DC Passing
Attenuator Fixed

NAT-3DC-3A+

50Ω 1700 to 3300 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF57

Connectors	Model
N-Type	NAT-3DC-3A+

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

Maximum Ratings

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

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

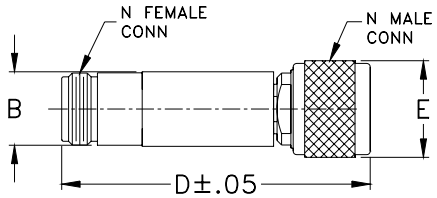
Features

- high DC current handling
- high DC breakdown voltage
- DC resistance (in/out) 0.1Ω, typ.

Applications

- power passing
- instrumentation
- test equipment
- lab use

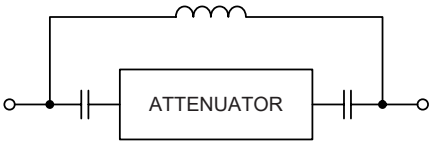
Outline Drawing



Outline Dimensions (inch / mm)

B	D	E	wt
.67	2.90	.82	grams
17.02	73.66	20.83	90.0

Electrical Schematic



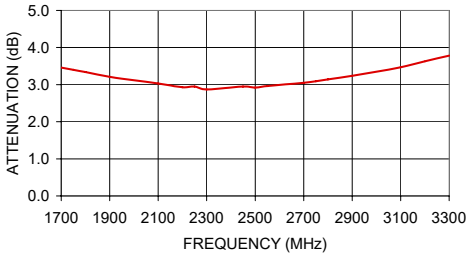
Electrical Specifications (T_{AMB}= 25°C)

FREQUENCY (MHz)	ATTENUATION (dB)		VSWR (:1)	POWER (mW)	DC CURRENT (Amps)	DC BREAKDOWN (Volts)
	Nom.	Flatness, Max.	Max.	Max.	Max.	Max.
1700-3300	3.0±0.7	±0.7	1.6	1000	3	50

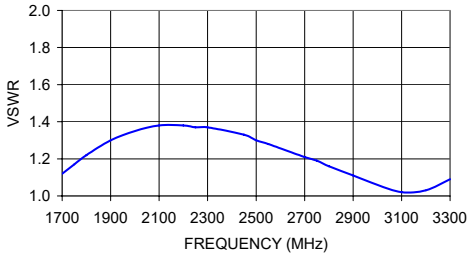
Typical Performance Data at 25°C

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
1700.00	3.46	1.12
1750.00	3.40	1.17
1800.00	3.34	1.22
1900.00	3.21	1.30
2000.00	3.12	1.35
2100.00	3.03	1.38
2200.00	2.93	1.38
2250.00	2.95	1.37
2300.00	2.87	1.37
2450.00	2.95	1.33
2500.00	2.92	1.30
2550.00	2.96	1.28
2700.00	3.05	1.21
2750.00	3.09	1.19
2800.00	3.14	1.16
2900.00	3.24	1.11
3000.00	3.35	1.06
3100.00	3.47	1.02
3200.00	3.63	1.03
3300.00	3.78	1.09

NAT-3DC-3A+
ATTENUATION



NAT-3DC-3A+
VSWR



Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Fixed Attenuator, DC Passing NAT-3DC-3A+

Typical Performance Data

FREQUENCY (MHz)	ATTENUATION (dB)	FEMALE RETURN LOSS (dB)	MALE RETURN LOSS (dB)
1700	3.46	20.83	24.94
1750	3.40	19.08	22.12
1800	3.34	17.95	20.08
1900	3.21	16.13	17.69
2000	3.12	15.21	16.54
2100	3.03	15.04	15.94
2200	2.93	15.04	15.94
2250	2.95	15.38	16.13
2300	2.87	15.56	16.13
2450	2.95	16.98	16.98
2500	2.92	17.69	17.69
2550	2.96	18.49	18.22
2700	3.05	21.66	20.44
2750	3.09	22.61	21.23
2800	3.14	24.29	22.61
2900	3.24	28.30	25.66
3000	3.35	32.26	30.71
3100	3.47	28.30	40.09
3200	3.63	24.94	36.61
3300	3.78	21.66	27.32

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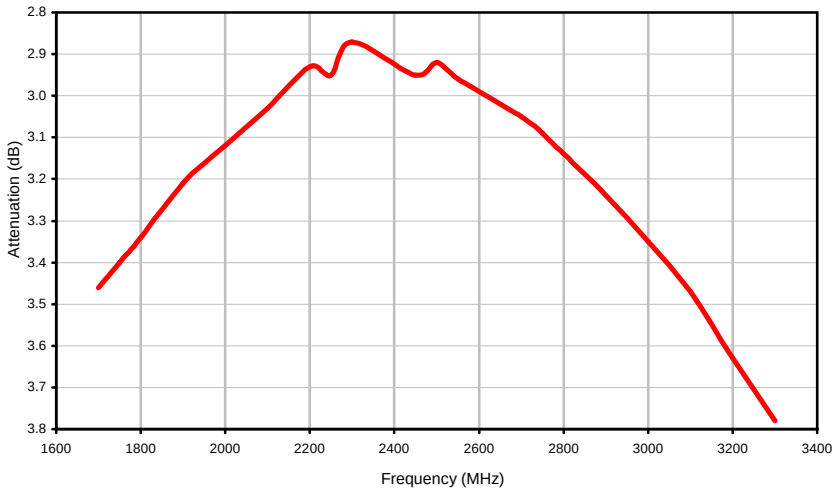
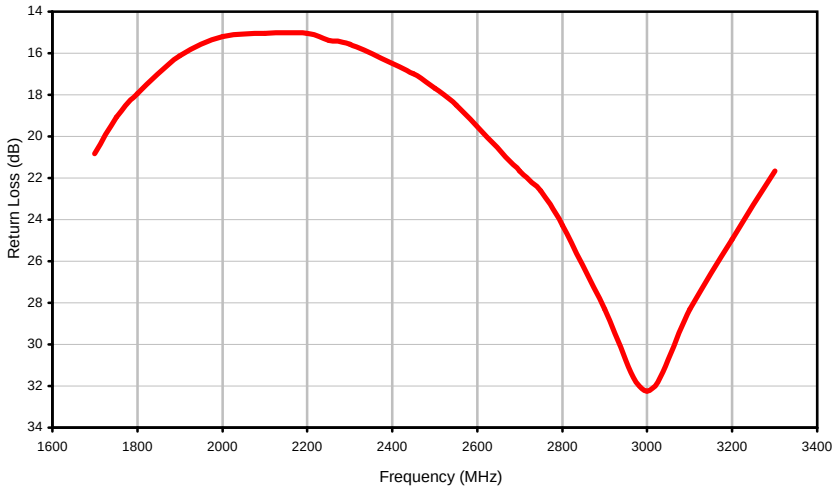
Fixed Attenuator, DC Passing NAT-3DC-3A+

Typical Performance Curves

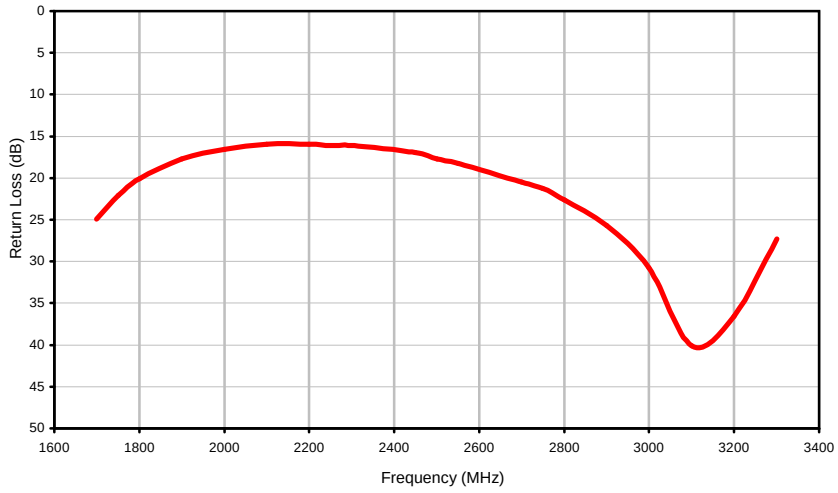
Attenuation



Female Return Loss



Male Return Loss



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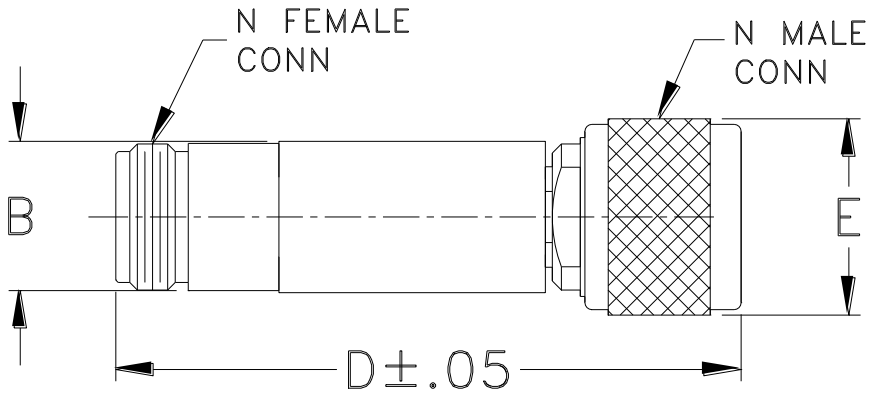
Case Style FF

FF57

Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF57	-- --	.70 (17.78)	-- --	2.90 (73.66)	.82 (20.83)	90.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

Note:

1. Case material: Stainless steel.

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Environmental Specifications ENV28

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I

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