

Amateur Division

PRODUCT BULLETIN

No: 13-0919

Introducing the System Fusion for the Future Amateur Radio Communication

September 19, 2013

We are pleased to announce our exciting new Digital operating system, *System Fusion*, with attractive full-featured Dual Band C4FM / FDMA Digital products including our FT1D Handheld Transceiver, FTM-400D Mobile Transceiver and our Digital Repeater, DR-1. We are certain that the many useful and easy-to-use *System Fusion* features will be expanding your enjoyment of VHF & UHF Amateur Radio Communications.

Fact - Amateur Radio operators are always looking for diverse ways to enjoy radio communications. *System Fusion* is the perfect platform to feed their desire because it brings the right digital solutions to the Amateur VHF & UHF bands. Compared to other Digital modulation methods within FDMA, C4FM is recognized as producing superior audio quality. Equally as important, C4FM provides better reception while you are on the move or receiving challenging weak signals thanks to its better BER (Bit Error Rate) characteristics. C4FM is the principle mode used by professional communication devices in FDMA and is expected to continue to be the leading mode for digital radio communications long into the future.

However, we want you to know that we also strongly believe that conventional analog FM has a number of excellent features that continue to provide substantial advantages over digital modulations, such as low battery consumption and greater distance capability. Therefore, analog FM communications will continue to be the primary method for communication on the VHF & UHF Amateur Radio bands. *System Fusion* recognizes the continued need for existing conventional analog FM by including a *FM Friendly* interface; our uniquely flexible DR-1 Repeater that accepts signals from analog FM and FDMA / C4FM digital communication users.

Since introducing our FT1D Handheld Transceiver in June of this year, many Amateur Radio operators have already recognized and enjoyed clear and crisp voice communications provided through C4FM digital communications. It is not just the wonderful audio, though, that makes *System Fusion* the best Amateur Radio digital communications system. *System Fusion* is a full 12.5 kHz bandwidth system that includes the ability to transfer reliable high-speed data communications such as text messages, images, and voice memo data – the uses for these impressive features are limited *only by your imagination!*

System Fusion opens the door to an entirely new era of Digital Communications bringing Amateur Radio communication possibilities that were never possible with other digital solutions in the past.

System Fusion Key Features

Snapshot Function

Simply connect a MH-85A11U (option) microphone with camera to easily take snapshots. The image data can then be displayed on your screen as well as easily be sent to other C4FM / FDMA digital transceivers. This image data also retains a time record and the GPS location data of the snapshot.

AMS (Automatic Mode Select)

System Fusion radios operate in three digital modes and one analogue mode; V/D mode (Voice/Data simultaneous communication mode), Voice FR mode (Voice Full Rate Mode), Data FR mode (High Speed Data Communication Mode), and Analog FM mode. The radios identify these four modes and select from them automatically when receiving a signal.

Digital Group Monitor (GM) Function

The digital GM function automatically checks whether members registered to a group are within communication range, and displays information such as the distance and orientation for each call sign on the screen. This function can be used to send message and image data between group members.



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Smart Navigation Function

In digital V/D mode, information such as position data is transmitted together with voice signals so the distance and direction to the other stations can be displayed in real-time while communicating with them. (Real-time navigation function) And when hiking or camping, at the touch of button, you can register your starting point or campsite before departure. The distance and orientation from your current location are then displayed on the screen. (Backtrack function)

System Fusion Product Line-up and Delivery Schedule

FT1D: Full-featured C4FM / FM Compatible Dual Band Portable Delivery Schedule: Already available through USA and Canadian Dealers

FTM-400D: Full-featured C4FM / FM Compatible Dual Band Mobile Delivery Schedule: Already available through USA and Canadian Dealers

DR-1: Full-featured C4FM / FM Compatible Dual Band Repeater/Base station Delivery Schedule: November 2013

HRI-200: Internet Interface device. Delivery Schedule: November 2013



We believe that *System Fusion* makes important contributions that move Amateur Radio smoothly forward employing VHF and UHF digital communications opportunities while not carelessly discarding tens of thousands of Amateur Radio operators who currently use analog FM communications products purchased with their hard-earned money. We excitedly anticipate widespread *System Fusion* system acceptance.

Very truly yours,

Dennis Motschenbacher K7BV

Executive Vice President Amateur Radio Sales YAESU USA