

Coaxial

Precision Fixed Attenuator

HAT-20+

50Ω 0.5W 20dB DC to 2000 MHz

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.



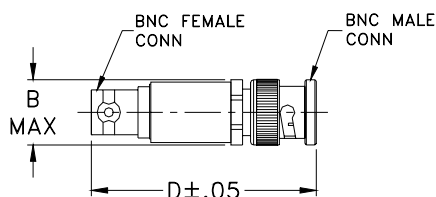
CASE STYLE: FF747

Connectors	Model	Price	Qty.
BNC Male-BNC Female	HAT-20+	9.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Outline Drawing



Outline Dimensions (inch/mm)

B	D	wt
.62	1.94	grams
15.75	49.28	30.0

Features

- excellent VSWR, 1.05:1 typ.
- excellent flatness, 0.25 dB typ. to 2000 MHz
- usable to 4000 MHz

Applications

- PCS
- instrumentation
- cellular

Electrical Specifications

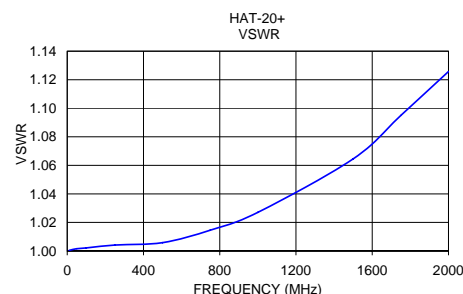
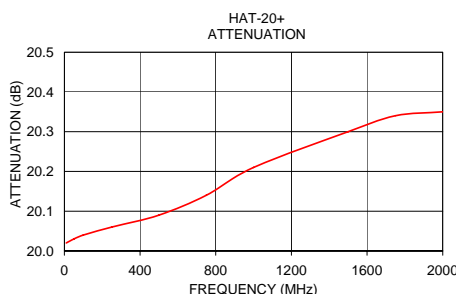
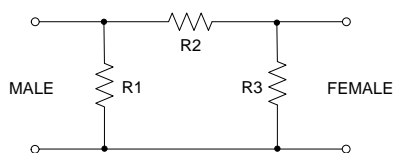
FREQ. RANGE (MHz)	ATTENUATION (dB)					VSWR (:1)			MAX. INPUT POWER (W)
	Flatness*					DC-0.5 GHz	DC-1 GHz	DC-2 GHz	
	DC-0.5 GHz	DC-1 GHz	DC-2 GHz	Total Band Typ.	DC-0.5 GHz				
f_L-f_U	Nom.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	
DC-2000	20±0.2	0.05	0.15	0.25	0.40	1.05	1.10	1.15	0.5

* Flatness = variation over band divided by 2.

Typical Performance Data

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
10.00	20.02	1.00
50.00	20.03	1.00
100.00	20.04	1.00
250.00	20.06	1.00
500.00	20.09	1.01
750.00	20.14	1.01
1000.00	20.21	1.03
1500.00	20.30	1.06
1750.00	20.34	1.09
2000.00	20.35	1.13

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp.

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HAT-20+
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