

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.



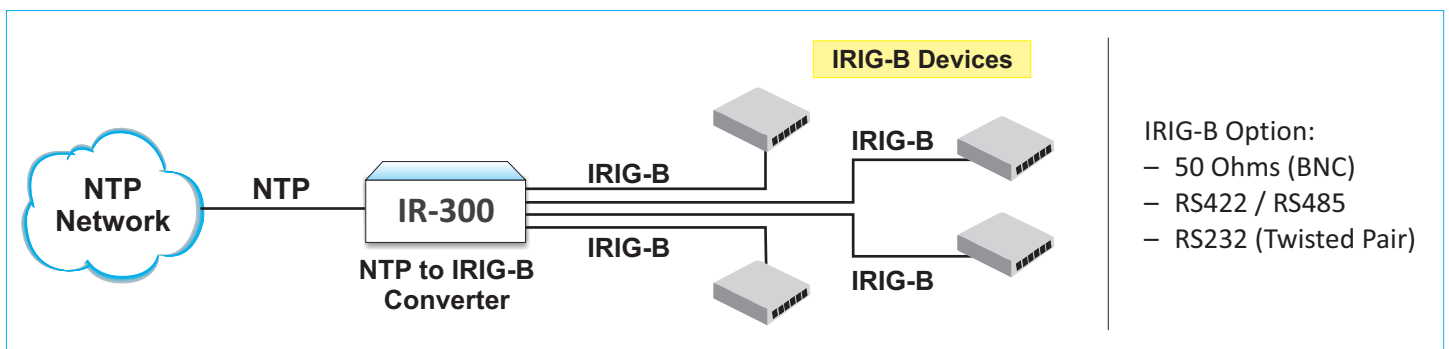
Features and Benefits:

- Synchronized from a Reference input 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 TCP-IP networks. Allows the user to access and carry out maintenance
- 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 Diagrams



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
- 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), RJ45 (balanced twisted pair)

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, SBS

Technical Specifications

Power Supply Specifications:

Input DC voltage	48V DC (nominal)
Range of input voltage	15V to 55V 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:

- Telnet / SSH (With option to disable clear text communication to comply with NERC security requirements)
- CLI Control Interface (HyperTerminal or VT100)
- System log

Management and Control Ports:

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

Security and Protection:

- Password Protection
- SSH

Command Language:

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

Environmental (Equipment):

Operational:	-10C to +50C (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	74.46 mm
Width	190 mm
Depth	172 mm
Weight	1.5 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 without PSUs:

Part No.	Product Description
IR-300	NTP to IRIG-B converter - Emulates NTP Client - Synchronizes with NTP Server - Provides 4 x Unmodulated IRIG-B Outputs - Management: 10/100BaseT RJ45 (F) Port, Serial Port (USB), Graphical User Interface (GUI) - Installation Kit: System Core Cables, Mounting Hardware, Documentation, User Manual - Add Power Supply Option (*below)

*Add IRIG-B Interface output options:

- BNC (50 Ohms unbalanced)
- RJ45 (RS232, RS485, RS422 balanced twisted pair)

*Add Power Supply Options:

48VDC	1 x 15~55V DC Power Supply Input
AC220	1 x 110~240V, 50/60Hz AC Power Supply Input (External Adaptor)
DC220	1 x 100-220V DC Power Supply Input (External Adaptor)