



PROTECTS AND CONVERTS
YOUR TIMING SIGNALS

ISOLATED TIMING REPEATER COPPER, FIBER, HV MOSFET

The Isolated Timing Repeater is a compact DIN rail mountable signal repeater that performs a number of tasks, including converting time sync signals from fiber to copper (and vice versa), boosting signal strengths and converting one type of signal to another.

The Isolated Timing Repeater is electrically isolated, providing your Intelligent Electronic Devices (IEDs) with an additional layer of electrical protection.

KEY FEATURES

- Extend the distance of an IRIG-B or Pulse signal
- Provide isolation between A & B Protection Systems or between IEDs
- Converts a copper signal to a fiber signal (or visa versa)
- Converts low voltage (0-5 V) signal to a high voltage digital output
- Reduces wiring to panels of equipment

PHYSICAL

UL94-V0 polycarbonate flame retardant DIN-rail mount case with IP40 (Ingress Protection rating). (W) 55 mm x (D) 60 mm x (H) 90 mm, 0.15 Kg
Rising clamp terminals: Wire size (max): 1.5 mm Ø

LED INDICATORS

Two LEDs indicating multiple statuses, including:
- Power
- Input signal indicator

COPPER VERSION

Inputs

The Input accepts a Digital Logic signal or DCLS IRIG-B

1 x Copper 5 V, 2 mA max

Outputs

Outputs echo the same signal data as on the input

1 x Copper TTL 0 - 5 V, 150 mA, fused
1 x Copper RS232 ±10 V (typical unloaded), 15 mA (max)

1 x Copper RS422/RS485 ±5 V, 50 RS422 unit loads (RS485 compatible)

Optional Output

1 x Copper AM IRIG- B 8V, 120Ω output impedance

Internal Signal delay:
Input to Copper output 85±10 ns



FIBER VERSION

Inputs

Both inputs accept a Digital Logic signal or DCLS IRIG-B

1 x ST Fiber 62.5/125 um, λ = 820 nm, multi-mode
Receiver sensitivity -34.4 dBm
1 x Copper 5 V, 2 mA max

Outputs

Outputs echo the same signal data as on the input

1 x ST Fiber 62.5/125 um, λ = 820 nm, multi-mode
Power budget 17.5 dB (typical)
1 x Copper TTL 0 - 5 V, 150 mA, fused
1 x Copper RS232 ±10 V (typical unloaded), 15 mA (max)
1 x Copper RS422/RS485 ±5 V, 50 RS422 unit loads (RS485 compatible)

Optional Output

1 x Copper AM IRIG- B 8 V, 120Ω output impedance

Internal Signal delay:
Input to Copper/Fiber output 85±10 ns



HV MOSFET VERSION

Inputs

Both inputs accept a Digital Logic signal or DCLS IRIG-B

1 x ST Fiber	62.5/125 μm , $\lambda = 820 \text{ nm}$, multi-mode Receiver sensitivity -34.4 dBm
1 x Copper	5 V, 2 mA max

Outputs

Outputs echo the same signal data as on the input

1 x ST Fiber	62.5/125 μm , $\lambda = 820 \text{ nm}$, multi-mode Power budget 17.5 dB (typical)
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1 x HV MOSFET, 300 Vdc, 1 A (1 Ω impedance), high speed MOSFET, fused with reverse polarity and ESD protection.

Internal Signal delay:

Input to HV MOSFET output 60 μs (typical)

ENVIRONMENTAL AND ELECTRICAL

Power supply:	L = 14-36 Vdc M = 20-75 Vdc H = 90-300 Vdc
Power Drain:	5 W max
Operating temperature:	-10 to +65°C
Humidity:	To 95% non-condensing

Isolation

Power to I/O:	2 kV
Input to Earth:	3.5 kV (min)

ABOUT TEKRON

Tekron is a leading developer of accurate GPS/GLONASS clocks and time synchronisation solutions for use in industrial applications.



CONTACT US

Web:
www.tekron.com

Phone No:
+64 4 566 7722

Sales Freephone: (Australia)
1800 608 572

Sales Freephone: (North America)
1800 256 2309

Note:
The quickest and most effective method to request a quote is through the online quote request form on the Tekron website.