YAESU DR-2X/DR-2XE is a C4FM digital / Conventional FM dual mode and dual-Receive/Dual-Transmit capable repeater that covers the VHF and UHF amateur radio bands.
YAESU DR-2X/DR-2XE provides continued use of conventional FM communication while integrating the use of digital communication functions through its unique AMS capability.

144 / 430 MHz Dual Band Dual Receive and Transmit C4FM / FM Digital Repeater

C4FM Clear and Crisp Voice Technology

AMS Automatic Mode Select

DR-2X

USA, Asian and Australian versions

DR-2XE

European version

Supplied Accessories: AC cable (USA, Asia only), DC cable, PC connection cable SCU-20, Rubber Feet (4)

DR-2X / DR-2XE Features

- **Modulation Modes: Conventional FM, C4FM Digital (V/D Mode, VFR Mode, DFR Mode)*1**
- **AMS (Automatic Mode Select) function automatically recognizes the signal as C4FM digital or conventional FM signal**
- **3.5-inch Full Color Touch panel Operation**
- **Extremely reliable, high RF Output Power: 50 W/20 W/5 W**
- **Emergency Operation: Supports auto-switched backup battery power operation (USA and Asian versions)**
- **Front panel microphone connector is provided for use in repeater transmitter testing and enables use as a base station**

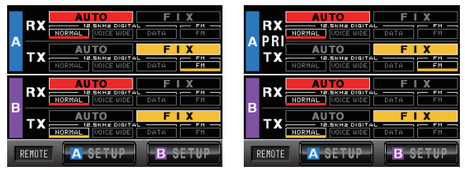
In addition to the current features of the DR-1X, DR-2X has the advanced features:

- **Two Frequencies Operation : Dual Receive / Dual Transmit Function (DRDT)**
- **MSRL (Multi Site Repeater Link) Function for Easy Coverage Expansion**
- **New and improved "News Station" Feature for Easy sharing of the voice and text messaging**
- **Enhanced Group Monitor Feature for Easy Grouping Set-up (DG-ID, DP-ID)**

*1 System Fusion is not compatible with the D-STAR GMSK digital format.

Dual Receive/Dual Transmit Function (DRDT)

The unique Receiver, Transmitter and controller combination in the DR-2X/DR-2XE allows the control operator to assign up to two frequency pairs per repeater. This feature enables two separate dual-band inputs and outputs per single DR-2X/DR-2XE repeater, allowing even more methods of access.

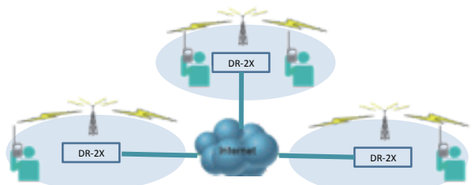


DRDT (No Priority)

DRDT (Priority Set with Freq.-A)

MSRL (Multi Site Repeater Link) Function

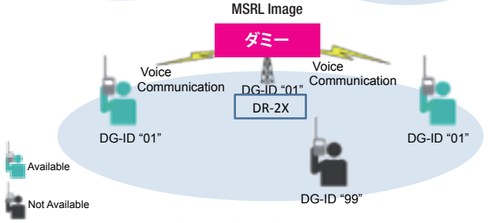
The MSRL (Multi Site Repeater Link) allows the repeater operator to link multiple repeaters over a Wide-Area-Network (WAN) or Local-area-network (LAN) across short or long distances. Realizing the reliability shortcomings inherent with WAN (Wide Area Networking) such as the internet, the new DR-2X/DR-2XE incorporates direct connectivity into a variety of networking environments to provide high quality Digital and Analog communications even when "All Else Fails" .



MSRL Image

Enhanced Group Monitor Feature

Yaesu's revolutionary Group Monitor feature allows you to track multiple resources quickly and efficiently by displaying telemetry and signal strength information of other group members that share the same Digital Group Identification number.



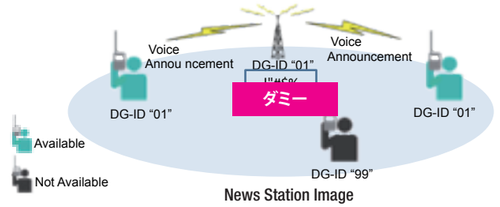
Enhanced Group Monitor Image

* DG-ID (Digital Group Identification)
A Group ID of 0 to 99 can be assigned to operators to participate in group communications.

* DP-ID (Digital Personal Identification)
A unique ID can be assigned to each radio for individual operator identification.

New and improved "News Station" Feature

Quickly store and retrieve digital audio and text messages for groups or individual operators that can be accessed on demand, any time of the day.



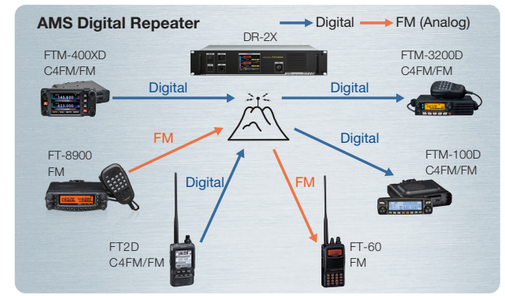
News Station Image

C4FM Excellent Communication Quality

C4FM modulation has better BER (Bit Error Rate) characteristics compared to other Digital modulation systems. The YAESU C4FM digital clear voice technology and 12.5 kHz bandwidth permits high quality voice communication, providing superb clear and crisp voice characteristics.

FM friendly Digital by AMS (Automatic Mode Select)

System Fusion enables interconnection between all users of the different modes. This is made possible in System Fusion by AMS.
AMS function automatically recognizes the signal as C4FM digital or conventional FM signal, and then the DR-2X/DR-2XE transmits the signal using the preset communication mode.

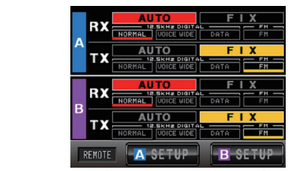


Installation Examples of Repeater Set-up

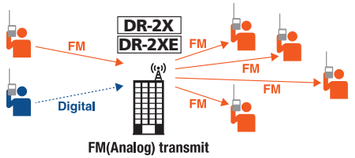
Replacing Existing conventional FM Repeater

When replacing an existing conventional FM repeater, AMS on the receiver side is set to AUTO mode and AMS on the transmitter side is set to FM FIX mode. If the DR-2X/DR-2XE repeater receives C4FM Digital signals, It converts them, and retransmits them in conventional FM automatically.*2

*2 C4FM digital signals are converted to FM signals in the repeater. Therefore, digital information such as GPS data included in the C4FM digital signals is not transmitted.



AMS receive → FM transmit

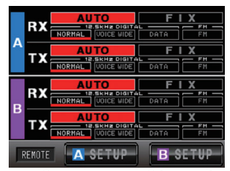


FM(Analog) transmit

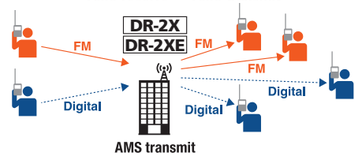
New Repeater set-up for C4FM Digital and conventional FM

AMS is set to AUTO mode on both the receiver and transmitter sides. DR-2X/DR-2XE transmits received conventional FM signals unchanged as conventional FM signals, and transmits received C4FM digital signals unchanged as C4FM digital signals.*3

*3 When this setting is used, members using transceivers that are not equipped with the C4FM and AMS function cannot receive digital transmitted signals.



AMS receive → AMS transmit



AMS transmit

OPTIONS

DTMF Microphone	Normal Microphone	Voice Guide Unit
MH-48A6JA	**MH-42C6J**	**FVS-2**

User Friendly Set-up (3.5-inch Full Color Touch Panel Operation)

The large front panel, color touch-screen permits convenient configuration of the transmitter and receiver frequencies, transmit power output and AMS functions.

Advanced Operation

The rear panel Control I/O port is connectable with the "S-COM 7330" repeater controller. This controller can manage a maximum of three (3) DR-2X/DR-2XE units providing control of the programmable beep, timer, access mode and other features.

Other Features

- Internal AC power supply
- 19" Rack Mount Available
- High Stability ±2.5ppm TCXO Included
- DSQ (Digital Squelch Code) Signaling Feature
- CTCSS and DCS Signaling Feature
- ID announcement Feature (Voice Mode: Requires FVS-2)
- Base Station Operation
- TOT (Time Out Timer)
- Firmware Updates

WIRES-X

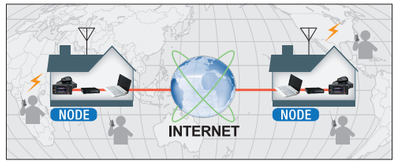
HRI-200 Features

- **Available C4FM digital communication**
- **High quality voice communication by using C4FM digital**
- **Valued features enabled by C4FM digital functions**

Convenient and easy-to-use digital function, advanced VoIP wireless WIRES-X

AMATEUR RADIO INTERNET LINKING KIT

HRI-200

C4FM Clear and Crisp Voice Technology

(USB Cable and Data Cable CT-174(MDIN10 pin to MDIN10 pin)/ CT-175(MDIN10 pin to MDIN6 pin)included