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L.N. 381 of 2021

**ELECTRONIC COMMUNICATIONS (REGULATION) ACT
(CAP. 399)**

**General Authorisations (Radiocommunications Apparatus)
(Amendment) Regulations, 2021**

IN EXERCISE of the powers conferred by articles 34 and 47 of the Electronic Communications (Regulation) Act, the Minister responsible for communications after consultation with the Malta Communications Authority, has made the following regulations:-

Citation.

S.L. 399.40.

Amends the
Arrangement of
Regulations.

Amends
regulation 2 of
the principal
regulations.

1. The title of these regulations is the General Authorisations (Radiocommunications Apparatus) (Amendment) Regulations, 2021, and they shall be read and construed as one with the General Authorisations (Radiocommunications Apparatus) Regulations, hereinafter referred to as "the principal regulations".

2. The Arrangement of Regulations in the principal regulations shall be amended as follows:

(a) in the second column thereof, the words "General Authorisation for Wideband Data Transmission Systems" shall be substituted by the words "General Authorisation for Wireless Access Systems"; and

(b) in the second column thereof, the words "General Authorisation for apparatus used for the safety related applications of Intelligent Transport Systems" shall be substituted by the words "General Authorisation for apparatus used for the safety related applications of Intelligent Transport Systems (ITS) in the 5.9 GHz frequency band".

3. In regulation 2 of the principal regulations, immediately after the definition "radiodetermination" there shall be added the following new definition:

"Regulation (EU) 2020/1070" means Commission Implementing Regulation (EU) 2020/1070 of 20 July 2020 on specifying the characteristics of small-area wireless access points pursuant to Article 57 paragraph 2 of Directive (EU) 2018/1972 of the European Parliament and the Council establishing the European Electronic Communications Code;"

4. Sub-regulation (3) of regulation 11 of the principal regulations, shall be amended as follows: Amends regulation 11 of the principal regulations.

(a) in paragraph (e) thereof, the words "and orientation; and" shall be substituted by the words "and orientation;"

(b) in paragraph (f) thereof, the words "of Part II." shall be substituted by the words "of Part II; and"; and

(c) immediately after paragraph (f) thereof, the following new paragraph shall be added:

"(g) information showing compliance with the Regulation (EU) 2020/1070, as applicable.".

5. The Annex to the First Schedule to the principal regulations shall be substituted by the following: Amends the First Schedule to the principal regulations.

**"ANNEX TO THE FIRST SCHEDULE
(Paragraph 9 of the First Schedule)**

1. Table of the VHF Frequencies

Channel design-ator	Specific provisions	Transmitting frequencies (MHz)		Inter-ship	Port operations and ship movement		Public corres-pondence
		From ship stations	From coast stations		Single frequency	Two frequency	
60		156.025	160.625		x	x	x
01		156.050	160.650		x	x	x
61		156.075	160.675		x	x	x
02		156.100	160.700		x	x	x
62		156.125	160.725		x	x	x
03		156.150	160.750		x	x	x
63		156.175	160.775		x	x	x
04		156.200	160.800		x	x	x
64		156.225	160.825		x	x	x
05		156.250	160.850		x	x	x
65		156.275	160.875		x	x	x
06	<i>f)</i>	156.300		x			
2006	<i>r)</i>	160.900	160.900				
66		156.325	160.925		x	x	x
07		156.350	160.950		x	x	x
67	<i>h)</i>	156.375	156.375	x	x		
08		156.400		x			

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68		156.425	156.425		x		
09	i)	156.450	156.450	x	x		
69		156.475	156.475	x	x		
10	h), q)	156.500	156.500	x	x		
70	f), j)	156.525	156.525	Digital selective calling for distress, safety and calling			
11	q)	156.550	156.550		x		
71		156.575	156.575		x		
12		156.600	156.600		x		
72	i)	156.625		x			
13	k)	156.650	156.650	x	x		
73	h), i)	156.675	156.675	x	x		
14		156.700	156.700		x		
74		156.725	156.725		x		
15	g)	156.750	156.750	x	x		
75	n), s)	156.775	156.775		x		
16	f)	156.800	156.800	DISTRESS, SAFETY AND CALLING			
76	n), s)	156.825	156.825		x		
17	g)	156.850	156.850	x	x		
77		156.875		x			
18		156.900	161.500		x	x	x
78		156.925	161.525		x	x	x
1078		156.925	156.925		x		
2078	mm)		161.525		x		
19		156.950	161.550		x	x	x
1019		156.950	156.950		x		
2019	mm)		161.550		x		
79		156.975	161.575		x	x	x
1079		156.975	156.975		x		
2079	mm)		161.575		x		
20		157.000	161.600		x	x	x
1020		157.000	157.000		x		
2020	mm)		161.600		x		
80	y), wa)	157.025	161.625		x	x	x
21	y), wa)	157.050	161.650		x	x	x
81	y), wa)	157.075	161.675		x	x	x
22	y), wa)	157.100	161.700		x	x	x
82	y), wa)	157.125	161.725		x	x	x
23	y), wa)	157.150	161.750		x	x	x
83	y), wa)	157.175	161.775		x	x	x
24	w), xx)	157.200	161.800		x	x	x
1024	w)	157.200	157.200	x (digital only)	x (digital only)		

2024	w)	161.800	161.800	X (digital only)	X (digital only)		
84	w), xx)	157.225	161.825		X	X	X
1084	w)	157.225	157.225	X (digital only)	X (digital only)		
2084	w)	161.825	161.825	X (digital only)	X (digital only)		
25	w), xx)	157.250	161.850		X	X	X
1025	w)	157.250	157.250	X (digital only)	X (digital only)		
2025	w)	161.850	161.850	X (digital only)	X (digital only)		
85	w), xx)	157.275	161.875		X	X	X
1085	w)	157.275	157.275	X (digital only)	X (digital only)		
2085	w)	161.875	161.875	X (digital only)	X (digital only)		
26	w)	157.300	161.900		X	X	X
1026	w)	157.300					
2026	w)		161.900				
86	w)	157.325	161.925		X	X	X
1086	w)	157.325					
2086	w)		161.925				
1027	zz)	157.350	157.350		X		
ASM 1	z)	161.950	161.950				
87	zz)	157.375	157.375		X		
1028	zz)	157.400	157.400		X		
ASM 2	z)	162.000	162.000				
88	zz)	157.425	157.425		X		
AIS 1	f), l), p)	161.975	161.975				
AIS 2	f), l), p)	162.025	162.025				

Specific provisions:

f) The frequencies 156.300 MHz (channel 06), 156.525 MHz (channel 70), 156.800 MHz (channel 16), 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2) may also be used by aircraft stations for the purpose of search and rescue operations and other safety-related communication. The frequencies 156.525 MHz (channel 70), 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2) may also be used by autonomous maritime radio devices Group A that enhance the safety

of navigation, using digital selective calling and/or AIS technology. Such use should be in accordance with these regulations.

g) Channels 15 and 17 may also be used for on board communications in territorial waters, provided the effective radiated power does not exceed 1 W.

h) If so required, channels 10, 67 and 73 may also be used for communication between ship stations, aircraft stations and participating land stations engaged in coordinated search and rescue and anti-pollution operations in local areas under the applicable provisions of the Radio Regulations.

i) Channel 09 (156.450 MHz), channel 72 (156.625 MHz) and channel 73 (156.675 MHz) are the preferred channels which may be designated by the Authority for specific inter-ship, port operations and ship movement for use by light aircraft and helicopters to communicate with ships or participating coast stations in predominantly maritime support operations subject to the conditions specified in the Radio Regulations.

j) Channel 70 is to be used exclusively for digital selective calling for distress, safety and calling.

k) Channel 13 is designated for use on a worldwide basis as a navigation safety communication channel, primarily for intership navigation safety communications.

l) Channels AIS 1 and AIS 2 are used for an automatic identification system (AIS) capable of providing worldwide operation.

mm) Transmission on these channels is limited to coast stations. All precautions should be taken to avoid harmful interference to channels AIS 1, AIS 2, ASM 1 and ASM 2.

n) With the exception of AIS, the use of channels 75 and 76 should be restricted to navigation-related communications only and all precautions should be taken to avoid harmful interference to channel 16, by limiting the output power to 1 W.

p) Channels AIS 1 and AIS 2 may be used by the mobile-satellite service (Earth-to-space) for the reception of AIS transmissions from ships.

q) When using channels 10 and 11, all precautions should be taken to avoid harmful interference to channel 70.

r) The frequency 160.900 MHz (channel 2006) is designated

for autonomous maritime radio devices Group B that do not enhance the safety of navigation, using AIS technology in accordance with these regulations.

s) Channels 75 and 76 are also allocated to the mobile-satellite service (Earth-to-space) for the reception of long-range AIS broadcast messages from ships (Message 27).

w) The frequency bands 157.1875-157.3375 MHz and 161.7875-161.9375 MHz (corresponding to channels: 24, 84, 25, 85, 26, 86, 1024, 1084, 1025, 1085, 1026, 1086, 2024, 2084, 2025, 2085, 2026 and 2086) are identified for the utilization of the VHF Data Exchange System (VDES). The VDES terrestrial and satellite components are described in the most recent version of Recommendation ITU-R M.2092. These channels shall not be used for feeder links. The channels may be merged using multiple 25 kHz contiguous channels to form channel bandwidths of 50 kHz, 100 kHz or 150 kHz. The channel usage is shown below:

- The channels 1024, 1084, 1025 and 1085 are identified for ship-to-shore, shore-to-ship and ship-to-ship communications, but ship-to-satellite and satellite-to-ship communications may be possible without imposing constraints on ship-to-shore, shore-to-ship and ship-to-ship communications.

- The channels 2024, 2084, 2025 and 2085 are identified for shore-to-ship and ship-to-ship communications, but ship-to-satellite and satellite-to-ship communications may be possible without imposing constraints on shore-to-ship and ship-to-ship communications.

- The channels 1026, 1086, 2026 and 2086 are identified for ship-to-satellite and satellite-to-ship communications and are not used by the terrestrial component of VDES.

- The channels 24, 84, 25 and 85 are identified for ship-to-shore and shore-to-ship communications.

The Earth-to-space component of the VDES shall not cause any harmful interference to, nor claim protection from, nor restrict future development of, terrestrial systems operating in the same frequency bands.

Until 1 January 2030, the channels 24, 84, 25, 85, 26 and 86 may also be used for analogue modulation described in the most recent version of Recommendation ITU-R M.1084 subject to not causing harmful interference to, or claiming protection from other stations in

the maritime mobile service using digitally modulated emissions.

wa) The frequency bands 157.0125-157.1125 MHz and 161.6125-161.7125 MHz (corresponding to channels: 80, 21, 81 and 22) are identified for utilization of the digital systems described in the most recent version of Recommendation ITU-R M.1842 using multiple 25 kHz contiguous channels.

The frequency bands 157.1375-157.1875 MHz and 161.7375-161.7875 MHz (corresponding to channels: 23 and 83) are identified for utilization of the digital systems described in the most recent version of Recommendation ITU-R M.1842 using two 25 kHz contiguous channels. The frequencies 157.125 MHz and 161.725 MHz (corresponding to channel 82) are identified for the utilization of the digital systems described in the most recent version of Recommendation ITU-R M.1842.

The frequency bands 157.0125-157.1875 MHz and 161.6125-161.7875 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23 and 83) can also be used for analogue modulation described in the most recent version of Recommendation ITU-R M.1084, subject to not claiming protection from other stations in the maritime mobile service using digitally modulated emissions and subject to co-ordination with any affected administrations.

xx) As from 1 January 2024, channels 24, 84, 25 and 85 may be merged in order to form a unique duplex channel with a bandwidth of 100 kHz in order to operate the VHF Data Exchange System (VDES) terrestrial component as described in the most recent version of Recommendation ITU-R M.2092.

y) These channels shall not be operated as single frequency channels.

z) Channels ASM 1 and ASM 2 are used for application specific messages (ASM) as described in the most recent version of Recommendation ITU-R M.2092.

zz) Channels 1027, 1028, 87 and 88 are used as single-frequency analogue channels for port operation and ship movement.

2. Specific national channel designation of VHF frequencies

Channel design-ator	Transmitting frequencies (MHz)		National designation
	From ship stations	From coast stations	
09	156.450	156.450	Pilotage and Mooring and Pilot Launch
10	156.500	156.500	Mġarr Port Control (on a primary basis) Towage (on a secondary basis)
11	156.550	156.550	Navigational Warnings / Weather Broadcasts
12	156.600	156.600	Valletta VTS
13	156.650	156.650	Terminals and Marinas
14	156.700	156.700	Marsaxlokk VTS
20	157.000	161.600	Navigational assistance / special instructions to a specific ship
22	157.100	161.700	Emergency operations / oil pollution, etc.
68	156.425	156.425	Towage
69	156.475	156.475	Malta VTS
74	156.725	156.725	Towage

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6. The Second Schedule to the principal regulations shall be substituted by the following:

Substitutes the Second Schedule to the principal regulations.

"SECOND SCHEDULE (Regulation 3)

General Authorisation for Wireless Access Systems

1. This General Authorisation applies to any person installing or using a wireless access system or any apparatus intended to be used as a component part of that system.

Applicability of Second Schedule.

2. In this Schedule unless the context otherwise requires:

Interpretation.

"data network" means several networked short-range devices including the network access point as network components and the wireless connections between them;

"EN 301 893" means version 2.1.1 of the harmonised European standard for 5 GHz wireless access systems including radio local area network covering the essential requirements of Article 3.2 of Directive 2014/53/EU;

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"indoor use" means the use of apparatus inside a closed space which will provide the necessary attenuation to facilitate sharing with other radiocommunication services as determined in the Annex to this Schedule;

"ITU-R M.1652" means the most recent version of Recommendation M.1652 of the ITU on dynamic frequency selection in wireless access systems including radio local area networks for the purpose of protecting the radiodetermination service in the 5 GHz band;

"low power indoor" or "LPI" means radiocommunications apparatus falling within WAS/RLAN limited for use at indoor locations only;

"mean equivalent isotropically radiated power ('e.i.r.p.')" means e.i.r.p. during the transmission bursts which corresponds to the highest power, if power control is implemented;

"narrowband apparatus" means radiocommunications apparatus that operate in channel bandwidths below 20 MHz and which requires a frequency hopping mechanism based on at least 15 hop channels to operate at a value of in-band power spectral density (PSD) above 1 dBm/MHz;

"network access point" means a fixed terrestrial short-range device that acts as a connection point for the other short-range devices in the data network to service platforms located outside of the data network;

"UAS" means unmanned aircraft systems;

"very low power" or "VLP" means radiocommunications apparatus falling within WAS/RLAN which may be used at both indoor and outdoor locations;

"wideband data transmission system" means radiocommunications apparatus that use wideband modulation techniques to access the spectrum, including wireless access systems such as radio local area networks and wideband short-range devices in data networks;

"wireless access systems" includes a wireless data transmission system and WAS/RLAN; and

"wireless access systems including radio local area networks" or "WAS/RLAN" means broadband radio systems that allow wireless access for public and private applications regardless of the underlying

network topology.

3. (1) The minimum technical parameters of wireless access systems shall be those specified in the Annex to this Schedule. Minimum technical parameters.

(2) Any person enjoying this general authorisation may have in his possession or under his control a wireless access system with technical parameters different from those specified in the Annex to this Schedule:

Provided that in operating such wireless access systems the person enjoying this general authorisation shall ensure compliance with the technical parameters specified in the Annex to this Schedule.

ANNEX TO THE SECOND SCHEDULE (Paragraph 3 of the Second Schedule)

Minimum Technical Parameters for Wireless Access Systems

Table 1: Wireless Access Systems operating in the 800 / 900 MHz frequency band

Frequency band	Type of radiocommunications system	Maximum transmit power limit	Additional parameters	Other usage restrictions
863-868 MHz	Wideband data transmission system	25 mW e.r.p.	<p>Requirements on techniques to access spectrum and mitigate interference apply¹.</p> <p>Bandwidth: > 600 kHz and ≤ 1 MHz.</p> <p>Duty cycle: ≤ 10% for network access points.</p> <p>Duty cycle: ≤ 2.8% otherwise.</p>	

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917.4-919.4 MHz	Wideband data transmission system	25 mW e.r.p.	<p>Requirements on techniques to access spectrum and mitigate interference apply¹.</p> <p>Bandwidth: > 600 kHz and ≤ 1 MHz.</p> <p>Duty cycle: ≤ 10% for network access points.</p> <p>Duty cycle: ≤ 2.8% in other cases.</p>	<p>All apparatus within the data network shall be under the control of network access points.</p> <p>All nomadic and mobile apparatus within the data network shall be controlled by a master network access point.</p>
Notes:				
1	<p>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the <i>Official Journal of the European Union</i> in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.</p>			

Table 2: Wireless Access Systems operating in the 2400 – 2483.5 MHz frequency band

Parameter	Technical conditions
Frequency band	2400-2483.5 MHz
Type of radiocommunications system	Wideband data transmission system
Maximum transmit power limit for in-band emissions	100 mW e.i.r.p.
Maximum power density limit for in-band emissions	100 mW/100 kHz e.i.r.p. density applies when frequency hopping modulation is used. 10 mW/MHz e.i.r.p. density applies when other types of modulation are used.
Additional parameters	Requirements on techniques to access spectrum and mitigate interference apply ¹ .
Notes: ¹ Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the <i>Official Journal of the European Union</i> in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.	

Table 3: Wireless Access Systems operating in the 5150-5250 MHz frequency band

Parameter	Technical conditions
Frequency band	5150-5250 MHz
Type of radiocommunications system / apparatus	WAS/RLAN
Permissible operation	Indoor, including installations inside road vehicles, trains and aircraft, and limited outdoor use ¹ . Use by UAS is limited to within the 5170-5250 MHz band.
Maximum mean e.i.r.p. for in-band emissions	<ul style="list-style-type: none"> 40 mW maximum mean e.i.r.p. applies for installations inside train carriages with an attenuation loss on average of less than 12 dB and inside road vehicles. 200 mW for other installations.
Maximum mean e.i.r.p. density for in-band emissions	10 mW/MHz in any 1 MHz band

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Additional parameters	Requirements on techniques to access spectrum and mitigate interference apply ² .
<p>Notes:</p> <p>¹ If used outdoors, the apparatus or system, however so described, shall not be attached to a fixed installation or to the external body of road vehicles, a fixed infrastructure or a fixed outdoor antenna.</p> <p>² Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. Where relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the <i>Official Journal of the European Union</i> in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.</p>	

Table 4: Wireless Access Systems operating in the 5250-5350 MHz frequency band

Parameter	Technical conditions
Frequency band	5250-5350 MHz
Type of radiocommunications system / apparatus	WAS/RLAN
Permissible operation	Indoor use, limited to inside buildings only ¹
Maximum mean e.i.r.p. for in-band emissions	200 mW
Maximum mean e.i.r.p. density for in-band emissions	10 mW/MHz in any 1 MHz band
Mitigation techniques to be used	<p>Transmitter Power Control (TPC) and Dynamic Frequency Selection (DFS).</p> <p>Alternative mitigation techniques may be used if they ensure at least an equivalent performance and level of spectrum protection in order to comply with the corresponding essential requirements of Directive 2014/53/EU and respect the technical requirements of this Schedule.</p>
Transmitter Power Control (TPC)	<p>TPC shall provide on average, a mitigation factor of at least 3 dB on the maximum permitted output power of the system; or, if transmitter power control is not in use, then the maximum permitted mean e.i.r.p. and the corresponding mean e.i.r.p. density limit shall be reduced by 3 dB.</p>

<p>Dynamic Frequency Selection (DFS)</p>	<p>DFS is described in ITU-R M.1652 to ensure compatible operation with radiodetermination systems.</p> <p>The DFS mechanism shall also ensure that the probability of selecting a given channel will be the same for all available channels within the bands 5250-5350 MHz and 5470-5725 MHz. The intention is to provide, on average, a near-uniform spread of the loading of the spectrum.</p> <p>WAS/RLAN shall implement a DFS providing a mitigation against interference to radar at least as efficient as DFS described in EN 301 893. Settings (hardware and/or software) of WAS/RLAN related to DFS shall not be accessible to the user if changing those settings results in WAS/RLAN no longer being compliant with the DFS requirements. This includes:</p> <ul style="list-style-type: none"> a) not allowing the user of the WAS/RLAN to change the country of operation and/or the operating frequency band if that results in the apparatus no longer being compliant with the DFS requirements; and b) not accepting software and/or firmware which results in the WAS/RLAN no longer being compliant with the DFS requirements.
<p>Additional parameters</p>	<p>Requirements on techniques to access spectrum and mitigate interference apply².</p>
<p>Notes:</p> <ul style="list-style-type: none"> ¹ Outdoor use and installations in road vehicles, trains and aircraft are not permitted. ² Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. Where relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the <i>Official Journal of the European Union</i> in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured. 	

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Table 5: Wireless Access Systems operating in the 5470-5725 MHz frequency band

Parameter	Technical conditions
Frequency band	5470-5725 MHz
Type of radiocommunications system / apparatus	WAS/RLAN
Permissible operation	Indoor and outdoor use, but: <ul style="list-style-type: none"> · installations in road vehicles, trains and aircraft are not permitted; and · installations for use by UAS are not permitted.
Maximum mean e.i.r.p. for in-band emissions	1 W
Maximum mean e.i.r.p. density for in-band emissions	50 mW/MHz in any 1 MHz band
Mitigation techniques to be used	Transmitter Power Control (TPC) and Dynamic Frequency Selection (DFS). Alternative mitigation techniques may be used if they ensure at least an equivalent performance and level of spectrum protection in order to comply with the corresponding essential requirements of Directive 2014/53/EU and respect the technical requirements of this Schedule.
Transmitter Power Control (TPC)	TPC shall provide on average, a mitigation factor of at least 3 dB on the maximum permitted output power of the system; or, if transmitter power control is not in use, then the maximum permitted mean e.i.r.p. and the corresponding mean e.i.r.p. density limit shall be reduced by 3 dB.

Dynamic Frequency Selection (DFS)	<p>DFS is described in ITU-R M.1652 to ensure compatible operation with radiodetermination systems.</p> <p>The DFS mechanism shall also ensure that the probability of selecting a given channel will be the same for all available channels within the bands 5250-5350 MHz and 5470-5725 MHz. The intention is to provide, on average, a near-uniform spread of the loading of the spectrum.</p> <p>WAS/RLAN shall implement a DFS providing a mitigation against interference to radar at least as efficient as DFS described in EN 301 893. Settings (hardware and/or software) of WAS/RLAN related to DFS shall not be accessible to the user if changing those settings results in WAS/RLAN no longer being compliant with the DFS requirements. This includes:</p> <ul style="list-style-type: none"> a) not allowing the user of the WAS/RLAN to change the country of operation and/or the operating frequency band if that results in the apparatus no longer being compliant with the DFS requirements; and b) not accepting software and/or firmware which results in the WAS/RLAN no longer being compliant with the DFS requirements.
Additional parameters	Requirements on techniques to access spectrum and mitigate interference apply ¹ .
<p>Notes:</p> <p>¹ Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. Where relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the <i>Official Journal of the European Union</i> in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.</p>	

Table 6: Wireless Access Systems operating in the 5945-6425 MHz frequency band for Low Power Indoor apparatus

Parameter	Technical conditions
Frequency band	5945-6425 MHz
Type of radiocommunications system / apparatus	An LPI access point or bridge that is supplied with power from a wired connection has an integrated antenna and is not battery powered. An LPI client device that is connected to an LPI access point or another LPI client device and may or may not be battery powered.
Permissible operation	Restricted to indoor use, including in aircraft and trains with metal-coated windows or similar structures made of material with comparable attenuation characteristics ¹ .
Maximum mean e.i.r.p. for in-band emissions	23 dBm
Maximum mean e.i.r.p. density for in-band emissions	10 dBm/MHz
Maximum mean e.i.r.p. density for out-of-band emissions below 5935 MHz	-22 dBm/MHz
Additional parameters	Requirements on techniques to access spectrum and mitigate interference apply ² .
Notes: ¹ Outdoor use, including in road vehicles, is not permitted. ² Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. Where relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the <i>Official Journal of the European Union</i> in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.	

Table 7: Wireless Access Systems operating in the 5945-6425 MHz frequency band for Very Low Power apparatus

Parameter	Technical conditions
Frequency band	5945-6425 MHz
Type of radiocommunications system / apparatus	VLP that is portable apparatus and may include narrowband apparatus.
Permissible operation	Indoors and outdoors but the use of installations for use by UAS is not permitted.

Maximum mean e.i.r.p. for in-band emissions	14 dBm
Maximum mean e.i.r.p. density for in-band emissions	1 dBm/MHz 10 dBm/MHz for narrowband apparatus
Maximum mean e.i.r.p. density for out-of-band emissions below 5935 MHz	-45 dBm/MHz until 31 December 2024 ²
Additional parameters	Requirements on techniques to access spectrum and mitigate interference apply ³ .
<p>Notes:</p> <ol style="list-style-type: none"> Outdoor use, including in road vehicles, is not permitted. The appropriateness of this limit shall be subject to review by 31 December 2024. In the absence of justified evidence, a value of -37 dBm/MHz shall apply from 1 January 2025. Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. Where relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the <i>Official Journal of the European Union</i> in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured. 	

Table 8: Wireless Access Systems operating in the 57-71 GHz frequency band

Frequency band	Type of radiocommunications system / apparatus	Maximum transmit power / power density limit	Additional parameters	Other usage restrictions
57-71 GHz	Wideband data transmission system	40 dBm e.i.r.p. 23 dBm/MHz e.i.r.p. density.	Requirements on techniques to access spectrum and mitigate interference apply ¹ .	Fixed outdoor installations are excluded.
57-71 GHz	Wideband data transmission system	40 dBm e.i.r.p. 23 dBm/MHz e.i.r.p density. Maximum transmit power of 27 dBm at the antenna port or ports.	Requirements on techniques to access spectrum and mitigate interference apply ¹ .	

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57-71 GHz	Wideband data transmission system	55 dBm e.i.r.p. 38 dBm/MHz e.i.r.p density. Transmit antenna gain ≥ 30 dBi.	Requirements on techniques to access spectrum and mitigate interference apply ¹ .	This set of usage conditions is only available to fixed outdoor installations.
<p>Notes:</p> <p>¹ Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.</p>				

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Substitutes the Sixteenth Schedule to the principal regulations.

9. The Sixteenth Schedule to the principal regulations shall be substituted by the following:

**"SIXTEENTH SCHEDULE
(Regulation 3)**

General Authorisation for apparatus used for the safety related applications of Intelligent Transport Systems (ITS) in the 5.9 GHz frequency band

Applicability of the Sixteenth Schedule.

1. This General Authorisation applies to any person installing or using apparatus used for the safety related applications of Intelligent Transport Systems capable of operating in the 5.9 GHz frequency band or any apparatus intended to be used as a component part of that system.

Interpretation.

2. In this Schedule unless the context otherwise requires:

"5.9 GHz" means the frequency band between 5875 MHz and 5935 MHz;

"intelligent transport systems" or "ITS" means a range of systems and services, based on information and communications technologies, including processing, control, positioning, communication and electronics, that are applied to a road transportation system or an urban rail transportation system, or both; and

"road intelligent transport systems" or "road ITS" means intelligent transport systems applied to any kind of road-based

transport (including in off-road use cases) that enable safety communications between vehicles (V2V) and between infrastructure and vehicles (I2V).

3. The minimum technical parameters of ITS shall be those specified in the Annex to this Schedule. Minimum technical parameters.

ANNEX TO THE SIXTEENTH SCHEDULE
(Paragraph 3 of the Sixteenth Schedule)

Minimum Technical Parameters for apparatus used for the safety related applications of Intelligent Transport Systems (ITS) in the 5.9 GHz frequency band

Parameter	Value
Frequency band for Road ITS	5875-5915 MHz
Frequency band for Road ITS limited to infrastructure-to-vehicle (I2V) connectivity only	5915-5925 MHz
Maximum spectral power density (mean e.i.r.p.)	23 dBm/MHz
Maximum total transmit power (mean e.i.r.p.)	33 dBm with a transmit power control (TPC) range of at least 30 dB
Additional parameters	Techniques to access spectrum and mitigate interference that provide an appropriate level of performance shall be used in line with Directive 2014/53/EU of the European Parliament and of the Council. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to the performance level associated to those techniques shall be ensured.

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10. The Twenty-Eighth Schedule to the principal regulations shall be amended as follows: Amends the Twenty-Eighth Schedule to the principal regulations.

(a) in paragraph 2 thereof the following new definition

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shall be added:

""European Regulations" means implementing acts as may be adopted from time to time by the European Commission, on the technical characteristics and compliance requirements of specific radiocommunications apparatus which may be comprised in a Wireless Electronic Communication Network, and includes Regulation (EU) 2020/1070; and"; and

(b) in paragraph 3 thereof, after the words "Electronic Communications (Regulation) Act." there shall be added the words "and in European Regulations, as applicable.".

Amends the
Thirty-First
Schedule to the
principal
regulations.

11. The Thirty-First Schedule to the principal regulations shall be amended as follows:

(a) paragraph 4(1) thereof shall be deleted;

(b) paragraph 4(2) and paragraph 4(3) thereof shall be renumbered as paragraph 4(1) and paragraph 4(2) respectively;

(c) the fourth row ("470-526 MHz" to "670-694 MHz") of the table in the Annex thereof, shall be substituted with the following:

"

470-526 MHz	50 mW e.r.p.		Refer to sub-paragraph 4(1).
534-550 MHz			
558-566 MHz			
574-606 MHz			
614-646 MHz			
654-662 MHz			
670-694 MHz			

"; and

(d) for the fifth row ("823-832 MHz") of the table in the Annex thereof, the words "Refer to sub-paragraph 4(3)" shall be substituted with the words "Refer to sub-paragraph 4(2)".

Amends the
Thirty-Third
Schedule to the
principal
regulations.

12. The Thirty-Third Schedule to the principal regulations shall be amended as follows:

(a) in paragraph 2 thereof, immediately before the definition "COSPAS-SARSAT", there shall be added the following new definitions:

""AMRD" means autonomous maritime radio devices and refers to mobile radiocommunications apparatus operating at sea and transmitting independently on the radiocommunications apparatus installed on a ship or in a coast station;

"AMRD Group A" means an AMRD which enhance the safety of navigation;

"AMRD Group B" means an AMRD which do not enhance the safety of navigation and therefore delivers signals or information which do not concern the navigation of a ship or do not complement vessel traffic safety in waterways;"

(b) in paragraph 2 thereof, immediately after the definition "IBRD", the following new definitions shall be added:

""Recommendation ITU-R M.493" means the most recent version of Recommendation M.493 of the ITU on digital selective calling system for use in the maritime mobile service;

"Recommendation ITU-R M.1371" means the most recent version of Recommendation M.1371 of the ITU establishing the technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band;"

(c) paragraph 5 thereof shall be renumbered as paragraph 6;

(d) immediately after paragraph 4 thereof there shall be added the following new paragraph:

"Conditions
applicable to
AMRD.

5. The minimum technical parameters of AMRD Group A and AMRD Group B shall be those specified in the Annex to this Schedule."; and

(e) immediately after paragraph 5 as renumbered, there shall be added the following new Annex:

**"ANNEX TO THE THIRTY-THIRD SCHEDULE
(Paragraph 5 of the Thirty-Third Schedule)**

A. Minimum technical parameters for AMRD Group A

Transmit frequency	Other usage parameters
156.525 MHz (channel 70)	In accordance with Recommendation ITU-R M.493
161.975 MHz (AIS 1)	In accordance with Recommendation ITU-R M.1371
162.025 MHz (AIS 2)	

B. Minimum technical parameters for AMRD Group B

B.1 AMRD Group B using automatic identification system technology

Transmit frequency	Transmit power	Other usage parameters
160.900 MHz (channel 2006)	100 mW e.i.r.p.	<p>Integrated antenna.</p> <p>The height of the antenna shall not exceed 1 m above the surface of the sea.</p> <p>Shall have a protected external power switch and transmit indicator.</p>

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