



Series SA-26 Switched-Bit Attenuators 2-6 GHz Specifications

Contact us

Application Notes for [Microwave Attenuators](#)

PERFORMANCE CHARACTERISTICS

MODEL	SA-26-1-25	SA-26-2-5	SA-26-3-1
Frequency Range, min (GHz)	2-6 ⁽¹⁾	2-6 ⁽¹⁾	2-6 ⁽¹⁾
Attenuation Range, min (dB)	25 ⁽²⁾	15 ⁽²⁾	7 ⁽²⁾
Insertion Loss, max (dB)	2.0	2.5	3.2
VSWR, max	1.8:1	1.8:1	1.8:1
Number of Bits	1	2	3
LSB (dB)	25	5	1
Monotonicity	Guaranteed		
Accuracy of Mean Attenuation, max (dB)	±0.5	± 3	± 3
Attenuation Flatness, max (dB)	± 1.0 dB	± 0.3 @ 0 dB to 10 dB ± 0.9 @ >10 dB to 15 dB	± 0.3
Power Handling, max (dBm)	+ 23	+ 23	+ 23
Switching Time, max (nsec)	30	30	30
Switch Rate, max (MHz)	4.0	4.0	4.0
Control Logic	'1' = I.Loss '0' = Att.		
Control Input	True TTL Gate		
Power Supply Requirements	+5V ± 2% @ 60 mA -12V ± 2% @ 60 mA	+5V ± 2% @ 110 mA -12V ± 2% @ 75 mA	+5V ± 2% @ 180 mA -12V ± 2% @ 130 mA
Environmental Conditions			
Package Type	DC 11	DC 12	DC 13


NOTES

1. Performance can be optimized for a narrower bandwidth
2. Attenuation range can be customized.

PIN FUNCTIONS			
PIN Designations	SA-26-1-25	SA-26-2-5	SA-26-3-1
E1	25 dB	5 dB	1 dB
E2	-	10 dB	2 dB
E3	-	-	4 dB
E4	-	-	-
E5	-	-	-
E6	-	-	-
E7	-	-	-
E8	-	-	-
+ V	+ 5V	+ 5V	+ 5V
- V	- 12V	- 12V	- 12V
G	GND	GND	GND

PERFORMANCE CHARACTERISTICS

MODEL	SA-26-6-1	SA-26-7-1	SA-26-8-0.25
Frequency Range, min (GHz)	2-6 ⁽¹⁾	2-6 ⁽¹⁾	2-6 ⁽¹⁾
Attenuation Range, min (dB)	63 ⁽²⁾	81 ⁽²⁾	63.75 ⁽²⁾
Insertion Loss, max (dB)	5.0	5.5	6.5
VSWR, max	2.0:1	2.0:1	2.0:1
Number of Bits	6	7	8
LSB, max (dB)	1	1	0.25

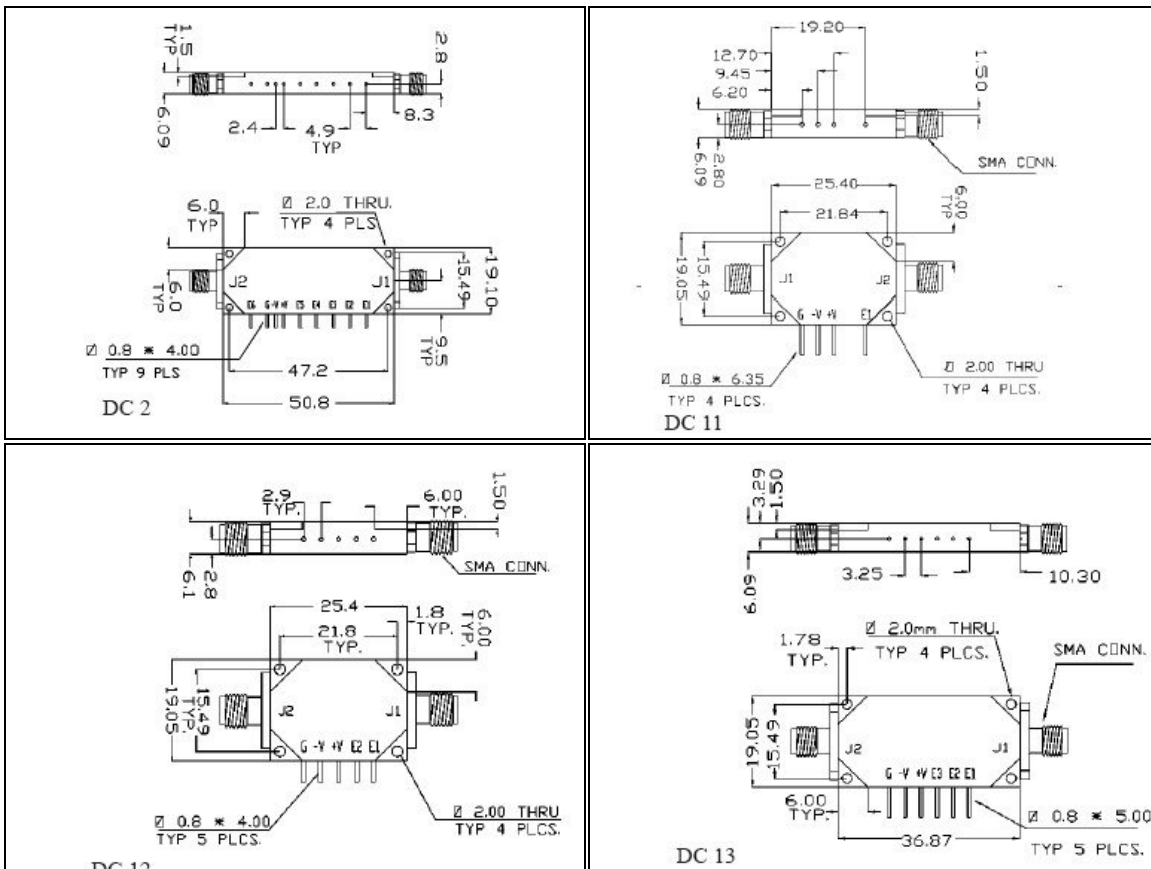
Monotonicity	Guaranteed		
Accuracy of Mean Attenuation, max (dB)	± 0.5 @ 0dB to 15 dB ± 0.75 @ >15dB to 31dB ± 1.0 > 31dB to 63 dB	± 0.5 @ 0dB to 21dB ± 1.0 @ >21dB to 41dB ± 1.5 @ >41dB to 81dB	± 0.5 @ 0dB to 21dB ± 1.0 @ >21dB to 41dB ± 1.5 @ >41 to 63.75dB
Attenuation Flatness, max (dB)	± 0.5 @ 0dB to 15dB ± 0.75 @ >15dB to 32dB ± 1.0 @ >32dB to 63 dB	± 0.5 @ 0dB to 21dB ± 0.75 @ >21dB to 41dB ± 1.25 @ >41dB to 81dB	± 0.5 @ 0dB to 21dB ± 0.75 @ >21dB to 41dB ± 1.25 @ >41 to 63.75dB
Power Handling, max (dBm)	+ 23	+ 23	+ 23
Switching Time, max (nsec)	30	100	100
Switch Rate, max (MHz)	4.0	4.0	4.0
Control Logic	'1' = I.Loss '0' = Att.	'1' = I.Loss '0' = Att.	'1' = I.Loss '0' = Att.
Control Input	TRUE TTL GATE		
Power Supply Requirements	+5V ± 2% @ 300 mA	+5V ± 2% @ 400 mA	+5V ± 2% @ 450 mA
Environmental Conditions			
Package Type	DC 2	DC 17	DC 18

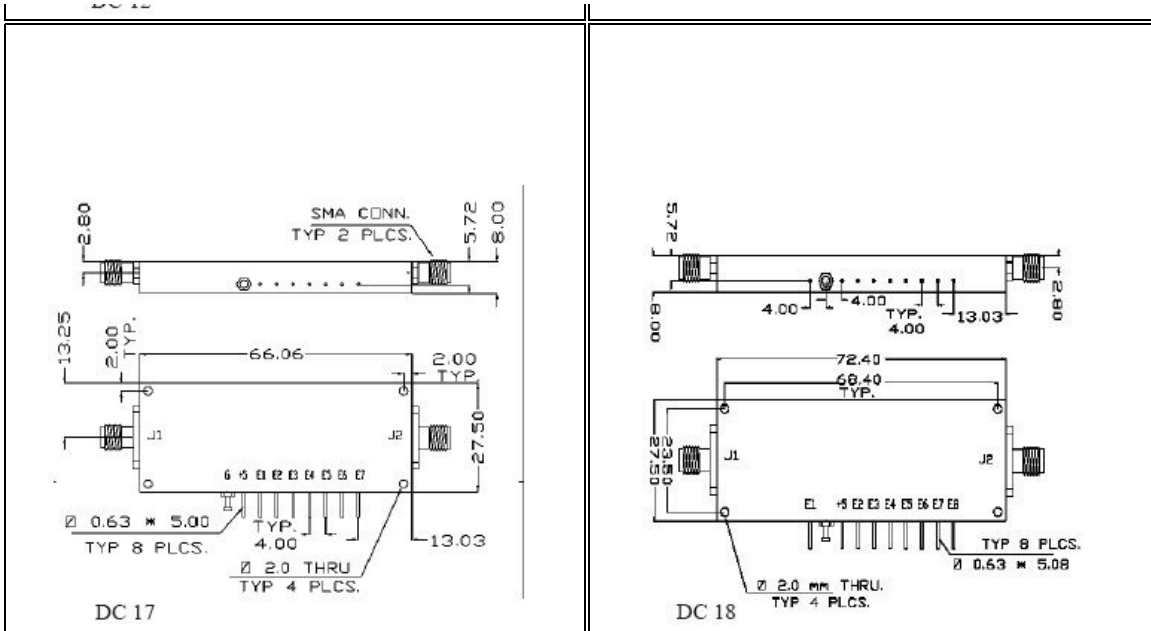
NOTES

1. Performance can be optimized for a narrower bandwidth
2. Attenuation range can be customized.

PIN FUNCTIONS			
PIN Designations	SA-26-6-1	SA-26-7-1	SA-26-8-0.25
E1	1 dB	1 dB	0.25 dB
E2	2 dB	2 dB	0.5 dB
E3	4 dB	4 dB	1.0 dB
E4	8 dB	8 dB	2.0 dB
E5	16 dB	10 dB	4.0 dB
E6	32 dB	20 dB	8.0 dB
E7	-	40 dB	16.0 dB
E8	-	-	32.0 dB
+ V	+ 5V	+ 5V	+ 5V
- V	-	-	-
G	GND	GND	GND

PACKAGE TYPE & DIMENSIONS





Contact us

Herley - General Microwave specializes in developing and producing customized [microwave components](#), and [millimeter wave products](#) for the defense and aerospace industries as well as for non-defense applications such as communication systems. Herley General Microwave produces the industry standard General Microwave line of off-the-shelf catalog RF components. If you are looking for a [solid state power amplifier](#), [microwave synthesizer](#) or other [microwave oscillators](#), microwave receiver, [microwave switches](#), [microwave attenuator](#), microwave limiter, [microwave phase shifter](#), or [microwave IQ vector modulator](#); we can produce components meeting your requirements at a very competitive price. We also produce high quality customized [integrated microwave assemblies](#) such as up and down converters, DLVAs, beam forming networks, front ends, or switched bank filters, that can be used in a wide variety of demanding applications. [Herley General Microwave \(HGM\)](#), a subsidiary of [Herley Industries](#) provides solutions for electronic warfare systems, phased array radar systems, electronic warfare simulators, test equipment and test systems and other defense and non-defense systems. We look forward to working with you, so please [contact us](#) today.