# Icom Products and Accessories







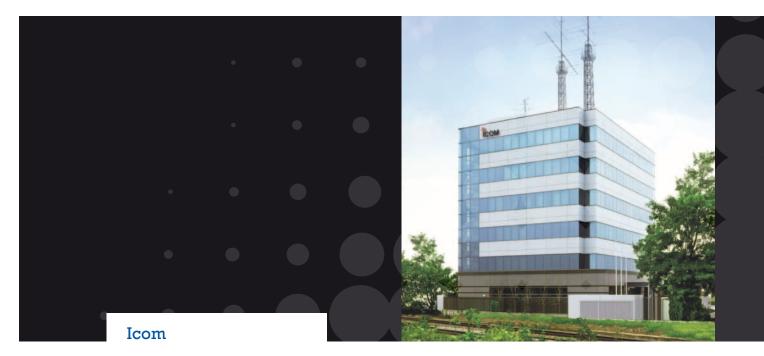








# **ICOM**



# ICOM, THE WIRELESS COMMUNICATION

Icom Inc. is a company located in Osaka, Japan, and is a manufacturer of wireless communication products. Icom was established in 1954, they have a long record as a trusted manufacturer of land mobile radio, amateur radio, marine radio, navigation products, aviation radio and communications receivers.

### ICOM QUALITY AND ICOM RELIABILITY

Over 50 years of engineering and production exellence is a part of every lcom product. Using the latest equipment, lcom radios are tested to pass rigorous in-house tests as well as environmental tests to the US Military standard 810 specifications. Icom's products are also compliant with the European RoHS directive.

### MADE IN JAPAN QUALITY

Icom is a rare example of an electronics manufacturer that has not shifted production to lower cost countries, but kept its procuction base 100% in Japan. The Wakayama Icom plant has an advanced production system to produce volume/multimodel wireless communication products.

### ICOM, WORLD BRAND NAME

Icom is today recognized as a reliable 2-way radio brand name around the world. There land mobile radios are used by many professional organizations all over the world, like the United States Department of Defense and the U.S. Marine Corp, who chose Icom as the first Japanese company to supply radios to them.

### ICOM'S WORLDWIDE NETWORK

Icom products are sold in over 80 countries in the world. Icom has an international sales and service network around the world and with a production capacity of over 1.300.000 units/year they are considered as a market leader in 2-way radio communication products.



THE GRASS REALLY IS GREENER ON THE OTHER SIDE The Time Is Now!





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The PROEQUIP series is a product line specially designed to meet the high demands from the market. The accessories have a robust and waterproof construction and all contacts is extra strengthen to endure more stress. PROEQUIP is constructed to meet IP-65.

# IC-F3002/F4002

### SIMPLE OPERATION FOR INSTANT COMMUNICATION

The IC-F3002 series is so easy to use there's no special training required. The few knobs and buttons are generously sized for easy operation and are designed to provide non-slip, positive action – even while wearing gloves.

# INFO

DESCRIPTION ART.NO IC-F3002 80117 IC-F4002 80118

# Handportabel

#### Easy to hear in noisy areas

The built-in bridge-tied load (BTL) amplifier offers powerful 800mW\* audio output from the large 45mm speaker. The radio delivers loud and intelligible audio even in noisy environments.

#### Longer operating time

A new high efficiency FET of the IC-F3002 series reduces consumption current and provides 20 hours\* of operating time with the BP-265, 2000mAh battery pack. \*Tx:Rx:Standby=5:5:90. Power save function ON.

### Weather resistant, dust protection, military rugged

While the radio is a compact unit with a height of only 111mm, the radio is tested to dust protection and water resistant equivalent to IP54 and 11 categories of MILSTD- 810 environmental test. In short, the IC-F3002 series is built rugged!

### Internal VOX capability for hands-free operation

The radio has the internal VOX capability for hands-free operation. Optional compatible headset with plug adapter cable OPC-2004 can be used with the radio. Also, the VOX gain and VOX delay time are adjustable.

- MIE

IC-F3002/ IC-F4002

### **UNIVERSAL KIT – THE CUSTOMERS CHOICE**

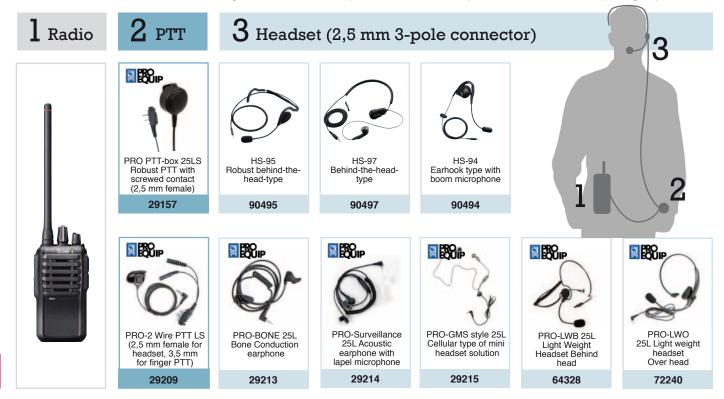
### l Your radio

**2 Choose PTT solution** 

**3 Choose Audio solution** 

You have two PTT options to choose between. If you like a standard rugged PTT which you can put in your belt you go for the PRO-PTT Box and if you prefer to have a finger PTT solution you can use the PRO-2 Wire.

Choose your Audio (microphone & speaker) - The flexibility of the system enables you to choose from a wide range of solution and also maybe have several kits that you can alternate between depending on your needs.





# IC-F3022/4022|F34/F44

### **BUILT TO LAST, BUILT TO WORK!**

These series are designed to provide simple operation for everyone but it is also a powerful and reliable radio for your daily business. Its very durable construction is resistant to shock and vibration. The IC-F3022/IC-F34 series will easily exceed your expectations.

### INFO

DESCRIPTION	ART.NO
IC-F34GS	83453
IC-F34GT	83403
IC-F44GS	80485
IC-F44GT	80435
IC-F3022T	83024
IC-F4022T	82024

# Handportabel

### Tough and reliable construction

These radios are built around an aluminum die-cast chassis and covered with a tough polycarbonate casing. They are built to last. Its dual slide rail securely locks the battery to the radio. The belt clip is clamped between the radio and the battery, making it nearly impossible to knock loose.

Having only a few buttons and distincti-

ve volume and channel knobs, the IC-

F3022/ IC-F34 series does not require

special training to use. Positive button action for sure operation even when wearing gloves, allows you to get down to the business of communicating without fuss.

### Lithium-Ion battery pack

The radios are supplied with a large Li-Ion battery pack which provides long operating time. An optional battery case provides a great assurance in an emergency.



IC-F34GT/ F44GT

### **UNIVERSAL KIT – THE CUSTOMERS CHOICE**

### **l Your radio**

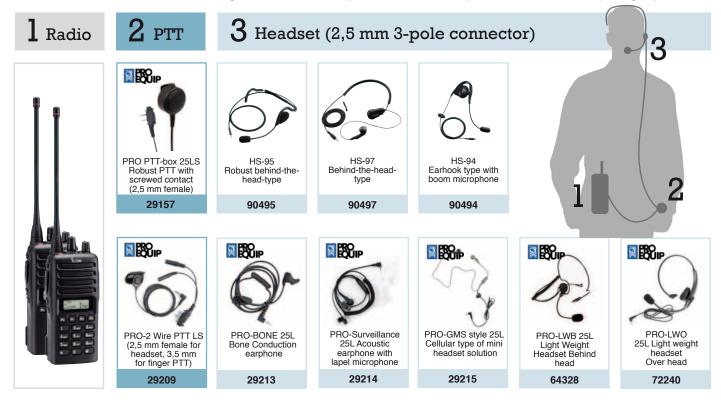
Simple operation

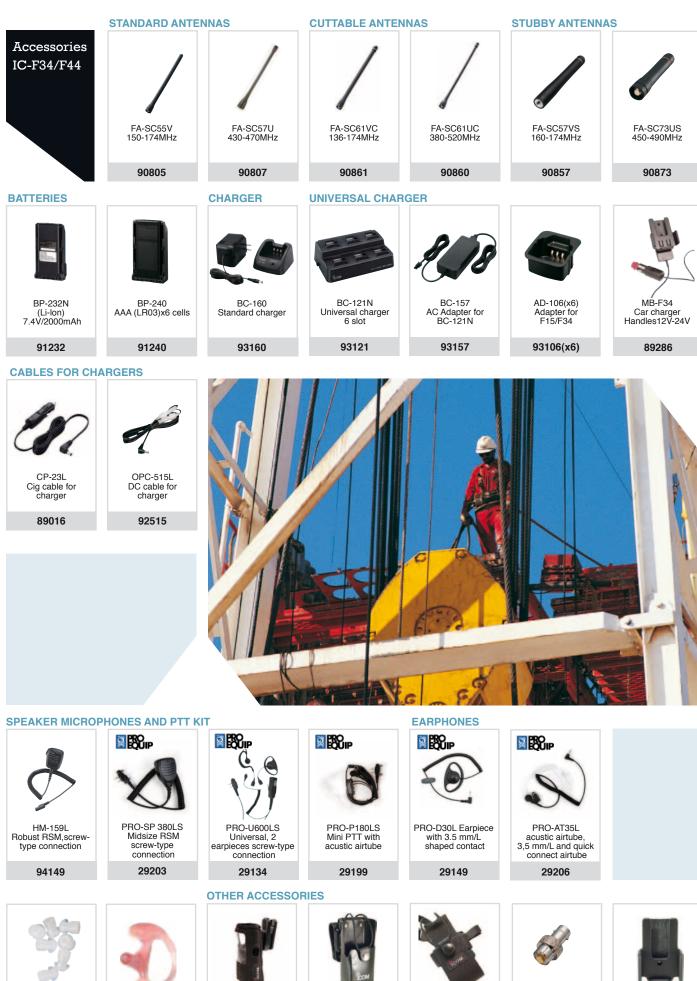
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Rubber Eartip for acustic airtube (10 pcs/set)

60253

Open insert 3-pack left/right ear (S,M,L) EFI-L/EFI-R 60278/60279 Nylon case With belt hanger for F34-series 91161 Leather case With belt hanger

91143

Open harness 3 strap version for good comfort

91169

AD-98FSC Antenna adapter

93098

Car holder for F34-series

89287

7

# IC-F51V/F61V

### NEVER MISS IMPORTANT CALLS

The IC-F51V series offers loud audio, vibration alert and voice recorder functions that let you catch every call. Furthermore, the IC-F51V offers a compact dust and waterproof package that provides reliable communications, and is easy to use in nearly any environment.

# INFO

 DESCRIPTION
 ART.NO

 IC-F51V
 85212

 IC-F61V
 85213

# Handportabel

### Vibration alert function

When a important call is received, the radio vibrates powerfully enough to be felt through heavy clothing.

#### 8 minute voice recorder

When a pre-programmed call is received, the voice recorder automatically starts recording the incoming message. You will not miss an important call even when you are temporarily away from the radio.

IP67, dust-tight and waterproof protection The IC-F51V series can withstand submersion in 1m depth of water for up to 30 minutes and has dust-tight construction that prevents the ingress of dust.

# 700mW (typical) audio output with internal speaker

The IC-F51V series delivers a loud 700mW audio output with the built-in BTL amp. The built-in audio compander provides clear, low noise communications.



### **UNIVERSAL KIT – THE CUSTOMERS CHOICE**

### l Your radio

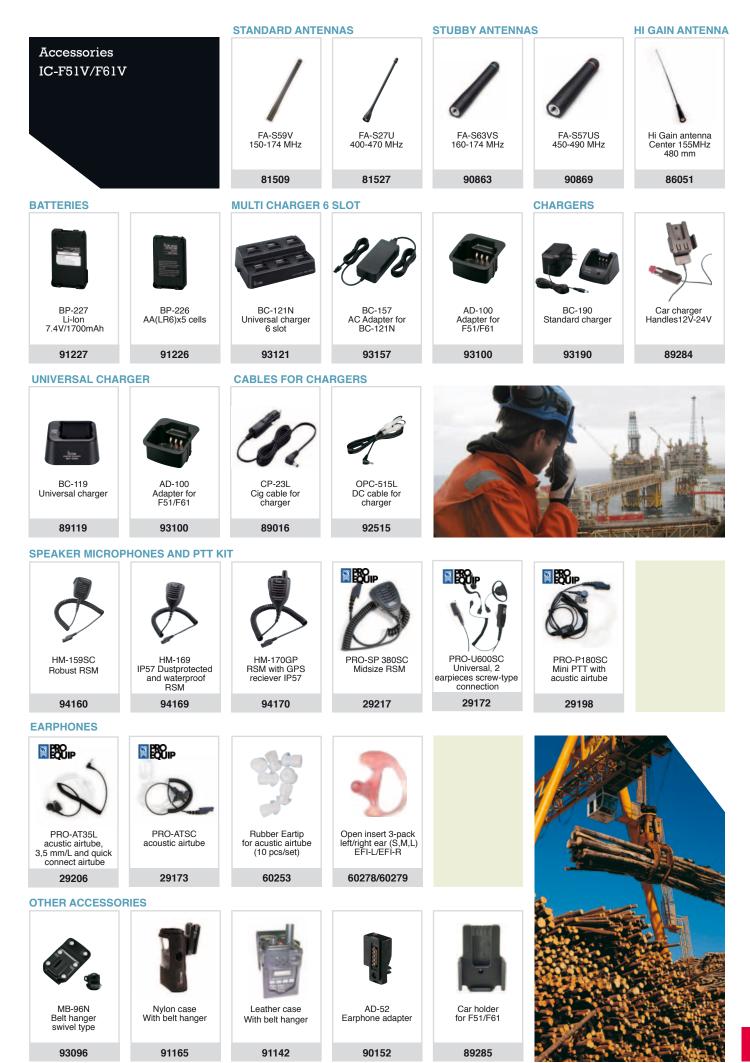
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Choose your Audio (microphone & speaker) - The flexibility of the system enables you to choose from a wide range of solution and also maybe have several kits that you can alternate between depending on your needs.





# IC-F3162/F4162

### CONVENTIONAL/ DIGITAL MULTI-MODE LAND MOBILE!

Designed and built for advanced communication needs, the ICF3162 series handhelds are feature-rich with built-in multiple signalings and trunking capability. Two optional slots support numerous extension capabilities including IDAS digital operation.

### INFO

DESCRIPTION	ART.NO
IC-F3162GS	83162
IC-F3162GT IC-F4162GS	83163 84164
IC-F4162GT	84162

# Handportabel

### Dot matrix, multi-function LCD

The IC-F3162 series has a large dot matrix display to show information with high resolution characters. The display can show one line and 12 characters, or two lines and 24 characters. The bottom row shows assigned functions to the [P0] to [P3] buttons. IDAS, 6.25kHz digital mode ready

The radio supports IDAS 6.25kHz digital mode with the optional UT-126H digital unit.

#### 512 memory channels with 128 zones

The 512 memory channel capacity with 128 zones allows you to divide and store a variety of channel groupings for versatile and efficient fleet management.



IC-F3162T/ F4162GT

IC-F3162S/ F4162GS

### Loud audio output with BTL amp

The IC-F3162 series employs a BTL amplifier that increases the audio output and the built-in audio compander provides clear, low noise communications.

### **UNIVERSAL KIT – THE CUSTOMERS CHOICE**

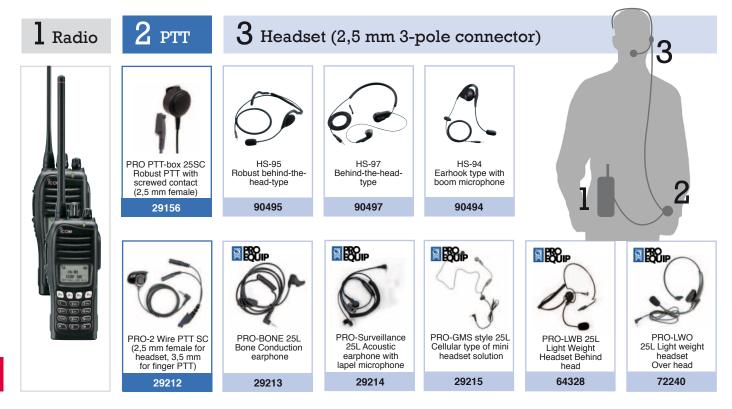
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	STANDARD ANTER	NAS	CUTTABLE ANTEN	INAS	STUBBY ANTENNA	S
Accessories IC-F3162/ F4162			/	/		C.I.
	FA-SC55V 150-174MHz	FA-SC57U 430-470MHz	FA-SC61VC 136-174MHz	FA-SC61UC 380-520MHz	FA-SC57VS 160-174MHz	FA-SC73US 450-490MHz
	90805	90807	90861	90860	90857	90873
	BATTERIES			A DESCRIPTION OF THE OWNER OF THE		
	BP-232N	BP-240			91661 Case	
	(Li-lon) 7.4V/2000mAh	AAA (LR03)x6 cells				the second
	91232	91240		CORE ON POWER OF SHEER STORES	A CONTRACTOR OF THE OWNER OWNER OF THE OWNER OWNE	
CHARGERS		UNIVERSAL CHAP	RGER	MULTICHARGER		
					<i>#</i> 8	
BC-160 Standard charger	Car charger Handles12V-24V	BC-119 Universal charger	AD-106 Adapter for F3162	BC-121N Universal charger 6 slot	BC-157 AC Adapter for BC-121N	AD-106 Adapter for F3162
93160	89286	89119	93106	93121	93157	93106
SPEAKER MICROP	PHONES AND PTT KI	T				
$\checkmark$				RECOILS	<b>EQUIP</b>	
HM-159SC Robust RSM	HM-169 IP57 Dustprotected and waterproof RSM	HM-170GP RSM with GPS reciever IP57	PRO-SP380SC Midsize RSM screw-type connection	PRO-U600SC Universal, 2 earpieces screw-type connection	PRO-P180SC Mini PTT with acustic airtube	
94160	94169	94170	29217	29172	29198	
EARPHONES	ET PRO					
		235	Ð			
PRO-AT35L acustic airtube, 3,5 mm/L and quick connect airtube	PRO-ATSC acoustic airtube	Rubber Eartip for acustic airtube (10 pcs/set)	Open insert 3-pack left/right ear (S,M,L) EFI-L/EFI-R			
29206	29173	60253	60278/60279	a start a start	1000 - IN	
				AN IN	<b>S</b>	
MB-96N Belt hanger swivel type	Leather case With belt hanger	AD-52 Earphone adapter	Car holder for F3162-series	UT-126H IDAS digital unit	AD-98FSC Antenna adapter	
93096	91218	90152	89287	94126	93098	

# IC-F5022/F6022 | IC-F5062/F6062 | IC-F1710/F2710

### VERSATILE, POWERFUL COMMUNICATIONS

Today's mobile workers need to get information and respond to it immediately, at any time, from any place. The ICOM mobile radios are designed to support critical expectations with reliable communications and versatile features.

### Mobile

### Large multi-function LCD

All the mobiles has a multi-function LCD with bank name and decoded text, etc. Various status icons for such functions as an S-meter and output power, etc., enhance the array of information available to the user.

### Rugged construction

Icom mobiles has durable construction resistant to shock and vibration and provides reliable operation under harsh conditions.

### Built-in versatile tone signaling

Independent volume knob and powerful speaker

All mobiles has a front firing 4W (typ.) speaker providing crisp and clear audio. Independent volume knob offers quick operation.

5-Tone, CTCSS, and DTCS encoder/decoder are equipped as standard. Multiple 5-Tone codes are programmable on a channel.



IC-F5022/F6022



IC-F5062/F6062



IC-F1710/F2710



IC-F1810/F2810



### INFO

DESCRIPTION	ART.NO
IC-F5022	85022
IC-F6022	85023
IC-F5062	84164
IC-F6062	84162
IC-F1710	81710
IC-F1810	81810
IC-F2710	82710
IC-F2810	82810



# IC-FR3100/FR4100 | IC-FR5100/FR6100

### **ADVANCED POWERFUL REPEATERS**

Icom's repeaters have been designed as advanced heavy duty performers to support all types of commercial radio applications. A host of standard features and guaranteed Icom performance means you'll need to look no further to satisfy your communication needs.

### Mobile

### 25 Watt full duty cycle operation

Employing a high performance power amplifier and effective cooling system, the IC-FR3100/FR5100 provides a stable 25W at full duty cycle operation.

### Multiple CTCSS tone decode

The Repeaters detects multiple CTCSS on a channel (up to 16 tones on a table) and downlinks (transmits) the received signal with a specified tone. This function is useful for sharing a channel with multiple groups.

#### **Rugged construction**

Icom Repeaters has durable construction resistant to shock and vibration and provides reliable operation under harsh conditions.

### Versatile multipin accessory connector

Powerful accessory connector (D-sub 25-pin) for connecting trunking controllers or other external devices



UR-FR5100/ FR6100

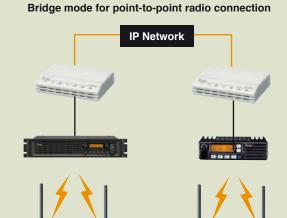


IC-FR5100/FR6100



IC-FR3100/FR4100



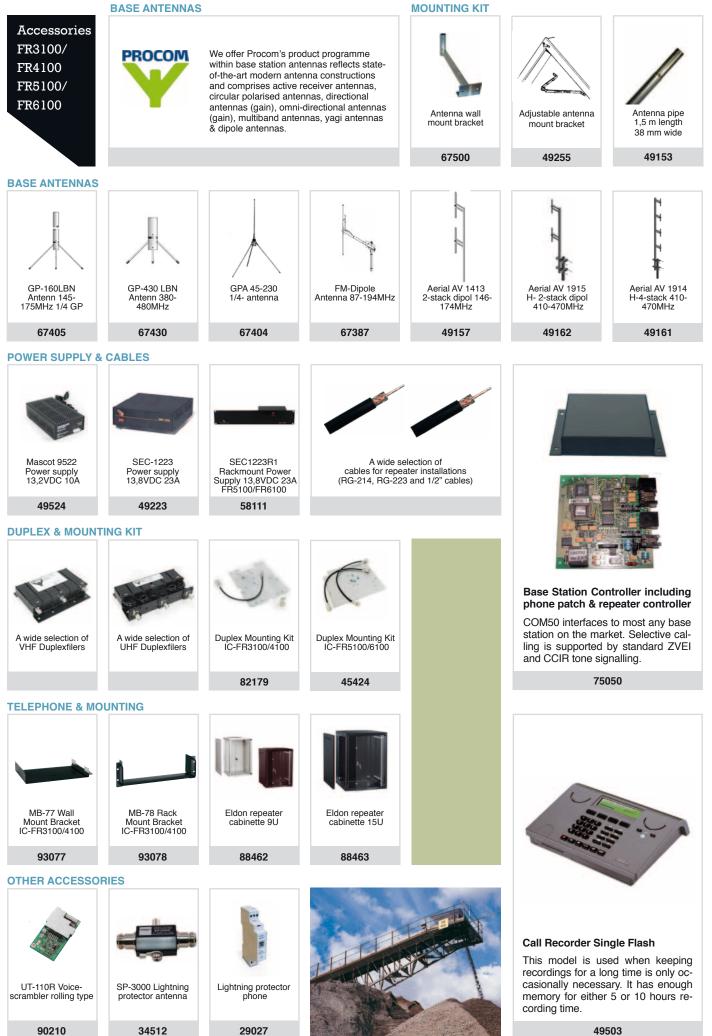


# VE-PG2

### Simple, Affordable Radio over IP Gateway

The VE-PG2 is a "Radio over IP Gateway" which connects an analog radio (repeater or transceiver) with another radio over an IP network. By interconnecting two or more radios over an IP network, your communication range can be expanded.







# **IDAS SYSTEM**

### **IDAS** Features

IDAS<sup>™</sup> is Icom's digital land mobile radio system using the NXDN common air interface and offers a complete system of handheld radios, mobile radios, repeaters, network interface/trunking controller, IP-based virtual radio, various accessories and a complete system solution.

### **IP** Network

An IDAS conventional IP network can extend your communication coverage. It lets you connect dispersed sites and allows you to communicate like a single site.

### **Digital Features**

A significant advantage of the IDAS radio is their ability to operate in mixed analog/ digital mode. There are a number of configurations available that enable the radio to hear both analog and digital but respond only in one or the other.

#### Trunking

Icom brings a proven approach to digital trunking by providing the benefits of familiarity, efficiency and cost effectiveness with the complete line of IDAS trunking digital radios.

### Audio Clarity

We learned from our long distance telephone carriers that digital circuits allowed us to "hear a pin drop" - something the analog lines could never do. Now the clarity of digital technology has found it's way into two-way radios with IDAS.

#### Migration

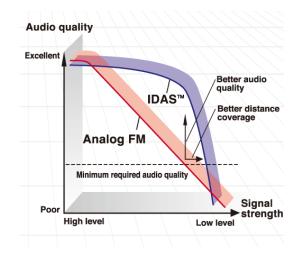
IDAS allows your company to experience the benefits of digital radio while using your analog channels where they remain. IDAS bridges the systems together so all radios, analog or digital, can talk to one another - a no compromise, seamless migration.

#### Efficiency

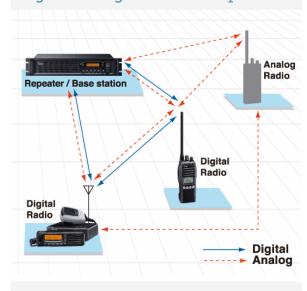
Digital technology is more efficient than analog, meaning more information can be transmitted in a given bandwidth. The time to switch to digital is here for your TV and your radio system. Icom can help you transition to digital radio now.



### Analog vs Digital Coverage



### Digital/Analog mixed mode operation



INFO	
DESCRIPTION	ART.NC
UC-FR5000	85103
CF-FR5000MC	85104
CT-23	85106
RC-FS10	85105
IC-F3162S	83162
IC-F3162T	83163
IC-F4162S	84164
IC-F4162T	84162
IC-F5062	85061
IC-F6062	85064
UT-126H	94126
HM-170GP	94170
UR-FR5100	85101
UR-FR6100	86101
RMS004 incl. map	49966
RMS003 Client	49965



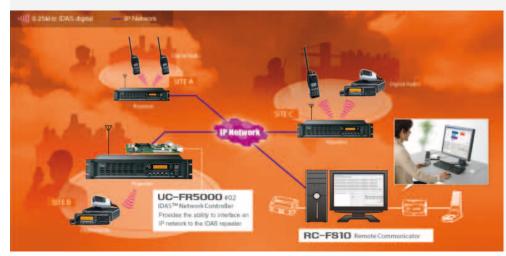




IC-FR5100/FR6100



### Communication link for distant location



### Up to 16 IDAS™ repeaters connection over IP network

With the optional UC-FR5000, up to 16 IDAS<sup>™</sup> repeaters can be interlinked with each other. An IDAS terminal radio user can communicate with other IDAS<sup>™</sup> terminal radio users belonging to the interlinked repeater sites and/or a virtual dispatch station on the network.

An IDAS<sup>™</sup> conventional IP network can extend your communication coverage. It lets you connect dispersed sites and allows you to communicate like a single site.

### Shares up to 30 channels with a large number of users



#### **IDAS** Trunking

The IDAS digital trunking and network controller board adds digital trunking features and IP repeater control capabilities to the digital IDAS network. The IDAS trunking system is a distributed system, which does not use a dedicated control channel. The IDAS trunking services on any requested channel, and every channel can be used for voice communications, while the repeater is not required to transmit a control signal continuously. The IDAS Trunking system can have up to 30 repeaters (RF units) per site

### Dispatcher with a lot of features

RMS-Net is a digital radio management system that integrates voice radio communication, text/status messaging, various security features and a full reporting structure of all radio traffic held on a central computer database.

A major strength of RMS-Net is its reporting features. All radio traffic is logged and stored on a central database. This is ideal for management control and future resource planning including personnel database management.

Easy to set up, easy to use Running under Microsoft Windows operating system, RMS-Net follows Microsoft style for look and feel.

Mapping Options RMS-Net supports online mapping including Google Earth, Openstreet Maps, Bing Maps, Yahoo Maps, MapPoint 2009 and Raster Maps as well as some custom maps.







RC-FS10 Remote Communicator The RC-FS10 Remote Communicator creates a virtual radio/simple dispatcher on a Windows®-based PC. It allows you to remote access IDAS repeaters via an IP network and communicate with IDAS radio terminals even from outside of the radio coverage area.

# **TECHNICAL SPECIFICATION**

IC-F3002/F4002



LL LL

GENERAL			IC-F3002	IC-F4002	
Frequency coverage			136-174 MHz	400-470 MHz	
Number of	channels		16		
Channel sp	acing		12.5/2	5 kHz	
Current drain	Tx High		1.3A	1.3A	
uram	Rx	Stand-by	70mA		
		Max. audio	330	mA	
Dimensions	s (W×H×D)		58×111×35,5 mm		
Weight (app	prox.)		270g (with BP-265)		
TX RF output power		5W	4W		
RX AF outp	ut power		800mW (typ.)		
IP rating			IP-54		
Operation t	ime		20 hours (Tx: Rx: standby = 5:5:90)		



		GENERAL	F34	IC-F44	
Frequency coverage			136-174 MHz	400-470 MHz	
Number of channels 256			256 ch/1	6 zones	
Channel sp	bacing		12.5/25 kHz		
Current Tx High		1.5A	1.7A		
drain	Rx	Stand-by	85mA		
		Max. audio	300mA		
Dimension	s (W×H×D)		53×120×	36.9 mm	
Weight (ap	prox.)		340g (with BP-232N)		
TX RF output power			5W	4W	
RX AF output power		500mW (typ.)			
IP rating			IP-54		
Operation time			16/15 hours (Tx: Rx: standby = 5:5:90)		



# IC-F51V/F61V

GENERAL			IC-F51V	IC-F61V
Frequency cove	Frequency coverage		136–174 MHz	400–470 MHz
Number of chan	nels		128 ch/8 zones	
Channel spacing	3		12.5/20/25 kHz	
Current drain	Tx High		1.8A	1.8A
	Rx	Stand-by	85mA	
		Max. audio	500mA (Internal speaker)	
Dimensions (W×H×D)		56×97×36.4 mm		
Weight (approx.)		380g (with PB-227)	284g (with BP-227)	
TX RF output power		5W 4W		
RX AF output power		700mW (typ.) (internal speaker)		
IP rating	P rating		IP-67	
Operation time			10 hours (Tx: Rx: standby = 5:5:90)	



# IC-F3162/F4162

GENERAL			IC-F3162T/S	IC-F4162T/S		
Frequency cove	Frequency coverage		136–174 MHz	400–470 MHz		
Number of chan	Number of channels		512 ch/1	28 zones		
Channel spacing	9		12.5	5/25		
Current drain	Tx High		1.5A	1.8A		
	Rx	Stand-by	150A	140A		
		Max. audio	600	)mA		
Dimensions (W>	Dimensions (W×H×D)		53×136×38.9 mm			
Weight (approx.	)		340g /with	340g /with PB-232N)		
TX RF output po	ower		51	5W		
RX AF output power		500mV	500mW (typ.)			
IP rating		IP-	IP-55			
Operation time			14 hours (Tx: Rx:	14 hours (Tx: Rx: standby = 5:5:90)		







# IC-F5022/F6022 | F5062/F6062 | F1710/F1810

G	ENERAL		IC-F5022	IC- F6022	IC-F5062	IC- F6062	IC-F1710/ IC-F1810	IC- F2710/ IC-F2810	
Frequency coverage		136–174 MHz	400-470 MHz	136–174 MHz	400–470 MHz	136–174 MHz	400–470 MHz		
Number of cha	annels		128 ch/	8 zones	512 ch/12	28 zones	256 ch/3	256 ch/32 zones	
Channel spaci	ng		12.5/20	/25 kHz	12.5/20/	25 kHz	12.5/20/25 kHz		
Current drain	Current drain Tx High		5	5A		7A		7A	
	Rx	Stand-by	250	mA	300	300mA		600mA	
		Max. audio	0.7A		1.2A		1.2A		
Dimensions (V	Dimensions (W×H×D)		150×40×117.5 mm		160×45×150 mm		175×45×170 mm		
Weight (approx.)		800g		1.3kg		1.5kg			
TX RF output power		25W		25W		25W			
RF AF output p	ower		4W (	typ.)	4W (typ.)		4W (typ.)		

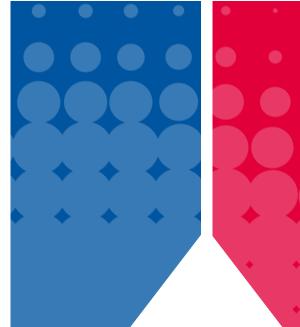
# IC-FR3100/FR4100 | FR5100/FR6100

GENERAL			IC-FR3100	IC-FR4100	IC-FR5100/ UR-FR5100	IC-FR6100/ UR-FR6100
Frequency coverage			150–174 MHz	400–430 MHz	136–174 MHz	400–470 MHz
				450–480 MHz		
Number of channels			32 ch		32 ch	
Channel spacing			12.5/25		6.25/12.5/25 kHz	
Power supply			220-240V AC (50/60Hz) or 13.2V DC		13.2V DC	
Current drain	Tx High		10A	12A	7A	
	Rx	Stand-by	1A (typ.)		400mA	
		Max. audio	2A	(typ.)	190	0mA
Dimensions (W×H×D)			410×110×360 mm		483×88×260 mm	
Weight (approx.)			12kg		5.6kg	
TX RF output power			25W		25W	
RX AF output power			2.5W (typ.) with a $4\Omega$ load		3.5W (typ.) with a $4\Omega$ load	











The VHF Group AS is an international holding company with head office in Oslo, Norway. The companies that form the VHF Group have been active since the late 1960s. The VHF Group was founded in 1980.

The Group was founded in order to improve our marketing profile and our negotiation position in relation to our suppliers. This in turn has helped us to become more competitive and increase our market share. The Group has companies in Sweden, Norway, Denmark and Poland, as well as exclusive agreements with external agents in Iceland and Finland.

The focus and area of activity of the VHF Group is wireless communications. Our core business is the import and distribution of products and services, as well as related support. Sales to end customers are handled by our broad network of highly skilled resellers.

We are a growth-oriented group of companies with our own competence within marketing, service, support, logistics, IT and administration. We do not conduct costly hardware development and as such we have been able to create a stable financial platform to relay on for the future. We do, however, carry out some changes to our products to ensure that they are suited to the Nordic market and we also do customisation.

An annual turnover of around Euro 30 millions and 68 employees make the VHF Group one of the largest privately-owned wireless communications companies in Scandinavia.

We have a wide range of suppliers and our key contacts include Icom Inc, Sepura, DAMM and Frequentis. We cooperate closely with these suppliers and as a result we have access to feedback from the market, which helps us to meet the ever-changing needs of our customers.

Together with our suppliers, the VHF Group is looking forward to an exciting future where we are in a position to offer the products and services that meet our customers' wireless communication needs in most environments and applications – today and tomorrow.



A COMPANY IN THE VHF GROUP

