



# Technical Document

## New FCC Regulations

I have had a couple questions regarding the new FCC licensing requirements that go into effect next year. There is a lot of conflicting and mis-information out there so I decided to do a little bit of research on the matter. I have prepared this text to help clarify the situation and maybe ease the minds of some customers out there. I consulted with Atlas Licensing ([www.alclds.com](http://www.alclds.com)) on the topic and made the information more relevant to our surveying customers. Atlas is being swamped with calls about the topic but is happy to help their customers wade through the process as easily as possible. They have some information on their website but I found it lacking and not specific to GPS users. I would direct customers with questions beyond this document or about their current license or license status to contact Atlas directly. I would like to put this out as a tech notes but want to wait a little bit until I get some additional information back from Trimble and some feedback from you guys. There is a lot of information on here. Some of it might be a bit redundant but I think it helps to clarify each bullet point.

### New FCC Narrowband rules

Terms:           UHF Frequency Range = 410-470MHz (as it applies to RTK users)  
                  VHF Frequency Range = 150-174MHz (as it applies to RTK users)  
                  Bandwidth = The amount of frequency range required to modulate  
                  the frequency for transmission.  
                  Wideband = 25KHz bandwidth  
                  Narrowband = 12.5KHz bandwidth

Example:       461.0250MHz - 461.0500MHz is 25KHz channel spacing (these  
frequencies  
                  can still be used in radios with 25kHz bandwidth)  
                  461.0250MHz - 461.0375MHz is 12.5KHz channel spacing  
                  (these frequencies can only be used in radios employing 12.5KHz  
                  bandwidth)

- After January 1, 2011 radio manufactures cannot manufacture any wideband (25KHz) equipment in the UHF (410-470MHz) or VHF (150-174MHz) range. An applicant can no longer license wideband equipment, but can still use it as long as they have a license for wideband which was issued before January 1, 2011.
- After January 1, 2013 you cannot use (transmit) with any wideband radio equipment in the UHF 410-470MHz) or VHF 150-174MHz range.
- After January 1, 2011 the FCC will only issue new licenses on narrowband.

- Any wideband license can be renewed until January 1, 2013 if your license expires before that date. If a license with only the wideband designator expires prior to January 1 2013 it can be renewed, however if narrowband isn't added to the license when it is renewed it will not be valid after January 1, 2013.
- A license cannot be renewed until it is within 90 days of expiration.
- A license can be renewed and "modified" at the same time to have both the narrowband and wideband designation as long the renewal /modification is filed within 90 days of the expiration date. For any license expiring prior to January 1 2013 the applicant has the option of filing a modification/renewal within 90 days of the expiration date. If a license expires after January 1 2013, the licensee must modify the license to add narrowband designators before January 1 2013, then file the renewal separately once the license is within 90 days of the expiration date.
- A license that is renewed before January 1, 2013 must be "modified" to have the narrowband designation prior to 2013.--It can be renewed without modification, however the license will no longer be valid after January 1, 2013.
- If your license does not have the narrowband designation after January 1, 2013, you will NOT be FCC compliant. Even if all your equipment has been upgraded to narrowband. Your radios will be FCC compliant, but the license will not indicate this to the FCC---
- If your equipment has been upgraded to narrowband but you do NOT have the narrowband designation on your FCC license, you are NOT FCC compliant.
- By January 1, 2013 you will need to have your equipment upgraded to narrowband and using narrowband.
- Receivers with internal radio modems and radios that CANNOT be upgraded, modified, or reprogrammed from wideband to narrowband.
  - TrimMark II/IIe radios
  - Trimble 4700, 4800 Receivers
  - Pacific Crest RFM96, PDL Base or Rover Radios
- Receivers with internal radio modems and radio modems that CAN be reprogrammed from wideband to narrowband by the user with Trimble Winflash Software
  - Trimble 5700, 5800, R6, R7/R7GNSS, R8/R8GNSS.
  - TrimMark 3
- In most cases, wideband and narrowband radios are not compatible.

Regards,  
 Bryan Baker  
 V.P.- Technical Services  
 Certified Trimble Trainer