

# SPECIFICATIONS

## HANDHELD TRANSCEIVERS

	IC-A25N IC-A25C	IC-A25NE IC-A25CE	IC-A16	IC-A16E
NAV/COM channels	VOR NAV & COM (IC-A25N) COM (IC-A25C)	VOR NAV & COM (IC-A25NE) COM (IC-A25CE)	COM	COM
Built-in GPS	✓ (IC-A25N)	✓ (IC-A25NE)	-	-
Bluetooth®	✓ (IC-A25N)	✓ (IC-A25NE)	✓ (Depending on the version)	
IP rating	IP57	IP57	IP67/IP54	
Flip-flop channel recall	✓	✓	-	-
MIL-STD 810	✓(G)	✓(G)	✓(G)	✓(G)
Android™/iOS™ app for flight planning	✓ (IC-A25N)	✓ (IC-A25NE)	-	-
Frequency range (unit: MHz)	TX 118.000-136.992 RX IC-A25N 108.000-136.992 161.650-163.275 (Weather) IC-A25C 118.000-136.992 161.650-163.275 (Weather)	IC-A25NE 108.000-136.992 IC-A25CE 118.000-136.992	108.000-136.992 161.650-163.275 (Weather)	118.000-136.992
Number of memory channels	300 channels (15 groups)		200 channels (10 groups)	
Channel spacing*1	25 kHz/8.33 kHz		25 kHz/8.33kHz	
Power supply requirements	7.2 V DC (BP-288) 11.0 V DC (External DC jack)		7.2 V DC (BP-280)	
Current drain	1.8 A 90 mA typical (GPS, Bluetooth, Light:OFF) 500 mA		1.8 A 65 mA typical 650 mA	
Dimensions*2 (WxHxD)	58.9 x 148.4 x 31.8 mm; 2.3 x 5.8 x 1.3 in		52.2 x 111.8 x 34.1 mm; 2.1 x 4.4 x 1.3 in	
Weight (approx.)	384 g; 13.6 oz (with BP-288 and ANT)		257 g; 9.1 oz (with BP-280)	
Operating temperature range	-10°C to +60°C; 14°F to +140°F		-10°C to +60°C; 14°F to +140°F	
Frequency stability	±0.4 kHz		±0.4 kHz	
Output power (PEP/carrier power)	6 W typical/1.8 W		6 W typical/1.8 W	
Microphone impedance	150 Ω		150 Ω	
Sensitivity (COM)	Less than 0 dBμ (at 6 dB S/N)		Less than 0 dBμ (at 6 dB S/N)	
Adjacent channel rejection	More than 60 dB		More than 60 dB	
Spurious response (COM)	More than 60 dB		More than 60 dB	
Audio output power (at 10% distortion)	1200 mW typical (Internal SP) 530 mW typical into an 8 Ω load (External SP)		1500 mW typical (Internal SP) More than 350 mW into an 8 Ω load (External SP)	

## PANEL MOUNT TRANSCEIVERS and MOBILE TRANSCEIVERS

	IC-A220 [TSO version]	IC-A220	IC-A210E	IC-A120	IC-A120E
TSO certification	✓	-	-	-	-
NAV/COM channels	COM	COM	COM	COM	COM
Intercom	✓	✓	✓	-	-
Automatic SQL	✓	✓	✓	✓	✓
Active Noise Canceling	-	-	-	-	-
Bluetooth®	-	-	-	✓ (Use with UT-133A)	✓ (Use with UT-133A)
IP rating	-	-	-	IP54	IP54
MIL-STD 810	✓(G)	✓(G)	✓(F)	✓(G)	✓(G)
Frequency range (unit: MHz)	TX 118.000-136.992 RX 108.000-136.992 161.650-163.275 (Weather)	118.000-136.992	118.000-136.992	118.000-136.992	118.000-136.992
Number of memory channels	20 channels (Regular)		10 channels (Regular)	200 channels	
Channel spacing*1	25 kHz/8.33 kHz		25 kHz/8.33 kHz	25 kHz/8.33 kHz	
Power supply requirements	13.8 V or 27.5 V DC (automatic selection)			13.75 V or 27.5 V DC (automatic selection)	
Current drain	5.0 A maximum 500 mA 4.0 A		5.0 A maximum 500 mA maximum 4.0 A maximum	5.0 A maximum 500 mA maximum 4.0 A maximum	
Dimensions*2 (WxHxD)	160 x 34 x 271 mm; 6.3 x 1.3 x 10.7 in		161 x 45 x 175 mm; 6.3 x 1.8 x 6.9 in	161 x 45 x 175 mm; 6.3 x 1.8 x 6.9 in	
Weight (approx.)	1.2 kg; 2.6 lb		1.0 kg; 2.2 lb	1.5 kg; 3.3 lb (main unit)	
Operating temperature range	-20°C to +55°C		-20°C to +55°C	-30°C to +60°C	-20°C to +55°C
Frequency stability	±5 ppm		±1 ppm (0°C to +40°C)	±5 ppm (-30°C to +60°C)	±1 ppm (0°C to +40°C)
Carrier power	8.0 W		6.0 W (4.5-8 W)	9 W typical	9 W (+1.5 dB/-3 dB)
Microphone impedance	600Ω		600Ω	600Ω	
Sensitivity (COM)	-101 dBμ (at 6 dB S/N)		-101 dBμ (at 12 dB SINAD)	Less than 0 dBμ (at 6 dB S/N) Less than +5 dBμ (at 12 dB SINAD with CCITT)	
Selectivity	8.33 kHz ±2.778/±7.37 kHz (6 dB/60 dB) 25 kHz ±3/±22 kHz (6 dB/60 dB)		±2.8 kHz (6 dB) ±8.5 kHz (6 dB)	-	
Adjacent channel rejection	-		-	More than 60 dB	
Spurious response (COM)	74 dBμ		70 dB	74 dBμ 70 dB	
Audio output power (at 10% distortion)	5 W into a 4 Ω load (External SP) 60 mW into a 500 Ω load (Headphone)		1.5W typical (Internal SP) More than 10 W into an 8 Ω load (External SP) More than 100 mW into a 500 Ω load (Headphone)	-	

All stated specifications are subject to change without notice or obligation. \*1 Use of 8.33 kHz channel spacing may be prohibited in some countries. \*2 Projections are not included.

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# Aviation Radios

2019



# 6 W (PEP) Powerful Air Band Radio with Built-in GPS and Bluetooth® Capability

## VHF AIR BAND TRANSCEIVERS

### IC-A25N

NAV & COM channels for USA/EXP

### IC-A25C

COM channels for USA/EXP

### IC-A25NE

NAV & COM channels for EUR/AUS

### IC-A25CE

COM channels for EUR/AUS

#### General Features

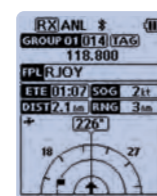
- Class-leading 6 W typical (PEP) and 1.8 W typical (carrier) high power RF output
- Easy-to-use interface
- 2.3 inch large high-visibility LCD with night mode
- “Flip-Flop” channel recall
- Bluetooth® capability for hands-free operation (IC-A25N/NE)
- Intelligent battery with detailed battery status
- 25 kHz/8.33 kHz dual channel spacing

#### Navigation Functions (IC-A25N/NE)

- Built-in GPS with simplified waypoint NAV (Direct-To NAV and Flight Plan NAV)
- Flight plans with Android™ /iOS™ app RS-AERO1A/RS-AERO1I
- VOR navigation functions
- Near station search function



RS-AERO1I map screen example



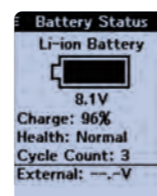
Waypoint NAV screen



VOR screen



Night mode screen



Detailed battery information screen

#### And more

- IP57 dust-protection and waterproof construction
- 2350 mAh typ. battery pack, BP-288 supplied
- BP-289 battery case supplied (depending on version)
- BNC antenna
- 121.5 MHz emergency key
- NOAA weather channels (IC-A25N/C)
- Priority watch
- VFO scan, memory channel scan and priority scan
- ANL (Auto Noise Limiter) for pulse-type noise reduction
- Side tone function enables you to hear your own voice through a third party aviation headset
- Built-in VOX capability
- 300 memory channels (in 15 memory groups) with 12 character names
- 8.33 kHz/25 kHz channel spacing (depending on version)
- External DC power jack
- Optional waterproof speaker microphone, HM-231

#### Supplied accessories: (\* Not supplied or may differ, depending on the radio version.)

- BP-288 battery pack
- BC-224 rapid charger\*
- OPC-2379 headset adapter\*
- MB-133 belt clip
- BP-289 battery case\*
- BC-123SA/SE/SV AC adapter for BC-224\*
- FA-B02AR antenna
- Hand strap



# Class Leading 1500 mW Powerful Audio with a Compact Body

## VHF AIR BAND TRANSCEIVERS

### IC-A16

For USA

### IC-A16E

For EUR

#### General Features

- 8.33 kHz and 25 kHz channel spacing
- 1500 mW loud audio provides clear communications
- 6 W (PEP) /1.8 W (carrier) RF output power
- Bluetooth® capability for Hands-Free operation\*  
\* Bluetooth® operation depends on the transceiver version.
- Large capacity battery pack provides 17 hours\* of long battery life  
\* With BP-280. Typical operation with TX : RX : Standby = 5:5:90. (Bluetooth® OFF, backlight OFF)
- Compact, waterproof and durable body (IP67/IP54 and MIL-STD-810-G)
- LCD and key backlight for night time operation
- Compatible\* with third-party aviation headsets  
\* Optional headset adapter OPC-2401 required.

#### And more

- Auto Noise Limiter (ANL) for noise reduction
- Side Tone function
- Internal VOX capability
- 200 memory channels with names up to 8 characters
- BNC type antenna connector
- VFO scan for all frequencies over the COM band and memory channel scan for tagged channels
- NOAA Weather channels (USA version only)
- Optional waterproof speaker microphone, HM-240
- Low battery indication
- 121.5 MHz emergency key
- Duplex function to call a flight service station while receiving on a VOR frequency (USA version only)



LCD and keypad backlight



IP67 waterproofing



1500 mW powerful audio

#### Supplied accessories: (\* Not supplied or may differ, depending on the radio version.)

- BP-280 battery pack
- BC-242 AC adapter for BC-213\*
- MB-133 belt clip
- BC-213 rapid charger\*
- FA-B02AR antenna
- Hand strap

## High-Quality Panel Mount Radio with TSO Certification



IC-A220 TSO version

### VHF AIR BAND TRANSCEIVER

## IC-A220

TSO version



#### And more

- 8.33 kHz/25 kHz channel spacing with the mixed selection function
- Remote control capability via the rear panel connector
- 9 V power supply operation
- 20 memory channels and 20 history memory channels
- Dualwatch and priority watch functions
- One touch access to 121.5 MHz emergency frequency
- Side tone function
- ANL (Automatic Noise Limiter) function reduces pulse type noise
- Time-out-timer
- D-SUB 25-pin connector and MIL-Spec M39029/63-368 compliant socket pins
- Two types of menu mode; settings menu and configuration menu
- Both 13.8 V and 27.5 V electrical systems compatible
- NOAA weather channel receive
- 8 W carrier power

\* For more details, see the Environmental Qualification Form at [www.icomamerica.com](http://www.icomamerica.com). The IC-A220 TSO version is manufactured and serviced by Icom America Inc. All repairs or adjustment information will be provided from Icom America. (<http://www.icomamerica.com>)

**Supplied accessory:** Mounting bracket kit

**TSO certified to be used as a primary VHF radio in general aviation (Part 23) aircraft (Certified TSO C128a and C169a)**

**The IC-A220 TSO version is also accepted as an ETSO radio under the TSO/ETSO reciprocal acceptance policy**

**High visibility OLED (Organic Light Emitting Diode) screen**

**Easy channel selection with large “Flip-Flop” arrow button**

**Auto squelch function and quick squelch adjustment**

**Quick squelch adjustment with the Volume knob**

**Auto dimmer function and external dimmer control**

**Intercom function**

## Stay Connected with Various Airport Systems



IC-A210E

### VHF AIR BAND TRANSCEIVER

## IC-A210E

For EUR

#### And more

- 8.33 kHz/25 kHz channel spacing with the mixed selection function
- Remote control capability via the rear panel connector
- 10 regular memory channels with a 6-character channel name
- 200 group memory channels (20 Chx10 banks) with a channel tag
- One touch access to 121.5 MHz emergency frequency
- Side tone function for monitoring your voice with headset
- ANL (Automatic Noise Limiter) function reduces pulse type noise
- Time-out-timer
- PC programming capability
- Squelch test function
- Dualwatch and priority watch functions
- Both 13.8 V and 27.5 V electrical systems compatible
- 6 W typ. carrier power
- Dial lock and panel lock

**Supplied accessories:** (\* Not supplied, depending on the radio version.)

- Mounting bracket kit
- MB-113 rear panel adapter\*

**High visibility OLED (Organic Light Emitting Diode) screen**

**GPS memory function\* for transmitting frequency data of nearby airports** \* External GPS receiver required.

**Easy channel selection with large “Flip-Flop” arrow button**

**Auto dimmer function**

**Intercom function**

**Easy installation with two types of rear-panel adapters**

## Ideal Communication Tool for Your Experimental/Light Sport Aircraft or Ground Use



IC-A220

### VHF AIR BAND TRANSCEIVER

## IC-A220

For USA

#### And more

- 8.33 kHz/25 kHz channel spacing with the mixed selection function
- Remote control capability through a rear panel connector
- 20 memory channels and 20 history memory channels
- Dualwatch and priority watch functions
- One touch access to 121.5 MHz emergency frequency
- Side tone function for monitoring your voice with a headset
- ANL (Automatic Noise Limiter) function reduces pulse type noise
- PC programming capability
- Dial lock and panel lock
- Time-out-timer
- D-SUB 25-pin connector and MIL-spec M39029/63-368 compliant socket pins
- Two types of menu mode; settings menu and configuration menu
- Both 13.8 V and 27.5 V electrical systems compatible
- NOAA weather channel receive
- 8 W carrier power

**Supplied accessory:** Mounting bracket kit

**High visibility OLED (Organic Light Emitting Diode) screen**

**GPS memory function\* for transmitting frequency data of nearby airports** \* External GPS receiver required.

**Easy channel selection with large “Flip-Flop” arrow button**

**Auto squelch function and quick squelch adjustment**

**Auto dimmer function and external dimmer control**

**Intercom function**

**Optional PS-80 power supply for desktop use**

## Enhanced Ground Crew Communications



IC-A120

### VHF AIR BAND TRANSCEIVERS

## IC-A120

For USA/EXP

## IC-A120E

For EUR

#### And more

- Dualwatch and priority scan functions
- Side tone function enables you to hear your own voice via a third party aviation headset
- A total of 200 memory channels with 12-character channel names
- Both 13.8 V and 27.5 V electrical system compatible
- 8.33 kHz and 25 kHz channel spacing (depending on version)
- 36 W (PEP) RF output power
- Power on password protection
- PC programming capability
- CI-V Commands for external control
- VE-PG4 RoIP gateway for interconnect with other radio devices
- Compliant with European E-marking for installation in vehicles (IC-A120E)

**Supplied accessories:**

- HM-216 hand microphone
- DC power cable
- Mounting bracket kit
- Microphone hanger kit
- Fuses

**Full dot-matrix display, simple operation**

**Optional Bluetooth® headset connectivity**

**Active Noise Cancelling (ANC) for background noise reduction**

**IP54 dust-protection and water resistance**

**ON-hook scan function**

**Optional speaker-microphone, HM-217 with two programmable buttons**

## OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	BATTERY PACKS				BATTERY CASES	CHARGERS		MULTI-CHARGER	AC ADAPTER
	BP-288 Li-Ion: 7.2 V/2200 mAh (min.) 2350 mAh (typ.)	BP-278 Li-Ion: 7.2 V/1130 mAh (min.) 1190 mAh (typ.)	BP-279 Li-Ion: 7.2 V/1485 mAh (min.) 1570 mAh (typ.)	BP-280 Li-Ion: 7.2 V/2280 mAh (min.) 2400 mAh (typ.)	BP-289 LR6 (AA) x 6 cells	BC-224 Rapid charger	BC-213 Rapid charger	BC-214 Rapid multi-charger	BC-123S*2 12 V/1 A BC-242 12 V/1 A
IC-A25N/A25NE IC-A25C/A25CE	✓				✓	✓			✓ (Use BC-123S with BC-224)
IC-A16/A16E		✓	✓	✓			✓	✓*1	✓ (Use with BC-213)

\*1 AD-130 charger adapter is supplied with the BC-214, depending on the charger version.  
\*2 BC-123SA for USA plug. SE for Europe plug. SV for Australia plug. UK for UK plug.

MODEL NAME	AC ADAPTER	DC POWER CABLES		CIGARETTE LIGHTER CABLES		SPEAKER MICROPHONES		HEADSET ADAPTERS	Bluetooth® HEADSET
	BC-157S 12 V/7.5 A	OPC-515L	OPC-656	CP-20	CP-23L	HM-231 Waterproof	HM-240 Waterproof	OPC-2379 OPC-2401	VS-3 The side tone function is available.
IC-A25N/A25NE IC-A25C/A25CE				✓		✓		✓ (OPC-2379)	✓
IC-A16/A16E	✓ (Use with BC-214)	✓ (Use with BC-213)	✓ (Use with BC-214)		✓ (Use with BC-213)	✓	✓	✓ (OPC-2401)	✓*3

\*3 For the versions with built-in Bluetooth®.

MODEL NAME	BELT CLIP	LEATHER BELT HANGERS				CHARGER BRACKET	ANTENNA	APPLICATION	PROGRAMMING CABLES	PROGRAMMING SOFTWARE
	MB-133	MB-96F Fixed type	MB-96FL Long type	MB-96N Swivel type	MB-130	FA-B02AR	RS-AERO1A Android™ app RS-AERO1I iOS™ app	OPC-478UC USB type OPC-2144 Plug adapter cable	CS-A25 CS-A16 For Windows® PC	
IC-A25N/A25NE IC-A25C/A25CE	✓	✓ (Use with MB-133)	✓ (Use with MB-133)	✓		✓	✓	✓ (OPC-478UC+OPC-2144)	✓ (CS-A25)	
IC-A16/A16E	✓	✓ (Use with MB-133)	✓ (Use with MB-133)	✓	✓ (Use with BC-213)	✓		✓ (OPC-478UC)	✓ (CS-A16)	

### RS-AERO1A/RS-AERO1I Flight Planning Software

(Free Download Android™/iOS™ Application from Google Play™/App Store)

Using the RS-AERO1A (Android™) or RS-AERO1I (iOS™) application, you can make flight plans on an Android/iOS device and import the plan into the IC-A25N/A25NE via Bluetooth®. The following four functions are available:

#### 1. Create a flight plan

You can make flight plans on an Android/iOS device by using preprogrammed waypoints.

#### 2. Set Direct-To NAV

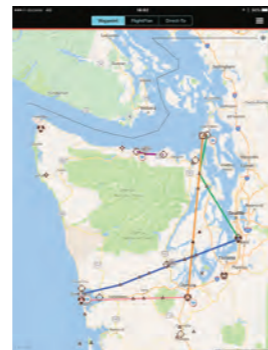
You can select a point on the map and export it to the IC-A25N/NE for Direct-To NAV.

#### 3. Display flight plan information

A flight plan in the IC-A25N/NE can be displayed on an Android/iOS device.

#### 4. Display waypoint information

Preprogrammed waypoints can be exported to an Android/iOS device and plotted on a map application.



RS-AERO1I map screen example  
©2017 Google-Map data /©2017 Google

## OPTIONS FOR PANEL MOUNT AND MOBILE TRANSCEIVERS

MODEL NAME	HAND MICROPHONES			Bluetooth® HEADSET	Bluetooth® UNIT	HEADSET ADAPTER	REAR PANEL ADAPTERS	
	HM-176 Same as supplied with PS-80 and MB-53.	HM-216	HM-217 Speaker-microphone	VS-3	UT-133A	OPC-871A	MBA-3 Card edge connector for use with PS-80.	MB-113 For D-sub 15-pin connection system
IC-A220 TSO version								
IC-A220	✓ (Use with PS-80/MB-53)							✓
IC-A210E	✓ (Use with MB-53)							✓
IC-A120/A120E		✓	✓	✓ (Use with UT-133A)	✓	✓		

MODEL NAME	EXTERNAL SPEAKER	MOUNTING BRACKET	DC POWER SUPPLY	RoIP GATEWAY	CONNECTION CABLE
	SP-35	MB-53	PS-80	VE-PG4	OPC-2275 For connection with VE-PG4. 5m; 16.4ft
IC-A220 TSO version					
IC-A220	✓	✓	✓		
IC-A210E		✓			
IC-A120/A120E				✓	✓

MODEL NAME	PROGRAMMING CABLES		PROGRAMMING SOFTWARE
	OPC-1529R RS-232 cable	OPC-478UC USB type OPC-592 Adapter cable	CS-A220 CS-A210 CS-A120 For Windows® PC
IC-A220 TSO version			
IC-A220	✓ (OPC-1529R)		✓ (CS-A220)
IC-A210E	✓ (OPC-1529R)		✓ (CS-A210)
IC-A120/A120E		✓ (OPC-478UC+OPC-592)	✓ (CS-A120)

✓ :Applicable    □ :Not applicable

Some options may not be available in some countries, or unavailable due to no T/A. Please ask your dealer for details.