

AR6000 Professional Grade 40 kHz ~ 6 GHz Wide Range Receiver

Now tunes
to 6 GHz

Continuous Coverage That Goes Far Beyond!



The AR6000 delivers continuous tuning from 40 kilohertz to 6 gigahertz in a wide variety of modes for professional monitoring performance that's nothing short of amazing in terms of accuracy, sensitivity and speed. Standard modes include AM, FM, WFM, FM Stereo, USB, LSB and CW. An optional module can add the capability to receive APCO25 digital communications plus an optional I/Q output can be added to capture up to one megahertz of bandwidth onto a storage device for later listening or signal analysis.

Designed for the monitoring or technical service professional, there are no interruptions in the AR6000's tuning range. With exceptional tuning accuracy and sensitivity throughout its tuning range, the AR6000 begins at the floor of the radio spectrum and continues up through microwave frequencies so it can be used for land-based or satellite communications. It works as a measuring receiver for those seeking a reliable frequency and signal strength standard. To support its broad spectrum, the AR6000 has two antenna ports, with the added capability of an optional remote antenna selector from the front panel of the receiver.

With its popular analog signal strength meter and large easy-to-read digital spectrum display, the AR6000 is destined to become the new choice of federal, state and local law enforcement agencies, the military, emergency managers, diplomatic service, lab technicians, news-gathering operations and security professionals.

Continuously amazing, the AR6000 professional grade receiver features:

- 40 kHz ~ 6 GHz coverage with no interruptions
- Multimode AM, FM, WFM, FM Stereo, USB, LSB and CW
- Tuning steps of 1 Hz up to 3.15 GHz; 2 Hz from 3.15 ~ 6 GHz
- Receiver is programmable and manageable through a USB computer interface
- Up to 2,000 alphanumeric memory channels
- Analog S-meter, large tuning dial, front panel power, volume & squelch controls
- Direct frequency input
- Fast Fourier Transform algorithms
- An SD memory card port can be used to store recorded audio
- Two selectable antenna input ports plus optional remote antenna selector

Add to the capabilities of the AR6000 with:

- Optional APCO-25 decoder
- Optional interface unit enables remote control via the internet
- Optional I/Q output port allows capture of up to 1 MHz onto a computer hard drive or external storage device



® The Serious Choice in Advanced Technology Receivers

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Available in the US only to qualified purchasers with documentation. Specifications subject to change without notice or obligation.

Frequency range	40kHz ~ 6GHz
Minimum frequency step	1Hz (2Hz above 3GHz)
Tuning step	1Hz~999.999kHz
receive modes	USB, LSB, CW, AM, FM, WFM, FM-Stereo
Number of VFO	5 (A ~ E)
Memory channels	2,000 (50 channels x 40 banks)
Number of memory banks	40
Number of pass channels	1,200 30(ranges) x 40 memory banks
Number of priority channel	1
Scan speed	Approximately 100 channels (steps) / second
Antenna impedance	50Ω
Operating temperature range	0°C ~ +50°C (32°F ~ 122°F)
Frequency stability	Less than +/- 0.1ppm (5 minutes after powering up) Less than +/- 0.01ppm with an optional GPS unit
Power requirement	10.7V ~ 16V DC, 2.0A @ 12V
Audio output	> 2W @8Ω load
Current consumption	Approximately 200mA (stand by mode), 1.5A (at maximum output mode)
Ground	Negative
Dimensions	304mm (D) x 220mm(W) x 97mm(H), 8.67 (W)x 3.82 (H) x 12 (D) inches
Weight	Approx. 5kg, 12 lbs

Receiver configuration	Frequency		Configuration	
	40kHz ~ 25MHz		Direct conversion	
	25MHz ~ 220MHz		Double conversion	
	220MHz ~ 360MHz		Triple conversion	
	360MHz ~ 3.15GHz		Double conversion	
	3.15GHz ~ 6GHz		Down converter	
IF frequency	1st	294.5MHz / 1.7045GHz		
	2nd	45.05MHz / 294.5MHz		
	3rd	45.05MHz		
Down converter frequency	Frequency		1st local	Converted frequency
	3.15GHz ~ 3.8GHz		3.1GHz	50~700MHz
	3.8GHz ~ 4.6GHz		3.7GHz	100~900MHz
	4.6GHz ~ 6.0GHz		4.3GHz	300~1.7GHz
IP3	Frequency		IP3	Condition
	14.1MHz		+20dBm	Preamplifier off
	50MHz		+6dBm	same as above
	620MHz		+8dBm	same as above
	1250MHz		0dBm	same as above
	2450MHz		+3dBm	same as above
Spurious rejection	Frequency		Rejection	
	40kHz ~ 25MHz		above 70dB	
	25MHz ~ 2GHz		above 50dB	
	2.0GHz ~ 3.15GHz		above 40dB	
Noise Figure (NF)	Frequency		NF	Condition
	25MHz ~ 1GHz		Lower than 7dB	Preamplifier off
	1GHz ~ 2.75GHz		Lower than 10dB	same as above
	2.75GHz ~ 4.6GHz		Lower than 12dB	same as above
	4.6GHz ~ 5.8GHz		Lower than 14dB	same as above
	5.8GHz ~ 6GHz		Lower than 18dB	same as above

Sensitivity	Mode	SSB	AM	FM
	Condition	10dB S/N	10dB S/N	12dB SINAD
	IF bandwidth	3kHz	6kHz	15kHz
	Frequency range	Sensitivity		
	40kHz ~ 50kHz	Less than 6.0 uV	Less than 15 uV	
	50kHz ~ 60kHz	Less than 4.0 uV	Less than 10 uV	
	60kHz ~ 70kHz	Less than 3.0 uV	Less than 7 uV	
	80kHz ~ 100kHz	Less than 1.5uV	Less than 4 uV	
	100kHz ~ 25MHz	Less than 0.7 uV	Less than 2 uV	
	25MHz ~ 2.75GHz	Less than 0.5 uV	Less than 2 uV	Less than 0.4 uV
	2.75GHz ~ 3.15GHz			Less than 0.6 uV
	3.15GHz ~ 4.60GHz			Less than 0.5 uV
	4.60GHz ~ 5.80GHz			Less than 0.7 uV
5.80GHz ~ 6.00GHz			Less than 1.5 uV	