

2012 Europe Edition



HAM RADIO PRODUCTS

All Band Transceivers



Mobile Transceivers



Handheld Transceivers



Base Station Transceivers



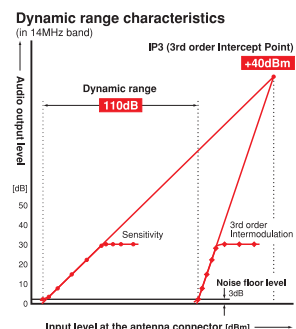
- Icom's flagship HF transceiver
- +40dBm 3rd order intercept point (in the HF bands)
- Three hi-spec 1st IF filters (roofing filters)
- Two completely independent receiver circuits
- Four 32-bit DSP units and 24-bit AD/DA converters
- Digital IF filter
- 200W output power and high-stability transmitter



HF/50MHz TRANSCEIVER IC-7800

+40dBm IP3 (3rd order Intercept Point)

Icom's considerable analog RF circuit experience combined with cutting-edge digital technology results in an astonishing 110dB receiver dynamic range and a +40dBm IP3 in the HF bands – the first in ham radio! To achieve this superior receiver performance, Icom's engineering team completely re-engineered all of the analog circuitry to match the DSP system.

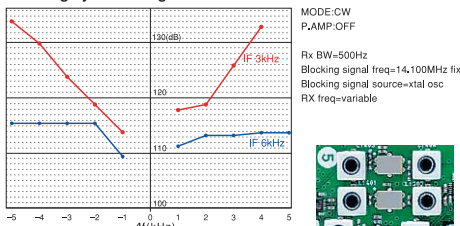


Three Hi-spec 1st IF Filters (Roofing Filter)*1

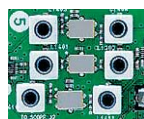
In addition to selectable 6kHz and 15kHz roofing filters, the IC-7800 has a 3kHz roofing filter before the 1st IF amplifier. It provides 134dB*2 (approx.) of blocking dynamic range and allows you to pull out a weak signal while blocking strong adjacent signals. (The FM mode filter is fixed at 15kHz.)

*1 Icom calls the roofing filters "hi-spec 1st IF filters", because their performance is much better than regular IF filters. *2 At 14.1MHz receive, with 5kHz separation of interference signal.

Blocking dynamic range characteristics



MODE: CW
P.LAMP: OFF
Rx BW=500Hz
Blocking signal freq.=14,100MHz fix
Blocking signal source=xtal osc
RX freq.=variable



Hi-spec 1st IF filters (Roofing filters)

Two Completely Independent Receiver Circuits

Dual receivers allow you to receive on two different bands simultaneously in different modes, without the receivers affecting each other.

Quad Processing

The IC-7800 incorporates four independent, 32-bit DSP units and 24-bit AD/DA converters. By having four independent DSP units, the radio responds to operator changes in an instant, as each DSP unit is dedicated to a single function. While each receiver has its own dedicated DSP unit, there is a DSP unit for transmit as well as a DSP unit for the spectrum scope.

Digital IF Filter

Icom's digital IF filters give you performance that is not possible with crystal or mechanical filters. They allow the operator to adjust filter shape (sharp or soft), filter bandwidth, and center frequency characteristics, without missing the action. Multiple filter memories store the most-recently used filter settings for each operating mode.



Filter preset screen

Ultra High Stability OXCO Unit

The IC-7800 uses the OXCO (Oven Control Crystal Oscillator) unit which is stable to within ±0.05ppm from 0°C to 50°C. This specification means that even on the 50MHz band, frequency error is less than 2.5Hz!

Base Station Transceivers



200W Output Power, Built-in

The power amplifier uses push-pull power MOS-FETs with a 48V DC supply. They provide a powerful 200W of output at 100 percent duty cycle. An effective cooling system maintains internal temperatures within a safe range and prevents thermal runaway.



PA Unit and heat sink

Real-time Spectrum Scope

With its own dedicated DSP unit, the IC-7800's spectrum scope provides excellent sensitivity and 80dB of dynamic range. This scope rivals many of today's commercial test instruments. The display spans ± 2.5 kHz to ± 250 kHz in 7 steps, covering up to 500kHz of spectrum!



Example of spectrum scope centered on the receiving frequency.

Example of fixed spectrum scope range.

7-inch Wide Color TFT LCD

An active matrix 7-inch (800x400 pixel) TFT color display was selected for the IC-7800. This large display shows main and sub-band frequencies, settings, and operating parameters, as well as the spectrum scope, S-meter, and RTTY/PSK31 decoded messages. The "virtual" S-meter needle swings smoothly and accurately, just like an analog meter.

Other Outstanding Features

[Antenna and receiver] • 4 antenna connectors with automatic antenna selector • Automatic antenna tuner • Special preamp and mixer circuit optimized for 50MHz band • 3-step manual notch filter • Digital twin PBT eliminates interference from adjacent signals • 16-step noise reduction

[CW mode] • DSP-controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • APF selection (soft/sharp)

[Operation] • High-quality digital voice memory • Triple band stacking register • Built-in RTTY and PSK31 modulator and demodulator • Message memory for CW, RTTY and PSK31 operations • Twin peak audio filter for RTTY operation • CF memory card for storing customized personal settings • 101 memory channels • AGC control for fine tuning of the AGC time constant • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Screen saver function • 137kHz band operation



+40dBm 3rd order intercept point (in the HF bands)

2nd order intercept point higher than +110dBm

Excellent inband IMD specifications

Three hi-spec 1st IF filters (roofing filters)

7-inch wide color TFT LCD

32-bit DSP units and 24-bit AD/DA converters

200W output power and high-stability transmitter

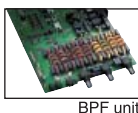
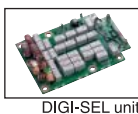
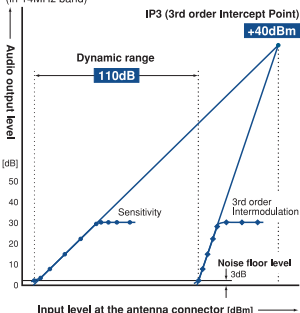


HF/50MHz TRANSCEIVER IC-7700

+40dBm IP3 (3rd order Intercept Point) and 110dB Dynamic Range

The IC-7700 employs mechanical relay BPF switching, a digitally tuned pre-selector, and three hi-spec 1st IF filters (roofing filters) in a clean and simple double conversion super-heterodyne design. By balancing the analog and DSP functions, the IC-7700 provides superior sensitivity simultaneously with a superb dynamic range of 110dB, and +40 dBm IP3 (even in USB mode with 2.4kHz filter bandwidth).

Dynamic range characteristics (in 14MHz band)

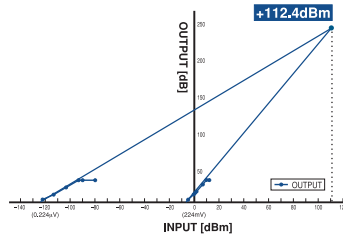


More than +110dBm IP2 (2nd order intercept point)

An IP2 point of more than +110dBm* means 2nd order distortion from strong broadcast stations will be completely eliminated. The continuous pursuit of leading analog circuit engineering makes it possible to achieve this leading edge level of performance.

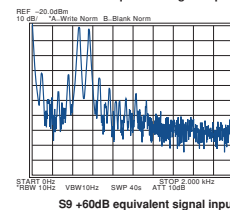
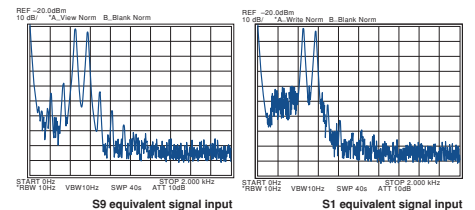
* The IP2 figure is a typical value.
** Measurements were made using custom equipment, due to the limits of normal signal generators (SG) and duplexers to +85dBm.

IP2 (2nd order Intercept Point)



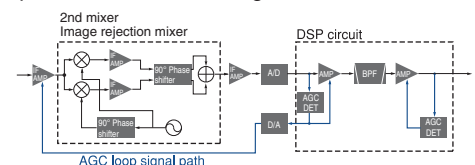
High Specification Inband IMD

Inband IMD (Intermodulation Distortion) creates undesired spurious signals as a consequence of non-linear processing of multiple signals. All (2nd, 3rd or even higher) orders of IMD performance are superior in the IC-7700. The improvement will be especially evident in CW mode. You'll notice the difference as you copy weak signals without internal distortion or noise.



Two AGC Loops

The IC-7700 has two AGC loops. The AGC voltages are derived both before and after the digital IF filter in the DSP unit. The first AGC loop prevents the saturation of the 1st IF amplifier from strong signals outside the pass-band filter. The second AGC loop detects the AGC voltage at the digital IF filter output which contains only the desired signal, obtaining full performance from the digital IF filter.



Base Station Transceivers



Three Hi-spec 1st IF Filters (Roofing filter)

Now a proven formula, the IC-7700 employs custom three hi-spec 1st IF filters (roofing filters) to achieve approximately 134dB*1 of blocking dynamic range.

*1 At 14.1MHz receive, with 5kHz separation of interference signal.



Hi-spec 1st IF filters (Roofing filters)

7-inch Wide Color TFT LCD

An active matrix 7-inch (800x400 pixel) TFT color display shows main and sub-band frequencies, settings, and operating parameters, as well as the spectrum scope, S-meter, and RTTY/PSK31 decoded messages in vivid color. The "virtual" S-meter needle swings smoothly and accurately, like an analog meter.

Real-time Spectrum Scope

With its own dedicated DSP unit, the IC-7700's spectrum scope provides excellent sensitivity and 80dB of dynamic range. The display spans ± 2.5 kHz to ± 250 kHz in 7 steps, covering up to 500kHz of spectrum!

USB connectors on the Front Panel

Two USB connectors on the front panel allows you to easily connect a USB keyboard or USB flash drive to save transceiver settings, update firmware, or transfer settings to another IC-7700.



Two USB connectors

Other Outstanding Features

[Antenna and receiver] • 4 antenna connectors with automatic antenna selector • BNC type RX IN/OUT connectors • Automatic antenna tuner • Preamp for 50MHz band • 3-step manual notch filter • Digital twin PBT

eliminates interference from adjacent signals • 16-step noise reduction

[CW mode] • DSP-controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • APF selection (soft/sharp) • Double key jack system

[Operation] • Built-in power supply • High quality digital voice memory • Message memory for CW, RTTY and PSK31 • Built-in RTTY and PSK31 modulator and demodulator • Twin peak audio filter for RTTY operation • Triple band stacking register • 101 memory channels • AGC control for fine tuning of the AGC time constant • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Screen saver function





HF/50MHz TRANSCEIVER

IC-7600

+30dBm IP3

Improved inband IMD

5.8 inch ultra-wide viewing angle TFT display

Dual DSP for Transmitter/Receiver and Spectrum Scope

Two separate 32-bit DSP units power the transmitter/receiver and spectrum scope. These processors give the IC-7600 high performance comparable to our top-of-the-line IC-7800 and IC-7700, thanks to the combination of dual DSP and our analog RF design expertise.



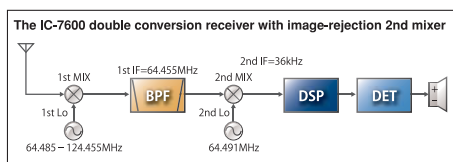
Dual DSP

104dB Dynamic Range and +30dBm IP3 (3rd order Intercept Point)

An astonishing 104dB receiver dynamic range and +30dBm IP3 in the 14MHz band without sacrificing receiver sensitivity is a standard specification for the IC-7600. Even a weak signal adjacent to strong signals is clearly received by the IC-7600.

Double Conversion Superheterodyne Improves Inband IMD

The IC-7600 employs a double conversion superheterodyne system which has an image rejection mixer for the 2nd mixer stage. When compared to a typical triple conversion system, the double conversion system is more difficult to implement but it dramatically reduces signal distortion and provides a high-linearity RF signal to the DSP processor.



5.8-inch Ultra-wide Viewing Angle TFT Display

The IC-7600's ultra-wide viewing angle display has excellent color rendering and high contrast ratio with fast response time. These features allow the spectrum scope and simulated analog meters to move smoothly and naturally.

Dual AGC Loops Controlled by DSP

The IC-7600 has dual AGC loops, one analog and one digital, both under DSP control. This architecture prevents strong adjacent signals from "pumping" the AGC and allows maximum dynamic range in the DSP.

Three Built-in 1st IF (roofing) Filters, Including 3kHz

The IC-7600 has three built-in 1st IF (roofing) filters ahead of the 1st IF amplifier stage. The 3kHz filter is especially effective in CW and SSB modes, eliminating overloading caused by strong signals just outside the passband.

Other Features

[Antenna and receiver] • 2 TX/RX antenna connectors and RX antenna connector • Automatic antenna tuner • Auto notch filter and manual notch filter • Digital twin PBT • 16-step noise reduction • Dual watch

[Transmitter] • Tx monitor function • Tone encoder • VOX operation • All mode power control

[CW mode] • CW Waveform controlled by the DSP • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • APF selection (soft/sharp) • Double key jack system

[Operation] • Spectrum scope • USB connectors on the front and rear panel • RTTY/PSK31 operation with a USB keyboard • 2 clocks show local and UTC time • High quality digital voice memory • Triple band stacking register • Message memory for CW, RTTY and PSK31 operations • 101 memory channels • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Programmable band edge beep • Screen saver function

Base Station Transceivers



HF/50MHz TRANSCEIVER

IC-7410

Faster DSP unit and in-house DSP expertise

Double-conversion superheterodyne

+30dBm class third-order intercept point (IP3)

Faster DSP Unit and In-house DSP Expertise

Icom brings out the best DSP performance combining more than ten years of DSP technical know-how and much faster DSP processors. Icom's in-house DSP experts have developed a IC-7400 series replacement that every operator will be proud to own. In addition to the higher speed DSP, the AD/DA converter, AK4620, provides a higher dynamic range and superior S/N ratio.



<DSP unit> ADSP-21369
Internal clock speed: 333MHz
32-bit floating point DSP
Max. performance: 2000MFLOPS

<AD/DA converter> AK4620
ADC Signal/(Noise+Distortion):100dB
ADC Dynamic range, S/N: 113dB
DAC Signal/(Noise+Distortion): 97dB
DAC Dynamic range, S/N: 115dB

Double-conversion Superheterodyne

Introduced with the IC-7800, a conversion superheterodyne design with an image rejection

mixer for the 2nd mixer stage is employed in the IC-7410. This receiver design not only reduces the electronic complexity, it greatly reduces the number of internal distortion points from older triple and quadruple conversion receivers.

+30dBm Class IP3 (3rd order Intercept Point)

In Icom's continuing efforts to create the best receiver, the design of the IC-7410 incorporates the latest in DSP software technology and Icom's analog RF circuit experience for a +30dBm* (typ.) IP3. The end result, clear reception of weak signals surrounded by QRM from broadcast and neighboring ham stations.

* Typical in 14MHz band. Spacing=100kHz

Three First IF Filters (3/6/15kHz)

The IC-7410 accommodates three 1st IF filters with the 15kHz, 1st IF filter supplied, while the 3kHz FL-431 and 6kHz FL-430 are optional for better receiver performance by protecting the desired signal from nearby strong signals. (Fixed for 15kHz in FM mode.)

Wide Range of DSP Features

Using the latest algorithms, the digital features give flexibility and speed needed for working in tough RF conditions.

- Digital IF filter allows you to choose filter width and shape factor
- Digital Twin PBT eliminates interference by changing the IF bandwidth and/or shifting the IF frequency
- AGC loop management with programmable

AGC time constant

- Auto/manual Notch Filter provides more than 70dB attenuation and eliminates unwanted beat tones
- Noise Reduction can enhance the receiver's signal-to-noise ratio
- Noise Blanker reduces interference from pulse-type noise
- RF Speech Compressor increases average talk power, improving signal strength and readability
- User programmable tone control: microphone equalizer, SSB transmit passband width, receive HPF/LPF and receive audio equalizer

Other Features

- Built-in voice synthesizer
- User programmable band edge beep
- VSC (Voice Squelch Control) function
- Two preamplifier types: Preamp 1: Improving IMD characteristics, Preamp 2: High gain preamplifier
- 20dB built-in attenuator
- Built-in automatic antenna tuner
- CTCSS tone encoder and decoder
- Triple band stacking register
- Quick split and frequency lock functions
- RIT and Δ Tx variable up to ± 9.999 kHz
- SSB/CW synchronous tuning
- 1Hz pitch tuning and display
- ± 0.5 ppm of high frequency stability
- Program, memory, select memory, mode select and Δ f scans
- Automatic tuning steps
- AH-4 control circuit
- Large independent MIC/RF power and Notch knobs
- Large, multi-function LCD
- USB connector for PC control
- RTTY demodulator and decoder
- Simple band scope
- Ample CW functions
- High frequency stability
- Large heat sink
- Optional RS-BA1 IP remote control software

Base Station Transceivers



HF/50MHz TRANSCEIVER IC-7200

IF DSP

Rugged design for outdoor use

100W output power

IF DSP

The latest IF DSP technology is employed in the IC-7200. While the IC-7200 is an entry-class transceiver, advanced digital features such as flexible filter width and shape setting, digital noise reduction and auto notch filter are comparable to higher class models.

Rugged Design for Outdoor Use

The rugged design of the IC-7200 means your enjoyment of this rig is not limited only to your shack. Waterproof protection technologies used in Icom's marine radios are applied to the buttons and knobs on the front panel to provide a basic measure of protection against water intrusion*. * IC-7200 is NOT waterproof.

Other Features

- AGC loop management
- High stability transmitter
- USB connector for PC control
- Digital Twin PBT
- Manual notch filter
- RIT
- VOX
- ± 0.5 ppm frequency stability
- LCD backlight (Hi/Lo/Off)
- CI-V interface
- 201 memory channels
- Built-in 20dB attenuator
- Preamplifier
- Dial lock
- Auto tuning step function
- 1Hz step tuning
- Band stacking register
- Built-in voice synthesizer
- Quick split
- Front facing speaker



HF/VHF/UHF TRANSCEIVER IC-7000

IF DSP – First in its class

2-point Manual Notch Filter
more than 70dB attenuation

2.5-inch color TFT display

IF DSP – First in Its Class

Digital IF filter, manual notch filter, digital twin PBT, AGC loop management, digital noise reduction and more. The latest digital features are incorporated in this compact radio by two DSP chips that deliver superior processing performance. Of course, those digital features work on all ham bands — HF, 50, 144MHz to the 430MHz band.

2-point MNF (Manual notch filter)

Pull out the weak signals in crowded band conditions with Icom's new two-point MNF (manual notch filter). Apply 70 dB of rejection to two signals at once! Notch width is adjustable — wide, middle and narrow — and an auto-tuning notch filter is available, too.

Other Outstanding Features

- 2.5-inch color TFT display
- 35W output on 430MHz band
- ± 0.5 ppm high stability crystal unit
- 8 direct access buttons for user-friendly operation
- Digital voice recorder for transmit and receive
- Built-in RTTY demodulator
- Remote control microphone, HM-151
- Fixed-mode and center-mode band scope
- Multi-function meter and SWR graphic displays
- Front panel separation with optional separation cable
- Built-in voice synthesizer



HF TRANSCEIVER IC-718

Simple, straightforward
operation with keypad

General coverage receive with
superior performance

Optional DSP capability

Simple Operation

The IC-718 is equipped with a minimum number of buttons and controls for simple feature selection. The 10-key pad on the front panel allows direct entry of an operating frequency or a memory channel number. The auto tuning step function is activated when turning the dial quickly and helps speed up tuning. The band stacking register is convenient when changing operating bands.

Front Mounted Loud Speaker

The IC-718 has the speaker mounted on the front panel. With the speaker facing the operator, audio will be heard clearly and directly while operating.

Optional DSP Capability, UT-106

The optional DSP unit gives you noise reduction and auto notch filter functions for extra receiver performance.

Other Features

- General coverage receiver
- Built-in electronic keyer
- Built-in microphone compressor
- Combined squelch and RF gain control
- Preamplifier and attenuator
- 101 memory channels
- CW full break-in
- IF shift interference rejection
- 1Hz tuning
- VOX function for hands-free operation
- Optional automatic antenna tuner
- Digital S/Rf meter



HF/VHF/UHF TRANSCEIVER

IC-9100

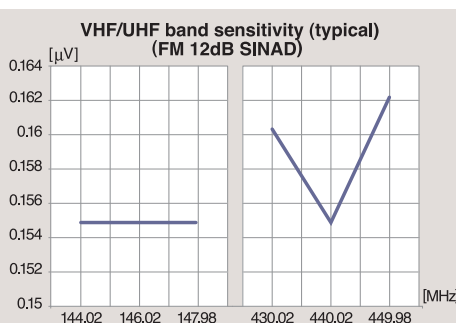
Superb readability in the VHF/UHF band

Ready-to-install 1200MHz band unit

Satellite mode operation

Superb Readability in the VHF/UHF Band

The IC-9100 provides excellent receiver sensitivity in the VHF/UHF bands, equivalent to the highly-acclaimed previous VHF/UHF dedicated model, the IC-910H. The IF DSP greatly improves intermodulation and noise elimination and offers better readability than the IC-910H.



Ready-to-install 1200MHz Band Unit

By installing the optional UX-9100 1200MHz band unit, you can be operational on the 1200MHz band immediately. The IC-9100 fully covers the HF/50, 144, 430 and 1200MHz amateur bands in multiple modes.



UX-9100, 1200MHz band unit

Satellite Mode Operation

The satellite mode synchronizes the uplink (transmitting) and downlink (receiving) frequencies, and tracks the frequencies in the same tuning step. This function matches both normal and reverse mode satellites. Compensation of the Doppler effect can be performed easily. 20 satellite memory channels store frequencies, mode and tone settings for quick set-up.

Double Conversion Superheterodyne

Icom's basic idea about the best receiver circuit is to reproduce high fidelity audio without internal distortion. Our answer to achieve this goal is to adopt a double conversion superheterodyne system*. The double conversion system simplifies the electronic circuitry and reduces the number of components which cause internal distortion. The digital signal processing (DSP) technologies and image rejection mixer make it possible to adopt this system.

* A triple conversion system is used for the 1200MHz band.

+30dBm Class IP3

Using receiver design techniques introduced in Icom's highest grade HF transceivers, the IC-9100 has an IP3 of +30dBm* in the HF band. Even a weak signal adjacent to strong signals is clearly received by the IC-9100.

* Typical in 14MHz band. Spacing=100kHz

Three First IF Filters (3/6/15kHz) for HF/50MHz Band

The IC-9100 comes with a built-in 15kHz 1st IF filter and can accept up to two optional filters (3kHz FL-431 and 6kHz FL-430). By changing the first IF filter width according to the operating mode, the desired is protected from adjacent inband signals at the later stages for better receiver performance.



1st IF filters (6kHz, 3kHz)

Other Features

- Optional D-STAR* DV mode (* Digital Smart Technology for Amateur Radio)
- Independent dual receivers
- 32-bit floating point DSP & 24-bit AD/DA converters
- AGC loop management
- Digital IF filter
- Digital twin PBT and IF shift
- Noise reduction
- Noise blanker
- RF speech compressor
- Adjustable transmit bandwidth
- HF/50MHz, 144MHz 100W, 430/440MHz 75W
- RTTY demodulator and decoder
- Ample CW functions
- Built-in Antenna Tuner for HF/50MHz band
- Manual notch filter and auto notch filter
- Large, Multi-function LCD
- USB connector for PC control
- Optional CS-9100 programming software
- Optional RS-BA1 IP remote control software



UT-123 D-STAR unit and GPS receiver

GPS
With UT-123



VHF/UHF DUAL BAND TRANSCEIVER
IC-E2820

D-STAR DV mode plus GPS receiver with optional UT-123

Wideband receiver*1 with diversity receive capability

50W output power on 144 and 430MHz bands

D-STAR DV Mode + GPS Receiver With Optional UT-123

The optional UT-123 module provides D-STAR (Digital Smart Technology for Amateur Radio) DV mode operation plus GPS receiver capability. Simultaneously send your current position, own callsign and up to a 20-character message along with your digital voice transmission. When location is provided by a calling station, the transceiver displays the distance and direction to the station.

Wideband Receiver With Simultaneous Receive Capability

The transceiver receives 118–549.995 and 810–999.990MHz*1 with dualwatch receiver capability that allows you to receive two bands simultaneously (including within a single band).

Other Features

- The large 93x28 mm (3.66x1.1 in) full dot-matrix display
- Separate controller from main unit
- 50W output on both VHF/UHF bands
- Total of 522 memory channels
- 16 DTMF memory channels
- 50 CTCSS and 104x2 DTCS encoder/decoder*2
- Diversity receive capability
- ±2.5ppm high frequency stability with TCXO unit
- Green to amber variable display background
- 9600 bps packet terminal, mini-DIN (6-pin) connector
- Max 45 channel/sec. high speed scan capability in programmed scanning mode
- Band scope function

*1 Receiver range differs depending on version.

*2 FM mode only.



VHF/UHF DIGITAL TRANSCEIVER
ID-E880

D-STAR DV mode capability

DR (D-STAR repeater) mode for easy setup

CS-80/880 free download software

D-STAR Repeater List and DR Mode Operation

The D-STAR repeater list stores up to 300 channels of repeater call signs, frequencies, gateway call signs, duplex direction and offset frequency with channel names of up to 8 characters. The D-STAR repeater (DR) mode operation makes it easier to use a D-STAR repeater.

GPS Position Reporting Functions

Your position data is shown on the display and can be sent to other station*1. In addition, the GPS A mode assists in D-PRS mode operation to send your position information to an APRS server.

Other Features

- CS-80/880 free download software
- Total of 1052 memory channels
- 16 DTMF memories
- 50 CTCSS and 104x2 DTCS encoder/decoder*2
- Wideband receiver*3
- Detachable controller
- Backlit LCD
- Auto power off and on
- Power save

*1 3rd party GPS receiver is required.

*2 FM mode

*3 Receiver range differs depending on version.



1200MHz DIGITAL TRANSCEIVER
ID-1

128kbps data and 4.8kbps digital voice communication

PC remote control software

Wireless Internet access



4.8kbps DV (digital voice) Mode and 128kbps* DD (data) Mode

The ID-1 has three modes — analog FM, digital voice and data mode operation. The built-in AMBE® vocoder chip provides digitally modulated, clear audio as well as 128kbps wireless data transmission. In DD mode operation, you can use various Internet applications wirelessly by connecting to a PC with Ethernet and USB cables.

* Maximum speed.

PC Remote Controller Supplied

The PC controller software is supplied with the ID-1. When the ID-1 is connected to a PC, most functions of the ID-1 can be controlled from the PC screen. The controller software is convenient for editing memory channels, writing short data messages, and checking received call records, etc.

Other Features

- Wireless Internet access*1
- Digital callsign squelch (DSQL) and digital code squelch (CSQL)
- Short data message in DV mode
- Automatic Frequency Control (AFC) function for FM and DV mode
- S-meter squelch
- Programmed, memory and select mode scan
- Break-in communication
- Enhanced Monitor Request (EMR) function
- Auto repeater function for FM mode*2
- Stand-by beep

*1 Within a D-STAR repeater service area.

*2 Depending on version.



IPX7
GPS

Compact & Lightweight

IPX7 Waterproof

Built-in GPS Receiver

UHF DIGITAL TRANSCEIVER ID-31E

Lightweight & Compact Body

The ID-31E has a compact 58x95x25.4 mm body, and weighs only 225g (approx.) with battery pack and antenna. It's easy for carrying around all the time anywhere.

IPX7 Waterproof Construction

The ID-31E provides superior waterproof protection equivalent to IPX7 (1m depth of water for 30 minutes). Ideal for use in harsh outdoor environments.

Built-in GPS Receiver

The built-in GPS receiver shows your current position and altitude on the display and offers a position reporting function in DV mode. The GPS log function logs your position information at regular intervals (1 second–60 seconds, depending on the setting) and memorizes this in the microSD card to export to your PC. In addition, the GPS-A mode assists in easy D-PRS mode operation.

Other Features

- Automatic speech function announces the received call sign
- Digital code squelch
- Digital call sign squelch
- One touch reply function
- DR (D-STAR Repeater) mode
- Automatic reply function
- Analog FM mode (Wide/Narrow)
- Built-in CTCSS/DTCS encoder and decoder (for analog FM)
- 16 DTMF memory channels (24 digits)
- Squelch release function to monitor a weak signal
- Optional CT-17, CI-V level converter for remote radio control
- Auto power save
- Auto power off
- Clock function
- Priority watch
- Key lock function

D-STAR DV mode capability

GPS position reporting function with optional GPS speaker-mic*1

Rugged waterproof protection equivalent to IPX7 rating

IPX7
GPS
With HM-175GPS

Rugged Waterproof Protection

The IC-E92D and optional HM-175GPS have superior waterproof protection and is equivalent to IPX7 (1m depth of underwater for 30 minutes), which you can count on in harsh outdoor environments.

Optional GPS Speaker-microphone

Used with the optional HM-175GPS, the IC-E92D shows your position data on the display and offers automatic position reporting in DV mode. In addition, the GPS-A mode enables easy D-PRS system operation.

Wideband Receiver with Dualwatch Capability

The IC-E92D has dualwatch receiver capability, allowing you to receive*2 on two bands simultaneously (including the same band).

Other Features

- 5 Watts (typical) output
- Total of 1304 memory channels
- Large dot-matrix LCD
- 10 DTMF memories
- 50 CTCSS and 104x2 DTCS encoder/decoder*3
- External DC power jack (10–16V DC acceptable)
- Simple band scope
- Optional PC remote control capability
- Built-in voice recorder records an incoming call for up to 30-seconds (approx., DV mode)
- Backlit LCD
- Auto power save, power off and power on
- 26 memory banks with selected bank and bank link scanning

*1 Optional GPS speaker-microphone, HM-175GPS required.

*2 Receiver range differs from depending on version.

*3 FM mode



Photo includes optional HM-175GPS.

VHF/UHF DUAL BAND DIGITAL TRANSCEIVER IC-E92D



IPX4
GPS
With HM-189GPS

D-STAR DV mode capability

DR (D-STAR repeater) mode for easy setup

CS-80/880 free download software

VHF/UHF DIGITAL TRANSCEIVER IC-E80D

D-STAR Repeater List and DR Mode Operation

The D-STAR repeater list stores up to 300 channels of repeater call signs, frequencies, gateway call signs, duplex direction and offset frequency with channel names of up to 8 characters. The D-STAR repeater (DR) mode operation makes it easier to use a D-STAR repeater.

GPS Position Reporting Functions*1

Your position data is shown on the display and can be sent to other station. In addition, the GPS A mode assists in D-PRS mode operation to send your position information to an APRS server.

Other Features

- CS-80/880 free download cloning software
- Total of 1052 memory channels
- 16 DTMF memories
- 50 CTCSS and 104x2 DTCS encoder/decoder*2
- Wideband receiver*3
- External DC power jack (10–16V DC)
- Compact body with water resistance (Equivalent to IPX4)
- Backlit LCD
- Auto power off
- Power save

*1 Optional GPS speaker-microphone, HM-189GPS required.

*2 FM mode

*3 Receiver range differs depending on version.

Photo includes optional HM-189GPS.

Handheld Transceivers



Rugged
MIL-STD 810

IP54

5W of output for both
144 and 430(440) MHz bands

700mW loud audio
with a BTL amplifier

Up to 10 hours of operating time
with BP-264

VHF/UHF FM TRANSCEIVER IC-T70E

700mW Loud Audio

The IC-T70E uses a BTL (bridged load) amplifier that doubles the audio output. The 36mm large speaker delivers 700mW of loud and intelligible audio* even in noisy environments.

* Using with internal speaker.

Other Features

- External DC power jack
- A total of 302 memory channels
- Built-in CTCSS/DTCS
- Internal VOX function
- IP54 and MIL-STD-810 rugged construction
- Power save function
- SMA type antenna connector

- TOT (time out timer) setting
- Repeater lockout and busy channel lockout
- PC programmable with optional CS-T70
- Transceiver-to-transceiver cloning with optional OPC-474
- Direct keypad frequency entry
- 16 DTMF autodial memories
- Auto power off • LCD backlight
- Wide/narrow channel spacing
- 1750Hz tone for European repeater access

750mW (typ.) loud audio
with a BTL amplifier

Powerful 5.5W of output power

IP54 and MIL-STD-810
rugged construction

144MHz FM TRANSCEIVER IC-V80E

750mW Loud Audio

The IC-V80E uses a BTL (bridged load) amplifier that doubles the audio output. The 36mm large speaker delivers 750mW of loud and intelligible audio*. Great for noisy environments.

* Typical value using with internal speaker.

Other Features

- A total of 207 memory channels
- Built-in CTCSS/DTCS
- Internal VOX function
- Program, memory, skip, priority and tone scans
- Power save function
- BNC type antenna connector
- TOT (time out timer) setting

- 1750Hz tone for European repeater access
- Repeater lockout and busy channel lockout
- PC programmable with optional CS-V80
- Transceiver-to-transceiver cloning with optional OPC-474
- Direct keypad frequency entry
- DTMF autodial memories
- Auto power off
- LCD backlight
- Wide/narrow channel spacing



Rugged
MIL-STD 810

IP54

Mobile Transceivers



Rugged
MIL-STD 810

Stable 65W output power

Optional digital unit, UT-118

User-friendly interface and
durable construction

144MHz FM TRANSCEIVER

IC-2200H

65W* of Output Power

A MOS-FET power amplifier provides 65W* of stable output power. A one piece, aluminum chassis helps to keep the transceiver cool and provides durable long-lasting construction. (* Depending on version.)

Optional Digital Unit, UT-118

The optional UT-118 provides D-STAR DV mode operation compatible with other D-STAR radios. When connected to an external GPS receiver*, position information can be exchanged with other stations. (* 3rd party GPS receiver is required.)

Other Features

- CTCSS and DTCS operation
- 207 memory channels with 10 memory banks
- 16 DTMF memory channels
- DTMF pager/code squelch function with optional UT-108
- Tone scan
- Squelch attenuator
- FM narrow mode
- Data jack for connecting with PC
- ALC (Automatic Level Control)
- Squelch delay
- Easy to manage bank link scan system
- Amber and green, dual color LCD