ICOM

BUSINESS RADIO SOLUTIONS

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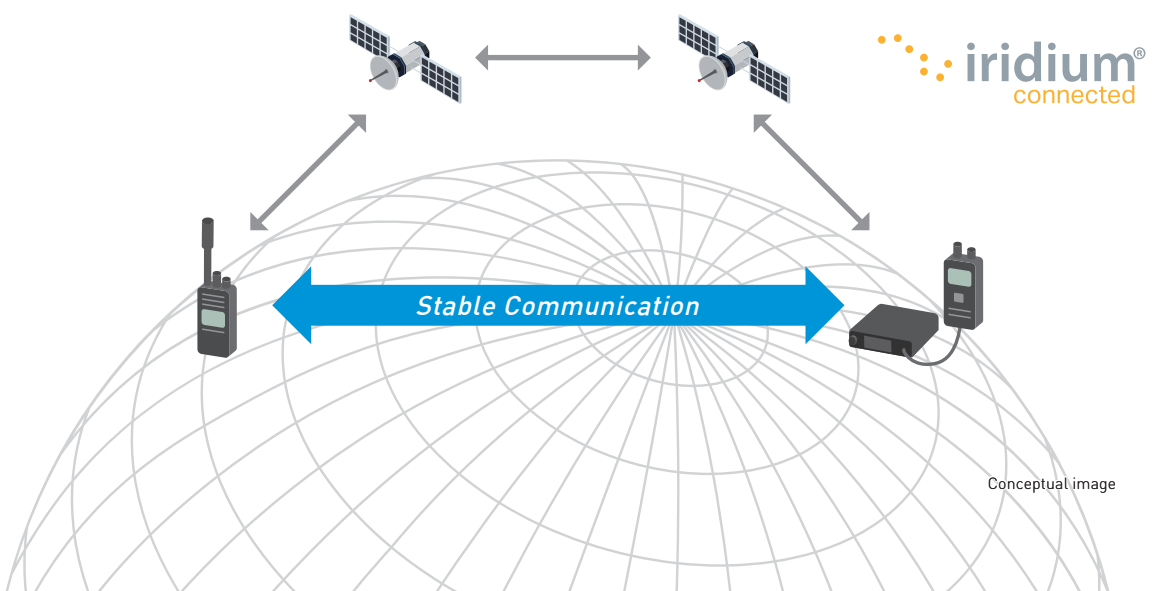
SATELLITE / IP SOLUTIONS

Real-Time Communications Across the Globe

SATELLITE PTT (Push-To-Talk) is a transceiver that uses the Iridium® satellite network. It can be used as a communication device in remote, isolated areas where there are no mobile phones or communications infrastructure. Even if the terrestrial network infrastructure is rendered unusable by human or natural disasters, SATELLITE PTT can provide a stable back-up, independent from other networks.



Conceptual image

Satellite PTT

IC-SAT100

Compact Handheld Satellite PTT Radio

- Emergency key for calling programmed users
- Integrated GPS receiver shows received signal position
- IP67 and MIL-STD-810 rugged construction
- 1500 mW of powerful audio
- 14.5 hours of long operating time*1
- Built-in Bluetooth® capability*2
- AES 256-bit encryption for security

Satellite PTT

IC-SAT100M

Satellite PTT Radio for In-Building and In-Vehicle Use

- Emergency key for calling programmed users
- Integrated GPS receiver shows received signal position
- Supplied 1500 mW speaker-microphone
- Built-in Bluetooth® capability*2
- AES 256-bit encryption for security
- Optional pole mount passive antenna AH-38, max. 169 m installation

Antenna Unit

*1 TX : RX : standby = 5 : 5 : 90. *2 Version without Bluetooth® capability also available. Ask your dealer for details.

Please Note: Subscription contracts are required for using the IC-SAT100/M. Depending on the country or region, carrying and/or use of the IC-SAT100/M may be prohibited.
The IC-SAT100M is primarily designed for base station use. Additional environmental protection is expected for use outside the scope.

Functions / Specifications	IC-SAT100	IC-SAT100M
Frequency Range	1616–1626.5 MHz	1616–1626.5 MHz
Talkgroups	15 (Max.)	15 (Max.)
Dimensions (W×H×D: Projections are not included)	57.8 × 135 × 32.8 mm	Antenna unit (with RF unit): 76.8 × 200 × 76.8 mm, Main unit: 125 × 29 × 156.5 mm
Weight (approximate)	360 g	Antenna unit (with RF unit): 600 g, Main unit with microphone: 1.2 kg
IP Rating	IP67	IP67 (Antenna unit (with RF unit)), IP55 (mic), IP54 (main unit)
Operating Time (Hours)	14.5	
Display	●	●
Keypad	Limited	Limited
AF Output Power (Internal SP)	1500 mW typical	1500 mW typical
Encryption AES	●	●
Vibration Alert	●	
Voice Recorder	●	●
Bluetooth® Capability	●	●
GPS Receiver	●	●
Short Data Message	●	●
Emergency Call	●	●
PoE Capability		●
I/O Control Port	USB, 14-PIN ACC	D-SUB, LAN, Ignition sense

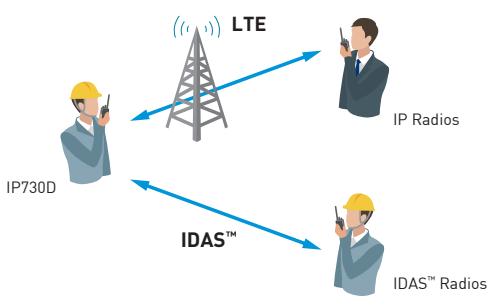
Innovative IP Radios with Licensed Professional Radio Mode

The IP730D and IP740D are dual mode "Hybrid" radios that provide nationwide coverage over LTE networks and conventional VHF/UHF professional radio mode (IDAS™ digital/analogue mode.) It receives both communication modes and transmits either or both modes.

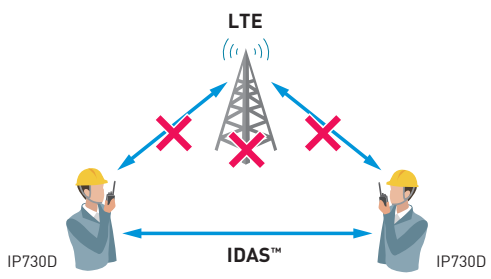
Dual Mode Operation with Main and Sub PTT Buttons

The IP730D series has a Sub PTT button, in addition to the Main PTT button. It provides smooth dual mode operation with independent PTT buttons for each LTE mode and IDAS™ mode.

Expand an existing IDAS™ system with an LTE network



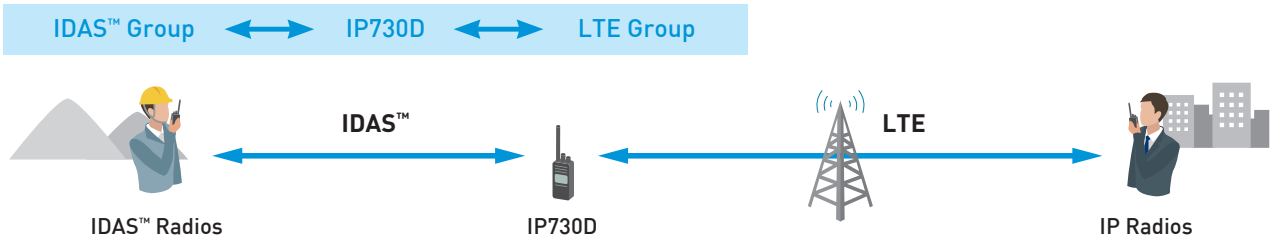
Communication redundancy, when net-work congestion occurs or network service is temporarily unavailable



The Bridge Function*

The Bridge function* is an innovative feature that allows handheld radio users to achieve an audio bridge between the LTE mode and IDAS™ mode easily.

* When using the Bridge function, operating time will be shorter and output power of the radio is reduced to 1 W. The Bridge function may be prohibited in some countries. Please check the legal requirements in your country before using this function.



* Network coverage provided by a custom SIM card. Service availability depends on the country.

Hybrid IP Transceivers

IP730D/IP740D

Hybrid Handheld IP Radio for Local & Nationwide Communications

- Simultaneous TalkListen™ in LTE Mode
- 1500 mW of powerful audio*1
- IP67 waterproof and dust-tight
- 24 hours of long lasting battery life*2
- Emergency Call, Lone Worker and Man Down functions
- Built-in Bluetooth® capability
- GPS Data Transmission capability in LTE mode

Functions / Specifications		IP730D/IP740D
Network (EUR/EXP Versions)	4G LTE	B1, B3, B7, B8, B20
	3G	B1, B8
Dimensions (W × H × D: Projections are not included)		61.7 × 140.5 × 42.8 mm
Weight (approximate)		320 g
IP Rating		IP67
Operating Time (Hours)		24 (LTE mode) 13 (IDAS mode)
Display		●
Keypad		Limited
AF Output Power (Internal SP)		1300 mW typ. (5% distortion)
Simultaneous TalkListen™		●
Man Down		●
Lone Worker		●
Vibration Alert		●
Voice Recorder		●
Bluetooth® Capability		●
GPS Receiver		●
Short Data Message		● (LTE mode)
Emergency Call		●
Provisioning/FOTA (Firmware Over-the-Air)		●

*1 At 10% audio distortion

*2 LTE Mode, TX : RX : standby = 5 : 5 : 90. The battery life may be shorter, depending on the distance with the cellular station or the signal strength.

Area Coverage Over an 4G LTE Network*

Simultaneous TalkListen™

The Simultaneous TalkListen™ provides full-duplex one-to-many communication, which allows users to talk and receive at the same time.
This results in a smooth, telephone-like conversations.

Exceptional Stability and Availability

The system server is placed within a secured closed network, and shielded from potential attacks. Its operation relies on a custom SIM that is isolated from the Internet, making it more reliable than regular PoC systems that use the Internet.

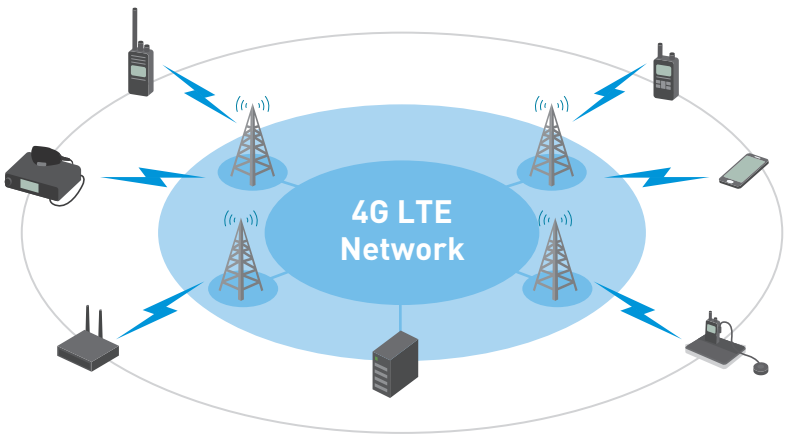
Multiple-user Communication

Multiple users in the call groups can initiate calls instantaneously.
This removes the need to wait for available channels to communicate.

Priority Interrupt Calling

Our IP radios support group calls with three or more people. In case of an emergency, you can break into an on-going call to transmit an important message.

*Network coverage provided by a custom SIM card. Service availability depends on the country.

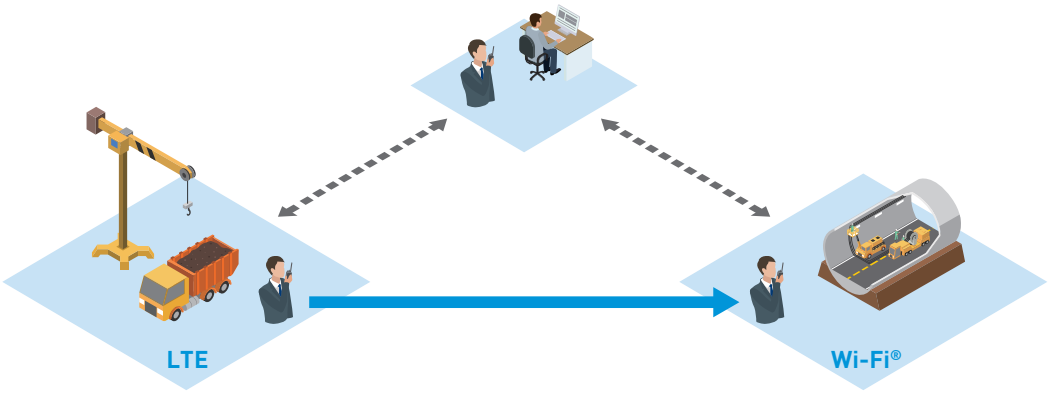


Dual Mode IP Transceiver That Communicates via Both 4G LTE and Wi-Fi®

The IP510H is a dual mode IP transceiver that communicates via both 4G LTE and Wi-Fi®. When outside LTE coverage, it automatically switches to a Wi-Fi connection without any user intervention, allowing seamless communication even in areas where one network isn't available.

The IP510H also supports full-duplex communication, meaning users can simultaneously talk and listen and interrupt a conversation if needed, just like a phone call. It's ideal for industries like transportation, infrastructure, and security, where stable communication is critical, as well as for traditional IP transceiver applications. Furthermore, with Bluetooth® capability for cable-free operation, it enhances work efficiency.

The IP510H is also more compact and lightweight than our previous IP transceivers.



IP Transceivers

IP510H

Dual mode IP transceiver, 4G LTE and Wi-Fi®

- Wi-Fi standards IEEE802.11 ac/n/g/b/a
- Supports WPA3 Enterprise/ Personal Wi-Fi security
- Automatic switching between LTE and Wi-Fi®
- Integrating with improved Controller server, IP5000C
- Support for registering IP510H to the controller server through Wi-Fi access
- USB Type-C™ charging, battery can be replaced without turning OFF the power

Coming soon

Talk Listen™ Simultaneous

IP Transceivers

IP503H

Compact and Durable IP Handheld

- 900 mW loud high quality vocoder audio
- IP67 waterproof and dust-tight
- Emergency Call, Lone Worker and Man Down functions
- Voice Record/Playback functions
- Vibration Alert function notifies of incoming calls
- Built-in Bluetooth® capability and GPS
- Simultaneous TalkListen™

Talk Listen™ Simultaneous

IP Transceivers

IP501M

Mobile IP Radio Interoperable with the IP503H

- Built-in Bluetooth® capability and GPS
- Preprogrammed message transmission and reception
- An Ethernet port for data communication (The optional VE-PG4 is required.)
- Emergency call and Lone Worker functions
- Noise Cancelling function (TX only)
- IP54
- D-SUB 25-PIN connector with the optional OPC-2407 cable for interfacing other devices and various controls
- Simultaneous TalkListen™

Functions / Specifications		IP510H	IP503H	IP501M
Network (EUR/EXP Versions)	4G LTE	B1, B3, B7, B8, B20, B28	B1, B3, B7, B8, B20	B1, B3, B7, B8, B20
	3G	B1, B8	B1, B8	B1, B8
Dimensions (W × H × D: Projections are not included)		56 × 92.3 × 31.2 mm	59 × 95 × 32 mm	125 × 29 × 156 mm
Weight (approximate)		220 g	240 g	840 g
IP Rating		IP67	IP67	IP54
Operating Time (Hours)		18 (LTE mode)/36 (Wi-Fi mode) with BP-314 26 (LTE mode)/58 (Wi-Fi mode) with BP-315	17	
Display		●	●	●
Keypad		Limited	Limited	Limited
AF Output Power (Internal SP)		1000 mW	900 mW	4 W (Extrenal SP)
Simultaneous TalkListen™		●	●	●
Man Down		●	●	
Lone Worker		●	●	●
Vibration Alert		●	●	
Voice Recorder		●	●	●
Bluetooth® Capability		●	●	●
GPS Receiver		●	●	●
Short Data Message		●	●	●
Emergency Call		●	●	●
Provisioning/FOTA (Firmware Over-the-Air)		●	●	●

Speakerphone Unit

VE-SP1

Conference Call Speaker

- Portable operation with eight LR6 (AA) cells
- Built-in loudspeaker and high sensitivity external microphone
- Charges the radio when using the AC adapter

IP Transceiver APP

IP500APP

*Android™/iOS™ Application to Communicate with IP Radios**

- Full-Duplex communication
- Short text message
- Voice Recording/Playback function
- Address book
- TX/RX history

* IP500APP for Android™: Android™ version 8.0 or later IP500APP for iOS™: iOS™ version 12 or later IP500APP service may not be available.

Simultaneous TalkListen™ That Works Over Wi-Fi®

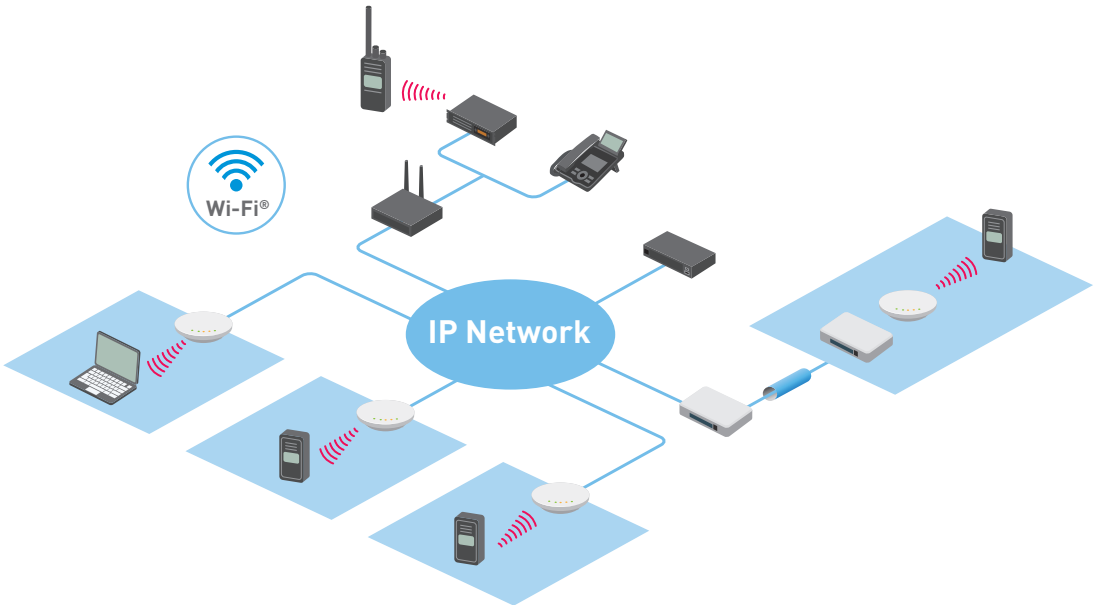
Communication System Using Wi-Fi®

By deploying access points across an existing IP network, the Wi-Fi radio system allows you to communicate from anywhere within coverage range. The IP110H can access the nearest access point, and roam between them.

Individual, Group, All or Area Communication

Staff spread across multiple rooms can communicate simultaneously. The IP110H can send and receive short data messages with a vibration alert from another unit*.

* Send preprogrammed message from the IP110H. Free texting from a IP100FS.



Wi-Fi Transceiver

IP110H

Compact Wi-Fi Radio

- Licence-free communication terminal
- WPA2, WPA-Enterprise security
- Built-in Bluetooth® capability
- IP67 and MIL-STD-810
- Compact body and lightweight
- 1000 mW audio output
- Motion/Stationary Detection, Man Down and Lone Worker functions

Talk Listen™ Simultaneous

Wi-Fi Transceiver Controller

IP1100CV

Wi-Fi Transceiver Controller

- Capable of controlling up to 300 units Wi-Fi radios (including IP100FS)
- 2.5 Gbps WAN Port and VPN Router Function
- Up to 500 call addresses for individual and group calls.
- Call recording function can record communication audio to an external USB flash drive

Functions / Specifications	IP110H
Network (EUR/EXP Versions)	Wi-Fi: IEEE 802.11 a/b/g/n/ac 2.4–2.4835 GHz, 5.15–5.35, 5.47–5.85 GHz*
Dimensions (W × H × D: Projections are not included)	57 × 96.9 × 25.1 mm
Weight (approximate)	146 g
IP Rating	IP67 / IP54
Operating Time (Hours)	20
Display	●
Keypad	Limited
AF Output Power (Internal SP)	1000 mW
Simultaneous TalkListen™	●
Man Down	●
Lone Worker	●
Vibration Alert	●
Voice Recorder	●
Bluetooth® Capability	●
GPS Receiver	
Short Data Message	●
Emergency Call	●
Provisioning/FOTA (Firmware Over-the-Air)	●

*Authorized frequency range and channels may differ depending on the country.

Bridging Communication Gaps, This Radio over Gateway Device Links Diverse Voice Communication Systems and Frequencies

The VE-PG4 is a versatile RoIP (Radio over IP network) gateway unit, which seamlessly interconnects various communication systems. The built-in LTE module provides virtually nationwide communication coverage.*

* Service availability depends on the country. Network coverage provided by a custom SIM card.

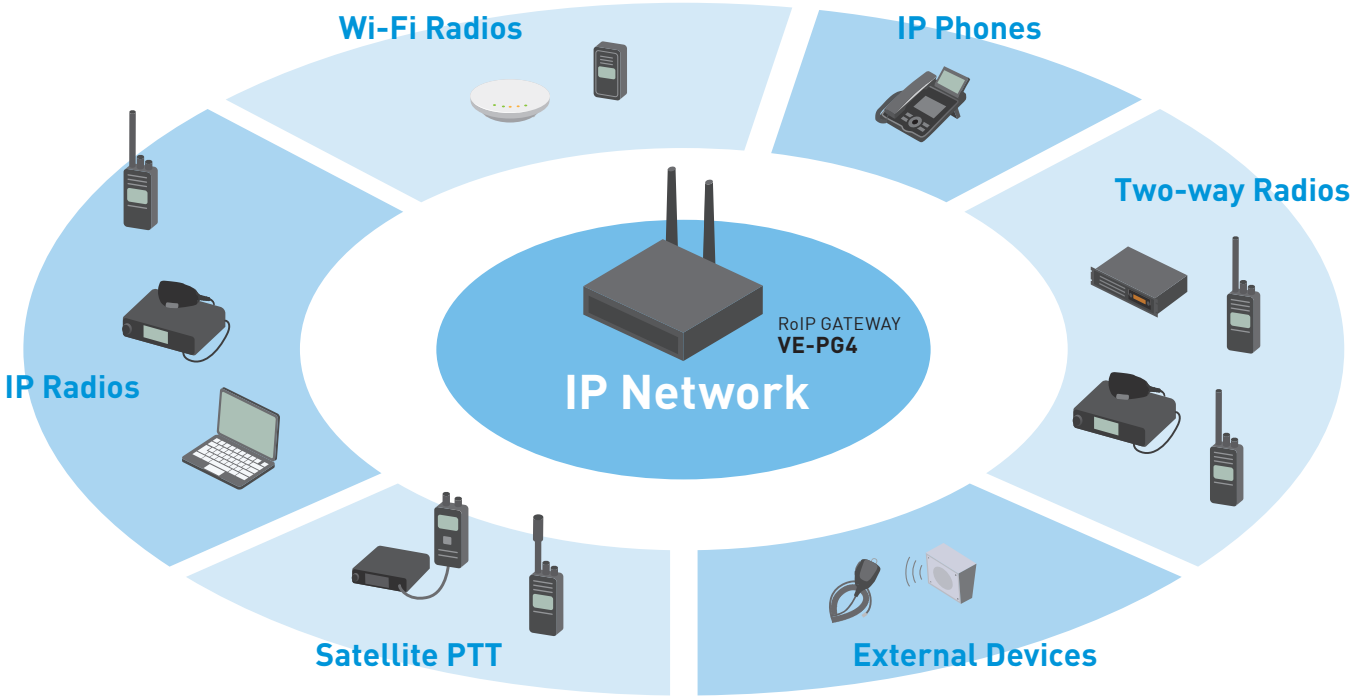
RoIP Gateway

VE-PG4

Radio over IP network Gateway

- Links land mobile radios, Wi-Fi transceivers, LTE transceivers, IP phone systems and external devices
- Wi-Fi transceiver controller (Equivalent to the IP1100CV function) built-in, capable of controlling up to 50 Wi-Fi transceivers
- IDAS™ Conventional and NXDN™ Type-D multi-site trunking connection

Communication Links



TWO WAY RADIO SOLUTIONS

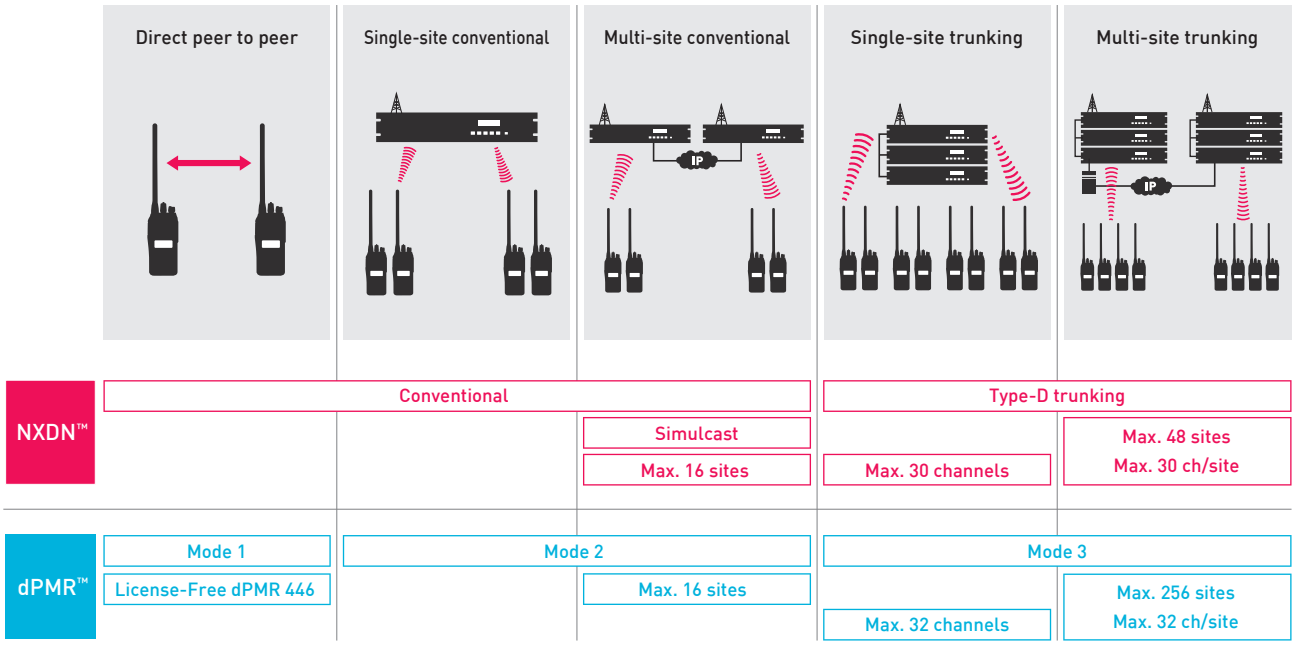
Flexible Analogue and Digital Solutions with Advanced IP Network Integration

NXDN™/dPMR™ Protocol Choice

The IDAS™ digital radio system has two protocol choices, NXDN™ or dPMR™. Both protocols are open digital radio standards using 6.25 kHz FDMA narrowband technology. With this flexible choice, the IDAS™ radio system allows for interoperability with other manufacturers equipment to add to/replace existing NXDN™ and/or dPMR™ systems. Some models support NXDN™ 12.5 kHz mode for compatibility with other manufacturers.

System Scalability According to Communication Traffic and Coverage

Depending on the communication traffic and coverage, an IDAS™ radio system can be expanded from single site conventional to simulcast conventional or multi-site trunking, to meet changing communication system requirement. One notable feature is that you don't have to use your own microwave or similar equipment because the requirement for the IP line in the backbone is flexible.

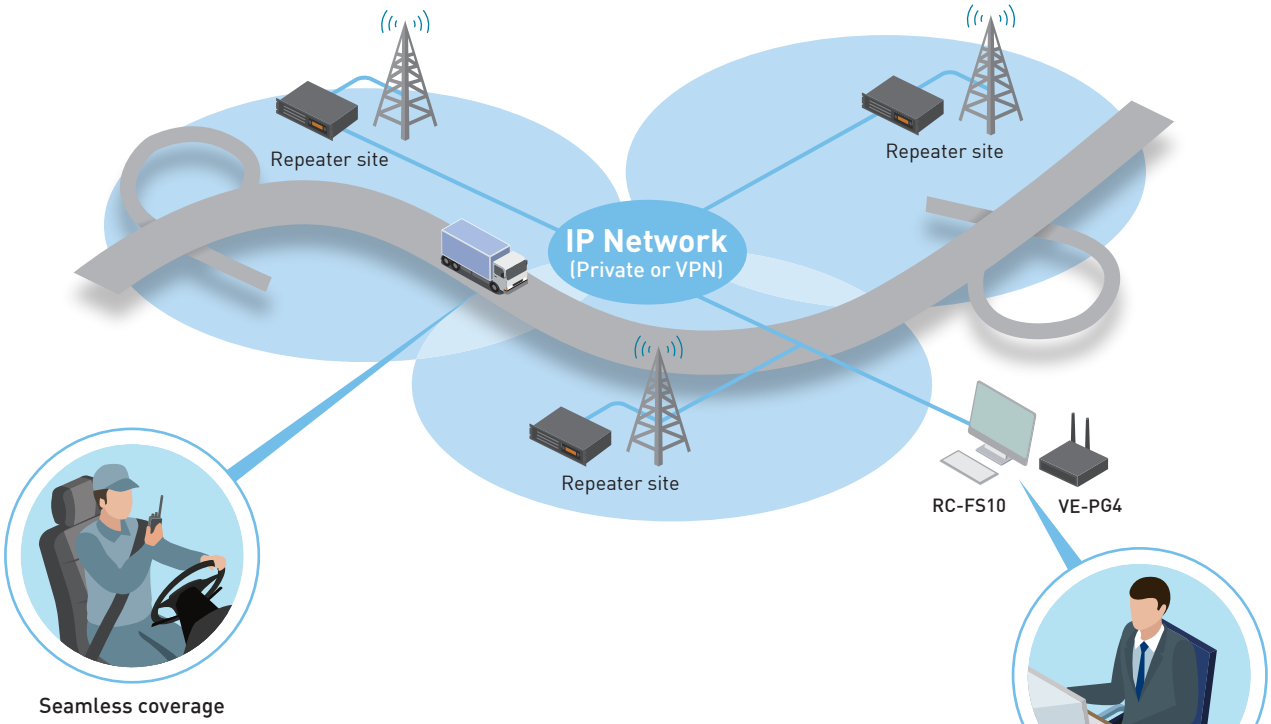


Wide Area Coverage on a Single Pair of Frequencies

The IDAS™ Simulcast (NXDN™ protocol) system links multiple repeater sites* through an IP network, synchronizing them with precise GPS signals. This enables a single pair of frequency licenses to cover a wider area. Even in urban areas where obtaining new frequency licenses is difficult, it's feasible to establish a multisite, wide-area system, keeping license costs lower. In certain situations, only the IDAS™ Simulcast system can fulfill specific requirements.

* The maximum number of sites for an IDAS™ Simulcast system is 32.

Simulcast Network System



Scan to see more details

Ideal 6.25 kHz FDMA Technology for Simulcast

The IDAS™ Simulcast system transmits digital voice and data at 4800 bps using 4-Level FSK and 6.25 kHz very narrow bandwidth FDMA technology. With a symbol duration of about 420 microseconds (μs), the system experiences minimal Inter-Symbol Interference (ISI). Consequently, the IDAS™ Simulcast system boasts a delay spread tolerance of approximately 60 μs. In contrast, a DMR/P25 Phase 1 system has a delay spread tolerance of about 30 μs, leading to a reduction in coverage radius by a similar amount.

Simplified Setup and Flexible Adjustments

Compared to other simulcast systems, IDAS™ Simulcast can initially start with a more straightforward setup. If issues arise, adjustments to the overlap and range between repeaters can be made later on.

Any IDAS™ Radio Can Be Employed

No extra technical requirements are needed on the IDAS™ transceiver to utilize IDAS™ Simulcast. The transceiver can receive simulcast through the same process used for handling received multipath interference. Therefore, any IDAS™ transceiver can be employed for IDAS™ simulcast.

VHF and UHF Digital Transceivers

IC-F3400/F4400 Series

Flagship Excellence with Colour Display and Versatile Features

- IP68
- Color LCD and Improved User Interface
- Integrated GPS
- Hands-Free Operation with Bluetooth® Headset*1
- OTAP (Over-the-Air Programming) Function Easily Reconfigures In-the-Field Radios
- Active noise canceller
- AES/DES encryption*2

NXDN™ | Conventional | Single/Multi-Site Trunking (Optional*2)
dPMR™ | Mode 1 | Mode 2 | Mode 3 (Optional*2)

*1 Headset is required separately. *2 Licence key upgrade required

VHF and UHF Digital Transceivers

IC-F52D/F62D

Powerful and Compact, 5 W Model with Advanced Features

- IP67
- Full dot matrix display for 14 characters with status icons
- Built-in Bluetooth®*, Voice Recording, Active Noise Cancelling Function
- Motion/Stationary Detection, Man Down and Lone Worker Functions
- OTAP (Over-the-Air Programming) Function Easily Reconfigures In-the-Field Radios
- Intelligent Battery Management Helps to Extend the Battery Life

NXDN™ | Conventional | Single/Multi-Site Trunking (Optional*2)
dPMR™ | Mode 1 | Mode 2 | Mode 3 (Optional*2)

* Depending on version *2 Licence key upgrade required

VHF and UHF Digital Transceivers

IC-F1100D/F2100D Series

Budget-Friendly Handheld with Keypad and LCD Variations

- 128 channels (16 channels for IC-F1100D/F2100D)
- IP67
- Motion/Stationary Detection, Man Down and Lone Worker Functions
- Operating Time of Up To 18 Hours in IC-F1100D series and 17 Hours in IC-F2100D series with the Supplied Battery (BP-280)
- Over-the-Air Alias (OAA) Function Displays the Caller's Name without Programming

NXDN™ | Conventional | Single-Site Trunking
dPMR™ | Mode 1 | Mode 2

VHF and UHF Digital Transceivers

IC-F5400D/F6400D Series

Flagship Excellence with Versatile Configuration and Colour Display

- IP55
- Flexible configurations with detachable front panel
- Color LCD and Improved User Interface
- Integrated GPS
- Hands-Free Operation with Bluetooth® Headset*
- OTAP (Over-the-Air Programming) Function Easily Reconfigures In-the-Field Radios
- Active noise canceller
- AES/DES encryption

* Version without Bluetooth also available. Ask your Dealer for details. Available functions depend on paired Bluetooth® devices. Icom does not guarantee all functions and performance of the Bluetooth® headset. Headset is required separately.

NXDN™ | Conventional | Single/Multi-Site Trunking (Optional)
dPMR™ | Mode 1 | Mode 2 | Mode 3 (Optional)

VHF and UHF Digital Transceivers

IC-F5330D/F6330D

CommandMic™ Remote Control with Ethernet Cable Connection

- NXDN™ Type-D single-site trunking
- Flexible Power over Ethernet (PoE) connection*1 between RF unit and CommandMic™
- High contrast, wide viewing angle, black background display
- Bluetooth® capability*2
- Emergency and Lone Worker functions
- Integration with the VE-PG4
- Optional D-SUB connector cable

*1 Up to 100 m Ethernet cable *2 Depending on version

NXDN™ | Conventional | Single-Site Trunking

VHF and UHF Digital Transceivers

IC-F5130D/F6130D

Digital Standard Mobile Transceiver

- NXDN™ Type-D single-site trunking
- High contrast, wide viewing angle, black background display
- Emergency and Lone Worker functions
- Integration with the VE-PG4
- Optional D-SUB connector cable
- GPS receiver connection with optional ACC cable
- Bluetooth® capability with optional UT-137A

NXDN™ | Conventional | Single-Site Trunking

IDAS™ Handheld & Hybrid IP Radio Feature Comparison

Functions / Specifications		IC-F3400D/IC-F4400D SERIES	IP730D IP740D	IC-F52D IC-F62D	IC-F1100D/IC-F2100D SERIES		
		IC-F3400DT/DPT IC-F4400DT/DPT	IP730D IP740D	IC-F52D IC-F62D	IC-F1100DT IC-F2100DT	IC-F1100DS IC-F2100DS	IC-F1100D IC-F2100D
4G LTE/3G Network			4G LTE: B1, B3, B7, B8, B20 W-CDMA: B1, B8				
Frequency Range		136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz		
		380–470 MHz	350–470, 400–520 MHz	EUR: 350–470 MHz, AUS: 400–520 MHz	400–470 MHz		
Channels		1024*1	128	512	128	128	16
Digital Channel Spacing		6.25/12.5*2 kHz	6.25 kHz	6.25/12.5*2 kHz	6.25 kHz		
Dimensions*3 (W × H × D: Projections are not included)		53.6 × 123.5 × 29.3 mm	61.7 × 140.5 × 42.8 mm	56 × 91.5 × 29 mm	52.2 × 111.8 × 34.1 mm	52.2 × 111.8 × 29.4 mm	
Weight (approx.)		340 g (VHF) 335 g (UHF)	320 g	230 g	277 g	266 g	258 g
RF output power (High)		5 W	5 W	5 W	5 W		
IP Rating		IP68	IP67	IP67	IP67		
Operating Time*3*4 (Hours)		16.5	24 (LTE mode) 13 (IDAS mode)	13	18 (IC-F1100D series) 17 (IC-F2100D series)		
Display		●	●	●	●	●	
Keypad		Full	Limited	Limited	Full	Limited	
AF Output Power (Internal SP)		1300 mW typ.	1500 mW typ. (10% distortion)	1500 mW typ.	1500 mW typ.		
Encryption	DES (4-key)	●	●				
	DES (64-key)	Optional					
	AES	Optional					
Voice Scrambler (Digital)		●	●	●		●	
Voice Scrambler (Analogue)*5		●		●			
OTAP (Over-the-Air Programming)		●*14	● (Over LTE)	●*14			
CTCSS/DTCS	Encoder/Decoder	●	●	●		●	
2-Tone	Encoder/Decoder	●		●		●	
5-Tone	Encoder/Decoder	●	●	●		●	
DTMF		●	●	●		●	
MDC 1200		●		●		●*15	
BIIS 1200		●		●		●*6	
Man Down		●	●	●		●	
Motion Detection Sensor		●	●	●		●	
Lone Worker		●	●	●		●	
Channel Announcement		●		●		●	
Vibration Alert		●	●	●			
Voice Recorder		●	●	●			
Bluetooth® Capability		●	●	●			
GPS Receiver		●	● (LTE mode)				
Short Data Message		●	●	●		●*8	
Status Message		●		●		●*8	
Emergency Call		●	●	●		●	
Stun/Kill/Revive		●	● (Stun only)	●		●*9	
Remote Monitor		●	●	●		●*9	
NXDN™*10	Conventional	●	●	●		●	
	Multi-Site Conventional	●	●	●		●	
	Simulcast	●	●	●		●	
	Type-D Trunking	Optional		Optional	Single Site only		
dPMR™*10	Mode 1/ Mode 2	●		●		●	
	Mode 2 Multi-site	●		●		●	
	Mode 3 Trunking	Optional		Optional			

IDAS™ Mobile Radio Feature Comparison

Functions / Specifications		IC-F5400D/IC-F6400D SERIES IC-F5400D/DP IC-F6400D/DP	IC-F5330D IC-F6330D IC-F5330D IC-F6330D	IC-F5130D IC-F6130D IC-F5130D IC-F6130D
Frequency Range		136–174 MHz 380–470 MHz	136–174 MHz 400–520 MHz	136–174 MHz 400-520MHz
Channels		1024*1	128	128
Digital Channel Spacing		6.25/12.5*2 kHz	6.25 kHz	6.25 kHz
Dimensions (W × H × D: Projections are not included)		174 × 55 × 150 mm	150 × 45 × 161.8 mm (Main unit) 134.8 × 60.8 × 35.5 mm (Mic)	150 × 45 × 151.8 mm
Weight (approx.)		1.5 kg	1.2 kg (Main unit) 250 g (Mic)	1.23 kg
RF output power (High)		25 W	25 W	25 W
IP Rating		IP55	IPX4 (Mic)	
Display		●	●	●
Keypad		●	●	●
AF Output Power (Internal SP)		4 W typ.	1.7 W typ.	4 W typ.
Encryption	DES (4-key)	●		
	DES (64-key)	Optional		
	AES	Optional		
Voice Scrambler (Digital)		●	●	●
Voice Scrambler (Analogue)*5		●		
OTAP (Over-the-Air Programming)		●*14		
CTCSS/DTCS	Encoder/Decoder	●	●	●
2-Tone	Encoder/Decoder	●	●	●
5-Tone	Encoder/Decoder	●	●	●
DTMF		●	●	●
MDC 1200		●	●*15	●*15
BIIS 1200		●	●*6	●*6
Lone Worker		●	●	●
Channel Announcement		●		
Voice Recorder		●		
Bluetooth® Capability		●	●*11	Optional
GPS Receiver		●*12		
Short Data Message		●	●	●
Status		●	●	●
Emergency Call		●	●	●
Stun/Kill/Revive		●	●*9	●*9
Remote Monitor		●	●*9	●*9
Front Panel Separation		Optional		
Multiple Controller Capability		●		
CommandMic™ Capability		●	●	
I/O Control Port		USB, D-SUB, Ignition sense	Ignition sense, D-SUB option*13	Ignition sense, D-SUB option*13
NXDN™ *10	Conventional	●	●	●
	Multi-Site Conventional	●	●	●
	Simulcast	●	●	●
	Type-D Trunking	Optional	Single site only	Single site only
dPMR™ *10	Mode 1/ Mode 2	●		
	Mode 2 Multi-site	●		
	Mode 3 Trunking	Optional		

*1 Upgrade licence (ISL-CHEX) required to enable 4000 channel capacity. *2 NXDN™ only *3 With standard battery pack
*4 IDAS™: Conventional mode, 5:5:90 duty cycle, power save ON LTE: Depending on the condition of LTE signal strength
*5 Inversion type voice scrambler is not compatible with UT-109R/UT-110R voice scrambler. *6 PTT ID and emergency call *7 PTT ID only
*8 The non-display model beeps and its LED indicator blinks when receiving a message. *9 RX only *10 Default factory setting (Protocol) differs, depending on the radio model.
*11 Depending on versions *12 UX-241 antenna is required. *13 D-SUB. Digital modulation input is not available even when using accessory cables.
*14 CS-OTPM1 OTAP Manager Software is separately required to send the OTAP data to the transceivers. *15 PTT ID, emergency call, radio check (RX), and stun/revive (RX).

All stated specifications and features are subject to change without notice or obligation.

VHF and UHF Digital Repeaters

IC-FR5300/FR6300 NXDN™

Compatible with Analogue and IDAS™ ALL Modes Including Simulcast

- Digital conventional mode and analogue FM with auto selection
- 25 W at 100% duty cycle operation (Ambient temperature: 25°C)
- Compatible with digital simulcast system with the optional UC-FR5300 #14 network controller and GPS antenna
- Multi-site conventional or trunking system configuration
- "Two channels in one box" configuration with optional UR-FR5300/UR-FR6300

For dPMR™ protocol mode operation, use the IC-FR5100/FR6100 repeater.

dPMR™ Mode 3 External Controller

IC-FC5000E dPMR™

IDAS™ dPMR™ Mode 3 Trunking Controller

- Spectrum efficient centralized control channel trunking
- Up to 32 channels per site (One control channel, up to 31 traffic channels)
- Up to 32 site multi-site trunking with CSFC5000SCS system control software
- Up to 256 site multi-region connection
- Call queuing and emergency call with pre-emption
- Repeater anomaly detection and alert
- A traffic channel can be configured as a secondary control channel
- 1U (44 mm) rack mount

Use with the IC-FR5100/FR6100 repeater and UC-FR5000SE Ethernet board.

Remote Communicator

RC-FS10 NXDN™ dPMR™

Virtual Radio/PC Dispatch

- PC remote communicator for dPMR™ mode 2, NXDN™ conventional, Type-D multi-site trunking and analogue radio systems (VE-PG4 is required for analogue radio systems.)
- Up to eight different IDAS™ and analogue radio systems can be programmed
- Up to 40 programmable buttons. Short data message, status and DTMF can be sent
- Caller ID, called ID, name and call type information are displayed
- Optional HM-152 or SM-26 microphone

System Manager

RS-MGR1 NXDN™

Enhance System Management for NXDN™ Type-D Trunking Systems

- Provides real-time monitoring, system alerts and log search functions
- Repeater properties show condition summary, system information, interface (traffic statistics), repeater condition details and ping status of each repeater
- Registration log, communication log, traffic log and search log can be searched and downloaded with extensive filter settings

System Manager

RS-MGR2 dPMR™

Enhance System Management for dPMR™ Mode 3 Systems

- Provides real-time monitoring, system alerts and log search functions for a dPMR™ Mode 3 system
- Real-time monitoring includes repeater view, repeater status, repeater condition, active screen and system connection
- Registration log, communication log, traffic log and search log can be searched and downloaded with extensive filter settings

OTAP Manager Software

CS-OTPM1 NXDN™ dPMR™

Easily Reconfigure Radios with Over-The-Air Programming

- Remotely reconfigure radios while in the field
- Radios can be reconfigured in a short period of time by transmitting only the updates
- Single programming data can be shared with a whole fleet with only one click
- Up to 10,000 sessions are logged for review and rescheduling
- Manages up to 100,000 radios

VHF/UHF Handheld Transceivers

IC-F1000/F2000 Series

Big Sound, Small Package! Unmatched 1500 mW Audio

- 128 channels (16 channels for the non-display model)
- Motion/Stationary sensor • Man down/Lone worker
- 20 hours battery life (with BP-280)
- 1500 mW loud audio
- Channel announcement
- 16 code inversion voice scrambler

VHF and UHF Transceivers

IC-F3002/F4002

5 W Output Power Also in UHF, 1500 mW Loud Audio

- 16 channels • Lone worker function
- 5 W output power both in VHF and UHF
- 1500 mW loud audio • 31 hours battery life (with BP-299)
- Built-in 2-Tone, 5-Tone, CTCSS and DTCS
- BIIS 1200 PTT ID transmission
- MDC 1200 PTT ID and emergency

VHF/UHF Mobile Transceivers

IC-F5022/F6022

VHF and UHF Transceivers

IC-F5012/F6012

Affordable Analogue Mobile Radios

- 2 models for display or non-display
- 128 channels with display (IC-F5022/F6022) or 8 channels with LED (IC-F5012/F6012)
- Lone worker function
- 4 W (typical) front mounted speaker
- External device connection with optional ACC cable

IC-F5022/F6022 IC-F5012/F6012

Functions / Specifications		IC-F1000T IC-F2000T	IC-F1000S IC-F2000S	IC-F1000 IC-F2000	IC-F3002 IC-F4002	IC-F5022 IC-F6022	IC-F5012 IC-F6012
Frequency Range		136–174 MHz			136–174 MHz	136–174 MHz	
		400–470 MHz			400–470 MHz	400–470 MHz	
Channels		128	128	16	16	128	8
Channel Spacing		12.5, 20, 25 kHz			12.5, 20, 25 kHz	12.5, 20, 25 kHz	
Dimensions*1 (W × H × D: Projections are not included)		52.2 × 111.8 × 30.3 mm			58 × 111 × 35.5 mm	150 × 40 × 117.5 mm	
Weight*1 (approx.)		270 g			272 g	800 g	
RF output power (High)		5 W (VHF) 4 W (UHF)			5 W (VHF/UHF)	25 W	
IP Rating		IP67			IP54		
Operating Time*2 (Hours)		20			31		
Display		●	●			●	LED lighting
Keypad		Full	Limited			●	
AF Output Power (Internal SP)		1500 mW typ.			1500 mW typ.	4 W typ.	
Voice Scrambler		●					
CTCSS/DTCS	Encoder/Decoder	●			●	●	
2-Tone/5-Tone	Encoder/Decoder	●			●	●	
DTMF		●			●	●	
MDC 1200		●*6			●*3	●*7	
BIIS 1200		●*3			●*3	●*5	
Man Down		●					
Lone Worker		●			●	●	
Motion Detection Sensor		●					
Channel Announcement		●					
Emergency Call		●			●	●	
Stun/Kill/Revive		●*4			●*4	●*4	
Remote Monitor		●*4			●*4	●*4	

*1 With standard battery pack *2 5:5:90 duty cycle, power save ON *3 PTT ID and emergency call *4 RX only *5 PTT ID only
*6 PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX), transmit status messages only *7 PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX) only

All stated specifications and features are subject to change without notice or obligation.

Licence-Free Radios for Professional Use

dPMR 446/PMR446 Transceivers

IC-F29SDR Digital/Analogue

Multifunctional Professional Radio, Talk, Listen and See Messages

- dPMR 446 (Digital) and PMR 446 (Analogue) in one radio, Digital 32 channels, Analogue 16 channels
- Display and 4 programmable keys on the front
- Status message
- IP67 Waterproof and Dust-tight
- Alert-Ring function for emergency situations
- 26 hours battery life (with BP-280)
- 11 km coverage*

* Wide open space. Communication range will vary, depending on the terrain and conditions.

dPMR 446/PMR446 Transceivers

IC-F29DR3 Digital/Analogue

Digital Licence-Free Radio with Professional Durability

- dPMR 446 (Digital) and PMR 446 (Analogue) in one radio, Digital 32 channels, Analogue 16 channels
- IP67 Waterproof and Dust-tight
- 26 hours battery life (with BP-280)
- Lone Worker Function
- AquaQuake™
- 11 km coverage*

* Wide open space. Communication range will vary, depending on the terrain and conditions

PMR446 Transceivers

IC-F29SR2 Analogue

Reliable High-Grade Radio for Demanding Workplaces

- PMR 446 (Analogue 16 channels)
- Built-in voice scrambler for private conversation
- IP67 Waterproof and Dust-tight
- 33 hours battery life (with BP-280)
- 8 km coverage*

* Wide open space. Communication range will vary, depending on the terrain and conditions.

PMR446 Transceivers

IC-U20SR Analogue

Professional Radio for Restaurants and Retail Shops Enhances Hospitality

- PMR 446 (Analogue 16 channels)
- Compact and lightweight with IP54 / MIL-STD-810G
- 21 hours operation with BP-304A
- USB Type-C™ charging
- Emergency call button on the top of the panel
- Smart-ring function to check communication range
- Alert-ring function for emergency situation
- 8 km coverage*

* Wide open space. Communication range will vary, depending on the terrain and conditions.

Functions / Specifications		IC-F29SDR	IC-F29DR3	IC-F29SR2	IC-U20SR
Frequency Range		PMR446: 16 ch dPMR446: 32 ch	PMR446: 16 ch dPMR446: 32 ch	PMR446: 16 ch	PMR446: 16 ch
Channels					
Channel Spacing		6.25, 12.5 kHz	6.25, 12.5 kHz	12.5 kHz	12.5 kHz
Dimensions*1 (W × H × D: Projections are not included)		52.2 × 111.8 × 29.4 mm	52.2 × 111.8 × 29.4 mm	52.2 × 111.8 × 30.3 mm	50.0 × 156.0 ×26.7 mm
Weight*1 (approx.)		270 g	270 g	270 g	157 g
RF output power (High)		500 mW (ERP)	500 mW (ERP)	500 mW (ERP)	500 mW (ERP)
IP Rating		IP67	IP67	IP67	IP54
Operating Time*2 (Hours)		26	26	33	21
Display		●			●
Keypad		Limited			Limited
AF Output Power (Internal SP)		1500 mW typ.	1500 mW typ.	1500 mW typ.	600 mW typ.
Voice Scrambler				●	
CTCSS/DTCS	Encoder/Decoder	●	●	●	●
2-Tone	Encoder/Decoder				
5-Tone	Encoder/Decoder				
DTMF					
MDC 1200					●*3
BIIS 1200					
Man Down					
Lone Worker		●	●		●
Motion Detection Sensor					
Channel Announcement		●	●	●	●
Status Message		●			
Emergency Call					●*4

*1 With standard battery pack *2 5:5:90 duty cycle, power save ON *3 PTT ID and emergency call (TX) *4 TX only. An MDC compatible transceiver is necessary for receiving.
All stated specifications and features are subject to change without notice or obligation.

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