



**The Name for
Attenuators**

PROGRAMMABLE ATTENUATORS MINIATURE MDA Series

Alan Industries' MDA Series of Programmable Attenuators combines the features of our full-size DA Series with improved attenuation accuracy, greatly reduced size, lighter weight and a unique electrical feature. Prior to this, all digital attenuators were available with either separate filters for positive and negative poles on each bit or a common polarity to case ground. Our MDA Series has one EMI-RFI filter per bit and all bits interconnect to a single common filter for the opposing polarity. Standard units are arranged in a binary sequence, but custom attenuation steps and/or control voltages are available upon request. .



Alan

Industries, Inc.

745 Greenway Drive • Columbus, Indiana 47201 • USA
800-423-5190 or 812-372-8869 • Fax: 812-372-5909
www.alanindustries.com • sales@alanindustries.com



**The Name for
Attenuators**

MDA Series

ELECTRICAL SPECIFICATIONS 50 Ohm

MODEL		50MDA1.5	50MDA15	50MDA31.5
ATTENUATION RANGE		0 - 1.5 dB	0 - 15 dB	0 - 31.5 dB
ATTENUATION STEPS		0.1, 0.2, 0.4, 0.8 dB	1, 2, 4, 8 dB	0.5, 1, 2, 4, 8, 16 dB
LOGIC		4 Bit	4 Bit	6 Bit
FREQUENCY RANGE		DC - 1 GHz	DC - 1.5 GHz	
OVERALL ACCURACY	@ 0.5 GHz:	± 0.1 dB	± 0.5 dB	
	@ 1.0 GHz:	± 0.15 dB	± 0.75 dB	
	@ 1.5 GHz:	N/A	± 1.0 dB	
IMPEDANCE		50 Ohm		
INSERTION LOSS		1.7 dB	3.0 dB	3.5 dB
MAXIMUM SWR		1.4:1		
AVERAGE POWER		0.5 Watt		
RF CONNECTORS		BNC, SMA, SMB, SMC		
DC CONTROL		+26 VDC @ 17 ma per bit standard +5 VDC and +12 VDC available upon request		
SWITCHING SPEED		6 milliseconds maximum		
SWITCH LIFE		10,000,000 selections per bit		
COMMON FILTER		Units will be supplied with a negative polarity common filter as standard. The common filter can be supplied with positive polarity if specified at time of order.		
TEMPERATURE RANGE		-20° C to +70° C		
MOUNTING PROVISIONS		Units will be supplied with swage nut mounting as standard. Optional four-hole flange mounting can be supplied if specified at time of order.		
RoHS COMPLIANCE		RoHS Compliant upon request		

Alan

Industries, Inc.

745 Greenway Drive • Columbus, Indiana 47201 • USA
800-423-5190 or 812-372-8869 • Fax: 812-372-5909
www.alanindustries.com • sales@alanindustries.com



**The Name for
Attenuators**

MDA Series

ELECTRICAL SPECIFICATIONS

50 Ohm (continued)

MODEL		50MDA63	50MDA127
ATTENUATION RANGE		0 - 63 dB	0 - 127 dB
ATTENUATION STEPS		1, 2, 4, 8, 16, 32 dB	1, 2, 4, 8, 16, 32, 64 dB
LOGIC		6 Bit	8 Bit
FREQUENCY RANGE		DC - 1.5 GHz	
OVERALL ACCURACY	@ 0.5 GHz:	± 0.5 dB	0 - 31 dB: ± 0.5 dB 32 - 127 dB: ± 1.0 dB
	@ 1.0 GHz:	± 0.75 dB	0 - 31 dB: ± 0.7 dB 32 - 127 dB: ± 1.5 dB
	@ 1.5 GHz:	± 1.0 dB	0 - 31 dB: ± 1.0 dB 32 - 127 dB: ± 2.0 dB
IMPEDANCE		50 Ohm	
INSERTION LOSS		3.5 dB	4.0 dB
MAXIMUM SWR		1.4:1	
AVERAGE POWER		0.5 Watt	
RF CONNECTORS		BNC, SMA, SMB, SMC	
DC CONTROL		+26 VDC @ 17 ma per bit standard +5 VDC and +12 VDC available upon request	
SWITCHING SPEED		6 milliseconds maximum	
SWITCH LIFE		10,000,000 selections per bit	
COMMON FILTER		Units will be supplied with a negative polarity common filter as standard. The common filter can be supplied with positive polarity if specified at time of order.	
TEMPERATURE RANGE		-20° C to +70° C	
MOUNTING PROVISIONS		Units will be supplied with swage nut mounting as standard. Optional four-hole flange mounting can be supplied if specified at time of order.	
RoHS COMPLIANCE		RoHS Compliant upon request	

Alan

Industries, Inc.

745 Greenway Drive • Columbus, Indiana 47201 • USA
800-423-5190 or 812-372-8869 • Fax: 812-372-5909
www.alanindustries.com • sales@alanindustries.com



**The Name for
Attenuators**

MDA Series

ELECTRICAL SPECIFICATIONS 75 Ohm

MODEL		75MDA1.5	75MDA15	75MDA31.5
ATTENUATION RANGE		0 - 1.5 dB	0 - 15 dB	0 - 31.5 dB
ATTENUATION STEPS		0.1, 0.2, 0.4, 0.8 dB	1, 2, 4, 8 dB	0.5, 1, 2, 4, 8, 16 dB
LOGIC		4 Bit	4 Bit	6 Bit
FREQUENCY RANGE		DC - 500 MHz	DC - 1 GHz * F Connectors DC - 750 MHz	
OVERALL ACCURACY	@ 0.5 GHz	± 0.2 dB	± 0.5 dB	
	@ 1.0 GHz	N/A	± 0.75 dB	
IMPEDANCE		75 Ohm		
INSERTION LOSS		1.7 dB	2.0 dB	2.5 dB
MAXIMUM SWR		1.5:1		
AVERAGE POWER		0.5 Watt		
RF CONNECTORS		BNC, F		
DC CONTROL		+26 VDC @ 17 ma per bit standard +5 VDC and +12 VDC available upon request		
SWITCHING SPEED		6 milliseconds maximum		
SWITCH LIFE		10,000,000 selections per bit		
COMMON FILTER		Units will be supplied with a negative polarity common filter as standard. The common filter can be supplied with positive polarity if specified at time of order.		
TEMPERATURE RANGE		-20° C to +70° C		
MOUNTING PROVISIONS		Units will be supplied with swage nut mounting as standard. Optional four hole flange mounting can be supplied if specified at time of order.		
RoHS COMPLIANCE		RoHS Compliant upon request		

Alan

Industries, Inc.

745 Greenway Drive • Columbus, Indiana 47201 • USA
800-423-5190 or 812-372-8869 • Fax: 812-372-5909
www.alanindustries.com • sales@alanindustries.com



**The Name for
Attenuators**

MDA Series

ELECTRICAL SPECIFICATIONS

75 Ohm (continued)

MODEL		75MDA63	75MDA127
ATTENUATION RANGE		0 - 63 dB	0 - 127 dB
ATTENUATION STEPS		1, 2, 4, 8, 16, 32 dB	1, 2, 4, 8, 16, 32, 64 dB
LOGIC		6 Bit	8 Bit
FREQUENCY RANGE		DC - 1 GHz * F Connectors DC - 750 MHz	
OVERALL ACCURACY	@ 0.5 GHz	± 0.5 dB	0 - 31 dB: ± 0.5 dB 32 - 127 dB: ± 1.0 dB
	@ 1 GHz	± 0.75 dB	0 - 31 dB: ± 0.7 dB 32 - 127 dB: ± 1.5 dB
IMPEDANCE		75 Ohm	
INSERTION LOSS		2.5 dB	3.0 dB
MAXIMUM SWR		1.5:1	
AVERAGE POWER		0.5 Watt	
RF CONNECTORS		BNC, F	
DC CONTROL		+26 VDC @ 17 ma per bit standard +5 VDC and +12 VDC available upon request	
SWITCHING SPEED		6 milliseconds maximum	
SWITCH LIFE		10,000,000 selections per bit	
COMMON FILTER		Units will be supplied with a negative polarity common filter as standard. The common filter can be supplied with positive polarity if specified at time of order.	
TEMPERATURE RANGE		-20° C to +70° C	
MOUNTING PROVISIONS		Units will be supplied with swage nut mounting as standard. Optional four hole flange mounting can be supplied if specified at time of order.	
RoHS COMPLIANCE		RoHS Compliant upon request	

TO ORDER SPECIFY: Impedance, Category (MDA), Total Attenuation Range, and Connector Type. For example to order a 50 Ohm unit with 63 dB of attenuation range and SMA connectors, order Alan Model 50MDA63 SMA. Please contact the factory for ordering assistance on optional DC Voltages or Flange Mounting.

Alan

Industries, Inc.

745 Greenway Drive • Columbus, Indiana 47201 • USA
800-423-5190 or 812-372-8869 • Fax: 812-372-5909
www.alanindustries.com • sales@alanindustries.com

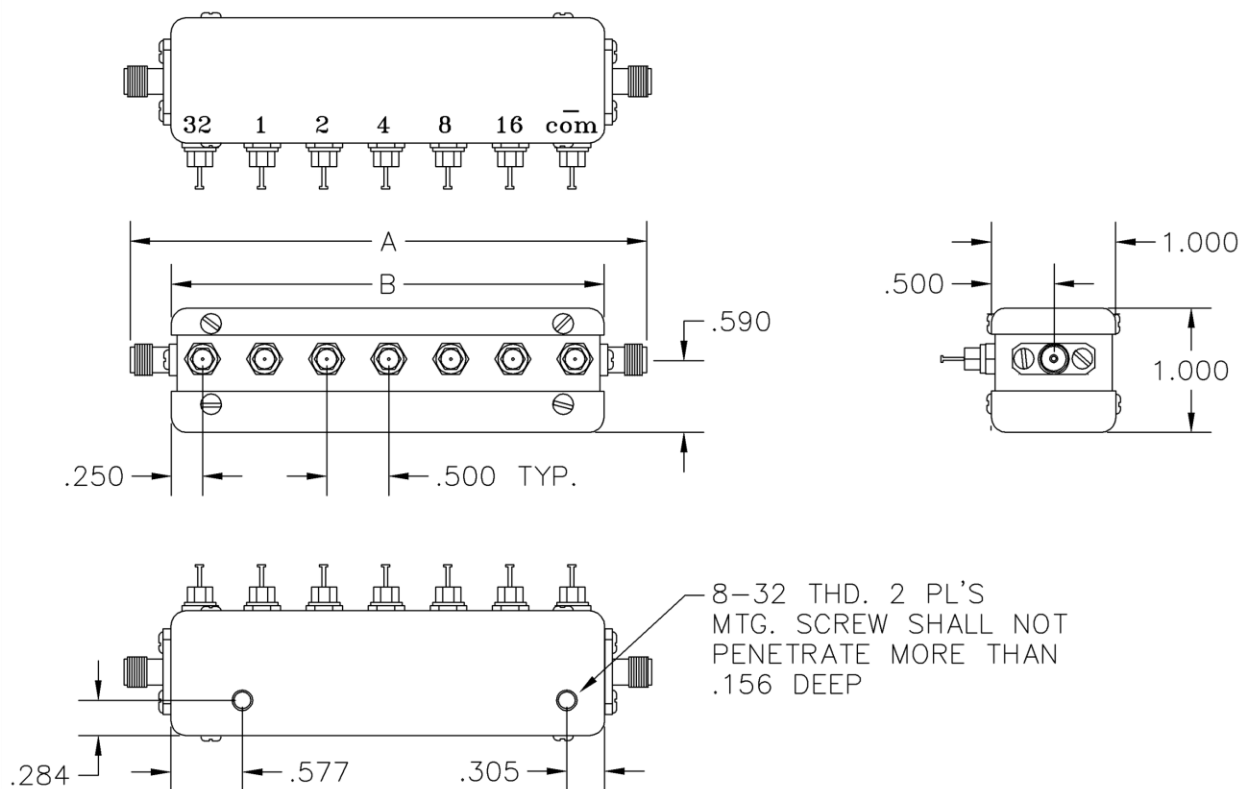


The Name for
Attenuators

MDA Series

STANDARD CONFIGURATION

DIMENSIONS		
NUMBER OF BITS	A	B
4	3.175	2.500
5	3.675	3.000
6	4.175	3.500
8	5.175	4.500



Alan

Industries, Inc.

745 Greenway Drive • Columbus, Indiana 47201 • USA
800-423-5190 or 812-372-8869 • Fax: 812-372-5909
www.alanindustries.com • sales@alanindustries.com

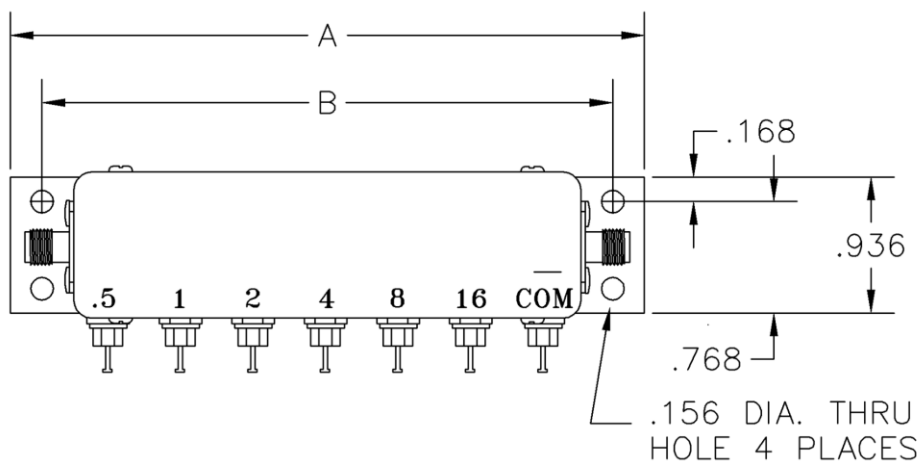


The Name for
Attenuators

MDA Series

OPTIONAL CONFIGURATION FOUR HOLE FLANGE MOUNT

DIMENSIONS		
NUMBER OF BITS	A	B
4	3.372	2.936
5	3.872	3.436
6	4.372	3.936
8	5.372	4.936



Alan

Industries, Inc.

745 Greenway Drive • Columbus, Indiana 47201 • USA
800-423-5190 or 812-372-8869 • Fax: 812-372-5909
www.alanindustries.com • sales@alanindustries.com