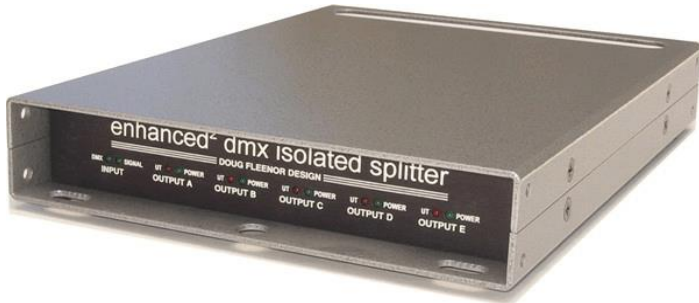


# DOUG FLEENOR DESIGN

## Enhanced<sup>2</sup> DMX512 Isolated Splitter

model: 125EE  
technical data sheet



The Enhanced Splitter includes all the features of our standard models with added protection to meet the needs of harsh operating conditions. As with our standard splitters, all outputs are isolated from the input and from the other outputs by optical couplers. Every output has its own power supply and line driver. For protection against electrical storms, the Enhanced Splitter adds four transient absorbers on the input, two on each output, and one on the power line. To protect against miswiring, the Enhanced Splitter has self-resetting fuses on the DMX512 input and outputs that protect the Splitter against damaging voltages up to 120 volts. Indicators on each output display power and

termination status. Indicators on the input display signal present and valid DMX. The Enhanced Splitter is designed to work on any voltage between 90 and 240 volts.

The Enhanced Splitter allows connection of DMX receivers (dimers, color changers, moving lights, etc.) in a star configuration as opposed to a daisy chain configuration. In a star configuration, each control cable is run to a central point, in this case the splitter. In a daisy chain configuration all the devices are connected on one control cable, the output of one feeding the input of the next. It is good practice to limit the number of receivers on a DMX512 output to 32 devices. The Enhanced Splitter gives you five outputs from one input allowing up to 160 receivers (32 per output).

**SPECIFICATIONS:** All specifications meet or exceed DMX512 requirements



Baud rate:	0 to 250 Kilobaud
Input circuit:	EIA-485 receiver protected by two 100ohm PTC 120 ohm 2 watt input termination Four transorb diodes: two on +Data, two on -Data
Input signal:	0.5 volts minimum, 12 volts maximum Input can withstand up to 120 volts without damage, transients up to 5KV
Output circuit:	"Slew rate limited" EIA-485 driver protected by Polyswitch fuses One transorb diode on +Data, one on -Data (Slew rate limited outputs reduce the errors caused by unterminated lines)
Output signal:	EIA-485 driver yields an approximate 3 volt signal into 120 Ohms Outputs can withstand up to 12 volts without damage, transients up to 5KV
Connectors:	Gold plated 5 pin Neutrik D-1 Series (male input, female outputs)
Isolation:	2500 volt optical coupler, 5000 volt split bobbin transformer
Power input:	90 - 240 volts, 50/60 hertz, 24 watts IEC-320 (international) input connector
Listings:	UL Listed, CE Marked
Color:	Silver hammertone with black front and back panels
Size and weight:	1.74"H x 11.25"D x 8.25"W, 4.9 pounds
Rack kit:	Model RK 8-1 mounts one unit, RK 8-2 mounts two units

Notes: Rack ears with front mounted connectors (to move the input and outputs to the front of the rack) are also available.

# DOUG FLEENOR DESIGN

## Enhanced DMX512 Isolated Splitter -- Selected Features

The following information is provided to assist you in determining if the Enhanced DMX512 Isolated Splitter will be of benefit in your installation. If you have any questions, please feel free to call, write, or FAX us.

<u>FEATURE</u>	<u>BENEFIT</u>
Input electrically isolated from output.	Console is protected from failed dimmers, lightning damage, and any other cause of high voltage on the control cable.
Outputs are isolated from each other.	Color changers, moving lights, other dimmers are protected from each other.
Outputs are separately buffered.	Reflections, short circuits, etc. on one output cannot affect another output.
Input and output DMX lines are protected by <i>transorb</i> diodes.	The splitter can withstand <u>very</u> high transient voltage spikes without damage.
Input and outputs are fused.	DMX lines can withstand up to 120 volts continuous fault or mis-wiring
No user adjustments.	Easy "fool proof" installation.
DMX pinouts are printed on the splitter.	Assists in proper control wiring.
Chassis: .1" powder coated aluminium.	Rugged and attractive for years of service.
Two 1/2" holes provided for clamps, 3/8" slots provided for safety cables.	Easily mounts to truss or pipes.
Carry handle allows access to connector release tabs.	Output connectors are easy to release, even with gloves on.
IEC-320 power connector.	Enables use in foreign countries.
Gold plated Neutrik 5 pin connectors.	Assures reliable connections.
All integrated circuits are socketed.	Eases field service.
Uses 2500 volt optical couplers.	Easily isolates line voltage failures. Withstands electrical storm damage.
5000 volt line transformers.	Meets European line isolation safety requirements.
"Air gap" circuit board under isolator.	Prevents arcing across circuit board.
60 mA drive current. Slew rate and current limited.	Reliably drives long control cables. Reduces the data errors caused by improperly terminated DMX512 lines.
Output indicators identify unterminated outputs.	Simplifies system trouble shooting.
Input indicators display signal present and "valid" DMX.	Built in DMX validator checks break time >88uS, MAB >6uS, and start code equals zero

Mr. Fleenor is active in ESTA & USITT Products are designed to latest specifications.

### **Doug Fleenor Design, Inc.**

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# DOUG FLEENOR DESIGN

## Enhanced<sup>2</sup> DMX512 Isolated Splitter

### Limited Manufacturer's Warranty

Products manufactured by Doug Fleenor Design (DFD) carry a five-year parts and labor warranty against manufacturing defects. It is the customer's responsibility to return the product to DFD at the customer's expense. If covered under warranty, DFD will repair the unit and pay for return ground shipping. If a trip is necessary to the customer's site to solve a problem, the expenses of the trip must be paid by the customer.

This warranty covers manufacturing defects. It does not cover damage due to abuse, misuse, negligence, accident, alteration, or repair by other than by Doug Fleenor Design.

Most non-warranty repairs are made for a fixed \$50.00 fee, plus shipping

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