VHF AND UHF DIGITAL TRANSCEIVERS

Space Saving, Flexible Installation PoE Remote-Control Mobile Radio

The Cotel IP Radio series offers a flexible and unique installation solution that allows the main unit (RF unit) and remote-controller (PoE PD, Power over Ethernet Powered Device) to be connected using an Ethernet cable, and can be extended up to 100 m, 328 ft with an inexpensive Cat 5e LAN cable. The remote-controller uses a Command Mic with excellent operability and a high contrast black LCD.

Flexible Installation Using an Ethernet Cable Between the Main Unit and Command Mic

Loud and Intelligible Audio Even in Noisy Environment

Input / Output Interface for External Devices with Optional D-SUB Accessory Cable

Dual Mode Operation – Digital Mode and Analogue FM Mode

136-174 or 400-520 MHz Wide Frequency Coverage (VHF & UHF versions)

IC-F5330D

iDAS™ NXDN™

General Features

- 136–174, 400–520 MHz versions
- 128 Channels / 8 Zones
- Two-piece configuration – Command Mic + black box main unit
- Command Mic is powered from the main unit through an Ethernet cable*
  * Extendable up to 100m, 328 ft. (Cat 5e LAN cable user supplied).
- High contrast, wide viewing angle, black background display on the Command Mic
- 1700 mW (typical) audio output from the Command Mic
- MIL-STD-810 G shock, vibration, temperature and more
- IPX4 water splash resistance for the Command Mic
- DTMF autodial memories capability

Operating Mode

- NXDN™ conventional
- NXDN™ Type-D single-site trunking
- NXDN™ simulcast
- NXDN™ multi-site conventional over IP network
- Analogue mode

Digital Functions (Voice and Data)

- PTT ID and ANI
- Over-the-Air Alias (OAA) displays the caller's name without programming
- Individual, Group and All call
- Late entry for Group call
- Status call and Polling call
- Short data messages
- Call alert
- Radio check (RX only)

Analogue Functions

- CTCSS and DTCS tone
- 2-Tone and 5-Tone
- MDC functions; PTT ID, Emergency (TX/RX), Radio check (RX), Stun (RX), Revive (RX)
- BIIS PTT ID transmission

Security and Safety

- Digital voice scrambler
- Emergency call and Lone worker
- Remote monitor (RX)
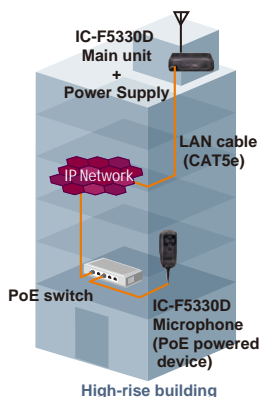- Radio Kill, Stun and Revive (RX)

Scan Functions

- Priority scan monitors one or two priority channels while scanning non-priority channels
- Voting scan automatically selects the optimal repeater site

Hardware Features

- Set an IP address for main unit and Command Mic
- GPS receiver connection with optional ACC cable
- Optional D-SUB connector cable is used for external PTT, channel, horn, ignition switch, and dimmer control, according to programming*
  * No digital modulation "IN" when using accessory cables.

Optional cable installation image

Flexible Installation with a PoE Switch and IP Network

IC-F5330D Main unit + Power Supply

LAN cable (CAT5e)

IP Network

PoE switch

IC-F5330D Microphone (PoE powered device)

High-rise building

Using a PoE (Power over Ethernet) switch (as the power supply to the microphone) and an IP network, you can easily install the Cotel IP Radio series into a building*.
In this installation scenario, you don't have to worry about the distance between the main unit and the Command Mic. Also, as the main (RF) unit can be installed close to the antenna, cable loss is kept to a minimum.
* In-building usage is not available in some countries.

■ EXTERNAL SPEAKERS

A External speaker. 20 W rated input power
B Compact external speaker
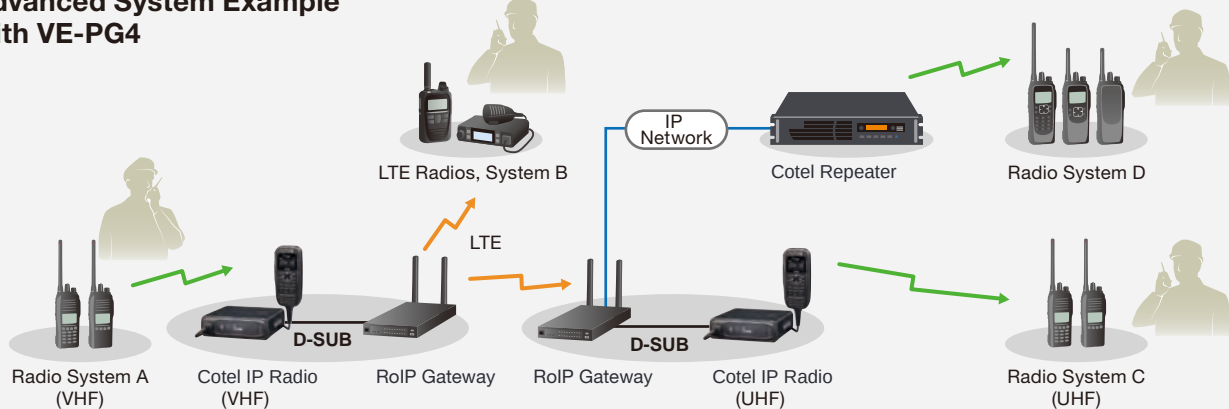SP-35 cable length: 2 m, 6.6 ft
SP-35L cable length: 6 m, 19.7 ft

A.

B.

■ ACC CABLES

C D-SUB 25-pin accessory cable
D: D-SUB 15-pin accessory cable
* Note: No Digital Modulation "IN" when using accessory cables.

C.

D.

Advanced System Example with VE-PG4

IP Network

LTE Radios, System B

Cotel Repeater

Radio System D

LTE

D-SUB

D-SUB

Radio System A (VHF)

Cotel IP Radio (VHF)

RoIP Gateway

RoIP Gateway

Cotel IP Radio (UHF)

Radio System C (UHF)

The RoIP Gateway is a versatile 'Radio over IP network' device, which interconnects the Cotel IP Radio series with other radio systems, even when the systems are using different bands*.

As shown in the example, any transmission from the "Radio System A" is bridged to other radio systems, so the radio user in the "Radio System A" can talk to all connected radio users in the figure.

* Cross band operation may be prohibited in some countries.
  Please check the legal requirements in your country before installation.