Intuitive Touch Screen, Quick Response, Multi-band Radio

HF/50/144/440MHz Controls at Your Fingertips with an Angled Display
Intuitive Touch Screen Interface

The innovative touch screen interface provides quick and smooth operation for setting and editing various functions and memories.

Straight Forward Operation

Just tap the mode, filter, function etc, you need to change. The touch screen responds naturally, changing your settings.

Software Keypad

Entering frequency, callsign or editing memory channels has never been this easy. The software keypad on the touch screen allows you to input alphanumeric characters incredibly quickly.

One Touch Selection

For example, if you want to change the operating band, tap the frequency on the display. The band keys will be shown to select the operating band. Touching the multi-function meter indicator for 1 second will quickly change the transmit meter functions.

Angled Display

Touch Screen Control Portal

The radio control head features a large, multi-function, "touch screen" dot-matrix LCD display that is positioned for easy view and operation. The controller is compact in size, making it ideal for limited vehicle or desktop space.

Resistive Touch Screen

The 48.6×75.9 mm; 1.91×2.99 in large resistive touch screen display can be operated while wearing gloves.

Controller Mounted Speaker and Jacks

The unique remote head design is perfect for providing loud, clear audio as well as jacks for an external speaker/headphones as well as a key and microphone.
HF/50/144/430/440MHz Multi-band, Multi-mode
The IC-7100 fully covers the HF, 50, 144, 430/440 MHz amateur bands in multiple modes, providing 100W on HF/50MHz bands, 50W on 144MHz band and 35W on 430/440MHz band.

Digital Features Controlled by the IF DSP
A high-performance 32-bit floating point IF DSP delivers rich digital signal processing features, including digital IF filter, digital twin PBT, noise reduction, CW auto tune, etc. Those digital features work on all bands from HF to V/UHF bands.

DSP Controlled AGC Function Loop
The digital signal processing is incorporated into the AGC function loop. The results of signal processing provide feedback to the AGC function. The AGC function works on the intended signal and produces a constant audio output. The AGC time constants are flexibly adjustable from slow, middle, fast (or AGC off) for each operating mode.

D-STAR DV Mode (Digital Voice + Data)
The IC-7100 provides D-STAR DV mode digital voice and low speed data communication.

DR (D-STAR Repeater) Mode Operation
The DR mode operation makes the D-STAR operation simple and straightforward, even if you are new to D-STAR operation.

Near Repeater Function
With an external, 3rd party GPS*, search the internal database based on your location.
* External GPS receiver or manual data input required.

SD Memory Card Slot for Saving Data
When used with an SD card, the SD card can store various contents including voice memory, memory channels, D-STAR repeater memories and other personal settings can be saved to the SD card and can be loaded to the transceiver.

Easy Vehicle Mounting with Optional MBF-1
The combination of the optional MBF-1 suction cup mounting base and MBA-1 controller bracket provides easy tilt and swivel adjustments for mobile operation. The large suction cup can mount to dashboards or other flat surfaces and can be removed easily.

Optional RS-BA1 IP Remote Control Software
The optional RS-BA1 software allows you to operate the IC-7100 from a remote PC over the Internet or local home network.

Built-in RTTY Functions
The built-in RTTY decoder allows you to instantly read an RTTY message on the display. No external TNC or PC required for reading. The eight RTTY memories can memorize and transmit often used RTTY sentences. The RTTY memory is 70 character per memory channel.

Other Features
- CW full break-in, CW receive reverse, CW auto tuning
- Optional multi-function microphone, HM-151
- Band scope and SWR graphic display
- RF speech compressor controlled by the DSP
- Voice memory function
- Multi-function Meter
- 495 regular, 4 call, 6 scan edge and 900 DR mode repeater channels
- 4 channels TX voice memories
- ±0.5ppm frequency stability
- Auto reply function
- Digital callsign squelch and digital code squelch
- 12.5kHz IF output
* D-STAR DV mode only
## Specifications

### General

<table>
<thead>
<tr>
<th>Frequency coverage</th>
<th>Unit: MHz</th>
<th>0.030–199.999²</th>
<th>400.000–470.000²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver</td>
<td>1.000–54.000</td>
<td>50.000–54.000²</td>
<td>144.000–148.000</td>
</tr>
<tr>
<td>Transmit</td>
<td>1.000–7.000</td>
<td>7.000–7.300</td>
<td>10.100–10.150</td>
</tr>
<tr>
<td>Frequency stability</td>
<td>±0.5 ppm</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Power supply</td>
<td>±10°C to +60°C</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Modular system</td>
<td>±10°C to +60°C</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Spurious emissions</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Carrier suppression</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Output power</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Dimensions</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Current drain</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Power supply</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Selection</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
<tr>
<td>Audio output power</td>
<td>±0.5dB</td>
<td>±14°F</td>
<td>±13GS0160</td>
</tr>
</tbody>
</table>

### Transmitter

<table>
<thead>
<tr>
<th>Power output (at 13.8V DC)</th>
<th>HF/50MHz</th>
<th>144MHz</th>
<th>430MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>13µV</td>
<td>25µV</td>
<td>100µV</td>
</tr>
<tr>
<td>FM</td>
<td>0.3µV</td>
<td>0.35µV</td>
<td>0.63µV</td>
</tr>
<tr>
<td>CV</td>
<td>6.0kHz/–6dB</td>
<td>10kHz/–40dB</td>
<td></td>
</tr>
<tr>
<td>USB</td>
<td>1µV</td>
<td>1µV</td>
<td>1µV</td>
</tr>
</tbody>
</table>

### Receiver

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>HF: Preamp-1 ON</th>
<th>50MHz: Preamp-2 ON</th>
<th>144/430/440MHz: Preamp ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5–1.8MHz</td>
<td>1.8–29.9MHz</td>
<td>50–54MHz</td>
<td>144/430/440MHz</td>
</tr>
</tbody>
</table>

### Receiver Control Software

- OPC-589 is required.
- OPC-599 is required.
- OPC-2321 is required.

### Antenna Tuner

- CT-19 CV/LV LEVEL CONVERTER
- OPC-2253

### Memory Channels

- 495 regular channels, 4 call channels
- 6 scan edges
- 900 D-STAR repeater channels

### Transmitter Options

- OPC-589 is required.
- OPC-599 is required.
- OPC-2321 is required.

### Antenna Elements

- Covers 2.5–50MHz antenna band.
- OPC-2321 is required.

### Desktop Microphones

- MB-60
- MBF-1
- MBA-1

### Remote Control Software Encoder

- RS-28
- OPC-599 is required.
- OPC-2218LU DATA CABLE for DV mode

### MagicBrick Package

- MBA-1: Mounting base for the main unit (OPC-599 is required).
- OPC-599 is required.
- OPC-2321 is required.
- OPC-2321 is required.

### USB Connectors

- USB, LSB, CW, RTTY, AM, DV, FM, WFM (Rx only)