



Authority On Radio Communications

# AR-DV1

## SDR Digital Voice Receiver

The first software defined receiver of its kind to receive and decode virtually ALL popular digital modes.



**MOTOTRBO™ DMR™ dPMR™ APCO P25  
NXDN™ Icom D-Star™ Digital CR  
Yaesu Kenwood® Alinco EJ-47U**

# AR-DV1 SDR Digital Voice Receiver



It's the FIRST software defined digital voice receiver to receive and decode virtually ALL popular digital modes such as: MOTOTRBO™, DMR™, dPMR™, APCO P25, NXDN™, Icom D-Star™, Digital CR, Yaesu, Kenwood®, and Alinco EJ-47U as well as conventional analog signals including AM, wide and narrow FM, upper and lower sideband and CW.

Giving monitoring operators the ability to receive a wide variety of digital and analog frequencies, the AR-DV1 can be used by military, federal, state and local law enforcement agencies, emergency managers, diplomatic services, news-gathering operations, and home monitoring enthusiasts in areas where government, law enforcement, amateur radio operators and public safety agencies use different digital formats.

The AR-DV1 can be operated independently or computer controlled (programmer friendly command list supplied) for easier programming and monitoring. It features:

- Wide band coverage from 100kHz to 1300MHz
- Micro-USB computer interface
- Supply of programmer friendly command list for PC control through terminal software
- Built-in SD/SDHC card reader for audio recording
- Higher 1st IF frequency 1705 MHz provides higher image rejections
- CSV memory data capability for frequency uploads/downloads
- Easy firmware updates through SDHC
- 2000 memory channels (50 channels × 40 banks)
- Alpha-numeric channel labels
- Offset reception and priority channel selection
- Auto-notch filter
- Noise reduction
- Voice inverter
- Discriminator output for external decoders

## SPECIFICATIONS

Frequency range:	100 kHz ~ 1300* MHz (Note: Specifications guaranteed above 530 kHz) (Cellular frequencies blocked for US consumer version)
Digital receive modes:	D-STAR (GMSK), ALINCO (GMSK), YAESU (C4FM), DIGITAL CR (C4FM), NXDN (C4FM), dPMR (C4FM), P25 (Phase 1) (C4FM), DMR (4FSK, 2X-TDMA), (**)
Analog receive modes:	FM, AM, Synchronous AM (SAH, SAL), USB, LSB, CW
Receiver system:	100 kHz ~ 18 MHz : Direct conversion 18 MHz ~ 180 MHz: Double conversion super heterodyne (1st IF: 393 MHz, 2nd IF: 31.0 MHz) 180 MHz ~ 1300 MHz: Triple conversion super heterodyne (1st IF: 1705 MHz, 2nd IF: 393 MHz, 3rd IF: 31.0 MHz)
IF filter bandwidths:	200 Hz, 500 Hz, 1.8 kHz, 2.6 kHz, 3.8 kHz, 5.5 kHz, 6 kHz, 8 kHz, 15 kHz, 30 kHz, 100 kHz, 200 kHz. (Receive mode dependant)
Receive assisted functions:	Auto notch, Noise reduction, Analog voice descrambler (not available for the US consumer version), AGC, Step adjust, Offset receive, Priority
Squelch modes:	Level squelch, Noise squelch, Voice squelch, Tone squelch, DCS
Frequency stability:	Less than +/- 2.5 ppm after warm-up (5 minutes)
Sensitivity:	530 kHz ~ 17.99999 MHz : 0.71µV typ. (12dB SINAD) 18 MHz ~ 1300 MHz: 0.32µV typ. (12dB SINAD)
Number of VFO's:	3
Memory channels:	2,000
Memory banks:	40
Search banks:	40
Priority channel:	1
Pass frequencies:	50 per bank or VFO
Audio outputs:	Internal speaker & speaker-out: min.1.0 W @ 8 Ohm, 12 V DC input, 10% THD. 3.5mm jacks for headphone, speaker-out and discriminator (FM only)
Recording/playback media:	SD/SDHC, 1 channel, 19.2 kHz sampling in wav format. Approx. 7 hours recording for 1 GB.
Timer functions:	Sleep timer 30, 60, 90, 120 min., alarm and timer recording (once, daily, weekly)
PC connection:	Micro-USB for receiver control with command list.
Antenna input:	BNC, 50 Ohm
Maximum antenna input level:	+0dBm
Power requirements:	10.8 ~ 16.0 V DC, approx. 750 mA (at 12V DC)
Operating temperature:	0 ~ 50 °C, 32 ~ 122 °F
Dimensions:	Approx. 178 mm (W) × 50 mm (H) × 215 mm (D) (proj.excl.) 7.00 (W) × 1.97 (H) × 8.46 (D) inches
Weight:	Approx. 1.5 kg (3lb 5oz)
Supplied accessories:	AC power adapter, Telescopic antenna, 4GB SDHC card, printed manual including command list. PC Software not supplied.

Specifications are subject to change without notice or obligation. Other company and product names mentioned in this document are the property of their respective owners. Product and brand names used are for identification purposes only.

\*Cellular frequencies blocked in the US.

\*\* Following restrictions apply:

D-STAR	Narrow band only. Data mode not supported.
ALINCO	Only with digital unit EJ-47U (voice mode F1E).
YAESU	V/D mode only.
DIGITAL CR	AMBE+2 system only.
NXDN	6.25kHz mode only.
dPMR	dPMR446 and Tier1 mode only.
P25	Non-encrypted, conventional mode only.
DMR	Tier 1 & Tier 2 modes, non-encrypted.

## The Serious Choice in Advanced Technology Receivers



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