

# IBU-160i - ADVANCED TIMECODE DISTRIBUTION



**16 Output Network Enabled Programmable Time Code  
Distribution Unit (100Hz - 100KHz) with Dual Redundancy**



AS9100D Certificate Number : C0210021-AS3



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## Product Overview



The IBU-160i is a high quality, remotely programmable Timecode distribution unit (100Hz - 100 KHz ) with dual redundant hot swap PSUs. Applications for the IBU-160i include test ranges, satellite control centres, shipboard time distribution, airports, rail terminals, and any system requiring highly reliable time code distribution.

The IBU-160i base unit model has sixteen short circuit proof wide band outputs grouped as 2 banks of 8, available at the rear panel via BNC connectors, driven in response to one of two independent and isolated (Timecode A & Timecode B) signal source inputs. Each Timecode input is capable of driving all 16 outputs.

Each output has a network programmable Timecode source assignment and amplitude setting along with fully independent status checking and fault condition reporting via the SNMPv2c trap based network interface and rear panel D type connectors.

Once selected, Timecode signal sources are automatically switched over should a reference Timecode fail, while a three-position front panel switch facilitates the manual override selection of either Timecode A or Timecode B. With automatic mode selected, each output will be driven by the programmatically assigned reference.

Front panel indicators show the status of the input selection and output condition along with power status indication. Each of the sixteen outputs is continually monitored and should an output fail for any reason, then a group alarm fault indicator will illuminate and trigger a rear panel fault alarm signal that may be used by external equipment to modify the reference and output signal routing and selection.

The unit has a built in user friendly web based SNTP server interface available via an RJ45 10/100BaseT rear panel network port facilitating unit setup and subsequent system monitoring.

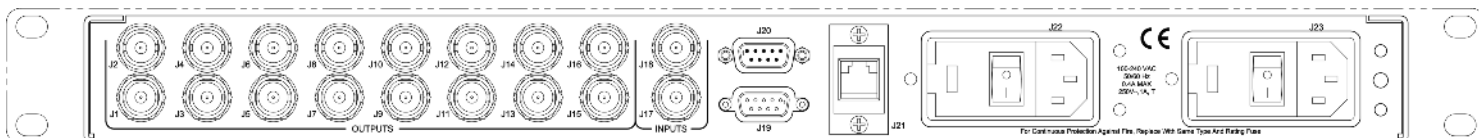
## Key Feature Summary

### Options & Features

- Network Enabled Timecode Distribution Amplifier 100Hz to 100KHz
- Dual Isolated Timecode Inputs with Auto Fail over
- Typical Time codes : IRIG A, B, E, G, NASA 36, XR3, AFNOR
- Programmable per channel output amplitude (1V - 5V pk-pk)
- SNMP v2c, HTTP, DHCP, IPv4 Protocols : RFC 1901, RFC 1905, RFC 1906, RFC 2578
- 1U 19" rack mount
- Dual Redundant Hot Swap Power Supplies

### Signals

- 16 discrete, fault tolerant and fully monitored Timecode outputs on BNC connectors
- Two time code signal inputs with automatic switching
- Fault status indication and fault driven reference changeover



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## Specifications

Specifications - IBU-160i	
<b>Reference Time Code Inputs</b>	<b>Details</b>
Connectors	2 x Rear panel BNC
Amplitude	0.5 V to 10V pk-pk - Transformer coupled and isolated
Input Impedance	600 Ohms
Time Codes	Analogue Codes in the range 100Hz - 100 KHz IRIG A, B, E, G, NASA36, XR3, AFNOR
<b>Fault Discrete Input</b>	
Number of inputs	2
Connector	9 Way D Type Socket
Level	TTL
Active Level	Link selectable, high or low to force reference changeover
<b>Timecode Outputs</b>	
Number of outputs	16 - Grouped as 1 x 16 or 2 x 8 based on input selection assignment
Connectors	BNC
Frequency (MHz)	Same as input, 100Hz - 100 KHz
Level	1.0 V to 5V pk-pk - Transformer coupled and isolated
<b>Environmental</b>	
Temperature	Operating : -10°C + 55°C    Storage : -40°C + 85°C
Humidity	95 % non condensing
Power	85VAC - 265VAC 50/60Hz or DC with hot swap dual redundancy < 15W
Power Options	18-36 VDC, 36-72 VDC, - 48VDC
<b>Network Interface</b>	
Interface	RJ45 - 10/100BaseT
Protocols	HTTP, SNMPV3, DHCP, IPV4
<b>Console Port</b>	
Interface	9 Way D type socket 115K Baud - 115200, N, 8, 1
<b>Display</b>	
Type and Function	16 Bi-Colour LEDs - Output Status and Ethernet Settings
<b>Alarms</b>	
Electrical	Dry relay form C contacts - Function Summary of all input/output alarms (relay)
Ethernet Network	SNMP trap - SNVPv3
<b>Physical</b>	19" Rack 1U 1.75" (H) x 7.5" (D) x 17" (W) [ 4.4 cm(H) x 19 cm (D) x 43.2 cm (W) ] Weight : 3.5 lb (1.6 Kg)
<b>Compliance</b>	CE Approved - EMC Emissions to EN55022 as EN55024 - FCC Part 15B, Class A EMC Immunity to EN50082-1 as EN61000-4-2 ESD, IEC801-3 HF Field & IEC 801-4