

# Mil1394 Single Node Repeater

## Triple-Port Transformer-Coupled 1394b Hub

### Applications

Extend cable distances in laboratory and flight test applications

Isolate expensive 1394 test equipment from modules during environmental and EMI testing

Combine multiple repeaters to create multi-port hub

### Benefits

Designed for easy customization of Mil1394 ports and power connectivity

Physical configurable switch to set maximum port speed based on program requirements

Mil1394 active transformer-coupled ports allows for longer cable lengths

### Features

Single Node (Channel) 3-Port Beta node IEEE-1394-2008 compliant

- S100 $\beta$  (122.88Mb/s)
- S200 $\beta$  (245.76Mb/s)
- S400 $\beta$  (491.52Mb/s)

Configurable maximum connection speeds of:

- S200 $\beta$
- S400 $\beta$

Latch Molex connector for each port

Configurable to direct connect or switched 12 VDC power

Texas Instruments TSB41BA3 PHY Layer IC

### Overview

The FW-MIL-1CH3-R-400 (Repeater) is a 3-port, transformer-coupled, unenclosed S200 and S400 capable hub with vertical or right angle connector options. The Repeater appears as a 1394 node on the bus. The Repeater has multiple connectors to allow the Repeater to be configured as required by the application. Additionally, if S100 operation is required, active transformers that support S100 and S200 operation can be installed.

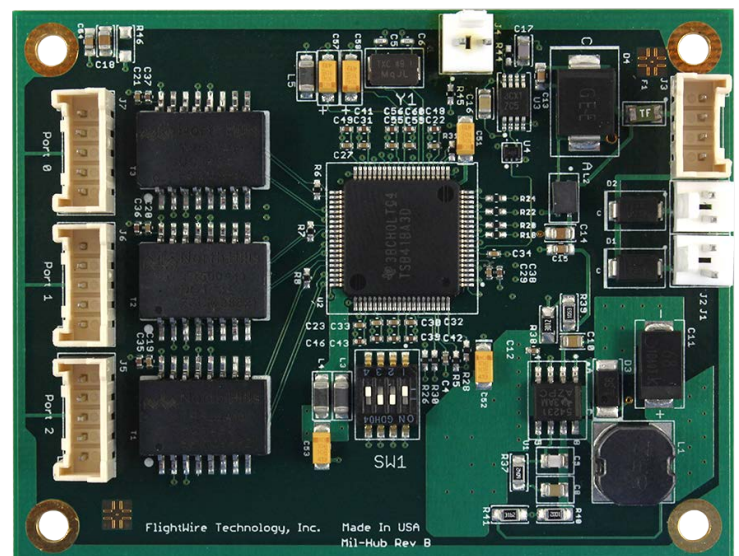
The small form factor Repeater provides both a cost and space efficient solution. One or more Repeaters can be used to create a scalable tree topology or simply daisy chained as a repeater to extend cable length.

The Repeater supports the connection of two power sources (Example: Battery or AC adapter; Available by Request) that are diode protected from one another. The power sources should be between 10VDC and 14VDC. The power switch connector may be connected to a switch or shorted across for direct power applications.

An Activity LED connection is provided. If connected to an LED, the LED turns on when 1394 bus traffic is observed by the Repeater.

Port connection mode configuration switches are provided to allow maximum port speed settings of S100 $\beta$ , S200 $\beta$  or S400 $\beta$ .

New Wave provides customization services to configure and/or enclose the FW-MIL-1CH3-R-400 to meet our customer needs.



# Mil1394 Single Node Repeater

## Triple-Port Transformer-Coupled 1394b Hub

### Complete Product Support Program

As our customers can attest, the New Wave DV team prides itself on excellent customer support. New Wave DV provides industry standard warranties on its products, but it is the human factor that makes our support so valuable to our customers. Our team takes the time and effort to ensure that the customer experience with our products is a positive one.

### Our Commitment

New Wave DV is committed to providing the latest innovations in technology, architectures, and techniques to keep our customers one step ahead of the rest. Our products are intended to offer our customers an entirely unique out-of-the-box experience.

### Ordering Information

**FW-MIL-1CH3-R-400-V-S200:** MIL1394 Repeater PCBA, 1 node 3 port, vertical connectors, max port speed S200

**FW-MIL-1CH3-R-400-V-S100:** MIL1394 Repeater PCBA, 1 node 3 port, vertical connectors, max port speed S100

**FW-MIL-1CH3-R-400-R-S100:** MIL1394 Repeater PCBA, 1 node 3 port, right angle connectors, max port speed S100

**FW-MIL-1CH3-R-400-V:** MIL1394 Repeater PCBA, 1 node 3 port, vertical connectors, max port speed S400

**FW-MIL-1CH3-R-400-R:** MIL1394 Repeater PCBA, 1 node 3 port, right angle connectors, max port speed S400

### Related Products

**FW-iRepeater-SA-P-E**

**FW-MIL-2X4HUB19-400T-2**

### Technical Specifications

#### INTERFACES

Three IEEE-1394 Beta (1394b) Ports

#### DATA RATES

S200 $\beta$  and S400 $\beta$

#### POWER REQUIREMENTS

12 VDC

#### COMPLIANCE

IEEE-1394b Compliant Physical Layer

AS5643/1 Compliant transformer isolation

#### DIMENSIONS

74.25 mm (width) x 57.15 mm (length)

#### TEMPERATURE

Operating: 0°C to 70°C

Storage: -40°C to 85°C

#### FOR MORE INFORMATION:

www.newwavedv.com  
info@newwavedv.com  
Phone +1 952-224-9201

New Wave DV  
4950 W 78th St. Minneapolis,  
MN 55435 USA

