

144, 430/440, 1200 MHz ALL MODE TRANSCEIVER



Direct Sampling Now Enters the VHF/UHF Arena

All mode, tri-band transceiver covering the 144, 430/440 as well as 1200 MHz

Real-time, high-speed spectrum scope for the 144, 430/440, 1200 MHz bands

New PA provides a powerful 100 W (144 MHz), 75 W (430/440 MHz) and 10 W (1200 MHz) output

Dualwatch operation and full-duplex operation in the satellite mode

Follows Icom's center display design style with a 4.3 inch touch screen color TFT LCD

D-STAR provides digital clear audio and Internet capable communication

Smooth satellite operation with normal/ reverse tracking and 99 satellite channels Digital Data (DD) mode provides 128 kbps data communication

-9700

GENERAL

Frequency coverage:

<USA version> 144.000-148.000, 430.000-450.000, 1240.000-1300.000 MHz <EUR version> 144.000-146.000, 430.000-440.000, 1240.000-1300.000 MHz

Mode: SSB, CW, RTTY, AM, FM, DV, DD

Number of channels: 107 (99 Simplex + 6 Program scan edges + 2 CALL) × 3 bands,

99 (Satellite), 2000 (DR function) Antenna connectors: 144 MHz SO-239 (50 Ω),

430/440, 1200 MHz Type-N (50 Ω)

Power supply requirement: 13.8 V DC ±15% (Negative ground) Power consumption: TX Less than 18 A (High power)

RX 1.2 A typical (Standby), Less than 1.8 A (Maximum audio)

Operating temperature range: $-10 \,^{\circ}\text{C}$ to + 60 $^{\circ}\text{C}$; 14 $^{\circ}\text{F}$ to 140 $^{\circ}\text{F}$

Frequency stability: Less than ± 0.5 ppm (-10°C to + 60°C; 14°F to 140°F)

Frequency resolution:

Dimensions: $240\times94\times238$ mm, $9.4\times3.7\times9.4$ in (W \times H \times D, projections not included)

Weight: 4.7 kg, 10.4 lb (approximate)

TRANSMITTER

<SSB/CW/FM/RTTY/DV/DD> <AM> Output power:

> 144 MHz 0.5-100 W 0.125-25 W 430/440 MHz 0.5-75 W 0.125-18.75 W 1200 MHz 0.1-10 W 0.025-2.5 W

Modulation system:

SSB Digital PSN modulation FM Digital Reactance modulation AM Digital Low Power modulation DV Digital GMSK Reactance modulation

DD Digital Quadrature modulation

<Out-of-band emission> Spurious emissions: <Harmonics> 144 MHz Less than -63 dB Less than -60 dB

430/440 MHz Less than -61.8 dB Less than -60 dB 1200 MHz Less than -53 dB Less than -50 dB

Carrier suppression: More than 50 dB Unwanted sideband: More than 50 dB

Microphone impedance: 600 Ω

RECEIVER

144, 430/440 MHz RF Direct Sampling Receiver system:

1200 MHz Down Conversion IF Sampling

Intermediate frequency: 311-371 MHz (1200 MHz)

Sensitivity (Preamp: ON, Filter: SOFT):

SSB/CW (10 dB S/N) Less than 0.11 µV AM (10 dB S/N) Less than $1.0 \mu V$ FM (12 dB SINAD) Less than 0.18 μV DV (1% BER) (PN9) Less than 0.35 μV DD (1% BER) (PN9) Less than 1.59 µV

Selectivity (Filter: SHAPE):

SSB (BW=2.4 kHz) More than 2.4 kHz/-3 dB, Less than 3.6 kHz/-60 dB CW (BW=500 Hz) More than 500 Hz/-3 dB, Less than 700 Hz/-60 dB RTTY (BW=500 Hz) More than 500 Hz/-3 dB, Less than 700 Hz/-60 dB AM (BW=6 kHz) More than 6 kHz/-3 dB, Less than 15 kHz/-60 dB FM (BW=15 kHz) More than 12 kHz/-6 dB, Less than 20 kHz/-60 dB

DV (12.5 kHz spacing) More than -50 dB DD (300 kHz spacing) More than -40 dB

Spurious and image rejection ratio:

SSB/CW 144, 430/440 MHz More than 70 dB, 1200 MHz More than 50 dB AM/FM/DV 144, 430/440 MHz More than 60 dB, 1200 MHz More than 50 dB

DD 1200 MHz More than 50 dB

More than 2.0 W (1 kHz, 10% distortion) into an 8 Ω load Audio output power:

OPTIONS



HM-219 Hand microphone with UP/DOWN switches (Same as supplied)



PS-126 DC power supply (13.8 V DC, 25 A maximum output)



RS-BA1 Version 2 IP remote control software



SM-50 Dynamic desktop microphone including [UP/DOWN] switche and a low cut function



SP-38 High quality audio and matching height Maximum input: 7 W



RS-MS1A Remote control application for Android™. Download free from Google Play™.

• MB-118 Mobile mounting bracket • MB-123 Carrying handle • OPC-2350LU PC/Android™ data cable

• SM-30 Compact, lightweight electret desktop microphone

• SP-35 External speaker (2 m, 6.6 ft cable) • SP-41 External speaker with two input lines

• CS-9700 Programming software

■ SUPPLIED ACCESSORIES

• HM-219, hand microphone • DC power cable

■ REAR PANEL



- A 144 MHz Antenna Connector
- O DC Power Socket
- LAN Port
- G Accessory Socket
- USB/B Port
- KEY Jack
- M External Speaker Jack SUB
- 3 430/440 MHz Antenna Connector
- 1200 MHz Antenna Connector
- 10 MHz reference signal input
- Data Jack
- CI-V Remote Control Jack
- External Speaker Jack MAIN
- N Ground Terminal

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