Integrating Kenwood NEXEDGE® or FLEETSYNC™ Radios with Your DCS-5020 Consoles

Kenwood's TK-x180 Series

Kenwood's NX-x00 Series

Through its NEXEDGE® capability, Zetron's DCS-5020 Digital Console System is able to access Kenwood's rapidly growing, new generation of digital radio system technologies. The system supports advanced NEXEDGE® features as well as Kenwood® FLEETSYNC™ digital messaging and signaling. It provides Kenwood and Zetron customers with a complete digital solution. The integration between Kenwood NEXEDGE or FLEETSYNC radios and the DCS-5020 console system is done through Zetron's Intelligent Radio Interface Module (iRIM).

You can use Zetron's Intelligent Radio Interface Module (iRIM) to integrate Kenwood NEXEDGE or FLEETSYNC radios with your DCS-5020 console system. This is a cost effective way to:

Bridge the gap between analog and digital radio technology.

Improve your interoperability

Maximize your investment in a single console system that handles both technologies.

NEXEDGE And FLEETSYNC Radios
Digital radio schemes such as Kenwood's NEXEDGE are becoming increasingly popular. Kenwood is one of the few companies that offers radios for both 12.5 kHz and 6.25

kHz narrow banding. Kenwood radios also support legacy analog FM communications and FLEETSYNC operation, which allows you to make a gradual migration of your entire radio system from analog to digital and utilise the DCS-5020 on both.

The iRIM provides the following capabilities:

- Remote control of Kenwood TK-x180, and NX-x00 series of radios.
- Decoding of FleetSync and NXDN PTT IDs; as well as Emergency messages and Status messages.
- All radio progress tones passed to the console.
- Voice delay to compensate for trunked-radio system key-up delays.
- AGC (automatic gain control) on transmit audio.
- Radio Interface Module Check function to ensure connectivity.
- Control of two radios from a single Radio Interface Module.
- Modular connectors and pre-set levels for easy installation.
- Configurable over Ethernet using a standard web browser.
- Desk or rack mounting (optional).

ZETRON®

The following console features are supported via the DCS-5020 console system for FLEETSYNC and NEXEDGE:

- Group Call
- Group Select
- Private Call
- Emergency Group Calls
- Status Messaging
- Unit Kill
- Unit Stun and Revive (NEXEDGE only)

How it works

The iRIM uses a Console Control Protocol that is common to a number of Zetron console systems (including Zetron's Acom Advanced Communications [AcomEVO] System) to be able to provide a common console language between the Zetron console and any connected radio.

An iRIM control panel is used on the Console's User Interface to set up audio and data connections to the iRIM. The iRIM interprets the control protocol and translates it into a protocol that is common to the Kenwood radios that are connected.

How iRIM connects

The diagram below shows how an iRIM provides the connection between a DCS-5020 console and Kenwood radios. Each iRIM can connect to two independent console radio-control and audio ports and two Kenwood radios. The console-side of iRIM connects to the console's analog four-wire for audio and a radio-control port. This provides both transmit and receive audio connections and console control messaging. The radio-side of iRIM connects to the Kenwood radio remote-control port. This provides transmit and receive audio connections. It also provides a PTT control signal as well as serial communications signals that can pass control and PTT-ID data to and from the radio. The iRIM can be remotely situated away from the console system if required.
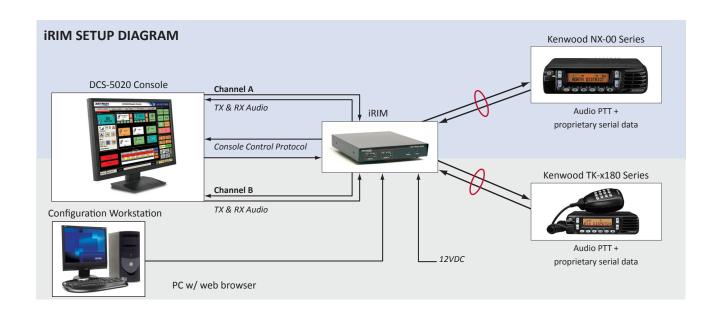
Further information

For more information about the Kenwood iRIM interface for the DCS-5020 including additional information about the radio technologies it supports see:

- Intelligent Radio Interface Module for Kenwood Radios Using Console Control Protocol Manual (025-9628)

Contact Zetron Sales or your nearest authorised reseller for additional information.

iRIM SETUP DIAGRAM

Kenwood NX-00 Series

DCS-5020 Console

Channel A

TX & RX Audio

iRIM

Audio PTT +
proprietary serial data

Console Control Protocol

Channel B

TX & RX Audio

Kenwood TK-x180 Series

Configuration Workstation

12VDC

Audio PTT +
proprietary serial data

PC w/ web browser