Fixed Attenuators (N,BNC,TNC)

AT-400, AT-500, and AT-600 Series

AT-403 AT-503 AT-603

■Features

1.Connector Coupling Portion Variations

Coupling Portion		HRS Series Name
N Type	Plug - Jack※	AT-400 Series
BNC Type	Plug - Jack	AT-500 Series
TNC Type	Plug - Jack	AT-600 Series

※Can also be mated with an S type connector.

2.Small Size and Economical

Value engineering has been liberally applied to the design and construction to make these attenuators small and very economical.

3.High Reliability

These attenuators show stable characteristics for environments of varying temperature, humidity, and gases.

■Product Specifications

Rating	Frequency range	AT-400 Series	DC to 4 GHz	Operating temperature range	-10℃ to +65℃
		AT-500 and 600 Series	DC to 2 GHz		
	Characteristic impedance	50Ω		Operating relative humidity	95% or less
	Maximum usable power	2W			

Item	Standard	Conditions
1.Vibration resistance	No electrical disconnections of 1μs or greater No damage, cracks, or parts looseness	Frequency of 10 to 2000 Hz, overall amplitude of 1.52 mm, 98 m/s² acceleration, in 3 axial directions, 2 hours each
2.Shock resistance	No electrical disconnections of 1μs or greater No damage, cracks, or parts looseness	490 m/s² acceleration, half sine wave, in 3 axial directions, 3 times each
3.Temperature cycle	No damage, cracks, or parts looseness	(-55℃: 30 min.→5 to 35℃: Within 15 min.→85℃: 30 min →5 to 35℃: Within 15 min.) for 200 cycles

●The test method conforms to MIL-STD-202.
●Please see the specification items for details concerning the amount of attenuation and the VSWR.

■Materials

Part	Material	Processing
External cladding	Brass	Nickel plating
Insulation	Teflon	——
Male contacts	Brass	Gold plating
Female contacts	Beryllium copper	Gold plating
Attenuation element	Metal film	——

■Product Number Breakdown

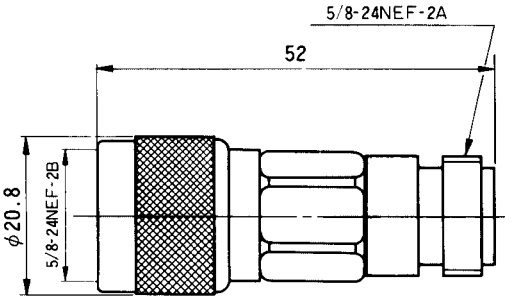
AT - 4 01
❶ ❷ ❸

❶ AT: Indicates a fixed attenuator.	❸ Amount of attenuation (Examples) 01 : 1dB 06 : 6dB 00-(0) : 0dB 00-(0.5) : 0.5dB 00-(3.5) : 3.5dB
❷ Indicates the Series Name (Coupling Portion) 1: N plug - jack 2: BNC plug - jack 3: TNC plug - jack	

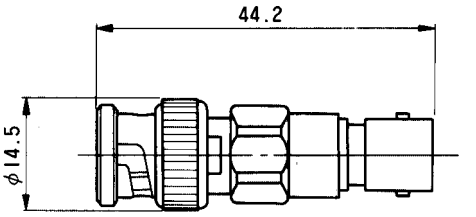
■Specifications

Model No.	(MHz) Frequency Range	V.S.W.R.(Max)	(dB) Attenuation	(W) Power	Connectors	(g) Weight
AT-401	DC～2000	1.15	1±0.3	2	N-P·J	77
	2000～4000	1.20	$1^{+0.5}_{-0.3}$			
AT-402	DC～2,000	1.15	2±0.3	2	N-P·J	77
	2000～4000	1.20	$2^{+0.5}_{-0.3}$			
AT-403	DC～2,000	1.15	3±0.3	2	N-P·J	77
	2000～4000	1.20	$3^{+0.5}_{-0.3}$			
AT-406	DC～2,000	1.15	6±0.3	2	N-P·J	77
	2000～4000	1.20	$6^{+0.5}_{-0.3}$			
AT-410	DC～2,000	1.15	10±0.5	2	N-P·J	77
	2000～4000	1.20	$10^{+0.8}_{-0.5}$			
AT-420	DC～2,000	1.15	20±0.5	2	N-P·J	77
	2000～4000	1.20	$20^{+0.8}_{-0.5}$			
AT-503	DC～1000	1.25	3±0.3	2	BNC-P·J	25
	1000～2000	1.15				
AT-505	DC～1000	1.25	5±0.3	2	BNC-P·J	25
	1000～2000	1.15				
AT-506	DC～1000	1.25	6±0.3	2	BNC-P·J	25
	1000～2000	1.15				
AT-510	DC～1000	1.25	10±0.5	2	BNC-P·J	25
	1000～2000	1.15				
AT-514	DC～1000	1.25	14±1.2	2	BNC-P·J	25
	1000～2000	1.15				
AT-520	DC～1000	1.25	20±0.5	2	BNC-P·J	25
	1000～2000	1.15				
AT-603	DC～1000	1.25	3±0.3	2	TNC-P·J	29
	1000～2000	1.15				
AT-606	DC～1000	1.25	6±0.3	2	TNC-P·J	29
	1000～2000	1.15				
AT-610	DC～1000	1.25	10±0.5	2	TNC-P·J	29
	1000～2000	1.15				
AT-620	DC～1000	1.25	20±0.5	2	TNC-P·J	29
	1000～2000	1.15				

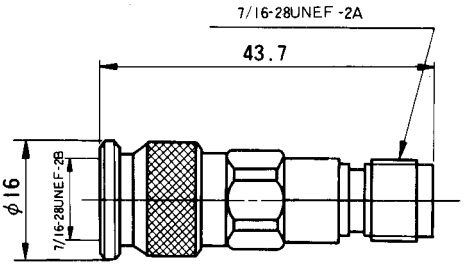
■External Dimensions



AT-400



AT-500 Type



AT-600 Type

■Typical Data