

Product Overview:

IR-300 is synchronized by an NTP Server and can be used as a time source for equipment that requires IRIG-B inputs for time-of-day synchronization.

IR-300 is available in a small form factor DIN Rail chassis.



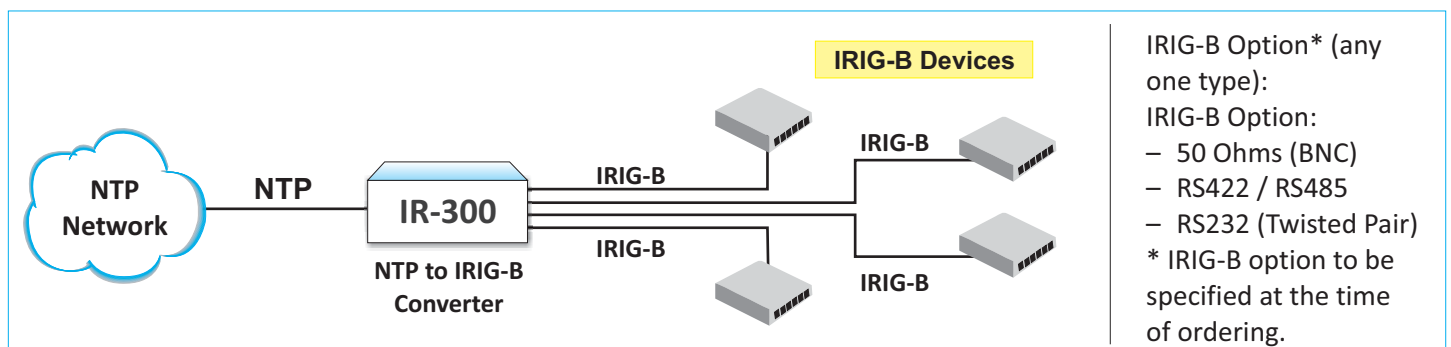
Features and Benefits:

- May be synchronized from a local or public NTP server
- Provides 4 Unmodulated IRIG-B output (BNC, RS232, RS485/RS422) options
- Built-in real-time clock / real-time logging maintains a history of all events
- Serial Management Interface (USB) for local access
- Remote access over Telnet and SSH. Allows the user to access and carry out maintenance
- User-Selectable IRIG-B Time Output: Local Time / UTC
- Password Controlled Access. Maintains a complete log of all logins.

Chassis Description:

The NTP to IRIG-B converter is a substation hardened design available in a small form factor, compact DIN Rail / desktop chassis.

Application Diagram:



Technical Specifications

NTP Specifications:

Number of Input NTP Ports	1
Interface Type	10/100BaseT
Interfaces	RJ-45

Network Time Protocol:

- NTP v4
- Internet Protocol: IPv4, Ipv6
- Time Protocol: TIME (RFC 868)

IRIG-B Specifications:

Number of Output Ports	4
Interface Type	Unmodulated, DCLS signal, No Carrier
Interface Options	BNC (50 Ohms unbalanced), or RS232 Twisted Pair or RS422 / RS485

IRIG-B Timecode Support:

IRIG B000	100pps, DCLS signal, no carrier BCD (Time of Year), CF, SBS
IRIG B002	100pps, DCLS signal, no carrier BCD (Time of Year)
IRIG B003	100pps, DCLS signal, no carrier BCD (Time of Year), SBS
IRIG B004	100pps, DCLS signal, no carrier CF, SBSS, BCD (Time of Year), BCD (Year)

Technical Specifications

Power Supply Specifications:

Input DC voltage	48V DC (nominal)
Range of input voltage	15V to 60V DC Input
Voltage reversal protection	Provided
Short circuit protection	Provided

Additional Power Supply Options (external adaptor):

- AC Power - 100 to 240V AC, 50/60 Hz
- DC Power - 110VDC; 220VDC

Power Consumption:

- < 10W at ambient (steady state 24°C)

Local / Remote Communication Options:

- SSH for secure connection
- Telnet (With option to disable clear text communication to comply with NERC security requirements)
- CLI Control Interface (HyperTerminal or Vt100)
- System logs

Management and Control Ports:

- Serial Management Port - USB Port
- 10/100BaseT for remote management

Security and Protection:

- Password Protection
- Multi-level access control

Command Language:

- English text commands
- Graphical User Interface (GUI) - English

Environmental (Equipment):

Operational	-20C to +60C (Typical: +25C)
Cold start	0C
Storage	-40C to +85C
Humidity	95% non-condensing
Cooling	Convention Cooled. No cooling fans are required.

Technical specifications are subject to changes without notice.
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Mechanical Specifications:

Height	42 mm
Width	168 mm
Depth	175 mm
Weight	1.0 Kg.

MTBF and Equipment MTBF:

- Per MIL-HDBK-217F: ≥ 17 years @ 24C
- Per Telcordia SSR 332, Issue 1: ≥ 26 years @ 24C

Compliance:

- EMC FCC Part 15 Class 2
- Operation ETS 300 019 Class 3.2
- Storage ETS 300 019 Class 1.2
- Transportation ETS 300 019 Class

Ordering Information:

Core Unit:

Part No.	Product Description
IR-300	NTP to IRIG-B converter DIN Rail Mounting Version 1 x 15~60V DC Power Supply Input - 1 x NTP Port [10/100BaseT, RJ45 (F)] [# Add IRIG-B Option] - Management: Telnet (RJ45 (F) Port), Serial Port (USB), Graphical User Interface (GUI) - Installation Kit: System Core Cables, User Manual

*Add IRIG-B Option (Any One Option):

BNC-050	4 x IRIG-B Port [unmodulated 50 Ohms, BNC F connector]
8x2-232	4 x RS232 / IRIG-B Port [8x2 M Terminal Block]
8x2-485	4 x RS485 / IRIG-B Port [8x2 M Terminal Block]

*Additional Power Supply Options (External Adaptor):

AC220	External Power Supply - DIN Rail Mount AC to DC Converter, Input: 1 x AC Input [90~240V AC, 50-60Hz] Output: 1 x DC Output [24V DC~1.25A, 30W]
DC220	External Power Supply - DIN Rail Mount DC to DC Converter, Input: 1 x DC Input [110~250V DC] Output: 1 x DC Output [24V DC~1.25A, 30W]