

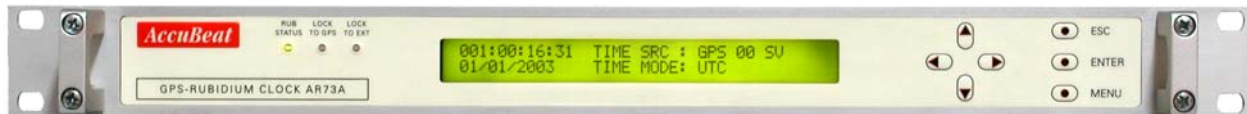
## GPS-Disciplined OCXO Clock

### AR73A-16-07

### Industrial

#### Key Features

- |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                    |
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| <ul style="list-style-type: none"> <li>❖ Frequency Accuracy : 1E-11</li> <li>❖ 1PPS Accuracy: 100ns RMS relative to GPS</li> <li>❖ Outputs: 3x10MHz, 3x1PPS (TTL/50Ω), RS232, 1PPS, IRIG-B ( Opt )</li> <li>❖ Inputs: 1 PPS , IRIG-B ( Opt )</li> <li>❖ Network Time Server: LAN - NTP</li> </ul> | <ul style="list-style-type: none"> <li>❖ UTC/GPS Time Source</li> <li>❖ Delay Correction for Input &amp; Output</li> <li>❖ Display of Time, Date, Status &amp; BIT</li> <li>❖ RS232 Remote control</li> <li>❖ Supply Voltage: 90/260 VAC</li> <li>❖ Graphic User Interface (GUI) Software for PC (opt.)</li> </ul> |
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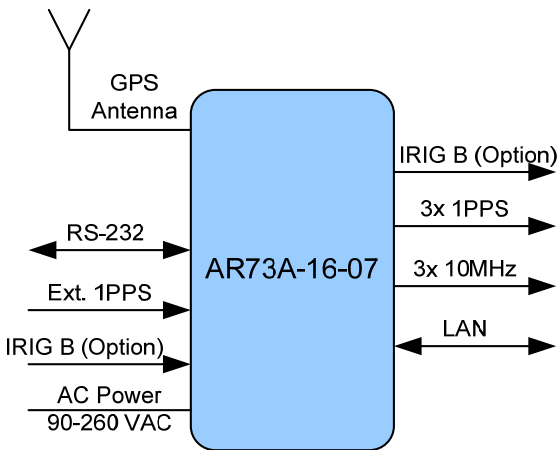
#### Applications

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| <ul style="list-style-type: none"> <li>❖ Test Equipment</li> <li>❖ Scientific Equipment</li> <li>❖ Calibration</li> </ul> | <ul style="list-style-type: none"> <li>❖ Telecommunication</li> <li>❖ Secure Communication</li> <li>❖ TV Stations</li> </ul> | <ul style="list-style-type: none"> <li>❖ Cellular Base Stations</li> <li>❖ Mobile Radio Base Stations</li> <li>❖ Internet</li> </ul> |
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## SPECIFICATIONS

All specs are at room temperature, quiescent conditions, sea level ambient unless otherwise specified

### Input & Outputs

<b>Outputs</b>	3 x 10MHz sine wave, 5±2dBm/ 50Ω 3 x 1PPS (TTL/50Ω) LAN - NTP IRIG-B ( Option )	
<b>Input</b>	GPS Antenna / 50Ω 1PPS / 50Ω IRIG-B ( Option ) Manual setting of data via display keypad or via PC (RS232) Inputs Priorities for synchronization: (1) 1 PPS, (2) IRIG-B ( Option ), (3) GPS	
<b>Monitor &amp; Control</b>	RS-232 , PC channel for data remote control	

### Performance

<b>Mode of work:</b>		<b>Disciplined to GPS or to Ext. 1PPS OCXO-Standard</b>
<b>Time (1PPS)</b>	<b>Long- term accuracy</b>	100ns RMS relative to GPS or Ext. input @ 25°C without S/A
<b>Frequency</b>	<b>Accuracy</b>	1E-11 after warm-up, 24 hours averaging at constant temperature
		≤-95dBc/Hz @ 10Hz ≤-127dBc/Hz @ 100Hz ≤-137dBc/Hz @ 1KHz ≤-142dBc/Hz @ 10KHz
	<b>Harmonics (10MHz)</b>	≤-48dBc
	<b>Spurious (10MHz)</b>	≤-75dBc ±100KHz
	<b>Warm-up</b>	60 min for ≤2E-9

### Environmental

<b>Operating Temperature</b>	-10°C to +55 °C for AR73A-16 unit -20°C to +70°C for antenna
<b>Storage Temperature</b>	-20°C to +70°C for AR73A-16 unit -40°C to +70°C for antenna
<b>Humidity</b>	Up to 95% at 35°C, non-condensed for AR73A-16 unit Up to 100% condensing, fully outdoor for antenna
<b>Vibration (non-operating)</b>	MIL-STD-810D, Method 514.3 (2.5g RMS, 5-500Hz) & RTCA/D0 160D Section 8.7.2, Table 8-1, Figure 8-1, Curve B
<b>Shock</b>	MIL-STD-810C, Method 516.2, Proc. I (7.5g / 30ms / Half sine) & RTCA/D0-160D Section 7, Paragraph 7.3.1 (15g/11ms)

### GPS Receiver

<b>GPS Tracking</b>	L1 frequency 1575 MHz C/A code (SPS) 8 parallel tracking channels
<b>GPS Position</b>	Latitude, Altitude, longitude
<b>Position Accuracy</b>	Horizontal: < 6m (CEP 50%) Altitude: < 11m (CEP 50%)
<b>GPS Antenna DC Voltage</b>	5VDC, supplied by the unit

### BIT and GUI

<b>LED Indications</b>	3 LEDs on the front panel: Power, Status, Lock to GPS, Lock to Ext	
<b>Graphic User Interface (GUI) Software for PC</b>	<ul style="list-style-type: none"> <li>○ Time/date display</li> <li>○ Time source</li> <li>○ Time zone</li> <li>○ Satellites in view</li> <li>○ Navigation data from GPS</li> <li>○ Leap seconds (from UTC to GPS)</li> <li>○ BIT (Built In Test)</li> </ul>	<ul style="list-style-type: none"> <li>○ Antenna Cable delay</li> <li>○ Ext Input Delay</li> <li>○ 1PPS output delay</li> <li>○ Comm. Parameters</li> <li>○ Daylight Saving/ STD</li> <li>○ Time Setting GPS/UTC/LOCAL</li> <li>○ Additional parameters</li> </ul>



## SPECIFICATIONS *(continue)*

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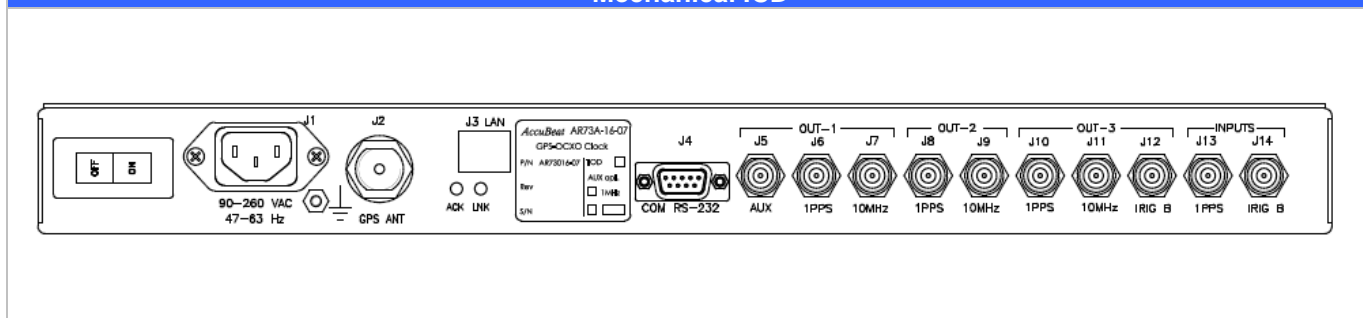
### Power Supply

<b>AC</b>	90/260 VAC 47/63 Hz
<b>Power consumption</b>	Warm-up $\leq 20W$
	Steady-state $\leq 17W$

### Dimensions & Weight

<b>19" x 1U Rack Mount</b>	Size	19" X 1U (1.75") X 16"
	Weight	< 4kg

### Mechanical ICD



## HOW TO ORDER

Product Name	Description	AccuBeat Part No.
AR73A-16-07	GPS-Disciplined OCXO Clock	AR73016-07

ACCESSORIES	AccuBeat P/N:
GPS Antenna 26 dB	EM30018
GPS Antenna 36 dB	EM30039
Antenna Cable RG-142 5m	AA50204
Antenna Cable RG-213 25m	AC50501
GUI Software for PC for Remote Control	SW50010

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