Technician Question Pool July 2022 to June 2026

The MORE Project

http://n2re.org/m-o-r-e-project



Amateur Radio Signals No-Nonsense pages 65 - 67 Digital Modes: packet, PSK31

Using the digital modes, a radio transceiver can modulate a carrier wave with binary data signal (from a computer or microprocessor) in order to transmit a message. For receiving the message, the transceiver removes the carrier and provides an output signal that is translated by the digital hardware and software into binary data.



FCC Tech 7/22 to 6/26 Digital Modes

Which of the following is a digital communications mode?

A. Packet radio
B. IEEE 802.11
C. FT8
D. All of these choices are correct



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q1 of 10

Which of the following is a digital communications mode?

- A. Packet radioB. IEEE 802.11C. FT8
- **D. All of these choices are correct**



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A1 of 10

Which of the following is included in packet radio transmissions?

A. A check sum that permits error detection
B. A header that contains the call sign of the station to which the information is being sent
C. Automatic repeat request in case of error
D. All of these choices are correct



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q2 of 10

Which of the following is included in packet radio transmissions?

A. A check sum that permits error detection
B. A header that contains the call sign of the station to which the information is being sent
C. Automatic repeat request in case of error
D. All of these choices are correct



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A2 of 10

What is an ARQ transmission system?

- A. A special transmission format limited to video signals
- B. A system used to encrypt command signals to an amateur radio satellite
- C. An error correction method in which the receiving station detects errors and sends a request for retransmission
- D. A method of compressing the data using autonomous reiterative Q codes prior to final encoding



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q3 of 10

What is an ARQ transmission system?

- A. A special transmission format limited to video signals
- B. A system used to encrypt command signals to an amateur radio satellite
- C. An error correction method in which the receiving station detects errors and sends a request for retransmission
- D. A method of compressing the data using autonomous reiterative Q codes prior to final encoding



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A3 of 10

Which of the following is an application of APRS?

- A. Providing real-time tactical digital communications in conjunction with a map showing the locations of stations
- B. Showing automatically the number of packets transmitted via PACTOR during a specific time interval
- C. Providing voice over internet connection between repeaters
- D. Providing information on the number of stations signed into a repeater



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q4 of 10

Which of the following is an application of APRS?

- A. Providing real-time tactical digital communications in conjunction with a map showing the locations of stations
- B. Showing automatically the number of packets transmitted via PACTOR during a specific time interval
- C. Providing voice over internet connection between repeaters
- D. Providing information on the number of stations signed into a repeater



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A4 of 10

What kind of data can be transmitted by APRS?

- A. GPS position data
- **B.** Text messages
- C. Weather data
- D. All of these choices are correct



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q5 of 10

What kind of data can be transmitted by APRS?

- A. GPS position data
- B. Text messages
- C. Weather data
- **D. All of these choices are correct**



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A5 of 10

What does the abbreviation "PSK" mean?

A. Pulse Shift KeyingB. Phase Shift KeyingC. Packet Short KeyingD. Phased Slide Keying



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q6 of 10

What does the abbreviation "PSK" mean?

A. Pulse Shift Keying
B. Phase Shift Keying
C. Packet Short Keying
D. Phased Slide Keying



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A6 of 10

Which of the following describes DMR?

A. A technique for time-multiplexing two digital voice signals on a single 12.5 kHz repeater channel
B. An automatic position tracking mode for FM mobiles communicating through repeaters
C. An automatic computer logging technique for hands-off logging when communicating while operating a vehicle
D. A digital technique for transmitting on two repeater inputs simultaneously for automatic error correction



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q7 of 10

Which of the following describes DMR?

A. A technique for time-multiplexing two digital voice signals on a single 12.5 kHz repeater channel
B. An automatic position tracking mode for FM mobiles communicating through repeaters
C. An automatic computer logging technique for hands-off logging when communicating while operating a vehicle
D. A digital technique for transmitting on two repeater inputs simultaneously for automatic error correction



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A7 of 10

Which of the following operating activities is supported by digital mode software in the WSJT-X software suite?

- A. Earth-Moon-Earth
- **B. Weak-signal propagation beacons**
- C. Meteor scatter
- D. All of these choices are correct



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q8 of 10

Which of the following operating activities is supported by digital mode software in the WSJT-X software suite?

- A. Earth-Moon-Earth
- **B. Weak-signal propagation beacons**
- C. Meteor scatter
- **D. All of these choices are correct**



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A8 of 10

What is FT8?

- A. A wideband FM voice mode
- B. A digital mode capable of low signal-to-noise operation
- C. An eight channel multiplex mode for FM repeaters
- D. A digital slow scan TV mode with forward error correction and automatic color compensation



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q9 of 10

What is FT8?

A. A wideband FM voice mode

B. A digital mode capable of low signal-to-noise operations

C. An eight channel multiplex mode for FM repeaters
 D. A digital slow scan TV mode with forward error
 correction and automatic color compensation



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A9 of 10

Which of the following best describes an amateur radio mesh network?

- A. An amateur-radio based data network using commercial Wi-Fi equipment with modified firmware
- B. A wide-bandwidth digital voice mode employing DRM protocols
- C. A satellite communications network using modified commercial satellite TV hardware
- D. An internet linking protocol used to network repeaters



FCC Tech 7/22 to 6/26 Digital Modes ARS2 Q10 of 10

Which of the following best describes an amateur radio mesh network?

- A. An amateur-radio based data network using commercial Wi-Fi equipment with modified firmware
- B. A wide-bandwidth digital voice mode employing DRM protocols
- C. A satellite communications network using modified commercial satellite TV hardware
- D. An internet linking protocol used to network repeaters



FCC Tech 7/22 to 6/26 Digital Modes ARS2 A10 of 10



A non-profit initiative by the IEEE and ARDC to increase the numbers of youth (12-18) and non-males in Amateur Radio. Participants earn FCC licenses and receive free 2-way radios.

For MORE information: n2re.org/m-o-r-e-project Dr. Rebecca Mercuri, Grant Administrator, rtmercuri@ieee.org

