

Robert AK3Q

Here are some of the latest mobile offerings and a bit of description. I have left out the common 2m/440 type radios, not because they are not good or worthwhile, but just to emphasize here some of the new technology which has come about in the last year or two. Several are included not because they are new, but because of the price points they represent

The **Alinco DR-B185HT** 2 Meter FM amateur transceiver has a big **85 watts** of power. It transmits from 144-147.995 MHz and has receive coverage from 136-173.995 MHz. It features alphanumeric display (up to seven characters). Two power outputs (85/5 watts) are available. CTCSS encode and decode are standard as well as Wide/Narrow operation. This radio delivers power, flexibility and performance in a small package. The DR-B185HT comes with: EMS-57 DTMF Hand Mic, mobile bracket, DC cord and mounting hardware. 6.44 x 1.73 x 7.21 inches 3.31 lbs. Requires 13.8VDC at 20 Amps.

The **Icom IC-2730A** 2m/440 dual band mobile offers a large white background LCD screen. Independent VHF and UHF bands support crossband repeat as well as V/V and U/U simultaneous receive. There are [independent controls](#) for each band. 50-watt output is available on both bands. Power can be selected at 50, 15 and 5 watts. Enjoy 1000 memory channels, 2 call channels, 50 program scan edges memories. Wideband receive coverage is 118-137 [AM mode], 137-174 and 375-550 MHz. Exciting options include UT-133 Bluetooth unit and VS-3 Bluetooth ear-piece microphone.

Enter the world of Digital Radio with the **Icom ID-880H** 2m/440 dual band mobile. The ID-880H can transmit and receive D-STAR format digital voice and 950 bps data communication, simultaneously. Analog FM mode is also available. Output power may be selected at 50, 15 or 5 watts. The receive range (USA version) is: 118-173.995, 230-549.995, 810-823.990, 849-868.990 and 894-999.990 MHz. Supported modes include: FM, AM (receive only) and DV. You get 1052 memory channels in 26 banks, with 8-character channel names (\$250 after rebates)

The **Icom ID-5100A** 2m/440 dual band mobile offers next generation D-Star capability. It features a large LCD touch screen. Independent VHF and UHF bands support VV and UU capabilities and even DV dual watch. 50 watt output is available on both bands. Enjoy 1000 memory channels, 4 call channels, 50 program scan edges, and 1200 repeater memories. Wideband receive coverage is 118-137 [AM mode], 137-174 and 375-550 MHz. Other enhancements include: SD card slot for voice & data storage, D-PRS enhancements, TNC/9600 bps modem connectivity, built-in GPS (inside controller) and supplied HM-207

control microphone. Exciting options include UT-133 Bluetooth unit and VS-3 Bluetooth ear-piece microphone.

GPS built right into the head. You will have a full 50/10/5 watts on *both* VHF and UHF. Key features include: internal clock for APRS® (Automatic Packet/position Reporting System) time and date stamp, APRS sort function, APRS filter function, APRS QSY function, APRS decay algorithm, APRS, proportional pathing, APRS voice alert, EchoLink ready, NOAA weather, 1000 memories and a sound card interface is built in. Versatile message with 100 messages (up to 67 characters each) is supported. There is also a NMEA 0183 GPS I/O port. And it can be employed as part of Kenwood's Skycommand System II+ when used with the TS-2000 series.

The **TYT TH9000D VHF** FM mobile transceiver covers 136 to 174 MHz. It has rugged design and an easy-to-read display. The transmitter delivers 60, 25 or 10 watts of output. Features include: 1750Hz Tone, CTCSS/DCS setting & scanning, 0-9 SQL grade setting, Frequency/Channel scanning, Repeater offset shift, Keypad lock, Battery voltage display, DTMF/2 tone/5 tone, Wide/Narrow band setting, Busy Channel Lock-Out, Reverse frequency, Voice prompt, Time-out Timer and Auto Power off. Supported VFO steps are: 5/6.25/10/12.5/20/25/50kHz

The **TYT TH9000D 220** FM mobile transceiver covers 200 to 260 MHz. It has rugged design and an easy-to-read display. The transmitter delivers 50, 25 or 10 watts of output. Features include: 1750Hz Tone, CTCSS/DCS setting & scanning, 0-9 SQL grade setting, Frequency/Channel scanning, Repeater offset shift, Keypad lock, Battery voltage display, DTMF/2 tone/5 tone, Wide/Narrow band setting, Busy Channel Lock-Out, Reverse frequency, Voice prompt, Time-out Timer and Auto Power off. Supported VFO steps are: 5/6.25/10/12.5/20/25/50kHz.

The **TYT TH9800+** FM mobile transceiver covers 10 meters, 6 meters, 2 meters and 70 cm (440 MHz). Transmit coverage includes: [Left] 26-33, 47-54, 134-174 and 400-480 MHz. [Right] 134-174 and 400-480 MHz. Supported VFO steps are: 2.5/5/6.25/7.5/8.33/10/12.5/15/25/30/50/100 kHz. This radio has 800 standard memories (001-800), 5 pairs of band-edge memories (L1/U1 to L5/U5), 6 home channels and 6 hyper-memory channels (recalled by A-F keys).

The **Yaesu FT-8900R** quad bander gives you incredible power and flexibility on the road. Operate 10 meters, 6 meters, 2 meters and 70 centimeters. High power output is featured with 50 watts on 10, 6 and 2 meters and 35 watts on 430 MHz. It is like having two radios in one with dedicated Volume and Squelch controls on each side. Built in features include: duplexer and CTCSS/DCS Encode/Decode. Over 800 memories are available. It is [WiRES](#) compatible.

The **Yaesu FTM-100DR** dual band mobile transceiver operates on 2 meters and 70 centimeters. The new FTM-100DR provides four modes:

❖ **V/D mode** is Voice and Data communication in the same time frame. Stable and reliable digital voice and data communications are maintained using extraordinarily strong error correction capabilities. This mode will be the basic mode of C4FM FDMA Digital HAM radio.

❖ **Voice FR mode** uses the full rate of data capacity for voice data. This mode enables you to transfer clear, high quality voice data.

❖ **Data FR mode** uses the full rate of data capacity for transferring data. This mode enables you to transfer large amounts of data, text messages, images, and voice memo data with double speed in V/D mode.

❖ **Analog FM mode** is effective when weak signal strength causes audio drop out in the digital mode, and enables communication up to the borderline of the noise level.

The radio features an *Automatic Mode Select (AMS)* function to identify these four modes and select them *automatically* when the radio receives a signal!

Power is selectable at 50, 20 or 5 watts on either band. Enjoy very wideband receive from 108-470 and 800-999 MHz (less cellular). Four scan modes are supported: VFO, Memory, Programmable Memory or Selected Memory. 500 Memories per VFO are available. Each memory can store: frequency, mode, tag, repeater information, tone, DCS, antenna squelch information, memory skip information and transmission output. There is a port for a microSD card. The control head is removable and a 10 foot remote cable is supplied (19.6 foot optional).

The **Yaesu FTM-400DR** dual band mobile transceiver operates on 2 meters and 70 centimeters. The new FTM-400DR provides four modes:

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❖ **Data FR mode** uses the full rate of data capacity for transferring data. This mode enables you to transfer large amounts of data, text messages, images, and voice memo data with double speed in V/D mode.

❖ **Analog FM mode** is effective when weak signal strength causes audio drop out in the digital mode, and enables communication up to the borderline of the noise level.

The radio features an *Automatic Mode Select (AMS)* function to identify these four modes and select them *automatically* when the radio receives a signal! Power is selectable at 50, 20 or 5 watts on either band. Enjoy very wideband receive from 108-470 and 800-999 MHz (less cellular). Four scan modes are supported: VFO, Memory, Programmable Memory or Selected Memory. 500 Memories per band are available. Each memory can store: frequency, mode, tag, repeater information, tone, DCS, antenna squelch information, memory skip information and transmission output. The screen background may be

set to any of 5 colors (green, blue, orange, purple or gray). The FTM-400DR can capture images and video by connecting a USB camera (not supplied) and transmit and receive them. There is a port for a microSD card.

The **Yaesu FTM-3100R** is a ruggedly built, compact FM 2 meter mobile transceiver, providing up to 65 Watts to ensure stable long-distance communications. The front firing speaker delivers 3 Watts of loud and clear audio, even in noisy environments. And you get 220 alphanumeric memories: 199 “Regular” memories, one “Home” channel for a favorite frequency or repeater pair, and 10 sets of band-edge memories. And you can quickly select channels while in the *Memory Only Mode*. The supplied hand mic has four programmable keys for one-touch access to your favorite commands such as “Recall Home Channel,” “Scan Operation,” “Set the TX Power,” and “Open Squelch.” The commands available with the microphone replicate the corresponding front panel functions.

Other features include: CTCSS/DCS encode/decode with split Tone and DCS encode-only capability, RF Squelch, Transmit Time-Out-Timer (TOT), Automatic Power-Off (APO), Automatic Repeater Shift (ARS), Busy Channel Lock-Out (BCLO), Separate Transmit Frequency Memories (“Odd Splits”) and a bright multi-colored LED on the faceplate that indicates the transceiver's status with a two-color combination on the upper and lower portions.

The **Yaesu FTM-3200DR** is a ruggedly built, compact C4FM/FM 2 meter mobile transceiver, providing up to 65 Watts to ensure stable long-distance communications. The front firing speaker delivers 3 Watts of loud and clear audio, even in noisy environments. And you get 220 alphanumeric memories: 199 “Regular” memories, one “Home” channel for a favorite frequency or repeater pair, and 10 sets of band-edge memories. And you can quickly select channels while in the *Memory Only Mode*. The supplied hand mic has four programmable keys for one-touch access to your favorite commands such as “Recall Home Channel,” “Scan Operation,” “Set the TX Power,” and “Open Squelch.” The commands available with the microphone replicate the corresponding front panel functions.

Other features include: CTCSS/DCS encode/decode with split Tone and DCS encode-only capability, RF Squelch, Transmit Time-Out-Timer (TOT), Automatic Power-Off (APO), Automatic Repeater Shift (ARS), Busy Channel Lock-Out (BCLO), Separate Transmit Frequency Memories (“Odd Splits”) and a bright multi-colored [status LED cluster](#).

While the new FTM-3200DR is a solid and durable transceiver in keeping with Yaesu’s legendary mechanical toughness, it also incorporates new technology such as Automatic Mode Select (AMS), one of the most advanced features of *System Fusion*. The AMS mode instantly recognizes whether a transmission is digital or analog, and appropriately switches the operating mode to allow flawless co-existence of both digital and analog users. The versatile FTM-3200DR transceiver also utilizes the ever-popular [Digital Group Monitor \(GM\)](#) function; a terrific asset allowing users to see at a glance if registered members of a group are within

communication range. A front panel LED indicates the transceiver's mode of operation with the received signal indicated by Blue for digital C4FM or Green for analog FM.

DV4 New Radio

It operates in the 2 meter band, at 222 MHz and the 70cm band.

All modes are supported: C4FM, D-Star, DMRplus, dPMR, P25 (NXDN later via software update) Voice over LTE and of course, FM!

C4FM both narrow and wide band modes

D-Star (DCS,CCS,REF,XRF,XLX)

DMRplus (TS1 all / TS2 Reflectors or talkgroups)

dPMR(All Systems and codecs transparent mode)

P25(Phase 1 Only and all NAC transparent mode)

FM with PL and DCS tones and RDS for call sign transmission in the background

DV4LTE is a new voice over LTE mode that connects the radio to the reflector using an LTE connection.

The LTE modem connects to the CCS7 reflector system supplying codeplugs in the cloud, there is no need to program codeplugs any more. Any changes in the network, be it on the reflector, repeater or user side are instantly updated. Private settings such as local channels can be maintained on the web.

After a reset or with a new radio all settings are downloaded after entry of the CCS7 number.

When no repeaters are in range, the radio can revert to LTE (DV4LTE) for reflector connection (i.e. between metropolitan areas)

The GPS module provides location data for APRS and automatic display of repeaters in range.

When a repeater is selected, frequency and mode is already in the radio, no programming!

Simplex repeater mode

The DV4mobile can also be used as a dual band, dual mode simplex repeater.

For example you can use it as a D-Star repeater on 2m and simultaneously as a DMR repeater on 70cm while conducting FM QSO on 222 MHz (USA version only)