

**Introduction:**

The IR-301 uses an IEEE 1588v2 PTP Grandmaster as a time source to provide multiple 1PPS/IRIG-B and NMEA outputs with nanosecond accuracy. It has been engineered to provide extremely reliable time and frequency synchronization which can be used by power generation utilities, mobile telecom networks, aviation industry, defense and other applications where high precision timestamping is required.

The IR301 makes use of Best Master Clock Algorithm, which allows the user to seamlessly install the equipment in a redundant PTP Grandmaster network. It is available in a DIN rail chassis.

**Features and Highlights:**

- Reliable, Cost-Efficient Reference
- BMCA (Best Master Clock Algorithm) - allows the unit to be installed in a redundant PTP Grandmaster network
- 1 PPS / IRIG-B outputs
- Nanosecond accuracy
- Standard RJ45 and BNC connectors for all inputs and outputs
- ToD compliant to NMEA 0183 (RJ45 Port).

**Additional Features:**

- 1 x PTP Input (Gigabit Ethernet Slave Port)
- Password Protection
- 48V DC power supply
- 1 x OAM (10/100BaseT Ethernet Port)
- Power Contact and Lightning Protection as per Telcordia GR-1089-CORE.



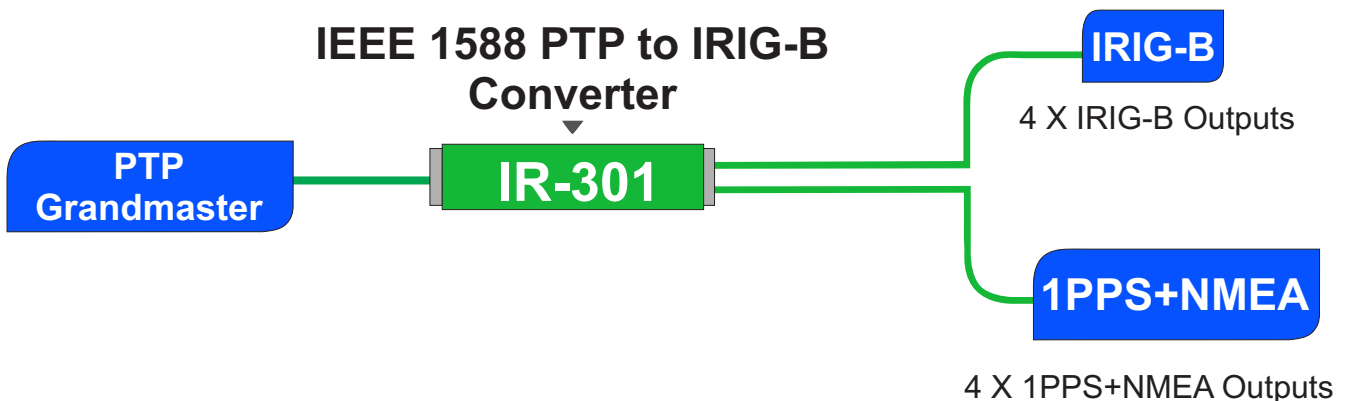
**Standard Frequency and ToD Input & Outputs:**

Input Type	Connector
IEEE-1588v2 (PTP)	RJ-45
Output Type	Connector
4 x 1 PPS or 4 x IRIG-B* (User Selectable)	BNC
Synchronized to PTP Grandmaster	
4 x TOD (Time-Of-Day) output	RJ-45
compliant to NMEA0183	

\* IRIG-B format: B004

**Management and Monitoring Ports:**

- USB
- 10/100BaseT Ethernet
- 1 x External Alarm Relay Contact.



### System Access, Control and Management Options:

- Telnet
- CLI Control Interface (HyperTerminal or Vt100)
- SNMP V2 Traps (MIB File provided)
- GUI (Graphical User Interface) - Runs on any PC operating on Windows XP, Windows 7, Windows 8, Windows 10 OS.

### Security and Protection:

- Password Protection
- Secure boot.

### Environmental:

Operational	-20°C to +60°C (Typical: +25°C)
Cold Start	-10°C to +60°C
Storage	-40°C to +75°C
Humidity	95% non-condensing
Cooling	Convention Cooled
	No cooling fans are required.

### Mechanical Specifications:

Height	73 mm.
Depth	190 mm.
Width	190 mm.
Weight	1.0 kg.

### Ordering Information

IR-301	IR-301, PTP to IRIG-B Converter DIN Rail Mount, - Synchronizes to PTP Grandmaster to provide 1PPS, NMEA, IRIG-B Outputs - Management: SNMP, Telnet (RJ45 (F) Port), Serial Port (USB), EMS, Graphical User Interface (GUI) - Installation Kit: System Core Cables, Mounting Hardware, Documentation, User Manual - Add *power supply options
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### \*Power Supply Options

Part #	Description
DC024	1 x 24V (9~32) DC Power Supply Input
DC048	1 x 48V (18~60) DC Power Supply Input
DC110	1 x 110V (80~150) DC Power Supply Input (with external adaptor)
DC220	1 x 220V (180~290) DC Power Supply Input (with external adaptor)
AC120	1 x 120V (90~260) AC Power Supply Input (with external adaptor)

Technical specifications are subject to changes without notice.  
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**Global Intellipower Systems Inc.**  
 Suite 4, 180 Northfield Drive West,  
 Waterloo, ON, N2L 0C7,  
 Canada