The **Flexible Optical Splitter**

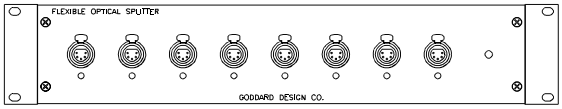
The **Flexible Optical Splitter** is a custom DMX distribution amplifier at a stock unit price. Most optical splitters are made in a few standard configurations. If a standard units does what you need - great! If not you buy several, stack the boxes on a shelf, get out the cable and the soldering iron, and make a bunch of jumpers. If you had a custom problem, you were out of luck - **until now**. Just as **Goddard Design Co**. has made using DMX512 far easier with our ***Lil'* DMXter** and **MiniDMXter** test tools, now we are making distributing DMX easier with the **Flexible Optical Splitter** and **DMX-NET** distribution modules.

Multiple output optically isolated DMX512 distribution amplifiers or "Opto-splitters" have become necessary in many DMX512 systems. They provide two needed features. First, they allow wiring DMX512 in a star topology with cables radiating from the console to receivers placed throughout the facility; each cable leaving a splitter is a separate transmission line. Second, they provide total electrical ground isolation between different branches of the star. This greatly decreases problems with ground loops.

The **Flexible Optical Splitter** has several features that are common to any good fully optically isolated splitter.

- Each output is optically isolated from the input and from all other outputs.
- Each output is fully buffered, and can drive 32 EIA485 load units.

What sets the **Flexible Optical Splitter** apart is its flexible architecture. We package the FOS in a 3.5" (2U) 19" rackable case. The case houses a universal power supply that will operate from 100 VAC to 250 VAC mains without any switching or restrapping. The case provides mounting bays for input and output modules.



- The case mounts up to 12 modules (connectors) allowing for splitters of up to 11 ways. Eight modules mount on the front panel and four on the back panel.
- By adding slave expansion units nearly unlimited expansion is possible. The FOS may also be used as a DMX-NET power supply.
- It may be fitted with two input Modules to form a prioritized DMX data switch and DMX splitter combined.
- Other options include: splitters for multiple DMX circuits or "DMX universes."
- Each output is ESD resistant and should withstand an 8-KV ESD discharge (human body model).

PRICES	
FOS - rackmount case with power supply and up to four modules	$750.00
Additional modules installed	$150.00
Additional passive connectors installed (input or output)	$25.00
Other options available; please consult the factory	
Units sold within New York State subject to applicable sales tax	

The breakdown voltage of the FOS's isolation barrier is greater than 500 volts. Nevertheless, the FOS is not intended to provide AC mains voltage isolation. All lines entering and leaving the FOS **MUST** be low voltage control lines. Isolation is only provided to prevent ground loops and other data transmission problems.

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Application Examples:

One way to see the flexibility of the FOS is to examine some models that we have built. for customers. These examples are just a few of the models that we can build. If you have a special requirement please let us know; we can probably provide a solution. Looking at the data sheet for our DMX-NET products may also be useful. Goddard Design constructs the FOS and DMX-NET out of the same components and they share many common features. In some application a combination of the two products produces the most flexible DMX512 distribution system.

8 Output Stage Box with Redundant Inputs

Application: This model provides on-stage distribution of DMX using a 'star' topology. The special feature of this model is that it provides two DMX512 inputs, a primary and a secondary. If the signal is lost on the primary input, the splitter automatically switches to secondary DMX input. The two inputs may come from either redundant cables or even from redundant consoles.
Components Required: Standard case, 8 output modules, 2 input modules.
Other Options: may be ordered with rack ears, plain end plates or handle end plates
Price: $1650.00

6 Output Splitter with Loop through Output

Application: This model is a standard 6-way splitter with an unbuffered loop-through connector. If line termination is wanted, a termination slug should be installed in the loop-through output.
Components Required: Standard case, 6 output modules, 1 input modules, 1 loop-through connector.
Price: $1225.00

4 Universes by 2 Output Splitter

Application: A customer ordered this model to provide buffering for the house snake coming from a large configurable moving light console. Note: This model was built without input modules.
Other Options: Units may be ordered either terminated or unterminated. If unterminated, this model presents approximately 2 load units to the DMX line.
Components Required: Standard case, 8 output modules, 4 input connectors.
Price: $1450.00

2 Universes by 3 Output Splitter

Application: A system integrator ordered this model to provide buffering for a DMX512 patch rack. They ordered this model using our input modules. The LED on the input module provides positive indication that dynamic data is present. These units terminate the DMX line. All connectors are mounted in the front panel.
Components Required: Standard case, 6 output modules, 2 input modules.
Price: $1350.00

4 Zone Distribution Box with a Test Input for Each Zone

Application: This model provides unique features. Having different types of DMX devices driven by different cables is common. The under stage dimmer room is seldom fed in line with the on stage color scrollers and moving lights. FOH DMX equipment is also a natural zone. Having a technician testing one zone or type of equipment is often desirable, say the color scrollers, while leaving the rest of the system connected to the main console. Our zoned distribution boxes do this easily. This model has 1 main DMX input and 4 isolated outputs. Mounted next to each of the isolated outputs is a test input. Connecting a DMX signal to a test input, takes control of that zone. The other three zones remain connected to the main DMX input. The main input has jumper selectable termination. Test inputs are always terminated.

Components Required: Standard case, 4 output modules, 4 input modules, 4 switch modules, 1 input connector.
Other Options: May be ordered with a loop-through connector.
Price: $1975.00
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