

Tekron Signal Repeater MOFR



Multi Output Function Repeater

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.

As the MOFR is completely electronically isolated, it will also provide your IEDs (Intelligent Electronic Devices) with an additional layer of electrical protection.



Key Benefits

- Extend the distance of an IRIG-B or Pulse signal
- Provide isolation between A & B Protection Systems or between IEDs
- Converts Digital Logic from Copper to fiber/fiber to copper
- Converts DC Level Shift (DCLS) IRIG-B to TTL, RS232, RS422/485 & AM IRIG-B Simultaneously
- Converts DC Level Shift (DCLS) IRIG-B to HV MOSFET
- Reduces wiring to panels of equipment

TEKRON

www.tekroninternational.com

About Tekron

Tekron International is a leading developer of exceedingly accurate GPS clocks and time synchronization 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.

With a Tekron GPS clock you can be confident that you can set it up and walk away.

> TEKRON | MOFR Datasheet

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
Red: Input signal indicator

MOFR Copper version

Inputs

Primary Input: 1 x Copper DCLS/ DC IRIG-B/ Digital logic
Secondary Input: 1 x Copper AM IRIG-B

Outputs

Low Voltage Outputs: 1 x Copper TTL
1 x Copper RS232
1 x Copper RS422/RS485
Secondary Output: 1 x Copper AM IRIG-B

MOFR Fiber version

Inputs

Primary Inputs: 1 x ST Fiber
1 x Copper DCLS/ DC IRIG-B/ Digital logic
Secondary Input: 1 x Copper AM IRIG-B

Outputs

Primary Outputs: 1 x ST Fiber
1 x Copper TTL
1 x Copper RS232
1 x Copper RS422/RS485
Secondary Output: 1 x Copper AM IRIG-B

Options

Option: D

Converts a fiber or copper digital IRIG-B signal to AM IRIG-B.

This function replaces the secondary AM IRIG-B Input.

Option H:

High Voltage Output

HV MOSFET replaces the Primary Low Voltage Outputs.

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Input & Output Specifications

Copper Input

Input specifications:

Input Burden 12 V, 7 mA max

Supports TTL, RS232, RS422/ RS485

Fiber Input and Output

Fiber Spec:
ST Fiber connector $\lambda = 820 \text{ nm}$

Compatibility:
62.5/125 um multi-mode fiber

Low Voltage Outputs

Drive line rating:
TTL = 0 to 5 V 75 mA
RS422 = $\pm 5 \text{ V}$ 50 RS422 loads
RS232 = $\pm 10 \text{ V}$, 15 mA

High Voltage Output

Switching capability: 300 V, 1 A
Technology: High speed MOSFET

Environmental & Electrical

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

Power Drain: 3 W max

Operating temperature: -10 to +65°C

Humidity: To 95% non-condensing

Signal Delay through MOFR

Input to All Outputs 85 \pm 10 ns

Isolation

Power to I/O: 1 kV

Input to Outputs 3.5 kV (min)

Copper version additional features

In addition to the primary and secondary inputs, copper version MOFRs also provide "Term" and "Loop" connectors as shown on Tab 1 and Tab 2 below.

Term Terminal

All copper version MOFRs contain a 150Ω terminating resistor for terminating the end of a line of multi-dropped or daisy chained MOFRs to prevent signal reflection. To terminate the end of a line, simply connect a wire between the two Term connectors.

Loop Terminal

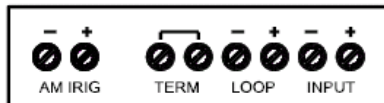
All copper version MOFRs provide a loop terminal which is common to the primary input. This provides a simplified way of multi-dropping MOFRs without having to install two wires into the same input, or install splitters.

Orderable Configurations

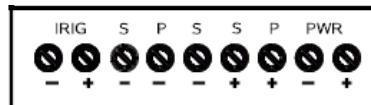
Model	Inputs	Outputs
MOFR01-2LA*	Tab 1	Tab 5
MOFR01-2LD*	Tab 2	Tab 5
MOFR01-2HA*	Tab 1	Tab 4
MOFR01-2HD*	Tab 2	Tab 4
MOFR01-5LA*	Tab 3	Tab 5
MOFR01-5LD*	Tab 6	Tab 5
MOFR01-5HA*	Tab 3	Tab 4
MOFR01-5HD*	Tab 6	Tab 4

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

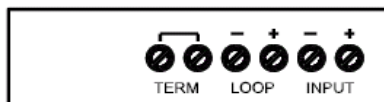
Tab 1



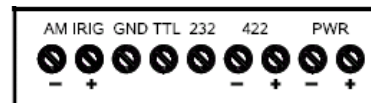
Tab 4



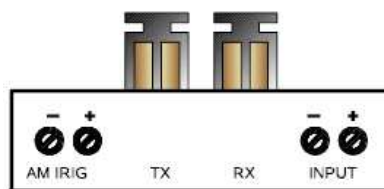
Tab 2



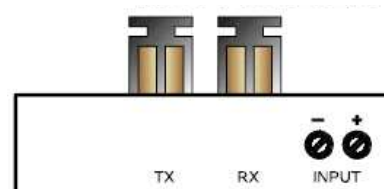
Tab 5



Tab 3



Tab 6



Request a quote

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