

September 16, 2005

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Subject: FCC ID: BV8P7200  
Original submission

### ATTESTATION

Part 90 Subpart R Application Review

#### **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)?

Response: Yes.

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)?

Response: The device is capable of operating in the channels, as well as those specified in a) above.

c) Is the device capable of operating on "Nationwide" Interoperability channels listed in 90.531(b)(1)?

Response: Yes.

- For Wideband segments:

d) Is the device capable of operating on Interoperability channels listed in 90.531(c)(1)?

Response: No.

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

- Does the device support digital Voice only, Data only, or both [see 90.547]?

Response: Both

- Does the device support analog voice operation [see 90.535(a)]?

Response: Yes

**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).

Response: Answered in question 1. Radio is not a single mode device.

- 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).

Response: Answered in question 1. Radio is not a single mode device, and has a wide configuration flexibility to allow compliance with these rule parts.

- c) 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).

Response: Answered in question 1. Yes, when application configured as such.

- 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).

Response: Answered in question 1.

**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(c)(1).

Response: N/A

**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.

Response: Performed and reported in FCC EMC test report filed.

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

Response: N/A; applies to licensees.

c) Attestation of operation on Nationwide Voice Interoperability and Calling Only channels – 90.547. For Voice Only devices, attestation to 90.547(a)(3).

Response: Radio is capable of operation in sections cited. Answered above.

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).

Response: Radio product capable of Project 25. FCC EMC test report shows this, and emission designators indicate so.

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

Response: Yes. FCC EMC test report shows this, and emission designators indicate so.

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

Response: Yes. FCC EMC test report shows this.

**- 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.

Response: Performed and reported in FCC EMC test report filed.

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

Response: Compliant to requirements. Rates reported in FCC EMC test report filed.

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).

Response: Radio product in data mode, but is multi mode product based on application configuration. FCC EMC test report filed identifies emission designators for data mode operation.

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).

Response: Radio is Project 25 compliant.

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

Response: Yes. FCC EMC test report shows this, and emission designators indicate so.

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

Response: Yes. FCC EMC test report shows this.

**- 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*]

Response: Compliant to requirements. Rates reported in FCC EMC test report filed.

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

Response: Yes. FCC EMC test report shows this, and emission designators indicate so.

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

Response: Yes. FCC EMC test report shows this.

**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.

Response: N/A

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*]

Response: N/A

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

Response: N/A

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

Response: N/A

e) Frequency stability compliance for all band plans - 90.539.

Response: N/A

f) Transmitting power compliance for all band plans - 90.541.

Response: N/A

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

Response: Compliant to requirements. FCC EMC test report filed shows content evaluation.

**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)

Response: Radio product does include encryption and is compliant to Project 25 requirements. Encryption incorporated into product based on application configuration. Encryption is bypassed by key switch actuation with display feedback.

Thank you for your review of the product filing. M/A-COM looks forward to the use of this exciting new 700/800 MHz band product, and a timely Grant of certification.

Sincerely,



Daryl Popowitch  
Regulatory Manager,  
Engineering Project Manager

M/A-COM, Inc. – Lynchburg, VA