SURVEY SUPPORT BULLETIN

1 June 2012

Trimble 450MHz Radio Systems (USA Only)

Federal Communications Commission (FCC) Narrowbanding Requirement

The Federal Communications Commission (FCC) has dictated that on 1 January 2013 all radio users transmitting data between 421 and 512 MHz within the United States must operate within 12.5 kHz channel spacing or transmit using the bits per second (bps) setting of 19200 bps when using 25 kHz channel spacing.

Note: If your radio system is currently using and/or capable of using 12.5 kHz channel spacing, then there is no requirement to contact the FCC regarding your existing license(s), as long as you have a valid license and operate within the narrowbanding strictures.

Applying for a 25 kHz FCC License (USA Only)

In the event that your radio system is not capable of 12.5 kHz spacing, you must transmit at 19200 bps on a 25 kHz channel. To continue transmitting at 19200 bps with 25 kHz channel spacing, you must renew or modify your current license or apply for a new license using the FCC's Universal Licensing System (ULS) Service at http://wireless.fcc.gov/uls/index.htm?job=home. Alternatively, you can pay a licensing agency to apply, renew or modify your license. In either case you must perform a special step within the process (described below) to continue using 25 kHz channel spacing.

Note: If your radio system is only capable of 25 kHz channel spacing and does not have a wireless mode that allows 19200 bps, then you must contact your local Trimble distributor for a replacement radio system.

Before starting the application process for license renewal or modification, you should gather the following information on your license:

- Your FCC Registration Number (FRN)
- ٠ Your FCC Call Sign(s)
- The password associated with your FRN •

Your FRN and call sign(s) are printed on your license. If you have forgotten your password, the FCC website has a way of retrieving it (https://esupport.fcc.gov/password.htm).

Application Procedures (25 kHz US Only)

- 1. Go to the FCC ULS website at: http://wireless.fcc.gov/uls/index.htm?job=home.
- 2. Once you are on the ULS website, you can click on the LOG IN button.

Note: If you have not registered with the FCC on the ULS website, you will need to click on the **REGISTER** button and complete the registration process with the FCC.

This document is for informational purposes only and is not a legally binding agreement or offer. Trimble makes no warranties and assumes no obligations or liabilities hereunder.

Trimble Engineering & Construction Group, 5475 Kellenburger Road, Dayton, OH 45424-1099, USA

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http://surveypartners.trimble.com

- 3. Enter your FCC Registration Number and Password, then click on SUBMIT.
- 4. You are now at the FCC License Manager website, click on the appropriate link on the left margin of the page under the heading **My Licenses**.

FCC Federal Communications Commission	License Manager FCC > Wireless > Licensing > Online Systems > Licens
Logged In: 0005921291 (<u>Lo</u>	og Out)
Apply for a New License Associate Licenses With Your FRN	My Licenses
✓ <u>My Licenses</u> <u>Renew Licenses</u> <u>Update Licenses</u> Request Duplicates	Call Sign

5. Renewing or modifying a 25 kHz license or applying for a new 25 kHz license requires that you take a special step. On the **Application Information** page of the ULS site, you should check the answers as shown in red below and make sure to check **Yes** for the question "*Are attachments being filed with this application?*"

Administrative	Location	Location Antenna		uency
Application Information Applicar	nt Ownership Questions/Qualific	ation Questions General	Certification Statements	Control Point
FCC 601 Pr	C Application for Radio Serv Wireless Telecommunic ublic Saftey and HomeLand	vice Authorization: ation Bureau Security Bureau	Appr 3060	oved by OMB 0-0798
Application Purpose MD	Radio Service Code: PW 🗾 F	ile Number:	Callsign: VVP	UG430
If this application is for a Developm enter the code and attach the requ If this application is for Special Te 'N'. Refer to Rule 1.915 for an expl If this application is for a New, Am requested authorization explication	nental License, Demonstration License, uired exhibit as described in the instruct emporary Authority due to an emergency lanation of situations considered to be a endment, Renewal Only, or Renewal/Me date MM/DD (this tem is optional):	or a Special Temporary Author ions. Otherwise enter N (Not Ap ysituation, enter ""; otherwise e n emergency. odification enter the	ization (STA), N] • 10
Is this application "major" as defin the applicable radio service rules t applies to certain site-specific app	ed in Section 1.929 of the Commission's found in Parts 22 and 90 of the Commiss dications. See the instructions for applie	s Rules when read in conjunctio sion's Rules? (NOTE: This que cability and full text of Section	n with tion only O Yes (1.929).	(* No
Does this application include a red the Commission's rules? If 'Yes', at providing rule numbers and explain Yes No	quest for Waiwer of tach an exhibit ning circumstances Check "yes"	ver request is attached, enter Je section(s) being waived. Jule Section(s)	Are the frequencies or pa this filing covered by gra previously approved by w integrated with an existin Yes	arameters requested i ndfathered privileges valver, or functionally value? • No
Are attachments being filed with th	his application? • Yes	C No		\smile
Regulatory Status				
This application is for authorizatio	n to provide or use the following brack?	of radio reprice offering (enter a	If that applies	

6. Create a Word or Notepad document with the following statement:

Operation complies with the narrowband equivalent efficiency standards under Section 90.203(j)(3) in that it supports a minimum data rate of 4800 bits per second per 6.25 kHz of channel bandwidth.

7. In addition, the attachment must include your radio's FCC ID number, which will enable the FCC licensing staff to confirm that your radio operates in the narrowband-equivalent mode. The FCC ID number is printed on all Trimble radios or Trimble products with a radio. The FCC ID number is typically found on or near the product part number and serial number label. Or you can use the following table to determine your FCC ID number:

Model	FCC ID Number
HPB450	KEAPDL4535
PDL450/PDL450 Fixed	KEAPDL4520225
TRIMMARK III	JUP-9414-450
TDL450H	KEAADLP
TDL450L	KEAADLV
R4 (All)*	KEATNL450I
R6 (PN 60275-6x)*	ESMDS-TRM450
R6 (PN 60775-6x)*	KEATNL450I
R6 Model 2 (PN 73206-6x)*	KEATNL450I
R6 Model 3 (PN 84882-6x)*	KEATNL450I
R8 (PN 50158-6x)	ESMDS-TRM450
R8 Model 2 (PN 60158-6x)	ESMDS-TRM450
R8 Model 2 (PN 60250-6x)	KEATNL450I
R8 Model 3 (PN 67250-6x)	KEATNL450I

*These receiver/radio products are sold as receive only. If you have upgraded your product with the "UHF Transmit" option, and using it as a Base with channel spacing set to 25 kHz and wireless mode at 19200, you will need to update your license.

Checking the channel spacing of your current FCC License

If you are unsure whether you are currently licensed for 12.5 or 25 kHz channels, click **View Complete License** near the bottom of the page.

Call Sign:	• <u>View Complete License</u>			
	It's possible that your licenses have not been associated with your FRN. In order to manage a license using the License Manager, you must first <u>associate the license with your FRN</u> .			
FCC Wireless ULS CORES Paving Fees				
Federal Communications Commission 445 12th Street SW Washington, DC 20554				

Then click the **Frequencies** tab on the **Complete License** page and then click the **Emissions** tab (see arrow below):

		OCATIONS	FREQUENCI	ES				
Call Sign	1. A.				Radio Service			I.
14 Frequencies for all locations 20 Frequencies per Summary Page			Filter Frequencies By Location: All Locations • GO					
(5) = Special Condition (7) = Termination Pending Define View: General Buildout COSER					ER Emission I	RAC		
Frequency	Loc#	Ant#	Freq ID	Station Class	Units	Paging Rec.	Output Maxim Power ERF	ium P

The first few characters in the emission designator code include a "K" that is surrounded by some numerals. Substitute a decimal point for the K and you have the maximum occupied bandwidth your license allows (in kilobits per second). If this number is less than 11.5 kbps, you have a narrowband license and must transmit in 12.5 kHz channels. If it is more than 11.5 kbps, you have a wideband license and after 12/31/12, you must transmit in 12.5 kHz channels or in 25 kHz channels but with a radio link rate ≥ 19200 bps.