N type Coaxial Connectors

N Series

■Features

1. 50 ohms wide varieties standard connectors
2. Screw on locking
3. Applicable cable : RG cable, JIS cable
4. Applicable standard : MIL-C-39012/MIL STD 348-304

■Functional diagram

Plugs

Straight plug for flexible cable
UG-21D/U(40)



Straight plug for semi-rigid cable
N-P-141(40)



Right angled plug for flexible cable
N-LP-5DW(40),N-LP-58U(40)



Conversion adapters
- ●BNC series conversion type
- ●M series conversion type
- ●S series conversion type
- ●SMA(HRM series) conversion type

Cap with a chain
MX-913/U(40)



Non-reflective Terminators
N-TMP-*



In-line adapters

Right angled jack-plug type
UG-27C/U(40)



T-type adapter
Jack-plug-jack type
UG-107B/U(40)



Fixed attenuator

Plug-jack type
AT-4**



In-line adapters

Straight plug-plug type
UG-57B/U(40)



In-line adapters

Straight jack-jack type
UG-29B/U(40)



Panel mount adapter
Jack-jack type
N-PA(40)



T-type adapter
Jack-jack type
UG-28A/U(40)



Jacks

Straight jack for flexible cable
UG-23D/U(40)



Panel mount jack for flexible cable
N-PJ-58/U(40)



Panel mount straight receptacle
UG-58A/U(40)



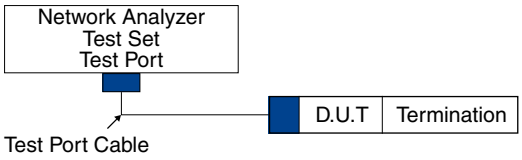
Conversion adapters
- ●BNC series conversion type
- ●M series conversion type
- ●TNC series conversion type
- ●SMA(HRM series) conversion type

■Product Specifications

Ratings	Nominal characteristic impedance Frequency range	50 ohms DC to 2 GHz	Operating temperature range Operating humidity	-30˚C to +60˚C 95%RH max.

Item	Specification	Conditions
1. Contact resistance	3 m Ω max.	100 mA max.
2. Insulation resistance	1000 M Ω min.	500 V DC
3. Withstanding voltage	No flashover or insulation breakdown.	1500 V AC / 1 minute
4. V.S.W.R.∗	1.2 max.	Up to 2GHz
5. Durability (mating / un-mating, with corresponding plug)	10 m Ω max.	500 cycles
6. Vibration	No electrical discontinuity of 1μs min.	Frequency: 10 to 500 Hz, single amplitude of 0.75mm, acceleration of 98m/s², for 10 cycles in the direction of each of the 3 axis.
7. Shock	No damage, cracks or parts dislocation.	Acceleration of 490 m/s², 11ms duration, sine half-wave waveform, 3 cycles in each of 3 axes.
8. Humidity (Steady state)	No damage, cracks or parts dislocation.	96 hours at temperature of 40℃ and humidity of 80% to 96%.
9. Temperature cycle	No damage, cracks or parts dislocation.	Temperature: -55˚C→+25 to +65˚C→+85˚C→+5 to +35˚C Time: 30min.→ 5min. →30min.→ 5min. 5 cycles
10. Salt spray	No excessive corrosion	5% salt water solution, 48 hours

∗V.S.W.R. Measurement System
The above V.S.W.R. standard values were measured using the measurement connection as shown below.



Note 1: Connectors with cable are measured with 10 cm of suitable cable attached at both ends.

■Material

Part	Material	Finish	Remark
Shell	Brass	Silver plated/Nickel plated	———
Male contact	Brass	Silver plated/Gold plated	———
Female contact	Beryllium copper	Silver plated/Gold plated	———
Insulator	Tetrafluoride resin	———	Flame retardant
Packing	Silicone rubber	———	Flame retardant

■Ordering information

●Standard

N - L P - 5DW
❶ ❷ ❸ ❹

❶	Series name : N	❸	Connector type P : Plug J : Jack PJ : Panel jack R : Receptacle A : Adapter PA : Panel adapter
❷	Connector style Blank : Straight type L : L angle type T : T angle type	❹	Applicable cable

●Product with MIL standard

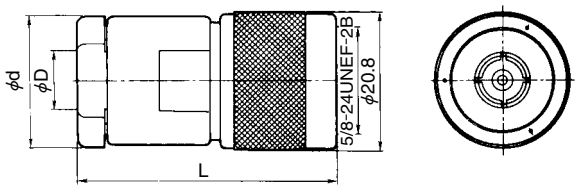
UG - 21 D /U
❶ ❷ ❸ ❶

❶	High freguency coaxial connectors
❷	Product identification number
❸	Improved sign

■Straight Plug

●Flexible cable type

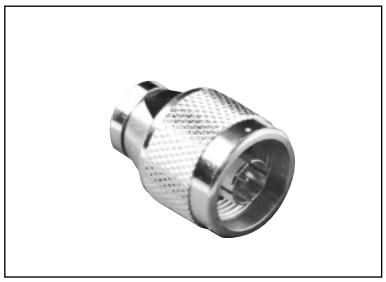


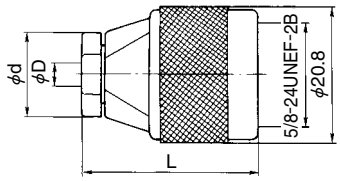


Unit : mm

Part No.	HRS No.	Packaging	Applicable cable	φD	φd	L
UG-21D/U(40)	301-0003-0 40	1	RG-8/U,RG-9/U	11.1	19.0	38.0
JUG-536/U(40)	301-0001-4 40		RG-58/U	5.4	19.0	38.0
N-P-3DV(40)	301-0078-9 40		3D-2V	6.3	12.7	35.0
N-P-5DV(40)	301-0120-3 40		5D-2V	8.6	18.0	45.5
N-P-5DW(40)	301-0199-3 40		5D-2W	9.3	18.0	46.0
N-P-5DFB(40)	301-0205-4 40		5D-FB	8.6	18.0	46.0
N-P-10DFB(40)	301-0206-7 40		10D-FB	14.5	23.0	55.0

●Semi rigid cable type





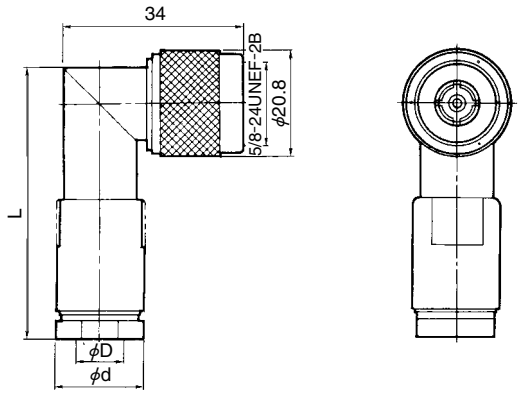
Unit : mm

Part No.	HRS No.	Packaging	Applicable cable	φD	φd	L
N-P-141(40)	301-0162-3 40	1	UT-141A	3.63	13	27.3
N-P-141-2(A)(40)	301-0262-8 40		UT-141A	3.63	5	25.7
N-P-250(A)(41)	301-0261-5 41		UT-250	6.5	14	34.9

■Right angle plug

●Flexible cable type





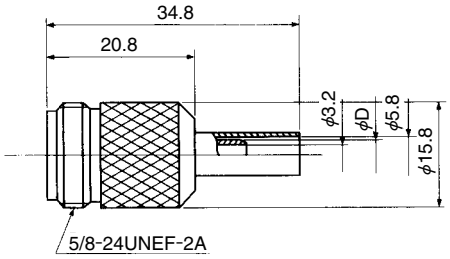
Unit : mm

Part No.	HRS No.	Packaging	Applicable cable	φD	φd	L	Remarks
N-LP-5DW(40)	301-0007-0 40	1	5D-2W	9.3	17.5	52.4	Nickel-plated except for center conductor
N-LP-58U(40)	301-0076-3 40		RG-58/U	5.3	15.5	44.0	————

■Straight jack

●Flexible cable type

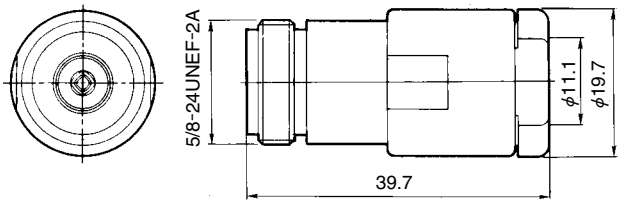




Unit : mm

Part No.	HRS No.	Packaging	Applicable cable	φD
N-J-3DV(40)	301-0180-5 40	1	3D-2V	5.1

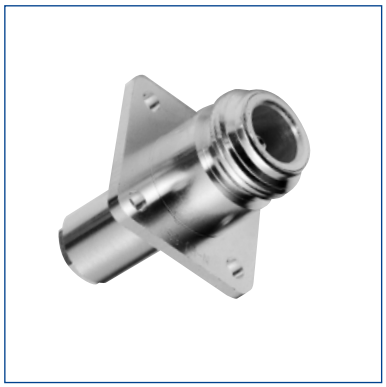


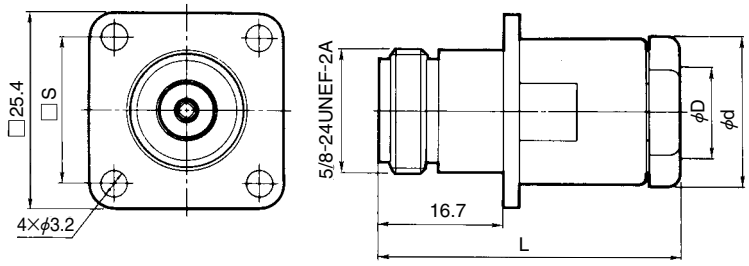


Part No.	HRS No.	Packaging	Applicable cable
UG-23D/U(40)	301-0008-3 40	1	RG-8/U,RG-9/U

■Panel mount jack

●Fexible cable type



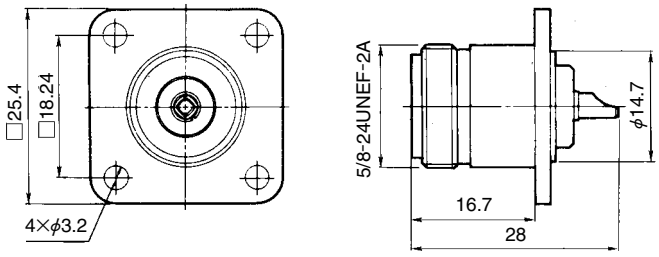


Unit : mm

Part No.	HRS No.	Packaging	Applicable cable	φD	φd	L	□S
UG-22D/U(40)	301-0010-5 40	1	RG-8/U,RG-9/U	11.1	19.0	39.7	18.24
N-PJ-58/U(40)	301-0011-8 40		RG-58/U	5.4	14.6	41.5	18.2

■Receptacle

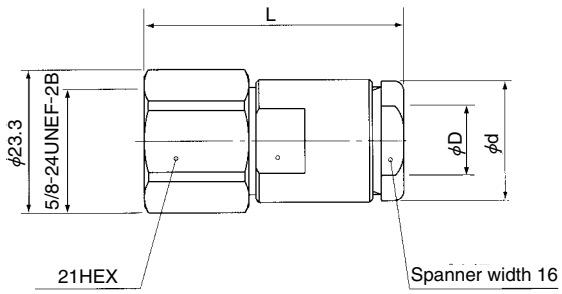




Part No.	HRS No.	Packaging
UG-58A/U(40)	301-0012-0 40	1

■Straight plug(waterproof type)





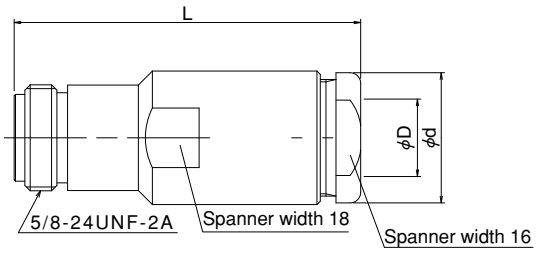
Unit : mm

Part No.	HRS No.	Packaging	Applicable cable	φD	φd	L
N-P-5DFXL(41)	301-0235-5 41	1	5D-FXL	8.6	18	47.2
N-P-8DGXC(40)	301-0228-0 40		8D-GXC	11.6	19.5	49.9

∗ IP67 compliant

■Straight jack(waterproof type)





Unit : mm

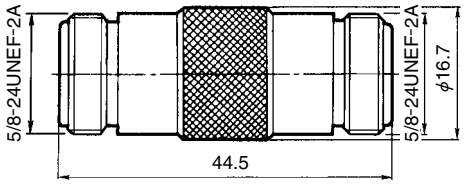
Part No.	HRS No.	Packaging	Applicable cable	φD	φd	L
N-J-5DFXL(40)	301-0237-0 40	1	5D-FXL	8.6	18	49.1
N-J-8DGXC(40)	301-0229-2 40		8D-GXC	11.6	19.5	51.9

∗ IP67 compliant

■Adapter

●Straight adapter (jack-jack type)

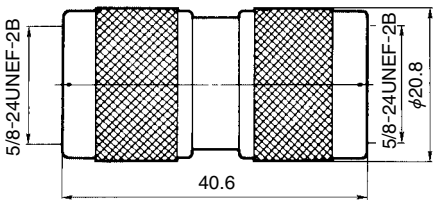




Part No.	HRS No.	Packaging
UG-29B/U(40)	301-0035-6 40	1

(Plug-plug type)

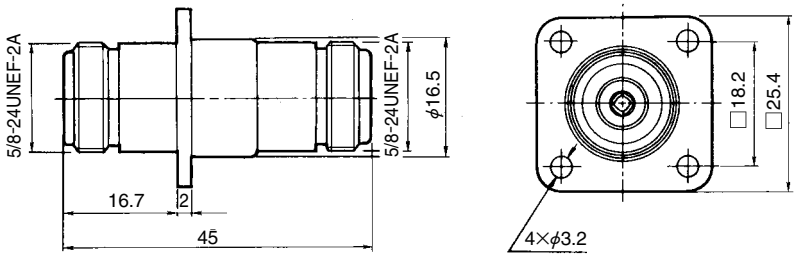




Part No.	HRS No.	Packaging
UG-57B/U(40)	301-0018-7 40	1

●Panel mount adaper (jack-jack type)

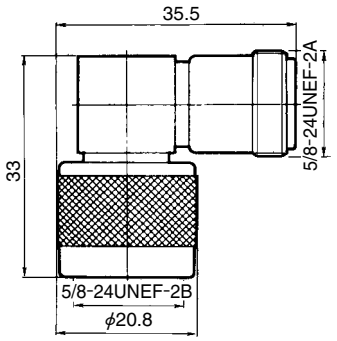




Part No.	HRS No.	Packaging
N-PA(40)	301-0036-9 40	1

●Right angle adapter (Plug-jack type)

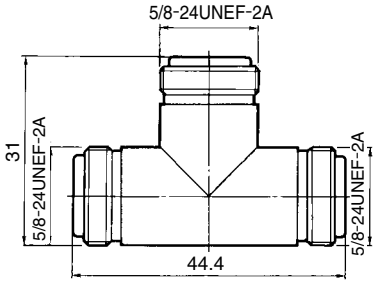




Part No.	HRS No.	Packaging
UG-27C/U(40)	301-0015-9 40	1

●T-shaped adapter (Jack-jack-jack type)

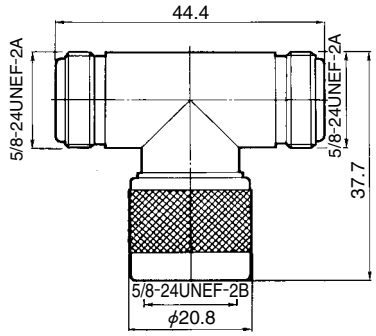




Part No.	HRS No.	Packaging
UG-28A/U(40)	301-0017-4 40	1

(Jack-plug-jack)





Part No.	HRS No.	Packaging
UG-107B/U(40)	301-0016-1 40	1

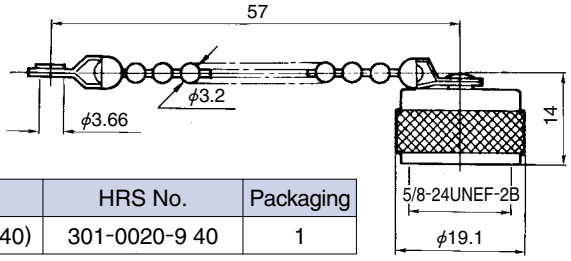
■Conversion adapters

Mating portion 1		Mating portion 2		Part No.	HRS No.	Packaging
Series name	Mating portion	Series name	Mating portion			
N	Plug	BNC	Plug	NP-BNCP(40)	311-0050-7 40	1
			Jack	JUG-201A/U(40)	311-0007-8 40	
		M	Jack	NP-MJ(40)	311-0019-7 40	
		S	Jack	N.P-S.J(40)	311-0245-6 40	
		SMA (HRM)	Plug	HRM-555S(40)	311-0125-4 40	
			Jack	HRM-554S(40)	311-0123-9 40	
	Jack	BNC	Plug	UG-349/U(40)	311-0004-0 40	
			Jack	NJ-BNCJ(40)	311-0005-2 40	
				NJ-BNCJ-PA(40)	311-0014-3 40	
		M	Plug	NJ-MP(40)	311-0018-4 40	
			Jack	NJ-MJ(40)	311-0011-5 40	
		TNC	Plug	N.J-TNC.P(40)	311-0225-9 40	
		SMA (HRM)	Plug	HRM-553S	311-0121-3	
				HRM-557SV	311-0272-9	
			Jack	HRM-552S	311-0119-1	
				HRM-556SV	311-0298-2	

■Cap

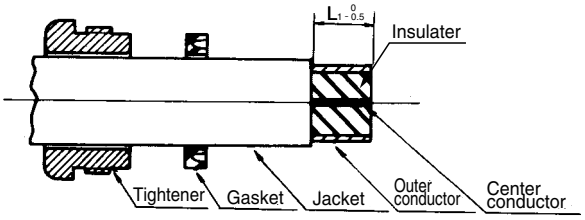
With a chain



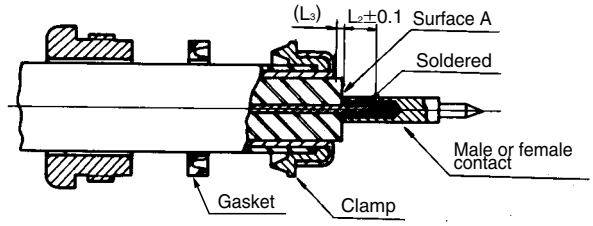


Part No.	HRS No.	Packaging
MX-913/U(40)	301-0020-9 40	1

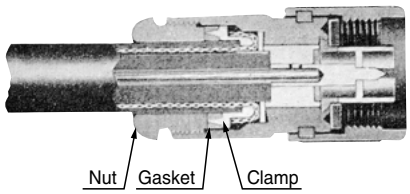
◆Cable assembly procedure



The cable ends are processed as shown in the drawing. For the dimensions L_1, refer to Table 1, which shows dimansions arranged L by part number.



(1) Insert clamp from tip of cable and fold outer conductor of cable back onto clamp. Using a knife, cut off excess outar conductor left at this time.
(2) Cut off center conductor of cable at L_2, from surface A of cable insulation. For dimensions of L_2 and L_3, refer to Table 1. L_3 is a reference dimension.
(3) Solder cable center conductor and male contact (or female contact). It is a good idea st this time to solder the contact preliminarily in advance.
(Note: There must be no gap between the contact and the cable insulation.)



Insert cable and parts into shell and fit sharp end of clamp completely into V-shaped surface of gasket. Tighten tightening nut sufficiently.

■Remarks
1. The cable dimensions L are based on the MIL and DSP standards. They may differ somewhat depending on the type of cable. In such cases, match the dimensions with the connectors.
2. Some clamps and gaskets does not have not V-shaped, but the assembling procedures are the same.

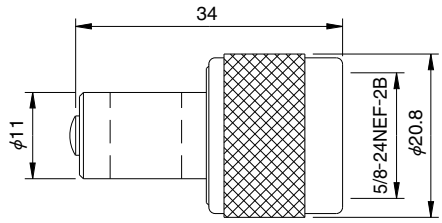
Table 1 Dimensions L arranged by part number

Unit : mm

Part No.	HRS No.	$L_{1}{}^{0}_{-0.5}$	L_2±0.1	L_3
JUG-536/U(40)	301-0001-4 40	8.6	6	1
UG-21D/U(40)	301-0003-0 40	10.0	6	1
N-LP-5DW(40)	301-0007-0 40	11.5	4	3.5
UG-23D/U(40)	301-0008-3 40	8.5	5	1
UG-22D/U(40)	301-0010-5 40	8.5	5	1
N-PJ-58/U(40)	301-0011-8 40	7.4	3	3.2
N-LP-58U(40)	301-0076-3 40	9.2	4	3.6
N-P-3DV(40)	301-0078-9 40	12.3	6	4.8
N-P-5DV(40)	301-0120-3 40	11.1	6	1.5
N-P-5DW(40)	301-0199-3 40	12.0	6	1.5
N-P-5DFB(40)	301-0205-4 40	11.0	6	5
N-P-10DFB(40)	301-0206-7 40	11.0	6	5

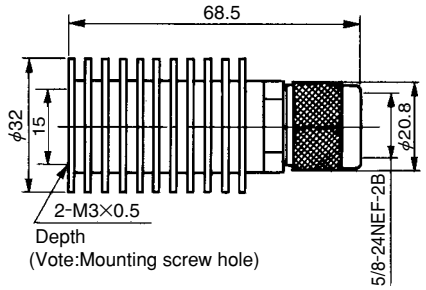
■Non-reflective Terminators(Coupling portion plug)





Part No.	HRS No.	Frequency range (GHz)	V.S.W.R.(Max)			Power (W)	Weight (g)	Packaging
			DC～4GHz	4～6GHz	6～8GHz			
N-TMP-1-1(50)	353-0137-5 50	DC～8	1.10	1.15	1.20	1	59	1

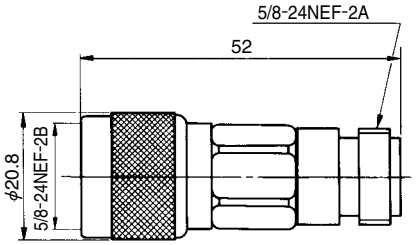




Part No.	HRS No.	Frequency range (GHz)	V.S.W.R.(Max)		Power (W)	Weight (g)	Packaging
			DC～2GHz	2～6GHz			
N-TMP-5(40)	353-0033-0 40	DC～6	1.15	1.20	5	113	1

■Fixed Attenuators(plug-jack)

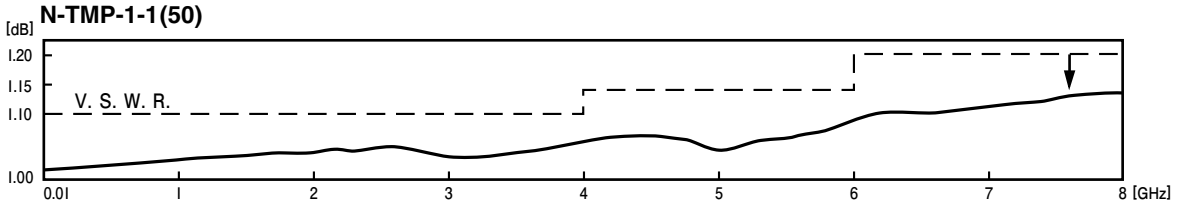




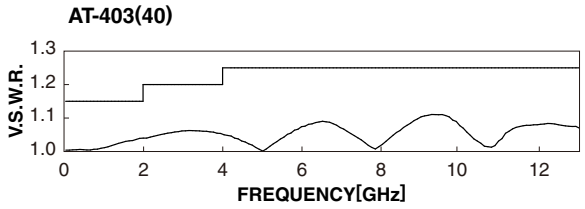
Part No.	HRS No.	Frequency range (GHz)	V.S.W.R.(Max)			Attenuation(dB)			Power (W)	Weight (g)	Packaging
			DC~2GHz	2~4GHz	4~13GHz	DC~2GHz	2~4GHz	4~13GHz			
AT-401(40)	354-0081-9 40	DC~13	1.15	1.20	1.25	1±0.3	$1^{+0.5}_{-0.3}$	$1^{+0.6}_{-0.3}$	2	77	1
AT-402(40)	354-0082-1 40					2±0.3	$2^{+0.5}_{-0.3}$	$2^{+0.6}_{-0.3}$			
AT-403(40)	354-0033-6 40					3±0.3	$3^{+0.5}_{-0.3}$	$3^{+0.7}_{-0.3}$			
AT-406(40)	354-0034-9 40					6±0.3	$6^{+0.5}_{-0.3}$	$6^{+0.7}_{-0.3}$			
AT-410(40)	354-0035-1 40					10±0.5	$10^{+0.8}_{-0.5}$	$10^{+1.0}_{-0.5}$			
AT-420(40)	354-0036-4 40					20±0.5	$20^{+0.8}_{-0.5}$	$20^{+1.2}_{-0.7}$			

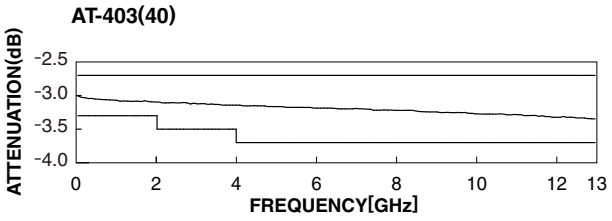
◆Typical data

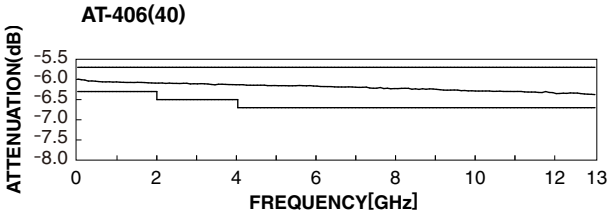
●Non-reflective Terminations

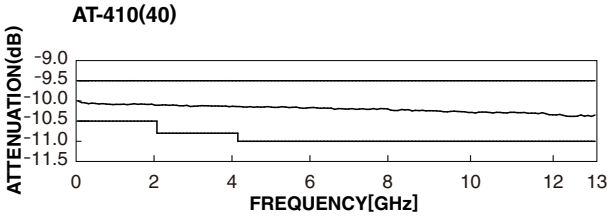


●Fixed Attenuator









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The characteristics and the specifications contained herein are for reference purpose. Please refer to the latest customer drawings prior to use.
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