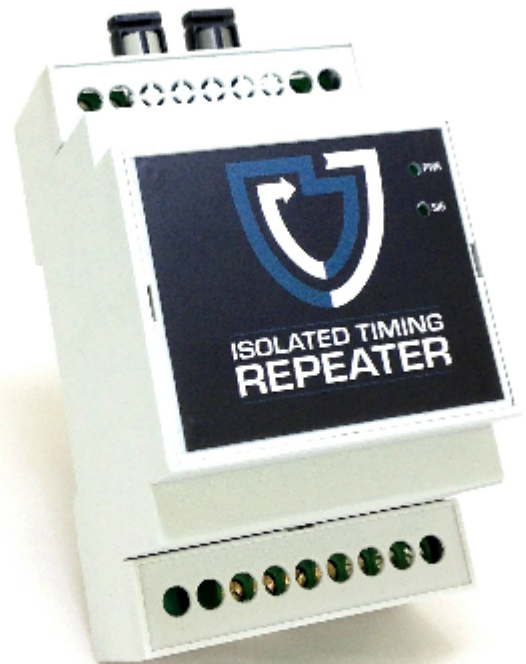


Tekron Isolated Timing Repeater

Isolated
Timing
Repeater

LOW VOLTAGE FIBER

PREVIOUSLY KNOWN AS THE MOFR



*"These are its
main features"*

**Extend the distance of an IRIG-B or
Pulse signal**

**Provide isolation between A & B
Protection Systems or between IEDs**

**Converts TTL HCMOS compatible signal
from copper to fiber / fiber to copper**

Reduces wiring to panels of equipment

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

The Isolated Timing Repeater is completely electrically isolated and it will provide your IEDs (Intelligent Electronic Devices) with an additional layer of electrical protection.

TEKRON

because timing is everything



Physical

UL94-V0 polycarbonate flame retardant din rail mount case with IP20 (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

Green: Power
Green: Input signal indicator



Fiber 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
TTL compatible/HCMOS

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)

1 x Copper TTL 0 - 5 V, 150 mA, fused

1 x Copper RS232 $\pm 10 \text{ V}$ (typical unloaded), 15 mA (max)

1 x Copper RS422/RS485 $\pm 5 \text{ V}$, 50 RS422 loads (RS485 compatible)



Optional Output

"Protect, boost and convert your timing signals"



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

The copper AM IRIG-B option adds the ability to convert a copper or fiber digital IRIG-B signal to AM IRIG-B.

Environmental & Electrical

Power supply: L = 14-36 Vdc
M = 20-72 Vdc
H = 90-300 Vdc

Power drain: 1.5 W max

Operating temperature: -10 to +65°C

Humidity: 10% to 95% non-condensing

Internal Signal Delay:

Input to copper/fiber output
85 ±10 ns

Isolation

Power to I/O: 2 kV

Input to Earth: 3.5 kV (min)

Output to Earth: 3.5 kV (min)

Additional features

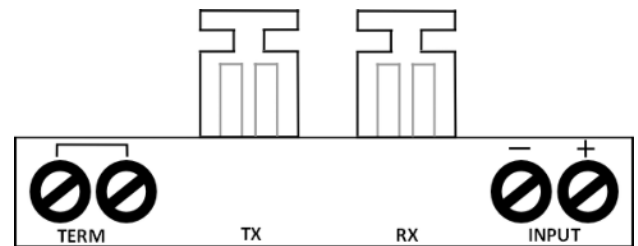
In addition to the primary input, the fiber version of the Low Voltage Isolated Timing Repeater provides a “Term” terminal.

Term Terminal

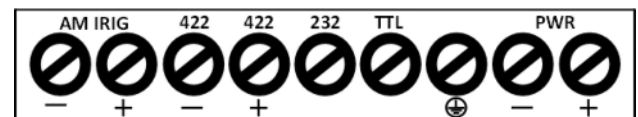
All fiber version Isolated Timing Repeaters contain a 120Ω terminating resistor. This helps prevent signal reflection at the end of a line of multidropped Isolated Timing Repeaters. To terminate the end of a line, simply connect a wire between the two “Term” terminals.



Port Designations

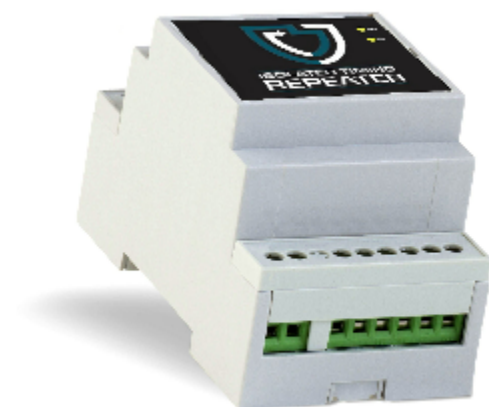


Top Panel



Bottom Panel

Orderable power supply options are listed in the environmental and electrical section of this datasheet.



Isolated Timing Repeater



Order Code Guide

Rev 1.0 ITR Order Code Guide					Order Code:			
Description					D2	-	X	X
Product Type	ITR Signal Repeater (Fiber Version)				D2			
Power Supply Options	Description	Connector Type	Specification					
	Low Voltage	2 Pin Screw Terminal	14-36 Vdc				1	
	Medium Voltage	2 Pin Screw Terminal	20-72 Vdc				2	
	High Voltage	2 Pin Screw Terminal	90-300 Vdc				3	
Standard Outputs	Description	Connector Type	Specification					
	Fiber	ST Fiber connector	62.5/125 um, $\lambda = 820$ nm, multi-mode					
	TTL Output	2 Pin Screw Terminal	0 - 5 V, 150 mA, fused					
	RS232 Output	2 Pin Screw Terminal	± 10 V (typical unloaded), 15 mA (max)					
	RS422 Output	2 Pin Screw Terminal	± 5 V, 50 RS422 loads(RS485 compatible)					
Options	Descriptions	Connector Type	Signal Type	Specification				
	DC IRIG-B to AM IRIG-B converter	2 Pin Screw Terminal	AM IRIG-B	8V, 120 Ω output impedance				J
	No Secondary Output	N/A	N/A	N/A				K

Accessories

AC/DC Adapters	Description	Order Code
	AC/DC Adapter 230/110 Vac to 24 Vdc	ADA-ACDC-230V24V
	AC/DC Adapter 230/110 Vac to 48 Vdc	ADA-ACDC-230V48V
Connectors	Description	Order Code
	BNC (M) to 2 Pin (F) adapter	CON-ADAP-BNC2PIN

About Tekron

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

Tekron GPS clocks are simple to install and use and are extremely rugged, attributes that are a prerequisite in the often extreme environments in which the clocks are installed.

Tekron GPS clocks have been installed in thousands of power stations & substations across the globe, where they prove invaluable in assisting power companies to operate efficiently, minimizing downtime and increasing the accuracy of control decisions.

Trust in Tekron, because timing is everything.

www.tekroninternational.com

*"Need Help?
Contact our
sales team"*

Web: www.tekroninternational.com
 Phone: +64 4 566 7722
 Freephone: 1800 608 572
 (Australia)
 Fax: +64 4 569 9272
 Email: information@tekroninternational.com
 Note: The quickest and most effective method to request a quote is through the online quote request form on the Tekron website

The specifications contained in this document are subject to change without notice.