AR5700D specifications & features (subject to change without notice nor obligation)

Frequency range	9kHz～3.7GHz
Tuning steps	1Hz～999.999kHz
Operation modes	VFO (A～E), memory channel, memory channel scan, select scan, program search, FFTsearch (cyber search), analog video demodulation
Analog receive modes	FM, FM stereo, AM, AM synchronous (SAM), USB, LSB, CW, AIQ (analog I/Q)
Digital receive modes	D-STAR / GMSK / AMBE DV mode only YAESU / C4FM / AMBE+2 V/D mode only ALINCO / GMSK / AMBE EJ47 (F1E) mode only D-CR / C4FM / AMBE+2 NXDN / C4FM / AMBE+2 6.25kHz mode only P25 Phase 1 / C4FM / IMBE Conventional mode only dPMR / C4FM / AMBE+2 Tier 1 only DMR / C4FMx2 / AMBE+2 Tier 1 and Tier 2 only TETRA direct mode (T-DM) / π/4 shift QPSK / ACELP TETRA traffic channel (T-TC) / π/4 shift QPSK / ACELP
Number of VFO's	5
Memory channels	2000 (50 channels x 40 memory banks). Banks customizable from 5 to 95 channels.
Priority channel	1
Select memory channels	100 (via memory banks)
Search banks	40
Pass frequencies	1230 (30 per memory bank + 30 for VFO search)
Typical scanning speed	100 channels / steps per second (for analog modes)
Temperature range	0℃～+50℃ (32°F～122°F)
Frequency stability	0.1ppm (after 5 min. warm-up) or 0.01ppm with optional GPS unit.
Power requirements	DC10.7V～16V (2.0A@12V)
Audio output	>1.5W into 8Ω load
Current consumption	Stand-by: Approx. 200mA, Max. audio: Approx. 1.5A
Grounding method	Minus grounding
Dimensions	Approx. 304mm(D) x 220mm(W) x 97mm(H) (excluding projections)
Weight	Approx. 5kg
Circuit type	9kHz～25MHz: Direct conversion 25MHz～3.7GHz: Double super heterodyne
Intermediate frequencies	First: 321.95MHz / 421.05MHz Second: 45.05MHz
Demodulation method	Digital signal processing
IF filter bandwidths	200Hz, 500Hz, 1kHz, 3kHz, 6kHz, 15kHz, 30kHz, 100kHz, 200kHz (choice is mode dependant) Automatically selected and non changeable for digital modes.
Selectivity (typical values)	CW 500Hz 380Hz (>-3dB) 500Hz (>-80dB) AM 6kHz 5.5kHz (>-3dB) 6.9kHz (>-80dB) SSB 3kHz 2.7kHz (>-3dB) 3.1kHz (>-80dB) NFM 15kHz 14.2kHz (>-3dB) 15.6kHz (>-80dB) WFM 200kHz 200kHz (>-3dB) 250kHz (>-80dB)
IP3 (typical values)	14.1MHz +20dBm Preselector off 50MHz +6dBm Preamp off 620MHz +5dBm Preamp off 1250MHz +3dBm Preamp off

	2450MHz	+3dBm	Preamp off
Spurious rejection	40kHz～25MHz	>60dB	Preamp off
	25MHz～2GHz	>60dB	Preamp off
	2.0GHz～3.7GHz		>60dB Preamp off
Noise figure (typical values)	25MHz～1GHz	<7dB	Preamp on
	1GHz～2.75GHz	<14dB	Preamp on
	2.75GHz～3.7GHz		<16dB Preamp on

Sensitivity	SSB 10dB S/N 3kHzBPF	AM 10dB S/N 6kHzBPF	NFM 12dB SINAD 15kHzBPF
40kHz ～ 50kHz	<6.0μV	<15.0μV	
50kHz ～ 60kHz	<4.0μV	<10.0μV	
60kHz ～ 70kHz	<3.0μV	<7.0μV	
80kHz ～ 100kHz	<1.5μV	<4.0μV	
100kHz ～ 25MHz	<0.7μV	<2.0μV	
25MHz ～ 2.75GHz	<0.5μV	<1.0μV	<0.4μV
2.75GHz ～ 3.7GHz	<0.7μV	<1.7μV	<0.6μV

Simultaneous reception:

2 band reception	One frequency below and one above 25MHz.
Offset reception	Main frequency + sub-frequency within +/-5MHz from main frequency. Above 25MHz only.
Triple reception	Combination of one HF frequency + offset reception
Squelch modes	CTCSS, DCS, data-mute
Demodulation support	Auto-notch filter (NOTCH), de-noiser (NR), noise blanker(NB), analog voice descrambler (SCR), IF shift (IF-SFT), Cwpitch (CW PITCH), AGC, AFC, DTMF
FFT features	FFTsearch (Cyber search), spectrum display

Digital signal info display:

D-STAR	Call sign (sender & repeater)
D-CR	User ID, 15-bit scramble code
NXDN	RAN code, 15-bit scramble code
P25	NAC code
DMR	Color code, slot number
TETRA traffic channel	Slot number

Audio recording

Types of recording	Received audio recording / playback and logging via SD card.
SD card compatibility	SD or SDHC type, 256MB to 32GB. File system FAT 16 or FAT 32 only. MiniSD and microSD cards require an SD card adapter.
File format compatibility	Windows compatible WAV file format. RIFF (little-endian) data, WAVE audio, Microsoft PCM, 16-bit mono 17.578kHz.
Recording time	Approx. 8h of continuous recording per 1GB. Squelch synchronization possible to eliminate inative tim.
Log recording	Logs are written into the audio wav file and can be accessed and played back with a special PC utility.

Inputs & outputs:

Antenna inputs	(ANT1)	25MHz～3.7GHz	N-J socket	50Ω
	(ANT2)	9kHz～3.7GHz	N-J socket	50Ω
10MHz reference input		SMA-J socket Typical input +2dBm, 50Ω		
45.05MHz IF output		BNC-J socket, 45.05MHz±7.5MHz Typical output: Antenna input + 10dB, 50Ω		
Digital I/Q output		1MHz bandwidth via USB 2.0 compatible isochronous transfer. Use PC software AR-IQ3. USB type B socket		
Analog I/Q ouput		12kHz offset output via 3.5mm stereo phone socket Mode: AIQ, via LINE socket)		
LINE ouput		3.5mm stereo phone socket		
Headphones ouput		3.5mm stereo phone socket		
External speaker output		3.5mm mono phone socket		
Accessory outputs	(ACC1)	8-pin miniature DIN socket		
	(ACC2)	RJ-45 socket for optional antenna selector		
RS-232C	(AUX1)	9-pin D-subminiature (male). For firmware updates and remote control per PC.		
GPS input	(AUX2)	8-pin miniature DIN socket. For optional GPS receiver unit only.		
USB		USB 1.1/2.0 compliant, USB type B socket. For remote control per PC.		
Analog video out		RCA socket, 75Ω 1V p-p		
DC power input		DC barrel socket(5.5/2.1mm), center positive		

Supplied accessories:

AC power adapter, SD card, operating manual, PC control software, two USB cables