

## Section 2.5

G1E07 (D) [97.111]

In what part of the 13-centimeter band may an amateur station communicate with non-licensed Wi-Fi stations?

- A. Anywhere in the band
- B. Channels 1 through 4
- C. Channels 42 through 45
- D. No part

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G8C01 (C)

On what band do amateurs share channels with the unlicensed Wi-Fi service?

- A. 432 MHz
- B. 902 MHz
- C. 2.4 GHz
- D. 10.7 GHz

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G2E02 (B)

How can a PACTOR modem or controller be used to determine if the channel is in use by other PACTOR stations?

- A. Unplug the data connector temporarily and see if the channel-busy indication is turned off
- B. Put the modem or controller in a mode which allows monitoring communications without a connection
- C. Transmit UI packets several times and wait to see if there is a response from another PACTOR station
- D. Send the message, "Is this frequency in use?"

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G2E03 (D)

What symptoms may result from other signals interfering with a PACTOR or WINMOR transmission?

- A. Frequent retries or timeouts
- B. Long pauses in message transmission
- C. Failure to establish a connection between stations
- D. All these choices are correct

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G2E09 (C)

How do you join a contact between two stations using the PACTOR protocol?

- A. Send broadcast packets containing your call sign while in MONITOR mode
- B. Transmit a steady carrier until the PACTOR protocol times out and disconnects
- C. Joining an existing contact is not possible, PACTOR connections are limited to two stations
- D. Send a NAK response continuously so that the sending station must stand by

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G8B05 (D)

What is the approximate bandwidth of a PACTOR-III signal at maximum data rate?

- A. 31.5 Hz
- B. 500 Hz
- C. 1800 Hz
- D. 2300 Hz

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G8C05 (A)

In the PACTOR protocol, what is meant by a NAK response to a transmitted packet?

- A. The receiver is requesting the packet be retransmitted
- B. The receiver is reporting the packet was received without error
- C. The receiver is busy decoding the packet
- D. The entire file has been received correctly

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G8C06 (B)

What action results from a failure to exchange information due to excessive transmission attempts when using PACTOR or WINMOR?

- A. The checksum overflows
- B. The connection is dropped
- C. Packets will be routed incorrectly
- D. Encoding reverts to the default character set

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G2E10 (D)

Which of the following is a way to establish contact with a digital messaging system gateway station?

- A. Send an email to the system control operator
- B. Send QRL in Morse code
- C. Respond when the station broadcasts its SSID
- D. Transmit a connect message on the station's published frequency

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G2E13 (A)

Which communication system sometimes uses the internet to transfer messages?

- A. Winlink
- B. RTTY
- C. ARES
- D. SKYWARN

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G2E08 (D)

In what segment of the 20-meter band are most PSK31 operations commonly found?

- A. At the bottom of the slow-scan TV segment, near 14.230 MHz
- B. At the top of the SSB phone segment, near 14.325 MHz
- C. In the middle of the CW segment, near 14.100 MHz
- D. Below the RTTY segment, near 14.070 MHz

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G8A06 (C)

Which of the following is characteristic of QPSK31?

- A. It is sideband sensitive
- B. It has forward error correction
- C. The bandwidth is slightly higher than BPSK31
- D. All these choices are correct

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G8C08 (B)

Which of the following statements is true about PSK31?

- A. Upper case letters are sent with more power
- B. Upper case letters use longer Varicode symbols and thus slow down transmission
- C. Error correction is used to ensure accurate message reception
- D. Higher power is needed as compared to RTTY for similar error rates

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G8C09 (A)

What does the number 31 represent in “PSK31”?

- A. The approximate transmitted symbol rate
- B. The version of the PSK protocol
- C. The year in which PSK31 was invented
- D. The number of characters that can be represented by PSK31

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G8C12 (A)

Which type of code is used for sending characters in a PSK31 signal?

- A. Varicode
- B. Viterbi
- C. Volumetric
- D. Binary

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G8C13 (D)

What is indicated on a waterfall display by one or more vertical lines on either side of a digital signal?

- A. Long path propagation
- B. Backscatter propagation
- C. Insufficient modulation
- D. Overmodulation

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G8C14 (C)

Which of the following describes a waterfall display?

- A. Frequency is horizontal, signal strength is vertical, time is intensity
- B. Frequency is vertical, signal strength is intensity, time is horizontal
- C. Frequency is horizontal, signal strength is intensity, time is vertical
- D. Frequency is vertical, signal strength is horizontal, time is intensity

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G8A09 (A)

What type of modulation is used by the FT8 digital mode?

- A. 8-tone frequency shift keying
- B. Vestigial sideband
- C. Amplitude compressed AM
- D. Direct sequence spread spectrum

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G8A12 (B)

Which of the following narrow-band digital modes can receive signals with very low signal-to-noise ratios?

- A. MSK144
- B. FT8
- C. AMTOR
- D. MFSK32

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G2E15 (B)

Which of the following is a requirement when using the FT8 digital mode?

- A. A special hardware modem
- B. Computer time accurate within approximately 1 second
- C. Receiver attenuator set to -12 dB
- D. A vertically polarized antenna

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G2E11 (D)

Which of the following is characteristic of the FT8 mode of the WSJT-X family?

- A. It is a keyboard-to-keyboard chat mode
- B. Each transmission takes exactly 60 seconds
- C. It is limited to use on VHF
- D. Typical exchanges are limited to call signs, grid locators, and signal reports

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G2E05 (B)

What is the standard sideband used to generate a JT65, JT9, or FT8 digital signal when using AFSK in any amateur band?

- A. LSB
- B. USB
- C. DSB
- D. SSB

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G8C02 (A)

Which digital mode is used as a low-power beacon for assessing HF propagation?

- A. WSPR
- B. Olivia
- C. PSK31
- D. SSB-SC

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