio equipment or transmit radio frequencies at Games venues without obtaining a radio-spectrum authorisation from the spectrum authority in Italy (MIMIT). The Milano Cortina 2026 Spectrum Manager will apply for authorisation on the applicant's behalf. The authorised user must use the radio spectrum within the terms and conditions outlined in the radio-spectrum authorisation. The spectrum requirements can be submitted online through the Milan Cortina 2026 SBP.

The use of frequencies without authorisation is sanctioned as per article 102 of the Italian Electronic Communication Code.

4.2.1 Licensing Information

Spectrum orders can be submitted through the Milano Cortina 2026 SBP. Applications can be made online or by uploading an application form, allowing the submission of multiple applications in the SBP. The latter is a web application, and the address and application-form download process will be communicated by the end of 2024.

Spectrum management for the Milano Cortina 2026 Olympic and Paralympic Winter Games is divided into four sub-periods for convenience and reference. Each sub-period has a different deadline for applicants to submit their applications. Table 12 indicates the date you must submit your application by and when you can expect to receive confirmation. A spectrum authorisation will be issued for each period once your application has been successfully processed.

4.2.2 Stakeholders Categories

Any accredited stakeholders will be able to access the SBP to apply. Milano Cortina 2026 Broadcast FA (BRS) and PRS FA will control the rights.

Note for local Italian existing licence owners intending to operate within Games venues: It is mandatory to submit spectrum requests to allow coordination across the band, notwithstanding any business-as-usual (BaU) arrangements.

4.2.3 Application Periods and Spectrum Authorisation Deliveries

Application periods define when the SBP accepts new spectrum applications and when the spectrum requester will receive the authorisation document.

Table 12 provides the planned application periods.

Table 12: Application Periods

Application Periods	Requests Submission	Notifications
Normal Spectrum Booking Period	6 February–31 May 2025	From August 2025
Late Spectrum Booking Period	1 September–15 October 2025	From December 2025
Extraordinary Spectrum Booking Period	1 January 2026–22 March 2026	Status update according to the MIMIT ODT SLA ⁴

4.2.4 Normal Spectrum Booking Period

The SBP for accredited Games stakeholders will begin accepting applications from 6 February to 31 May 2025. After this period, it will no longer be possible to submit requests for the use of spectrum services through the portal, meaning that new requests and modifications will not be allowed. Applicants will be notified of any changes to the status of their application. Applicants will also be able to log in and see the status of their frequency applications at any time.

4.2.5 Late Spectrum Booking Period

For accredited Games stakeholders, a second application period will run from 1 September to 15 October 2025, providing an application window for late requests. Also, the SBP will accept new applications or modifications of submitted requests.

At the end of this period, it will not be possible to make any further requests for the use of spectrum services through the portal, which means new requests and modifications are not allowed.

⁴ The MIMIT ODT SLA specifies the committed MIMIT response time for applications during the extraordinary spectrum booking period, whose target values are to be established and will be made available in due course.

4.2.6 Extraordinary Spectrum Booking Period

For accredited Games stakeholders, the SBP will start accepting very late applications or modifications of submitted requests from 1 January 2026 to the end of the Paralympic Games; after 22 March 2026, the portal will be closed.

4.2.7 Spectrum Authorisation Periods

To request spectrum services, the applicant must specify the intended period of use for the RF device. The following provides the spectrum authorisation periods for the Olympic and Paralympic Winter Games.

Table 13: Spectrum Authorisation Periods

Authorisation Periods Name	Authorisation Start/End
Olympic Winter Games	1 January 2026–28 February 2026
Paralympic Winter Games (including ceremonies)	29 February 2026–30 March 2026

Applications for the Milano Cortina 2026 Olympic Winter Games Opening and Closing Ceremonies are processed by the venue, Milano San Siro Olympic Stadium or the Verona Olympic Arena. To apply for a ceremony, users must request the related venue.

4.3 Test and Tag Process

Before entering the venue, a specific test process must be followed to ensure the event is not affected by frequency interference. This process is known as ‘testing and tagging’. During the testing-and-tagging procedure, users’ equipment will be tested to ensure that it complies with all the features detailed in the frequency authorisation granted by MIMIT ODT. Once the equipment complies with regulations, it will receive a tag that allows the use of the device according to its area of operation during the Olympic and Paralympic Winter Games Milano Cortina 2026.

The test-and-tag station/desk locations will be communicated as soon as it has been agreed upon with the MIMIT ODT. A spectrum engineer will be responsible for operating the test of the RF device and applying a sticker when the test is successful.

Process details will be provided in 2025 through the Testing & Tagging User Guide.

4.3.1 RF Device Venue Access

Only accredited persons will be permitted to bring authorised RF equipment into the venues. Any wireless equipment without a visible tag that does not have spectrum authorisation will be stopped by security during the security screening process at the venue entrance. Untagged devices will not be permitted to enter the venue.

It is recommended to have the spectrum-authorisation document as a viewable document on a smartphone or printed out.

For accredited users who miss applying for authorisation, security will redirect the RF equipment's user to the closest spectrum team for assistance.

The RF device will be authorised to transmit at the venue as soon as the authorisation has been granted; in the meantime, the RF device will receive a "do not use" tag and must be turned off.

4.3.2 RF Devices Test Approach

Before bringing it to any venue, spectrum users must ensure their wireless equipment is programmed with the technical parameters specified in the spectrum authorisation, including the frequency, power, bandwidth, and other relevant settings. If the technical parameters of the wireless transmitting equipment need to be changed, spectrum users should prepare and carry the required tools with them, and equipment batteries must be fully charged. Users should also bring with them the spectrum-authorisation documentation in case of any discrepancies.

Spectrum engineers will test the RF device at the test-and-tag station. The approach will be to run tests that are quick and simple yet able to check the technical RF suitability of a device. To confirm frequency or channel, occupied bandwidth or band, signal shape (to interpret the power level and spurious emission), SSID or drone identification, etc. In some cases, the radiated power (for devices capable of transmitting at high power) should match with the issued spectrum authorisation.

Non-compliant equipment will get a distinctive tag to prohibit it from being used. A second test will be completed to verify the results if the test fails. Equipment that fails the second test will have a **Do Not Use** (DNU) sticker applied.

Tagging principle: A tag issued by the spectrum engineer will be visibly applied to the radio equipment once it has passed the test. All radio equipment must have the right tag to enter its area of operation during the Games. Security staff will inspect equipment at all venue entrances to ensure that only authorised/tagged wireless equipment can enter.

4.4 Spectrum Monitoring

MIMIT ODT will monitor the radio spectrum in cooperation with Milano Cortina 2026 to secure the wireless spectrum environment for the Games and prevent interference and improper use. Processes and deployment will be communicated in 2025.

4.5 Self-Coordination Approach for Photographers

Photographers move quickly between venues, using photographers' camera remotes and setting up equipment to transfer data. Systematic control is costly and inefficient, and self-coordination is the most effective approach. The challenges are:

- to minimise the opportunity for camera triggers to interfere with each other; and
- to obtain a real-time list of photographers present at the venue in case of unauthorised private access-point detection.

Solution implementation:

The Milano Cortina 2026 spectrum team will support each venue press manager in implementing a simple coordination process. When a photographer operates at the venue, the press team will nominate which remote-camera control channels they will use.

All the photographers at the venue will use the schedule of the channels for the exact day. Therefore, all accredited members of the press will be able to see which channels are allocated, who is using them, which are in use, and which are available.

Authorisations made under the UWD/SRD regulation will be provided on a **non-interference/non-protected basis**.

Glossary

ADS	Audio Description Service
BaU	Business as Usual
CB	Citizens Band Radio
DAB	Digital Audio Broadcasting
DECT	Digital Enhanced Cordless Telecommunications
DVB-T	Digital Video Broadcasting – Terrestrial
DMO	Direct Mode Operation
DMR	Digital Mobile Radio
EIRP	Equivalent isotropic radiated power
ENG	Electronic News Gathering
FSK	Frequency Shift Keying
IEM	In-Ear Monitor
IOC	International Olympic Committee
LAN	Local Area Network
LMR	Land Mobile Radio
LPI	Low Power Indoor Access Points
MIC	Microphone
MIMIT	Ministero dell'impresa e del Made in Italy (Ministry of Enterprises and Made in Italy)
MIMIT ODT	MIMIT Olympic Delivery Team
MD	Ministry of Defence
MRH	Media Right Holders
OBS	Olympic Broadcasting Services
OCOG	Organising Committee for the Olympic and Paralympic Winter Games
OPG	Olympic and Paralympic Games
PES	Permanent Earth Stations
PMR	Private Mobile Radio
PMSE	Program Making Special Event
PRS	Personal Radio Service
RF	Radio Frequency
SBP	Spectrum Booking Portal
SLA	Service-Level Agreement
SMT	Milano Cortina 2026 Spectrum Management Team

SRD	Short Range Device
SSID	Service Set Identifier
TES	Transportable Earth Station
TMO	Trunked Mode Operation
TOC	Technology Operation Centre
TPC	Transmitter Power Control
T&T	Testing and Tagging
UHF	Ultra-High Frequency (300MHz–3GHz)
UWD	Short-Range Device
VHF	Very High Frequency (30MHz–300MHz)
WLAN	Wireless Local Area Network

Terminology

Beauty Shot Camera	Camera delivering a shot that emphasises something's beauty or attractive aspects of the area
Channel Bandwidth	A portion of the radio spectrum occupied by the transmitted signal
Duplex Spacing	Frequency Division Duplex is a technology used in wireless communications where the uplink and the downlink use a different frequency. The uplink and downlink are separated by a particular gap. This is called the duplex distance or duplex spacing.
Duty Cycle	The ratio of time where the radio device is transmitting during an observation period of one hour
Equivalent isotropic radiated power measurement	EIRP is the total radiated power from a transmitter antenna times the numerical directivity of the antenna in the direction of the receiver or the power delivered to the antenna times the antenna's numerical gain.
Full Duplex	Operating duplex with the ability to transmit and receive simultaneously.
Spectrum Authorisation	The individual authorisation gives its owner the right to use specific radio-frequency equipment with an assigned frequency and technical specifications within a designated venue and period.
Venues	Olympic and Paralympic sites fall within the scope of spectrum management.

If there are any questions about the Spectrum Availability Plan, please contact the Milano Cortina 2026 Spectrum Management Team via e-mail at the following address:

SpectrumManagement@milanocortina2026.org



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