

## DESCRIPTION

AMC MODEL DVAT-0518-60-8-SK-193 OPTION 10M18 IS A 10MHz TO 18 GHz VARIABLE ATTENUATOR/MODULATOR WITH 8 BIT BINARY TTL CONTROL OR OPTIONAL ANALOG VOLTAGE CONTROL.

## SPECIFICATIONS

- FREQUENCY RANGE: 10MHz TO 18GHz
- INSERTION LOSS: 4.0 dB MAXIMUM
- ATTENUATION FLATNESS:
  - ⊙ 10 dB = ± 0.9 dB
  - ⊙ 20 dB = ± 1.5 dB
  - ⊙ 40 dB = ± 3.0 dB
  - ⊙ 60 dB = ± 5.0 dB
- ATTENUATION ACCURACY:
  - 0-30 dB = ± 1.0 dB
  - 30-50 dB = ± 1.3 dB
  - 50-60 dB = ± 1.5 dB
- MONOTONICITY: GUARANTEED
- TEMPERATURE VARIATION:
  - ± 2.5dB -10 to 85 deg C Typ
  - ± 3.5dB -40 to 95 deg C Typ
- SWITCHING TIME: 5 micro sec MAXIMUM
- SMALL SIGNAL BANDWIDTH: 100 kHz Typ ( 6dB with ±3 dB sinewave )
- LARGE SIGNAL BANDWIDTH: 50 kHz Typ ( 30dB with ±30 dB sinewave )
- RETURN LOSS: -12 dB TYP -8.5 dB MAX
- POWER RATING: +20 dBm (see note 1)
- DIGITAL CONTROL: 8 BIT TTL
  - 0.25 dB MINIMUM ATTENUATION STEP
- ANALOG CONTROL option: 0-6V ANALOG VOLTAGE, 10dB/VOLT
- POWER SUPPLY: +12V OR +15V @ 150 mA MAXIMUM
- NEGATIVE SUPPLY IS OPTIONAL: 0 TO -15V @ 2 mA MAXIMUM (may be omitted)
- CONNECTORS
- RF INPUT/OUTPUT: FIELD REPLACEABLE SMA (FEMALE)
- POWER AND CONTROLS: 15 PIN MICRO-D FEMALE MATING CONNECTOR (MALE) FURNISHED
- SIZE: 2.00" x 1.81" x 0.50"

## OPTIONS

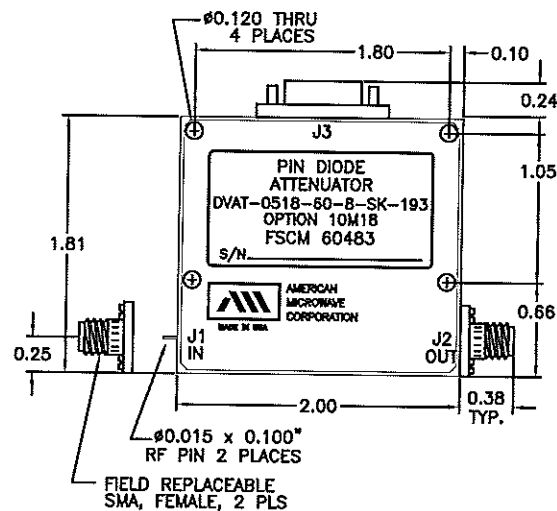
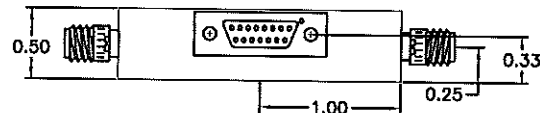
- 10M18 10MHz TO 18GHz FREQUENCY RANGE

## ENVIRONMENTAL RATINGS

- TEMPERATURE -40°C TO +85°C (OPERATING)  
-65°C TO +125°C (STORAGE)
- HUMIDITY MIL-STD-202F, METHOD 103B COND. B
- SHOCK MIL-STD-202F, METHOD 213B COND. B
- VIBRATION MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE MIL-STD-202F, METHOD 107D COND. A

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.010  
X.XXX ±0.005

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE, JOB# 801010	2/6/08	
	A	SEE ECR# 09-004	1/21/09	JA



## NOTES

1. Low Frequency reduced power performance refer to test report.
2. Negative supply only for compatability with previous models.
3. Negative supply may be -V, or Ground or Open Circuit.
4. SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE.
5. SPECIFICATIONS SUBJECT TO CHANGE OR REVISION.

## AMERICAN MICROWAVE CORPORATION

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ISO 9001:2000 CERTIFIED



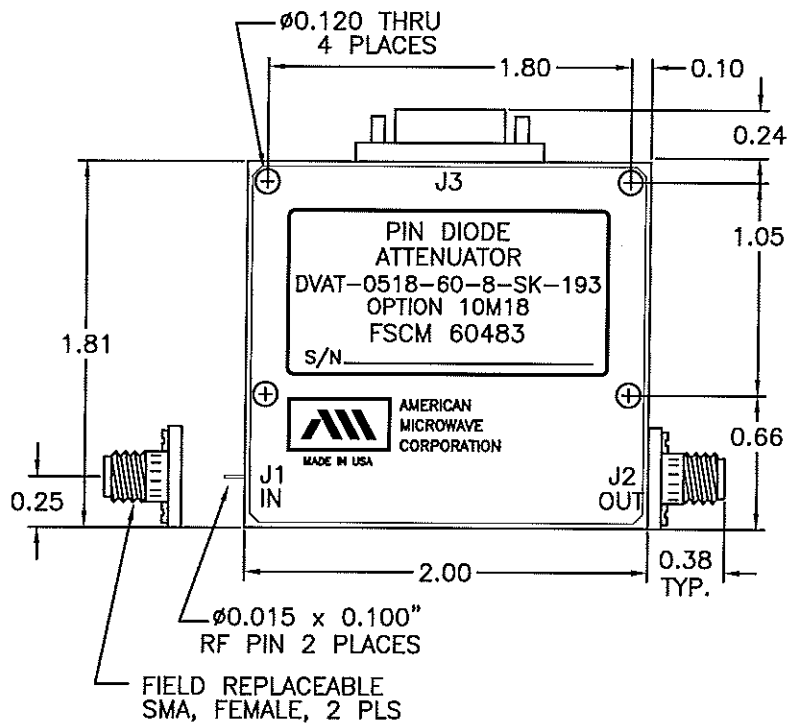
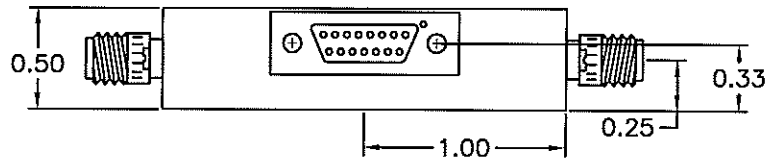
APPROVALS		DATE	TITLE	
DRAWN <i>KMS</i>		2/6/08	PRODUCT FEATURE DVAT-0518-60-8-SK-193 OPTION: 10M18 10 MHz - 18 GHz, VARIABLE ATTENUATOR	
CHECKED <i>JA</i>		2/17/09	SIZE FSCM NO.	DWG NO.
ISSUED			A 60483	100-D001-002
SCALE N:S			SHEET	1 OF 4

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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE, JOB# 801010	2/6/08	
	A	SEE ECR# 09-004	1/21/09	<i>PL</i>

## MECHANICAL OUTLINE



STANDARD PIN NUMBERING	
PIN	FUNCTION
8	GND
7	Option: Latch En
6	Option: Analog I/P
5	GND
4	0.25 dB (LSB)
3	0.5 dB
2	1 dB
1	2 dB
15	4 dB
14	8 dB
13	16 dB
12	32 dB (MSB)
11	+12 to + 15V DC
10	-0.0 to - 15V DC
9	Not Used

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X.XXX ±0.005

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APPROVALS		DATE	TITLE			REV.
DRAWN	<i>KMS</i>	2/6/08	MECHANICAL OUTLINE DVAT-0518-60-8-SK-193 OPTION: 10M18 10MHz-18 GHz, VARIABLE ATTENUATOR			
CHECKED	<i>PL</i>	2/13/09	SIZE	FSCM NO.	DWG NO.	
ISSUED			A	60483	100-D001-002	A
			SCALE	N:S		SHEET 2 OF 4

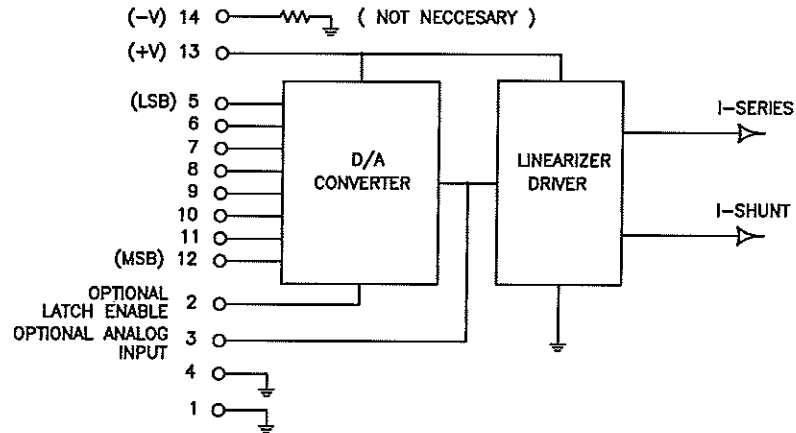
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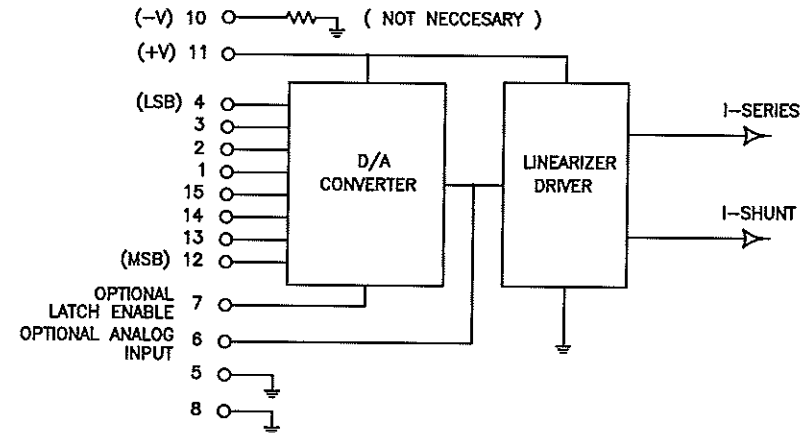
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE, JOB# 801010	2/6/08	
	A	SEE ECR# 09-004	1/21/09	<i>lh</i>

## FUNCTIONAL BLOCK DIAGRAM

AMC PIN NUMBERING



STANDARD PIN NUMBERING



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APPROVALS		DATE	TITLE		
DRAWN <i>KMS</i>		2/6/08	FUNCTIONAL BLOCK DIAGRAM DVAT-0518-60-8-SK-193 OPTION: 10M18 10MHz-18 GHz, VARIABLE ATTENUATOR		
CHECKED <i>lh</i>		2/13/09	SIZE A	FSOM NO. 60483	DWG NO. 100-D001-002
ISSUED			SCALE N:S		REV. A
					SHEET 3 OF 4