iCOM

ID−31A PLUS

D-STAR Communication
The Fun Starts Here!

Silver

Easy Operation

Just select the destination repeater in "To" and a nearby repeater in "From", and you are ready to call other D-STAR stations. Minimum action required with the simple user interface and DR (D-STAR Repeater) function.

Worldwide Digital Communication Wherever You Are

Terminal and Access Point modes enhance the access to D-Star's worldwide network. Communicate long-distance regardless of your location or repeater location.

Terminal Mode
DV Gateway
Access Point Mode

Share Pictures and Text Messages

Pictures and text messages on an Android™ device can be transmitted over D-STAR network using the RS-MS1A application. Data can be sent quicker in the DV Fast Data mode.

IPX7 Waterproof, Compact, Lightweight and Tough

With Icom's pioneering IPX7 waterproofing and pro-grade construction, the ID-31A PLUS is perfect for your shack or playing in harsh outdoor environments.

D-STAR

ID–31A PLUS

D-STAR DV Mode (Digital Voice + Data)

The D-STAR (Digital Smart Technologies for Amateur Radio) DV mode is the world's leading amateur radio digital format. The ID-31A PLUS makes D-STAR calls with digital clarity through a worldwide connected repeater network, or over an Internet gateway, as well as conventional FM calls.

DV/FM Repeater Search Function

The DV/FM near repeater search function assists you in accessing nearby repeaters, even in areas you are visiting for the first time. This function searches for nearby repeaters using the repeater memories with GPS position information.

* To use the near repeater search function, the exact position data of the repeater is required. The ID-31A PLUS will be shipped with D-STAR repeater memories preprogrammed, but the position data of some D-STAR repeaters may not be entered or exact.

Integrated GPS Receiver

Shows your current location and altitude on the display, and offers location reporting and automatic reply functions in the DV mode. GPS log can be saved in a microSD card.
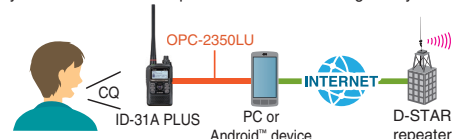
Access Point Mode

The Access Point mode enables another D-STAR transceiver to make D-STAR gateway calls through a ID-31A PLUS connected to the Internet.

OPC-2350LU
ID-31A PLUS · PC or Android™ device · INTERNET · D-STAR repeater

Terminal Mode

By connecting the ID-31A PLUS to the Internet through a Windows® PC or Android™ device, the Terminal mode enables you to use a D-STAR repeater to make D-STAR gateway calls.

OPC-2350LU
CQ · ID-31A PLUS · PC or Android™ device · INTERNET · D-STAR repeater

Other Features

• All functions of the RS-MS1A are usable
• Voice Recorder function
• Transmit and repeat voice memory (60 sec. × 1 memory.)
• 200 GPS memory channels (including altitude data)
• CI-V commands added, such as the GPS TX mode, DV data TX and GPS ON/OFF settings
• GPS transmitting mode and low-speed data communication can be used at the same time (DV mode)
• GPS data output
• Call sign, repeater list and GPS memory import and export in the CSV format
• Enhanced D-PRS functions
• Skip settings for scanning
• Direct transmission of DTMF code
• 5 W maximum output power and five selectable transmit power levels
• A total of 1302 memory channels, including 750 D-STAR repeater memories
• Speech function announces frequency, mode and call sign
• microSD card slot   • Compact UHF antenna supplied

Supplied accessories: • FA-S70B antenna
• BC-167S battery charger* • BP-271 rechargeable Li-ion battery pack
• MB-127 belt clip • Hand strap * Depending on the transceiver version.

SPECIFICATIONS

GENERAL

Frequency coverage	USA (#15, 25, 35)	TX: 430.000–450.000 MHz*1, RX: 400.000–479.000 MHz*1
	EXP (#17, 27, 37)	TX/RX: 400.000–479.000 MHz*2
	EXP (#18, 28, 38)	TX: 430.000–440.000 MHz, RX: 400.000–479.000 MHz*2
Type of emission		F2D, F3E, F7W (DV, FM, FM-N)
Number of memory channels		1302 channels (including 500 regular channels, 750 D-STAR repeater, 50 program scan edges and 2 call)
Operating temperature range		–20˚C to + 60˚C; –4˚F to + 140˚F
Frequency stability		±2.5 ppm (–20˚C to + 60˚C on the basis of 25˚C)
Antenna impedance		50 Ω (SMA)
Power supply requirements		7.4 V DC (with BP-271/BP-272), 5.5 V DC (with BP-273) 10.0–16.0 V DC (External DC power)
Current drain (at 7.4 V DC)	TX High	Less than 2.5 A
	RX Internal SP (16 Ω)	Less than 450 mA (DV), Less than 350 mA (FM, FM-N)
	External SP (8 Ω)	Less than 300 mA (DV), Less than 200 mA (FM, FM-N)
Dimensions (W×H×D) projections not included)		58 × 95 × 25.4 mm; 2.3 × 3.7 × 1 in
Weight (approximately)		220 g; 7.8 oz (including BP-271 and antenna)

Guaranteed range: *1 440.000–450.000 MHz, *2 430.000–440.000 MHz.

TRANSMITTER

Modulation system	DV	GMSK reactance modulation
	FM, FM-N	FM reactance modulation
Output power (at 7.4 V DC)		5 W, 2.5 W, 1 W, 0.5 W, 0.1 W (High, Mid, Low2, Low1, S-low)
Spurious emissions		Less than –60 dBc (High, Mid), Less than –13 dBm (Low2, Low1, S-low)
Max. frequency deviation		±5.0 kHz (FM), ±2.5 kHz (FM-N)

RECEIVER

Intermediate frequency		46.35 MHz (1st), 450 kHz (2nd)
Sensitivity	DV	Less than –11 dBµ (at BER 1%)
	FM, FM-N	Less than –15 dBµ (at 12 dB SINAD)
Squelch sensitivity		Less than –15 dBµ (Threshold)
Selectivity		More than 55 dB (FM), More than 50 dB (DV, FM-N)
Spurious rejection		More than 60 dB
Audio output power	Internal SP	More than 400 mW (16 Ω load at 10% distortion)
	External SP	More than 200 mW (8 Ω load at 10% distortion)

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

OPTIONS

■ BATTERY PACKS & BATTERY CASE
BP-271: 7.4 V/1150 mAh (min.), 1200 mAh (typ.)
    Li-ion battery. Operating time: 4.5 hours (approx.)*
BP-272: 7.4 V/1880 mAh (min.), 2000 mAh (typ.)
    Li-ion battery. Operating time: 7.5 hours (approx.)*
BP-273: AA (LR6)×3 battery case.
* Typical operation with 1:1:8 duty cycle in DV mode.
  (Power save ON.)

■ BATTERY CHARGERS
BC-167SA/SD*: Wall charger. 12 V/500 mA output.
BC-202: Rapid desktop charger.
    Charges the BP-271/272 in 2/3.5 hours (approx.).
BC-123SA/SE/SV*: AC adapter.
* Depending on the transceiver version.

■ CIGARETTE LIGHTER CABLE & DC POWER CABLES
CP-12L: Cigarette lighter cable with noise filter.
OPC-254L/LR: DC power cable.

■ SPEAKER-MICROPHONES & EARPHONE
HM-75LS: Remote control speaker microphone.
HM-183LS: Waterproof speaker microphone.
HM-186LS: Compact type speaker microphone.
HM-153LS: Durable type earphone microphone.
HM-166LS: Light type earphone microphone.
SP-40: Earphone microphone. (OPC-2144 required.)
OPC-2144: Slim L-type plug adapter cable.

■ HEADSETS
HS-94: Earphone-headset. (OPC-2006LS required.)
HS-95: Behind-the-head headset. (OPC-2006LS required.)
HS-97: Throat microphone. (OPC-2006LS required.)
OPC-2006LS: VOX plug adapter cable.

■ APPLICATION & SOFTWARE
RS-MS1A*1: Remote control application for Android™.
RS-MS3A*1: Terminal/Access point mode app. for Android™.
RS-MS3W*2: Terminal/Access point mode app. for Windows® PC.
CS-31PLUS*2: PC Programming software for Windows® PC.
*1 Download free from Google Play™.
*2 Download free from the Icom website.

■ DATA CABLE
OPC-2350LU: USB cable (Type-A, microB) to connect to an Android™ device or a PC.

■ OTHER OPTIONS
AD-92SMA: BNC-type antenna connector adapter.
LC-178: Carrying case.
MB-127: Alligator type belt clip.
FA-S70B: UHF antenna.

Note for the Terminal mode and Access point mode:

• Before operating in the Terminal mode or the Access Point mode, BE SURE to check your local regulations or laws. • An optional free download software, RS-MS3W is required to be installed in a PC. An optional free download application, RS-MS3A is required to be installed in the Android™ device. • You need an Internet connection with an IPv4 Global IP address. If you use a cellular system, you need an IPv4 Global IP address assigned to your Windows® or Android™ device. • When operating in the Access Point mode, you need two call signs. One for the Access Point transceiver and one for the Remote D-STAR transceiver. • For the Access point or Terminal mode operation, you must register your MY and Access point call signs with a Gateway repeater/server that has the RS-RP3C installed.