

## FLAT-PAK™ SERIES

### Model FP-SPR1

### SPDIF Repeater / Amplifier

- Correct SPDIF Signal Level from Long Line
- Conversion Between SPDIF Connector Types
- BNC, Phono and Optical Inputs
- BNC, Phono and Optical Outputs
- Reshaping of SPDIF Waveforms
- Virtually Jitter-Free Performance
- Convenience of RDL FLAT-PAKs



The FP-SPR1 is part of the group of versatile FLAT-PAK products from Radio Design Labs. The unique FLAT-PAK case can be directly screwed or bolted to cabinets or shelves. Optionally available rack-mounting accessories permit single or multiple FLAT-PAK module mounting. All FLAT-PAK modules are supplied with a power interconnect cable for daisy-chaining multiple modules from a single power supply.

**APPLICATION:** The FP-SPR1 is the ideal choice in many applications where SPDIF signal levels need to be boosted or recovered; or where a digital audio signal needs to be converted between coaxial and optical. Power connections are made using either the full-size barrier block terminals or a dc power jack located in one end panel. A second dc power jack is provided on the other end panel for connecting additional FLAT-PAK modules.

The FP-SPR1 is a single channel module featuring three separate inputs. An input is provided in each conventional SPDIF format: BNC, phono and optical. Any one of these inputs may be used. A coaxial input has priority over the optical input. Three output jacks are also provided: BNC, phono and optical. Either of the coaxial jacks may be used and/or the optical output may be connected. It is possible to use only one of the three outputs or use one coaxial and the optical output simultaneously.

The input sensitivity of the FP-SPR1 permits operation with coaxial input signal levels as low as 100 mV p-p. The module detects these low signals, amplifies them and reshapes the output for minimum jitter. SPDIF signals do not survive long cable lengths. Installation of the FP-SPR1 at the receiving end of a weak SPDIF line restores the signal level to its correct amplitude. Although the FP-SPR1 does not reclock the signal and cannot remove cable jitter, it can extend the useful range of SPDIF cables and avoid signal dropouts when feeding equipment unable to correctly respond to low level signals.

A front-panel LED illuminates when an input signal of sufficient amplitude is received to produce the correct output from the module.

The FP-SPR1's low profile and compact size permit mounting in confined spaces and in various locations in equipment racks. The location of the input/output jacks permits high-density mounting against flat surfaces while maintaining accessibility to the connectors. The economical cost can provide assurance of correct signal levels with the added feature of coaxial/optical format conversion. The FP-SPR1 may be mounted where needed, to rack sides or in an equipment rack (either the front or rear rack rails) using the RDL FP-RRA.

Wherever professional quality is required in SPDIF format conversion or for automatic coaxial signal level adjustment, the FP-SPR1 is the ideal choice. Use the FP-SPR1 individually, or combine it with other RDL products as part of a complete audio/video system.

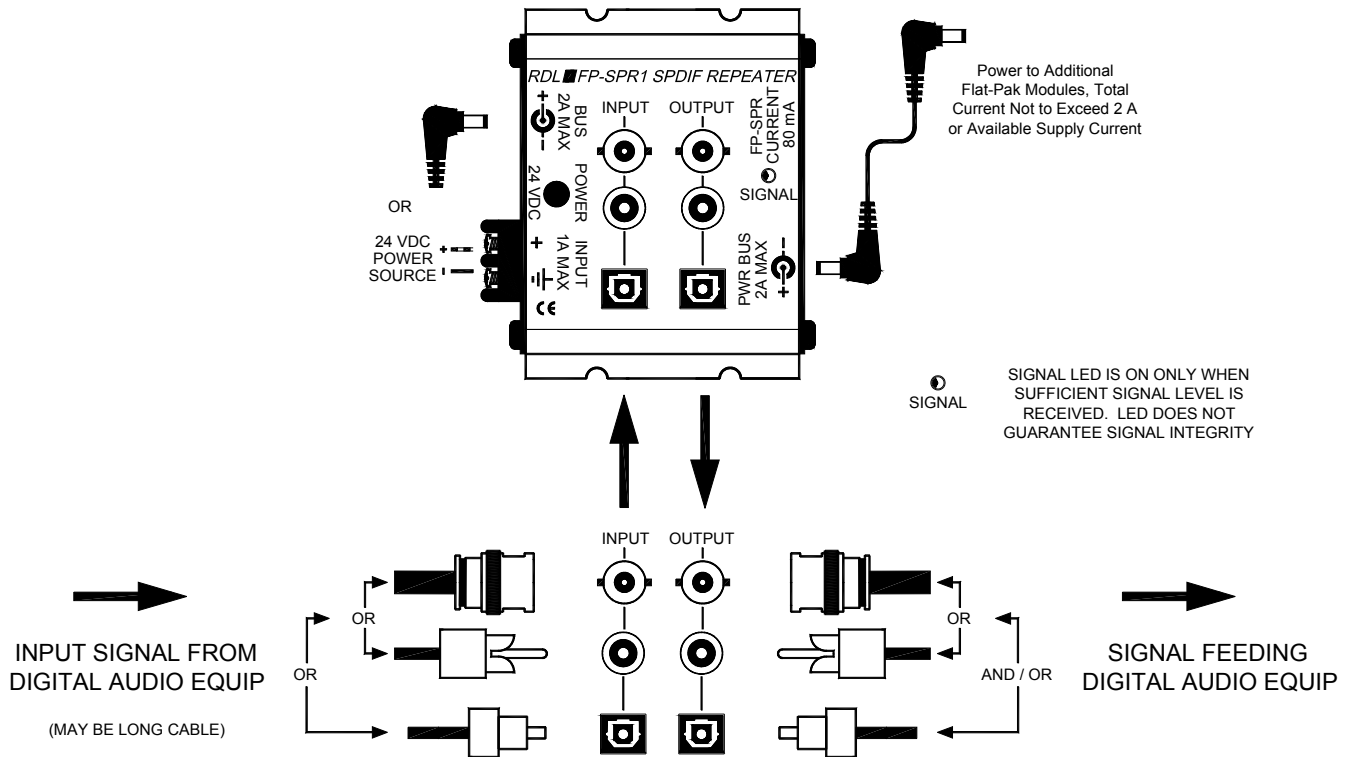
# FLAT-PAK™ SERIES

## Model FP-SPR1

### SPDIF Repeater / Amplifier

## Installation/Operation

**CE** Declaration of Conformity available from [rdlnet.com](http://rdlnet.com).  
Sole EMC specifications provided on product package.  
Specifications are subject to change without notice.



NOTE: IF FP-SPR1 IS BEING USED TO RECOVER CORRECT SIGNALS FROM A LONG CABLE, INSTALL FP-SPR1 AT THE RECEIVING END OF THE CABLE

### TYPICAL PERFORMANCE

Inputs (3):	75 Ω BNC coaxial, 75 Ω phono coaxial, optical
Input Level:	100 mV to 2.5 V p-p (coaxial)
Outputs (3):	75 Ω BNC coaxial, 75 Ω phono coaxial, optical
Output Level:	500 mV p-p (coaxial)
Frequency Range:	28 kHz to 48 kHz
Indicator (1):	Signal present LED
Jitter:	< 200 pS (input signal 200 mV p-p or greater) < 1 nS (input signal 100 mV to 200 mV p-p)
Power Requirement:	24 Vdc @ 80 mA, Ground-referenced Note: May operate from 12 Vdc in standalone installations
Overall Dimensions:	Height: 1.34 in. 3.40 cm Width: 3.25 in. 8.26 cm Length: 2.82 in. 7.16 cm