

WIRES-X Portable Digital node station

Using the WIRES-X Portable Digital Node function, you can operate a WIRES-X digital node station by directly connecting a Portable Digital Node capable C4FM digital transceiver with the PC. The HRI-200 Internet interface kit is not needed, and no fixed or dynamic global IP address is required.)

WIRES-X Portable Digital node function

There are two operating modes of the WIRES-X Portable Digital Node function:

Portable Digital Node Mode

capable of Internet communication only with C4FM digital nodes and rooms.

Portable HRI Mode

capable of Internet communication with both C4FM Digital and Analog nodes and rooms.

1.Portable Digital Node Mode (Supports Internet communication only in C4FM Digital Mode)

Requires a Yaesu C4FM Portable Digital Node capable transceiver (FT5D, FT3D, FT2D, FTM-400XD, FTM-300D, FTM-200D,FTM-100D: as of 8/2021 or Firmware update, FTM-400D: Requires Firmware update) a USB Connection Cable and a PC with WIRES-X Software and Internet connection. Two forms of WIRES-X Access are supported, “**Access Point Operation**” and “**Direct Operation**”.

In “**Access Point Operation**” the Portable Node station can be used to communicate “On Air” and relay nearby local C4FM digital transceivers, while simultaneously connected with the Internet WIRES-X digital rooms and digital node stations.

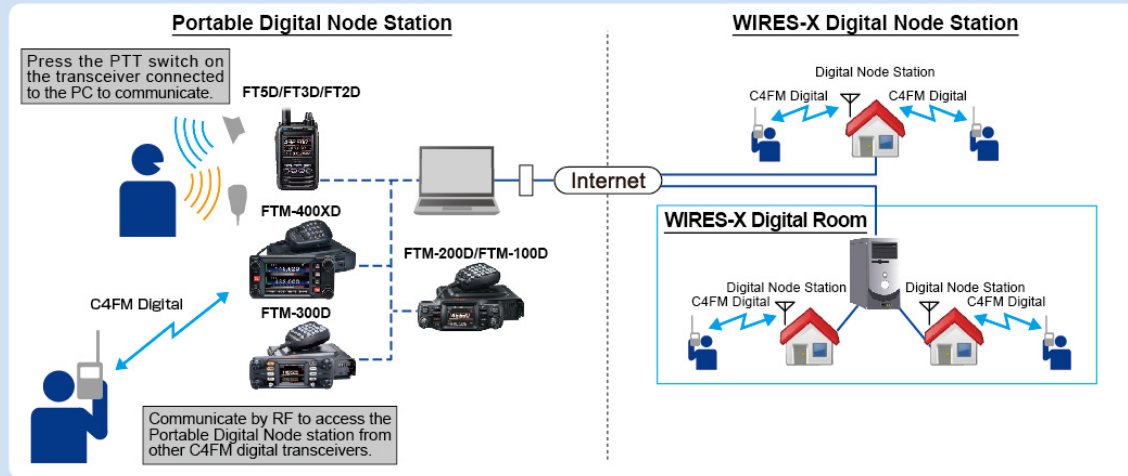
In “**Direct Operation**”, the Portable Node station transceiver is used only for WIRES-X internet communications without transmitting or receiving local “On Air” radio signals.

• **Access Point Operation**

In this mode, WIRES-X C4FM communications are made by either directly using the USB connected Portable Digital Node Station transceiver PTT, microphone, and speaker, or via another local C4FM transceiver communicating on frequency with the USB connected Portable Digital Node Station. The Portable Digital Node Station transceiver connects directly to the PC and the internet, and then communicates with WIRES-X Nodes and Rooms.

The Portable Digital Node Station transceiver relays the local C4FM stations and signals to the internet and transmits the internet Node and Room signals to the local stations. This mode allows the flexibility to operate the Portable Digital Node directly from a single USB connected Digital Node Station transceiver, or to access WIRES-X Nodes and Rooms from one or several local C4FM transceivers.

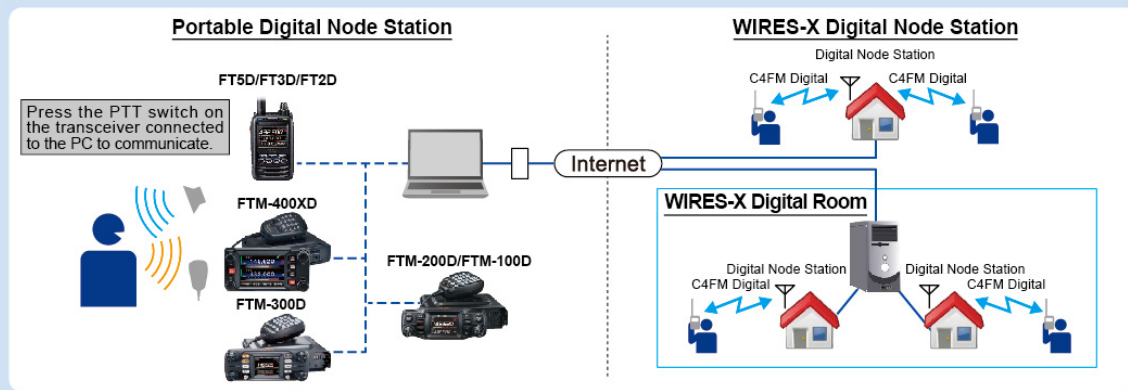
Access Point (Portable Digital Node Mode) Illustration



• Direct Operation

In this mode, WIRES-X C4FM communications are made directly by using the USB connected Portable Digital Transceiver Node Station. The microphone signal is sent only to the PC and the Internet. The Internet signals are heard only in the Portable Digital Node Station speaker. In this Direct Operation, the Portable Digital Node Station transceiver does not transmit or receive over the air.

Direct Operation (Portable Digital Node Mode) Illustration



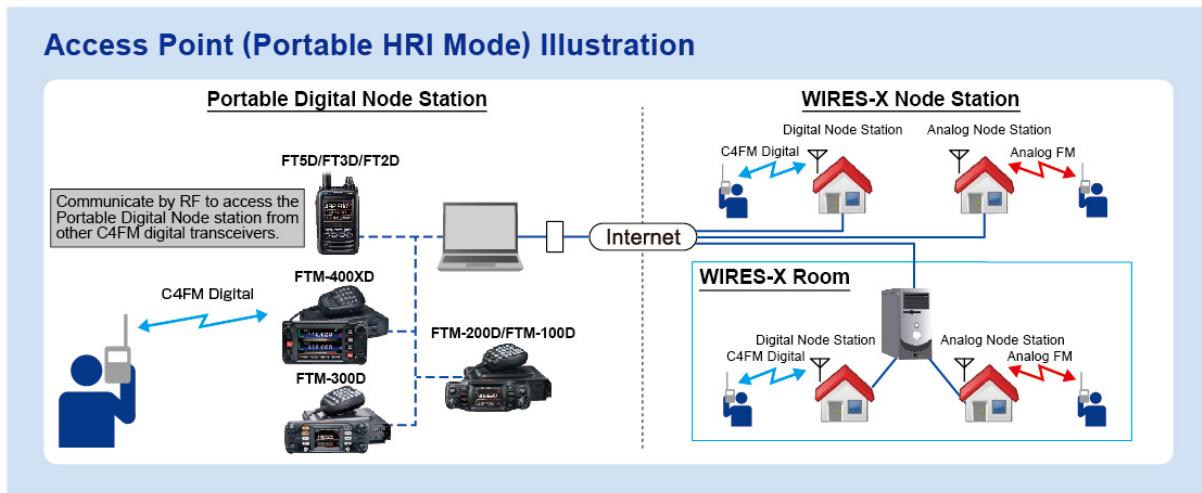
2. Portable HRI Mode (Supports Internet communication in both C4FM Digital Mode and Analog Mode)

Requires a Yaesu C4FM Portable Digital Node capable transceiver, a USB Connection Cable, audio cable and a PC with WIRES-X Software and Internet connection. (The HRI-200 interface is not used)

In the Portable HRI Mode configuration, either the Access Point operation or the Direct operation may be activated:

- **Access Point Operation (Portable HRI mode)**

In this mode, WIRES-X C4FM and Analog communications are made via another local C4FM transceiver communicating on frequency with the USB connected Portable Digital Node Station. The Portable Digital Node Station transceiver relays the local C4FM and Analog signals to the internet and transmits the internet Node and Room signals to the local stations. This Access Point operation allows the flexibility to operate the Portable Digital Node to access WIRES-X Nodes and Rooms from one or several local C4FM transceivers.

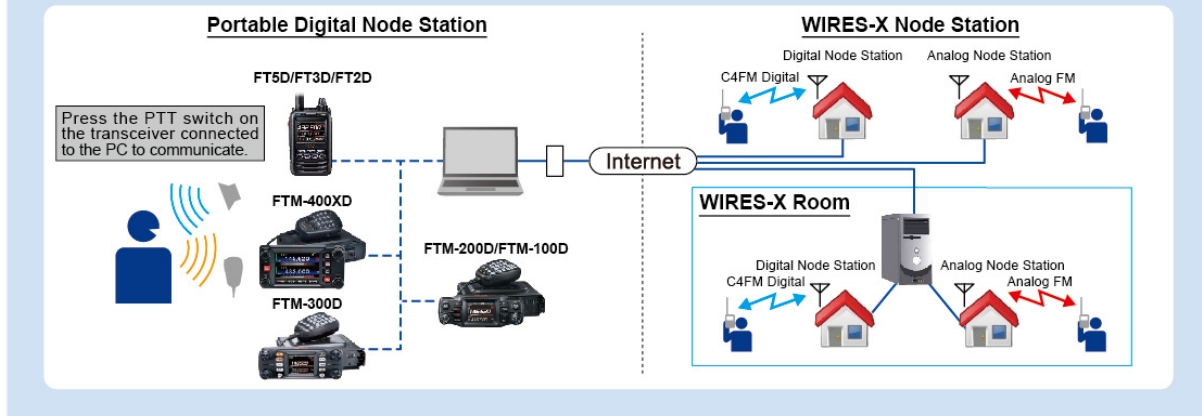


- **Direct Operation (Portable HRI mode)**

In this mode, you can communicate in digital mode or analog mode via the Internet. WIRES-X communications are made directly by using the USB connected Portable Digital Node Station Transceiver.

The microphone signal is sent only to the PC and the Internet. The Internet signals are heard in the Portable Digital Node Station transceiver speaker. (when communicating in "Direct Operation" on "Portable HRI mode" using FT5D, FT3D, FT2D, the Internet signals are heard only from the PC speaker.) In this Direct Operation, the Portable Digital Node Station transceiver does not transmit or receive over the air.

Direct Operation (Portable HRI Mode) Illustration



* With the WIREX Portable Digital Node function, you cannot operate a WIREX Room (Including a digital room) or use the remote-control function from the outside.

WIREX Portable Digital Node Function Instruction Manual

[\(Click here to download the Manual\)](#)

Required preparation and equipment

User registration (Obtain an ID number)

Please register the WIREX ID for the Portable digital node station

Here is the link for the WIREX registration:

<https://www.yaesu.com/jp/en/wires-x/index.php>

For multiple radios you must create multiple accounts. You can reuse the e-mail address and password, but the user name must be unique, for example: N8UKFMike1, N8UKFMike2, etc. *

Transceivers supported for Portable digital node station operation

(As of Feb. 2022)

- FT5D
- FT3D(or Firmware update)
- FT2D (or Firmware update)
- FTM-400XD (or Firmware update)
- FTM-400D (Requires Firmware update)
- FTM-300D

- FTM-200D
- FTM-100D (or Firmware update)

The latest WIRES-X Software and Transceiver Firmware

- WIRES-X Software : Ver.1.540 or later
- FT5D MAIN: Ver.1.01 or later, SUB: Ver.1.01 or later, DSP: Ver.7.11 or later
- FT3D MAIN: Ver.1.01 or later, SUB: Ver.1.01 or later, DSP: Ver.7.02 or later
- FT2D MAIN: Ver.3.10 or later, SUB: Ver.2.01 or later, DSP: Ver.4.31 or later
- FTM-400XD MAIN: Ver.4.40 or later, DSP: Ver.4.31 or later
- FTM-400D MAIN: Ver.3.40 or later, DSP: Ver.4.31 or later
- FTM-300D MAIN: Ver.1.00, SUB: Ver.1.00, DSP: Ver.7.10
- FTM-200D MAIN: Ver.1.00, SUB: Ver.1.00, DSP: Ver.7.11
- FTM-100D MAIN: Ver.2.40 or later, PANEL: Ver.2.10 or later, DSP: Ver.4.31 or later

Update to the latest software and firmware on YAESU website.

Personal Computer

- OS Microsoft® Windows® 11 / 10 / 8.1
- Processor Clock Frequency: 2.0 GHz or faster
- HDD: 1 GB or more of available space
- RAM: 2 GB or more
- Display resolution: 1366 x 768 16-bit high color or higher (32-bit true color is recommended)
- USB port: USB 2.0 (Full-speed USB)
- LAN port: 100BASE-TX/1000BASE-T or Wi-Fi: IEEE 802.11 b or higher
- Audio Interfaces*1

*1 Sound function is also required when using the “Portable Digital Node mode” or “Portable HRI mode”. Furthermore, when communicating in “Direct Operation” in “Portable HRI mode” using the FT5D, FT3D or the FT2D the personal computer must have the “audio input from the microphone terminal pass to the speaker output” function.

- 3.5 Φ speaker terminal, 3.5 Φ microphone terminal.*2

(It is necessary only for Internet communication in “Portable HRI mode”.)

*2 In the case of a unique terminal such as a laptop, adapt it to a 3.5 Φ speaker terminal and 3.5 Φ microphone terminal with a commercially available conversion cable.

- Speaker (It is necessary only when communicating in "Direct Operation " in "Portable HRI Mode ”.)

Internet Connection

- ADSL 8 Mbps or faster (high-speed connection recommended)

Connection Cable

Depending on the transceiver used for the portable digital node station, one of the following connecting cables is required:

FT5D, FT3D, FT2D:

- SCU-57 WIRES-X Connection Cable Kit (Option) : Support Windows® 11 / 10 / 8.1
(The SCU-57 includes SCU-55 and CT-44, and two audio cables)
- SCU-39 WIRES-X Connection Cable Kit (Option): Support Windows® 10 / 8.1
(The SCU-39 includes SCU-19 and CT-44, and two audio cables)

FTM-100D, FTM-400XD/D:

For Portable Digital Node Mode (Internet communication with C4FM digital stations)

- SCU-20 PC Connection Cable (Supplied with FTM-100D or FTM-400XD/D)

For Portable HRI Mode (Internet communication with both C4FM Digital and Analog Stations)

- SCU-58 WIRES-X Connection Cable Kit (Option) : Support Windows® 11 / 10 / 8.1
(The SCU-58 includes the SCU-56 and an audio cable.)
- SCU-40 WIRES-X Connection Cable Kit (Option) : Support Windows® 10 / 8.1
(The SCU-40 includes the SCU-20 and an audio cable.)

FTM-300D, FTM-200D:

- SCU-58 WIRES-X Connection Cable Kit (Option) : Support Windows® 11 / 10 / 8.1
(The SCU-58 includes the SCU-56 and an audio cable.)
- SCU-40 WIRES-X Connection Cable Kit (Option) : Support Windows® 10 / 8.1
(The SCU-40 includes the SCU-20 and an audio cable.)