

Differential GPS licensing



Do you operate or supply equipment that uses Differential GPS (DGPS) technology? If so, you need to know about the licensing requirements following the 400 MHz band changes.

What's changed?

- > We made changes to support new technologies, reduce congestion and provide harmonised government spectrum (HGS) across Australia following the 400 MHz band review. HGS will be primarily used by state and territory governments for law enforcement, emergency services and public safety communications.
- > Segment T (457.50625–459.9875 MHz) and Segment Y (467.50625–469.9875 MHz) are now part of the HGS. If you're a non-government operator, it's likely that your DGPS can no longer be licensed in these segments.

What to know about licensing your DGPS

- > **Operation of all DGPS equipment must be authorised by a relevant radiocommunications licence.** The operator can hold the licence themselves or have written permission from a current licensee under a third-party arrangement.
- > All of the licence conditions must be met, including the permitted operating frequency, bandwidth, allowable transmitting power, location and antenna details.
- > The licence issued will allow DGPS operation at one fixed site (site-specific operation) or within a larger geographic area (area-wide operation).

Area-wide vs. site-specific operation— which is best for you?

Area-wide operation

- > Ideal for users who typically move from one location to another and require an apparatus licence that permits short-term operation within a geographic area. Operations of four weeks or less at a given location within the designated geographic area(s) are generally considered 'short term'.
- > 10 single frequency channels with 12.5 kHz bandwidth have been reserved for area-wide DGPS use—shown in teal in the table.
- > Area-wide operation is not given interference protection due to coordination limitations, so be careful. Check for coordinated services operating at specific sites listed under the Register of Radiocommunications Licence before operating in an area, and make sure you don't use the same frequencies.
- > We recommend getting a minimum of two frequencies in case of interference.

Band plan segment	Channel	Frequency (MHz)	
		12.5 kHz bandwidth	25 kHz bandwidth
Segment S	362	457.0250	
	363	457.0375	457.04375
	364	457.0500	
	365	457.0625	457.06875
	366	457.0750	
Segment X	362	467.0250	
	363	467.0375	467.04375
	364	467.0500	
	365	467.0625	467.06875
	366	467.0750	

Site-specific operation

- > Ideal for operation from a known fixed location. You are not allowed to operate at other locations.
- > The best option for projects like construction, where a DGPS system will be used for a number of months or years at one location.
- > This operation is given interference protection as it is coordinated with other radiocommunications services in the area.
- > The frequencies that are allocated for this type of operation exclude the 10 already identified for area-wide operation.

What power can a DGPS service transmit?

- > It is important that you refer to your licence for information on the authorised EIRP (effective isotropic radiated power).
- > There are four density areas in Australia—high, medium, low and remote. For area-wide operation in high and medium density areas, licensees are restricted to 8.3 watts EIRP; whereas in low and remote areas, licensees are able to operate up to 83 watts EIRP.

What are the licensing fees?

- > You can calculate the licensing cost of DGPS operation by using the apparatus licence fee schedule, available on the ACMA website—see the box below.

What are the consequences?

- > Under the *Radiocommunications Act 1992*, it is an offence to operate an unlicensed radiocommunications device. Individuals found guilty may face jail terms of up to two years; body corporates may receive a penalty of up to \$300,000 (1,500 penalty units). Other penalties may apply, such as the interference offence provisions in Part 4.2 of the Act.



Need help?

- > Visit the ACMA online at www.acma.gov.au/Industry/Spectrum/Radiocomms-licensing/Apparatus-licences.
- > Speak to your supplier about your equipment and whether it is appropriately licensed and operating on the right transmitter power.
- > If you require further information, please call the ACMA's Customer Service Centre on 1300 850 115 or email info@acma.gov.au. You can also contact an accredited person.