

# Part 90R Application Review Guide CASTBCK4B

## Public Safety Bands: 764-776 MHz and 794-806 MHz

### 1. Explanation of which Narrowband or Wideband channel segments the device is capable of supporting from those listed in 90.531(b), and 90.531(c).

- For Narrowband segments:

- a) Is the device capable of operating on “General Use” channels listed in 90.531(b)(5) or “State” channels listed in 90.531(b)(6)? Yes Transmit Channels 1-960, Receive Channels 961-1920
- b) Is the device ONLY capable of operating on Low Power “Regional” channels listed in 90.531(b)(3) or Low Power “Itinerant” channels listed in 90.531(b)(4)? No
- c) Is the device capable of operating on “Nationwide” Interoperability channels listed in 90.531(b)(1)? Yes

- For Wideband segments:

- d) Is the device capable of operating on Interoperability channels listed in 90.531(c)(1)?  
No, not designed to operate 50kHz channel spacing

### 2. Statement regarding the modulation capabilities of the device:

Not applicable, not a mobile or portable

- Does the device support digital Voice only, Data only, or both [see 90.547]?
- Does the device support analog voice operation [see 90.535(a)]?

Yes It does support analog voice, but rule prohibits its use. Analog operation is a secondary mode.

### 3. Verify the following Interoperability Channel Operation requirements listed in 90.531 and 90.547 for Narrowband mobile, portable, or control devices only, given the information from #1. and #2. above:

~~a) Designed for Data ONLY Operation on Nationwide, General Use or State channels - Must be capable of operating on the data interoperability channels listed in 90.531(b)(1)(i).~~

~~b) Designed for Voice ONLY Operation on Nationwide, General Use or State channels - Must be capable of operating on the nationwide and calling only interoperability channels listed in 90.531(b)(1) and (b)(1)(ii), but do not have to operate on data only channels listed in 90.531(b)(1)(i).~~

~~e) Designed for BOTH Voice and Data Operation on Nationwide, General Use or State channels - Must be capable of operating on all nationwide interoperability channels including data only and calling only channels listed in 90.531(b)(1), (b)(1)(i), and (b)(1)(ii).~~

~~d) Designed for Low Power ONLY Operation on Regional/Itinerant channels - Must operate ONLY on the data/voice channels listed in 90.531(b)(3) or (b)(4).~~

Not applicable, Base Station equipment

**4. Verify the following capability requirements for all Wideband devices only, given the information from #1. and #2. above:**

~~a) Designed for Data ONLY Operation on Nationwide Interoperability channels - Must operate on the wideband data interoperability channels listed in 90.531(e)(1).~~

~~Not applicable, not designed for wideband~~

**5. Application filing requirements for Narrowband mobile, portable or control devices only:**

~~**-Voice Operation on General Use, State, or Nationwide Voice Interoperability channels:**~~

~~a) Emission limitation (ACP) compliance for each combination of channel bandwidth and modulation for all band plans - 90.543.~~

~~b) Attestation of voice path efficiency compliance for operation on General Use and State channels only - 90.203(m) & 90.535(d).~~

~~c) Attestation of operation on Nationwide Voice Interoperability and Calling Only channels - 90.547.~~

~~-For Voice Only devices, attestation to 90.547(a)(3).~~

~~d) Attestation of compliance to Project 25 FDMA Common Air Interface (ANSI 102) standards for operation on Nationwide Voice Interoperability and Calling Only channels only - 90.548(a)(1).~~

~~e) Frequency stability compliance for all band plans - 90.539(a) & (c).~~

~~f) Transmitting power compliance for all band plans - 90.541(b) & (c).~~

~~**-Data Operation on General Use, State, or Nationwide Data Interoperability channels:**~~

~~g) Emission limitation (ACP) compliance for each combination of channel bandwidth and modulation for all band plans - 90.543.~~

~~h) Attestation of data rate efficiency compliance for General Use and State channels only - 90.535(b).~~

~~i) Attestation of operation on Nationwide Data Interoperability channels listed in 90.531(b)(1)(i) only - 90.547.~~

~~-For Data Only devices, attestation to 90.547(a)(2).~~

~~j) Attestation of compliance to Project 25 Data Overview (ANSI 102) standards for operation on data interoperability channels listed in 90.531(b)(1)(i) only - 90.548(a)(2).~~

~~k) Frequency stability compliance for all band plans - 90.539(a) & (c).~~

~~l) Transmitting power compliance for all band plans - 90.541(b) & (c).~~

~~**-Low Power Operation (mobiles and portables only) on Regional/Itinerant channels:**~~

~~m) Emission limitation (ACP) compliance for each combination of channel bandwidth and modulation for all Low Power channel band plans - 90.543.~~

~~n) Attestation of low power ONLY operation on Low Power Regional/Itinerant channels listed in 90.531(b)(3)&(b)(4) – 90.541(b)&(c).~~

~~– For Low Power Only devices, attestation to 90.547(a)(1).~~

~~o) Attestation of data rate efficiency compliance for (non-voice) data capable devices operating on Low Power Regional/Itinerant channels only – 90.535(b).~~

~~[data efficiency applies to all (non-voice) narrowband channels]~~

~~p) Frequency stability compliance for all band plans – 90.539(c).~~

~~q) Transmitting power compliance for all band plans – 90.541(d).~~

Not applicable, equipment category is Base Station

## 6. Application filing requirements for Wideband mobile, portable, or control devices only:

### ~~-Data Operation:~~

~~a) Emission limitation (ACP) compliance for each combination of channel bandwidth and modulation for all band plans – 90.543.~~

~~b) Attestation of data rate efficiency compliance for wideband data channels listed in 90.531(c) – 90.535(c).~~

~~[data efficiency applies to all (non-voice) wideband channels]~~

~~c) Attestation of Data Interoperability Channel operation for wideband data interoperability channels listed in 90.531(c)(1) only.~~

~~d) (future) Attestation of compliance to Wideband Data (ANSI 902) standards – for data interoperability channels listed in 90.531(c)(1) only – 90.548(??).~~

~~e) Frequency stability compliance for all band plans – 90.539.~~

~~f) Transmitting power compliance for all band plans – 90.541.~~

Not applicable, not designed for wideband and is a base station

## 7. All devices – other applicable sections of Part 90, Sub-Part I – Technical Requirements (90.201 – 90.219)

90.210 Done (on test report)

90.213 Meets frequency stability requirements

## 8. Encryption – optional, but must conform to standard if included:

~~a) attestation of compliance with 90.553(a) & (b) if encryption is included~~

~~– allowed on all channels except nationwide calling only interoperability channels~~

~~– user must be able to disable encryption~~

~~– includes Project 25 encryption protocol listed in 90.553(b)~~

Not applicable, not supported at this stage