COAXIAL

Fixed Attenuator

VAT-A-SERIES

50Ω Up to 2W DC to 6000 MHz

THE BIG DEAL

- Wideband coverage, DC to 6000 MHz
- Up to 2 watt rating
- Rugged unibody construction
- Excellent VSWR
- Excellent flatness

Generic photo used for illustration purposes only

Model No.	VAT-A-SERIES
Case Style	FF704
Connectors	SMA

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

APPLICATIONS

- Signal level adjustment
- Impedance matching

PRODUCT OVERVIEW

Mini-Circuits' VAT-A series are fixed attenuators from DC to 6000 MHz frequency range with excellent flatness in attenuation. VAT-A series is available with nominal attenuation of 1 to 30 dB. This attenuator series support testing and measurement application. Precise performance, excellent VSWR and rugged unibody construction makes the model ideal solution for systems requiring precise attenuation across very wide frequency range.

KEY FEATURES

Feature	Advantages
Rugged construction	Excellent durability for a long lifetime of use
Up to 2 Watt rating	Good power handling
Excellent VSWR	Well-matched for 50 Ω systems
Flat attenuation	Good performance over the band

COAXIAL

Fixed Attenuator

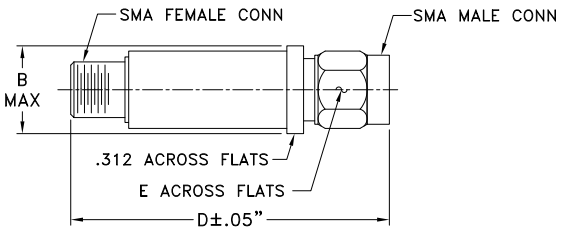
VAT-3A+

MAXIMUM RATINGS

Operating Temperature	-45°C to 100°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

OUTLINE DRAWING

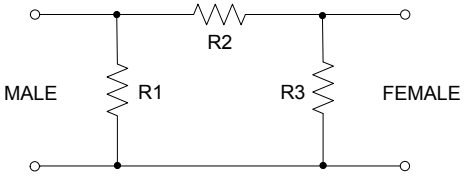


OUTLINE DIMENSIONS (Inch / mm)

B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Note: Please refer to case style drawing for details

ELECTRICAL SCHEMATIC



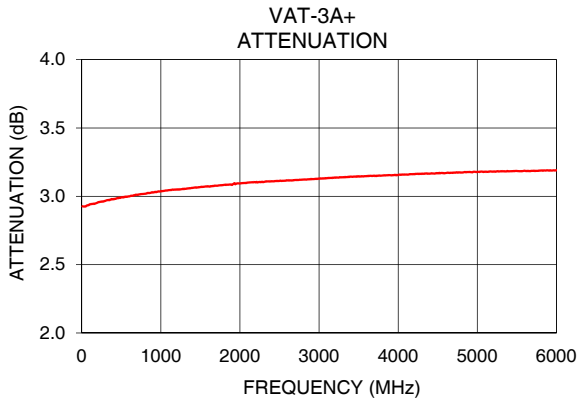
ELECTRICAL SPECIFICATIONS AT 25°C

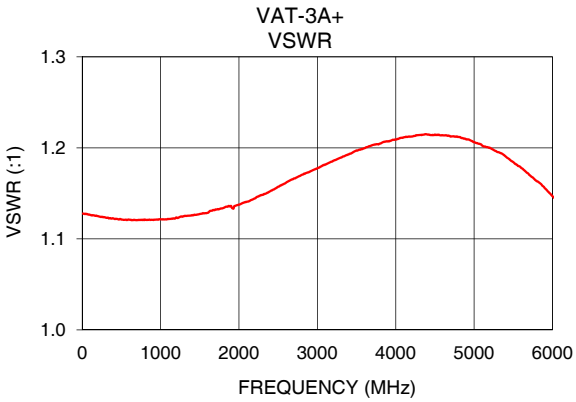
Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	-	6000	MHz
Attenuation[1] nominal[3]	10	-	3 ± 0.3	-	dB
Attenuation Flatness[2]	DC-3000	-	0.25	-	dB
	3000-5000	-	0.15	-	
	5000-6000	-	0.15	-	
	DC-6000	-	0.30	-	
VSWR	DC-3000	-	1.20	1.50	:1
	3000-5000	-	1.25	1.60	
	5000-6000	-	1.40	-	
Input Power[4]		-	-	2.0	W

1. Attenuation varies by 0.3 dB max. over temperature.
2. Flatness = variation over band divided by 2.
3. Nominal attenuation at 10 MHz
4. RF power at 25°C is 2.0W; Derate linearly to 1.0W at 85°C

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
10	2.93	1.13
100	2.94	1.13
500	2.99	1.12
900	3.03	1.12
1000	3.04	1.12
1400	3.06	1.13
1500	3.07	1.13
2000	3.09	1.14
2500	3.11	1.16
2800	3.12	1.17
3000	3.13	1.18
4000	3.16	1.21
4500	3.17	1.21
5000	3.18	1.21
6000	3.19	1.15





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COAXIAL

Fixed Attenuator

VAT-A-SERIES

50Ω Up to 2W DC to 6000 MHz

THE BIG DEAL

- Wideband coverage, DC to 6000 MHz
- Up to2 watt rating
- Rugged unibody construction
- Excellent VSWR
- Excellent flatness

Generic photo used for illustration purposes only

Model No.	VAT-A-SERIES
Case Style	FF704
Connectors	SMA

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

APPLICATIONS

- Signal level adjustment
- Impedance matching

PRODUCT OVERVIEW

Mini-Circuits' VAT-A series are fixed attenuators from DC to 6000 MHz frequency range with excellent flatness in attenuation. VAT-A series is available with nominal attenuation of 1 to 30 dB. This attenuator series support testing and measurement application. Precise performance, excellent VSWR and rugged unibody construction makes the model ideal solution for systems requiring precise attenuation across very wide frequency range.

KEY FEATURES

Feature	Advantages
Rugged construction	Excellent durability for a long lifetime of use
Up to 2 Watt rating	Good power handling
Excellent VSWR	Well-matched for 50 Ω systems
Flat attenuation	Good performance over the band.

COAXIAL

Fixed Attenuator

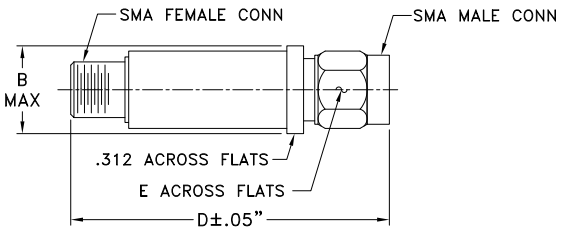
VAT-6A+

MAXIMUM RATINGS

Operating Temperature	-45°C to 100°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

OUTLINE DRAWING

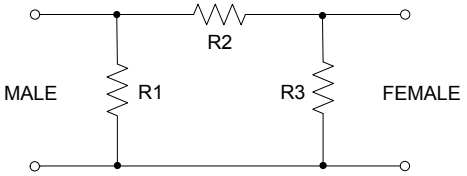


OUTLINE DIMENSIONS (Inch / mm)

B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Note: Please refer to case style drawing for details

ELECTRICAL SCHEMATIC



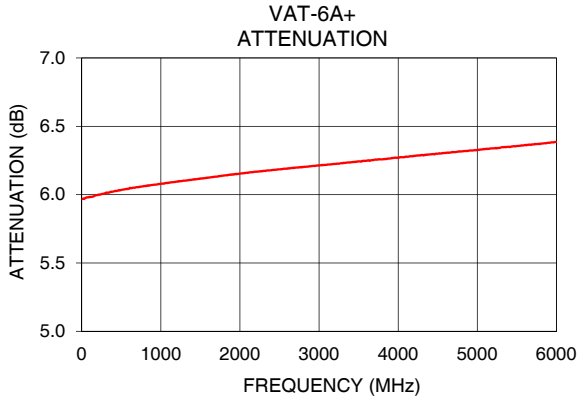
ELECTRICAL SPECIFICATIONS AT 25°C

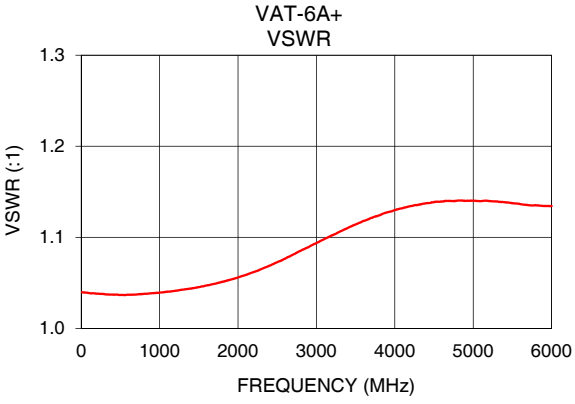
Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	-	6000	MHz
Attenuation[1] nominal[3]	10	-	6 ± 0.3	-	dB
Attenuation Flatness[2]	DC-3000	-	0.25	-	dB
	3000-5000	-	0.15	-	
	5000-6000	-	0.10	-	
	DC-6000	-	0.45	-	
VSWR	DC-3000	-	1.20	1.35	:1
	3000-5000	-	1.25	1.45	
	5000-6000	-	1.20	-	
Input Power[4]		-	-	1.6	W

1. Attenuation varies by 0.3 dB max. over temperature.
2. Flatness = variation over band divided by 2.
3. Nominal attenuation at 10 MHz
4. RF power at 25°C is 1.6W; Derate linearly to 1.0W at 85°C

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
10	5.97	1.04
100	5.98	1.04
500	6.03	1.04
900	6.07	1.04
1000	6.08	1.04
1400	6.11	1.04
1500	6.12	1.05
2000	6.15	1.06
2500	6.18	1.07
2800	6.20	1.09
3000	6.21	1.09
4000	6.27	1.13
4500	6.30	1.14
5000	6.33	1.14
6000	6.39	1.13





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COAXIAL

Fixed Attenuator

VAT-A-SERIES

50Ω Up to 2W DC to 6000 MHz

THE BIG DEAL

- Wideband coverage, DC to 6000 MHz
- Up to 2 watt rating
- Rugged unibody construction
- Excellent VSWR
- Excellent flatness

Generic photo used for illustration purposes only

Model No.	VAT-A-SERIES
Case Style	FF704
Connectors	SMA

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

APPLICATIONS

- Signal level adjustment
- Impedance matching

PRODUCT OVERVIEW

Mini-Circuits' VAT-A series are fixed attenuators from DC to 6000 MHz frequency range with excellent flatness in attenuation. VAT-A series is available with nominal attenuation of 1 to 30 dB. This attenuator series support testing and measurement application. Precise performance, excellent VSWR and rugged unibody construction makes the model ideal solution for systems requiring precise attenuation across very wide frequency range.

KEY FEATURES

Feature	Advantages
Rugged construction	Excellent durability for a long lifetime of use
Up to 2 Watt rating	Good power handling
Excellent VSWR	Well-matched for 50 Ω systems
Flat attenuation	Good performance over the band.

COAXIAL

Fixed Attenuator

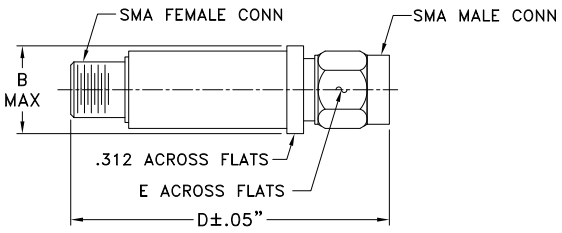
VAT-10A+

MAXIMUM RATINGS

Operating Temperature	-45°C to 100°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

OUTLINE DRAWING

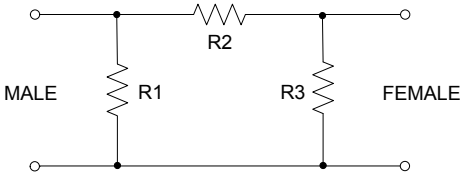


OUTLINE DIMENSIONS (Inch / mm)

B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Note: Please refer to case style drawing for details

ELECTRICAL SCHEMATIC



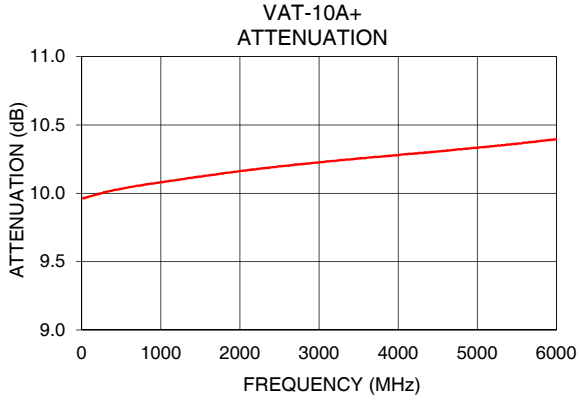
ELECTRICAL SPECIFICATIONS AT 25°C

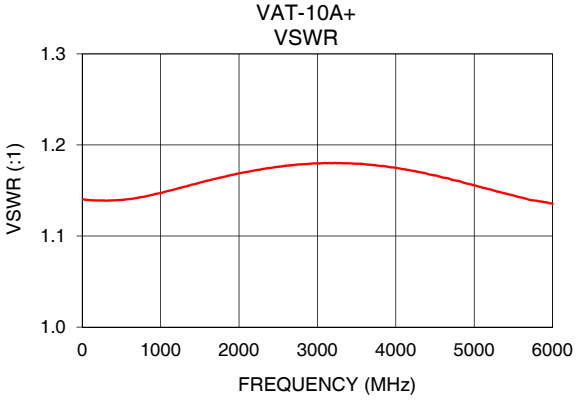
Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	-	6000	MHz
Attenuation[1] nominal[3]	10	-	10 ± 0.3	-	dB
Attenuation Flatness[2]	DC-3000	-	0.25	-	dB
	3000-5000	-	0.20	-	
	5000-6000	-	0.15	-	
	DC-6000	-	0.35	-	
VSWR	DC-3000	-	1.2	1.5	:1
	3000-5000	-	1.2	1.5	
	5000-6000	-	1.4	-	
Input Power[4]		-	-	1.7	W

1. Attenuation varies by 0.3 dB max. over temperature.
2. Flatness = variation over band divided by 2.
3. Nominal attenuation at 10 MHz
4. RF power at 25°C is 1.7W; Derate linearly to 1.0W at 85°C

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
10	9.96	1.14
100	9.98	1.14
500	10.03	1.14
900	10.07	1.15
1000	10.08	1.15
1400	10.11	1.16
1500	10.12	1.16
2000	10.16	1.17
2500	10.20	1.18
2800	10.21	1.18
3000	10.23	1.18
4000	10.28	1.17
4500	10.31	1.17
5000	10.33	1.16
6000	10.40	1.14





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COAXIAL

Fixed Attenuator

VAT-A-SERIES

50Ω Up to 2W DC to 6000 MHz

THE BIG DEAL

- Wideband coverage, DC to 6000 MHz
- Up to 2 watt rating
- Rugged unibody construction
- Excellent VSWR
- Excellent flatness

Generic photo used for illustration purposes only

Model No.	VAT-A-SERIES
Case Style	FF704
Connectors	SMA

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

APPLICATIONS

- Signal level adjustment
- Impedance matching

PRODUCT OVERVIEW

Mini-Circuits' VAT-A series are fixed attenuators from DC to 6000 MHz frequency range with excellent flatness in attenuation. VAT-A series is available with nominal attenuation of 1 to 30 dB. This attenuator series support testing and measurement application. Precise performance, excellent VSWR and rugged unibody construction makes the model ideal solution for systems requiring precise attenuation across very wide frequency range.

KEY FEATURES

Feature	Advantages
Rugged construction	Excellent durability for a long lifetime of use
Up to 2 Watt rating	Good power handling
Excellent VSWR	Well-matched for 50 Ω systems
Flat attenuation	Good performance over the band.

COAXIAL

Fixed Attenuator

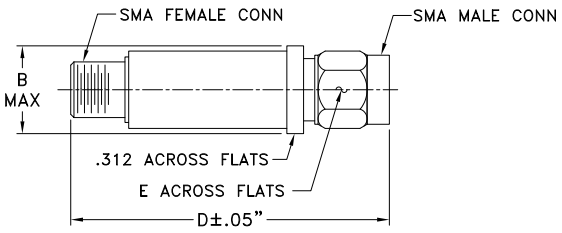
VAT-20A+

MAXIMUM RATINGS

Operating Temperature	-45°C to 100°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

OUTLINE DRAWING

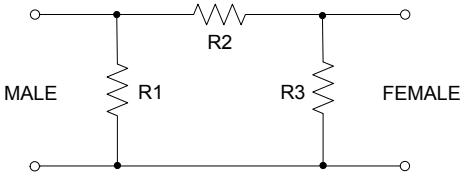


OUTLINE DIMENSIONS (Inch / mm)

B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Note: Please refer to case style drawing for details

ELECTRICAL SCHEMATIC



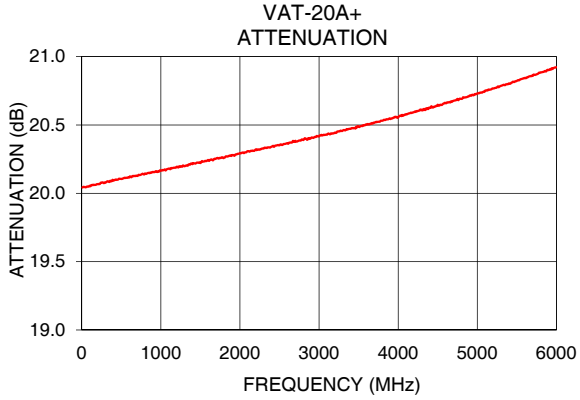
ELECTRICAL SPECIFICATIONS AT 25°C

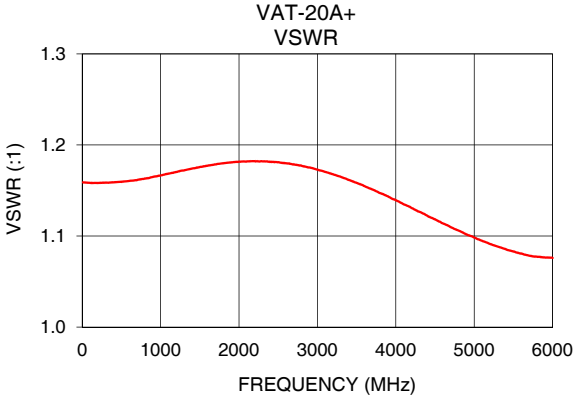
Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	-	6000	MHz
Attenuation[1] nominal[3]	10	-	20 ± 0.3	-	dB
Attenuation Flatness[2]	DC-3000	-	0.4	-	dB
	3000-5000	-	0.4	-	
	5000-6000	-	0.35	-	
	DC-6000	-	0.7	-	
VSWR	DC-3000	-	1.2	1.5	:1
	3000-5000	-	1.2	1.6	
	5000-6000	-	1.2	-	
Input Power[4]		-	-	0.8	W

1. Attenuation varies by 0.3 dB max. over temperature.
2. Flatness = variation over band divided by 2.
3. Nominal attenuation at 10 MHz
4. RF power at 25°C is 0.8W; Derate linearly to 0.6W at 85°C

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
10	20.04	1.16
100	20.05	1.16
500	20.11	1.16
900	20.16	1.16
1000	20.17	1.17
1400	20.21	1.17
1500	20.22	1.18
2000	20.29	1.18
2500	20.35	1.18
2800	20.39	1.18
3000	20.42	1.17
4000	20.56	1.14
4500	20.65	1.12
5000	20.73	1.10
6000	20.92	1.08





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COAXIAL

Fixed Attenuator

VAT-A-SERIES

50Ω Up to 2W DC to 6000 MHz

THE BIG DEAL

- Wideband coverage, DC to 6000 MHz
- Up to 2 watt rating
- Rugged unibody construction
- Excellent VSWR
- Excellent flatness

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Model No.	VAT-A-SERIES
Case Style	FF704
Connectors	SMA

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APPLICATIONS

- Signal level adjustment
- Impedance matching

PRODUCT OVERVIEW

Mini-Circuits' VAT-A series are fixed attenuators from DC to 6000 MHz frequency range with excellent flatness in attenuation. VAT-A series is available with nominal attenuation of 1 to 30 dB. This attenuator series support testing and measurement application. Precise performance, excellent VSWR and rugged unibody construction makes the model ideal solution for systems requiring precise attenuation across very wide frequency range.

KEY FEATURES

Feature	Advantages
Rugged construction	Excellent durability for a long lifetime of use
Up to 2 Watt rating	Good power handling
Excellent VSWR	Well-matched for 50 Ω systems
Flat attenuation	Good performance over the band.

COAXIAL

Fixed Attenuator

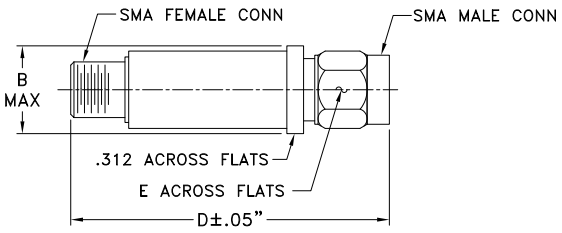
VAT-30A+

MAXIMUM RATINGS

Operating Temperature	-45°C to 100°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

OUTLINE DRAWING

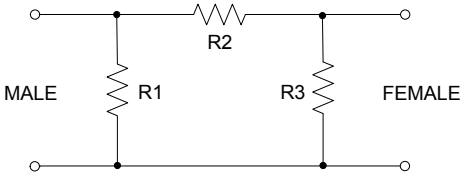


OUTLINE DIMENSIONS (Inch / mm)

B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Note: Please refer to case style drawing for details

ELECTRICAL SCHEMATIC



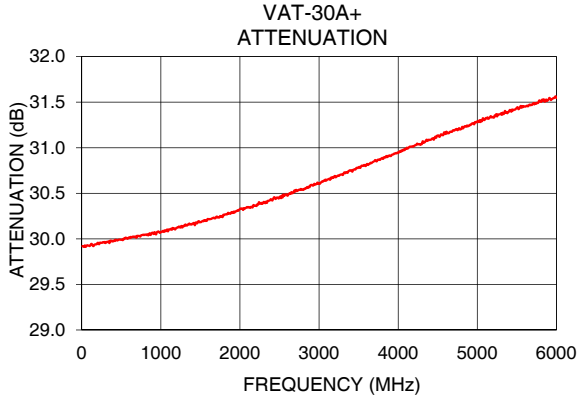
ELECTRICAL SPECIFICATIONS AT 25°C

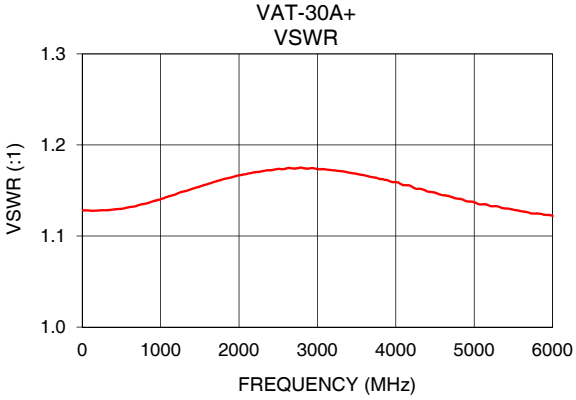
Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	-	6000	MHz
Attenuation[1] nominal[3]	10	-	30 ± 0.3	-	dB
Attenuation Flatness[2]	DC-3000	-	0.7	-	dB
	3000-5000	-	0.7	-	
	5000-6000	-	0.3	-	
	DC-6000	-	1.3	-	
VSWR	DC-3000	-	1.2	1.6	:1
	3000-5000	-	1.2	1.6	
	5000-6000	-	1.3	-	
Input Power[4]		-	-	1.0	W

1. Attenuation varies by 0.3 dB max. over temperature.
2. Flatness = variation over band divided by 2.
3. Nominal attenuation at 10 MHz
4. RF power at 25°C is 1.0W; Derate linearly to 0.8W at 85°C

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
10	29.92	1.13
100	29.92	1.13
500	29.99	1.13
900	30.07	1.14
1000	30.08	1.14
1400	30.17	1.15
1500	30.19	1.15
2000	30.33	1.17
2500	30.46	1.17
2800	30.54	1.17
3000	30.61	1.17
4000	30.94	1.16
4500	31.13	1.15
5000	31.29	1.14
6000	31.55	1.12





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