HF/50/440 MHz MULTIMODE PORTABLE TRANSCEIVER

IC-705

GENERAL
- HF/50/144/440 MHz MULTIMODE PORTABLE TRANSCEIVER
- Frequency coverage** (Unl. WRC):
  - HF: 3.6–30 MHz
  - 6 m: 50.350–54.000 MHz
  - 70 cm: 430.000–440.000 MHz
- Transmitter:
  - 13.8 V DC ±15% (with external power supply)
- Current drain
  - RX (Standby): 0.3 A (typical)
  - RX (Max. audio): 0.8 A (typical)
  - TX (Max. power): Less than 3 A (10 W)
- Power supply requirement: 13.8 V DC ±10% (10 W)
- Antenna connector: BNC connector (50 Ω)
- Frequency resolution: 1 Hz
- Frequency stability: Less than ±0.5 ppm (–10°C to +60°C
- Operating temperature range: –10°C to +60°C
- Dimensions: (W×H×D, projections not included) 200 × 83.5 × 82 mm; 7.9 × 3.3 × 3.2 in
- Weight (approximate): 1.1 kg; 2.4 lb (including BP-272)
- Power supply: 7.4 V DC (with BP-272)

RECEIVER
- Receiver: 10 kHz – 45 MHz
- IF Intermediate frequency: 45 MHz and above 35 MHz / 5.5 MHz
- Sensitivity
  - SSB/CW/RTTY/FM/DV: 0.5 – 10 W
  - AM: 0.5 – 5 W
- SSB/CW/RTTY/FM/DV: 0.5 – 10 W
  - AM: 0.5 – 5 W
- Selectivity (Filter: SHARP)
  - CW (BW = 500 Hz): More than 0.20 dB
  - AM (BW = 6 kHz): More than 0.11 dB
- Spurious emissions
  - CW (BW = 500 Hz): Less than –50 dB
  - AM (BW = 6 kHz): Less than –40 dB

SPECIFICATIONS

SIDE PANEL VIEW

Optional Accessories
- BC-202PSL Rapid charger (An AC adapter or CP-235 is required)
- BC-208 AC adapter for BC-202PSL, single unit (Straight plug type is required)
- BC-228 AC adapter for BC-202PSL, multiple connections (Up to 6 x BC-202PSL)
- BP-373 Li-ion battery pack 7.2 V, 2000 mAh (typ.)
- BP-307 Li-ion battery pack 7.2 V, 3100 mAh (typ.) (Available at a later date)
- CP-25H Cigarette lighter cable for single BC-202PSL
- CS-705 Programming software for Windows**
- HM-243 Speaker microphone
- OPC-2421 DC power cable
- OPC-2417 Data cable (Micro USB - Micro USB)
- OPC-2018 Data cable (USB Type C - Micro USB)
- HS-5A1 Version 2.1 (remote control software)
- RS-MS2W Remote control software for Windows**
- RS-MS2W Version 2.1 (remote control software)
- ST-401 ALP Picture utility software for Windows**
- ST-401 ALP Picture utility software for iOS**
- ST-401 W Picture utility software for Windows**
- VS-3 Bluetooth** enabled
- AN-705 Antenna tuner (Available at a later date)
- Download free software

Preferred Partner Product
- AL-705 GPS Portable Magnetic Loop Antenna
  - 10 – 40 meter (1.8 – 21.1 MHz)
  - by Alpha Antenna**
  - Displayed Diameter: 67 cm, 26.5 in
  - Standax: 50 × 28 × 6 cm; 10 × 11 × 2.5 in
  - Antenna Weight: 800 g; 1.8 lb

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HF to 440 MHz Multiband and Multimode Including the D-STAR DV

“Base Station” performance and features in the palm of your hand.

**HF/50/144/440 MHz Multimode**

From HF to 50/144/440 MHz, you can enjoy a variety of bands in the D-STAR DV, 55B, CW, RTTY, AM and FM modes. The IC-705 receives continuously from 30 kHz through the 144 MHz band. You can also enjoy FM broadcast and air band reception.

**RF Direct Sampling System**

The IC-705 employs an RF direct sampling system, where RF signals are directly converted to digital data. Then processed in the FPGA (Field-Programmable Gate Array), making it possible to simplify the circuit construction as well as reducing internal noise that can mask weak signals.

* The down-conversion IF sampling method is used for 25 MHz and above.

**Performance seen with the IC-7300 and IC-9700 spectrum scope is at the tip of your fingers for field operation. You can quickly see band activity as well as finding a clear frequency, all in the compact radio and not as an expensive add-on.***

**Maximum Output Power 5 W (BP-272), 10 W (13.8 V DC)**

In portable mode, the IC-705 has the maximum output power of 5 W from the BP-272 which can last approximately 3 hours.* This is perfect for true 5 W QRP as well as the 0.5 W QRPp operations. Once you setup with a 13.8 V DC power source, you have up to 10 W.

* TX : RX : Standby = 1 : 1 : 8 (The Power Save function ON, in the FM mode)

**WLAN/Bluetooth® Technologies**

Utilize WLAN/Bluetooth® technologies for linking and remote control*, for a true wireless operation. The VS-3 headset (optional) enables more comfortable operation via Bluetooth®.

* Those features will be available with future firmware upgrades.

**GPS Functions**

An internal GPS receiver and antenna enhance your operations by providing location logging*, RX/TX locations via D-PRS, “Near Me” repeater search/scan, QSO recording with metadata*, and internal clock synchronization.

* A microSD memory card is required.

**Micro USB Connector**

In addition to the two COM ports, radio control plus audio, the IC-705 can be charged via the micro USB port.

**Real-Time Spectrum Scope and Waterfall Display**

The large 4.3” color TFT touch LCD, same size as the IC-7300 and IC-9700, offers intuitive operation of functions, settings, and various operational visual aids, such as the band scope, waterfall, and audio scope functions.

**Large Touch Screen Color Display**

The large 4.3” color TFT touch LCD, same size as the IC-7300 and IC-9700, offers intuitive operation of functions, settings, and various operational visual aids, such as the band scope, waterfall, and audio scope functions.

**Compact and Lightweight Design**

“Base Station” performance in the palm of your hand! You will quickly see how this compact radio is rugged, for outdoor use, in a small, lightweight package, weighing approximately 1.1 kg (2.4 lb).

**BP-272 Li-ion Battery Pack or 13.8 V DC External Power Supply**

Utilizing the high capacity Li-ion battery from the ID-51A and ID-31A handheld radios.

A 13.8 V DC external power supply can be used for operation and charging of the BP-272.

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**An internal GPS receiver and antenna enhance your operations by providing location logging*, RX/TX locations via D-PRS, “Near Me” repeater search/scan, QSO recording with metadata*, and internal clock synchronization.**

* A microSD memory card is required.

**The microSD card slot enables the storage of user profiles, QSO recording, TX voice memory keyer, RTTY logging, GPS data, screen capture, firmware upgrades, and programming.**

**Micro USB Connector**

In addition to the two COM ports, radio control plus audio, the IC-705 can be charged via the micro USB port.

**D-STAR Functions**

Enjoy the latest DV mode features with the IC-705. Have direct access to the D-STAR network with Terminal/Access point modes. Additionally, the IC-705 has the Photo Share feature introduced with the IC-9700. Share photos, without the need of a computer with other users.

**Programmable Speaker Microphone**

Enjoy portable operations with the supplied HM-243, programmable speaker microphone. Perfect for operation with the IC-705 safely secured in the optional LC-192 backpack. User assignable buttons put functions like frequency and volume adjustments at the tip of your fingers, without removing your backpack.

**Optional Backpack, LC-192, Ideal for Field Operations**

Designed to be the “Ultimate”, must have accessory for the IC-705, the LC-192 is the perfect utility backpack. Features like a safety strap, with a 1/4”-20 mounting lug to keep the IC-705 from accidentally falling out of the custom radio compartment, to the user adjustable internal panels for custom compartments for antennas, battery packs, or other items necessary for an afternoon SOTA activation.

**Actual size**
HF to 440 MHz Multiband and Multimode Including the D-STAR DV
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HF/50/144/440 MHz Multimode

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RF Direct Sampling System

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In portable mode, the IC-705 has the maximum output power of 5 W from the BP-272 which can last approximately 3 hours*. This is perfect for true 5 W QRP as well as the 0.5 W QRPp operations. Once you setup with a 13.8 V DC power source, you have up to 10 W. * TX : RX : Standby = 1 : 1 : 8 (The Power Save function ON, in the FM mode)

Large Touch Screen Color Display

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Compact and Lightweight Design

“Base Station” performance in the palm of your hand! You will quickly see how this compact radio is rugged, for outdoor use, in a small, lightweight package, weighing approximately 1.1 kg (2.4 lb).

Utilizing the high capacity Li-ion battery from the ID-51A and ID-31A handheld radios. A 13.8 V DC external power supply can be used for operation and charging of the BP-272.

Maximum Output Power 5 W (BP-272), 10 W (13.8 V DC)

In portable mode, the IC-705 has the maximum output power of 5 W from the BP-272 which can last approximately 3 hours*. This is perfect for true 5 W QRP as well as the 0.5 W QRPp operations. Once you setup with a 13.8 V DC power source, you have up to 10 W. * TX : RX : Standby = 1 : 1 : 8 (The Power Save function ON, in the FM mode)

WLAN/Bluetooth® Technologies

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* Those features will be available with future firmware upgrades.

GPS Functions

An internal GPS receiver and antenna enhance your operations by providing location logging*, RX/TX locations via D-PRS, “Near Me” repeater search/scan, QSO recording with metadata*, and internal clock synchronization.

* A microSD memory card is required.

The microSD card slot enables the storage of user profiles, QSO recording, TX voice memory keyer, RTTY logging, GPS data, screen capture, firmware upgrades, and programming.

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MF/50/144/440 MHz Multimode

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In portable mode, the IC-705 has the maximum output power of 5 W from the BP-272 which can last approximately 3 hours*. This is perfect for true 5 W QRP as well as the 0.5 W QRPp operations. Once you setup with a 13.8 V DC power source, you have up to 10 W. * TX : RX : Standby = 1 : 1 : 8 (The Power Save function ON, in the FM mode)

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## SPECIFICATIONS

### TRANSMITTER

- **Output power**: 13.8 V DC/7.4 V DC
- **Zit**: 0.2 – 2.5 W
- **Modulation system**: SSB : Digital P.S.K. modulation, AM : Digital low power modulation
- **Spurious emissions**: SSB/CW/RTTY/FM/DV
- **Unwanted intermod**: More than 530 mW
- **Audio output**: Internal SP More than 530 mW (12 load at 10% distortion)
- **External SP**: More than 200 mW (8 load at 10% distortion)

### RECEIVER

- **Receiver**: 0.5 – 10 W
- **Sensitivity**: CW (BW=500 Hz) 500 Hz/–6 dB 700 Hz/–40 dB
- **SSB (BW=2.4 kHz)**: 2.4 kHz/–6 dB 3.4 kHz/–40 dB
- **AM (BW=6 kHz)**: 6.0 kHz/–6 dB 10 kHz/–40 dB

### Preferred Partner Product

- **AL-705**
  - **OPP Portable Magnetic Loop Antenna**: [Details](#)
  - **Antenna Weight**: 1.9 lb

### Be Active!

In the field with the IC-705

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**ICOM**

Your local distributor/dealer:

- [ICOM America Inc.](http://www.icomamerica.com)
- [ICOM Canada](http://www.icomcanada.com)
- [ICOM Brazil](http://www.icomvetec.com)

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