

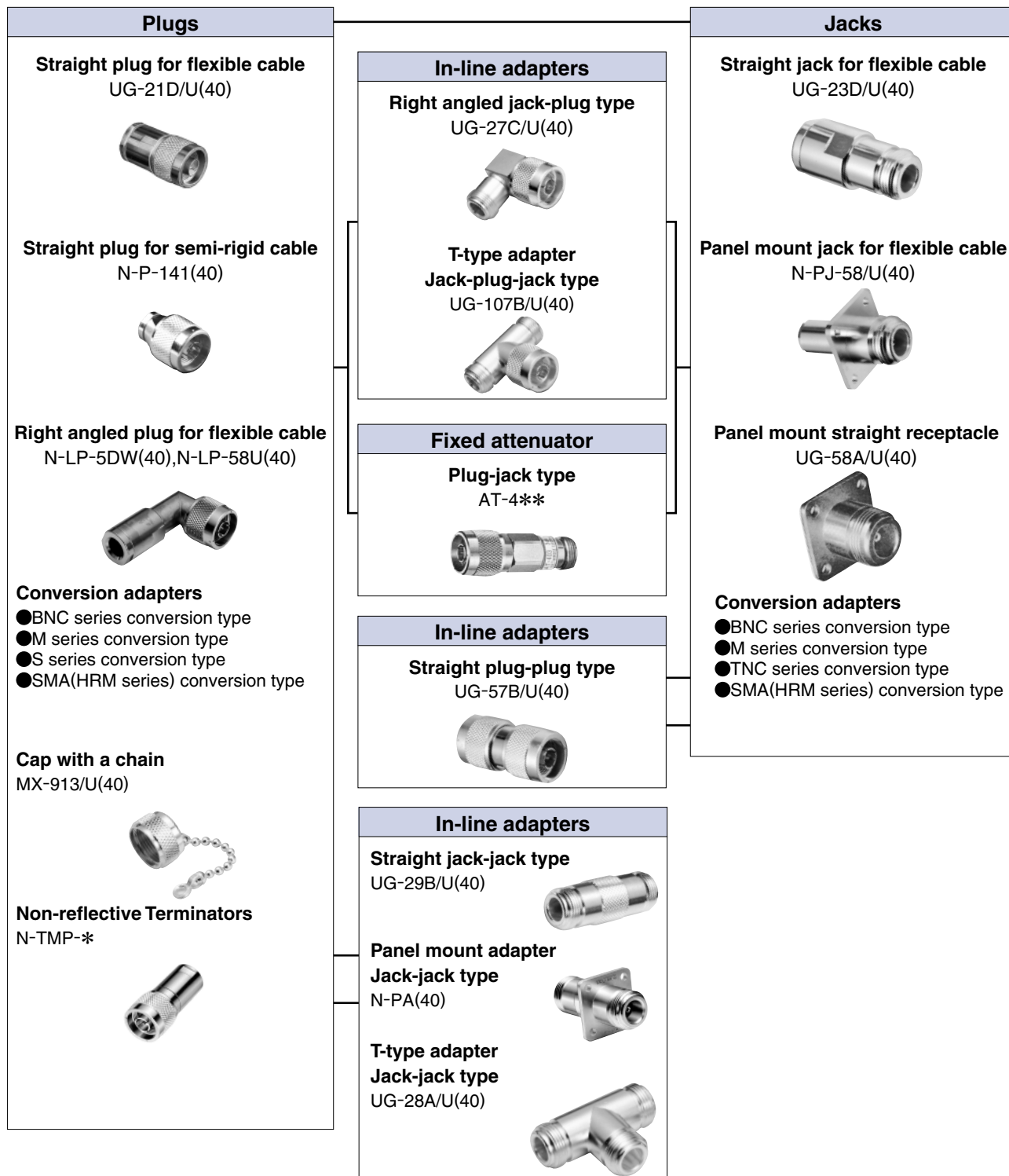
N type Coaxial Connectors

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



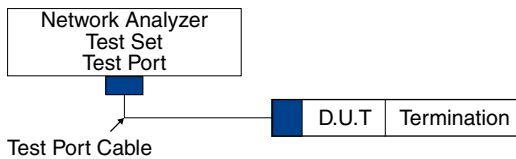
Product Specifications

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 1 μs min.	Frequency: 10 to 500 Hz, single amplitude of 0.75mm, acceleration of 98m/s ² , for 10 cycles in the direction of each of the 3 axis.
7. Shock	No damage, cracks or parts dislocation.	Acceleration of 490 m/s ² , 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°C 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

① ② ③ ④

① Series name : N	③ Connector type P : Plug J : Jack PJ : Panel jack R : Receptacle A : Adapter PA : Panel adapter
② Connector style Blank : Straight type L : L angle type T : T angle type	④ Applicable cable

●Product with MIL standard

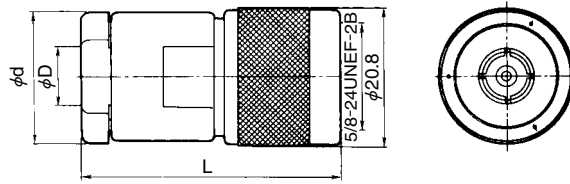
UG-21 D /U

① ② ③ ④

① High frequency coaxial connectors
② Product identification number
③ Improved sign

■ Straight Plug

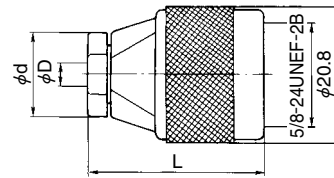
● Flexible cable type



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

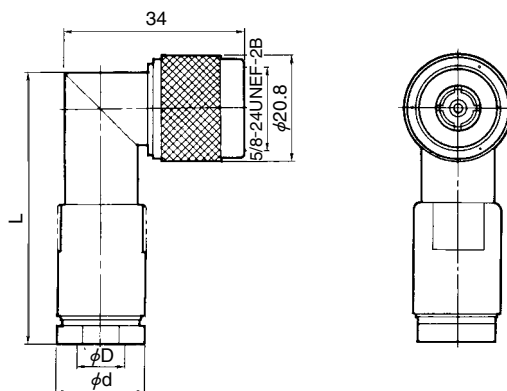


Unit : mm

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

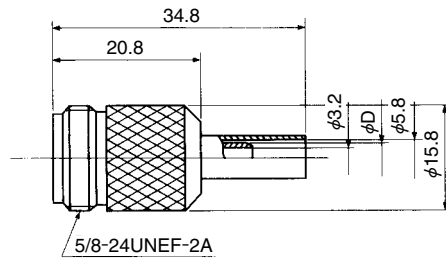


Unit : mm

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	

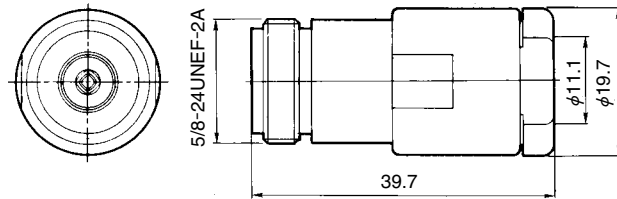
■Straight jack

●Flexible cable type



Unit : mm

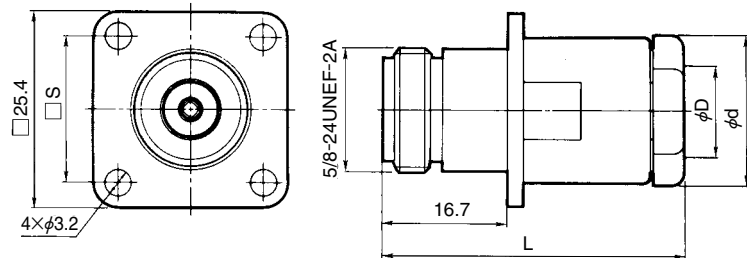
Part No.	HRS No.	Packaging	Applicable cable	φD
N-J-3DV(40)	301-0180-5 40	1	3D-2V	5.1



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

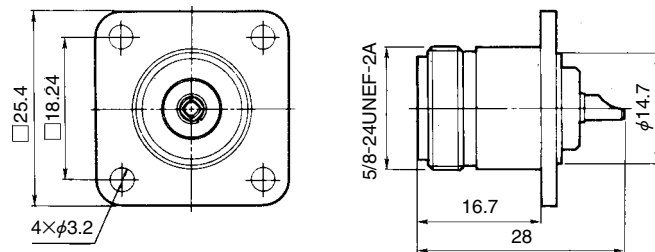
●Flexible cable type



Unit : mm

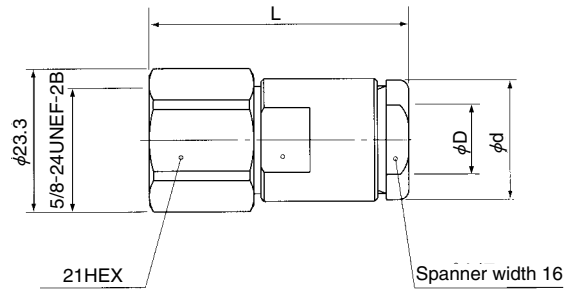
Part No.	HRS No.	Packaging	Applicable cable	φD	φd	L	□S
UG-22D/U(40)	301-0010-5 40	1	RG-8/U, RG-9/U	11.1	19.0	39.7	18.24
N-PJ-58/U(40)	301-0011-8 40		RG-58/U	5.4	14.6	41.5	18.2

■Receptacle



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

■ Straight plug(waterproof type)

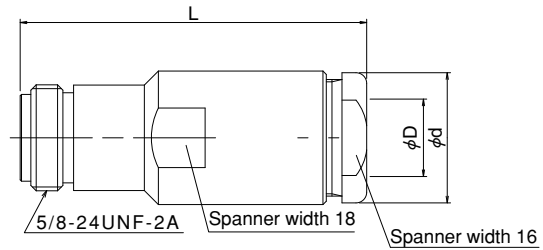


Unit : mm

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)



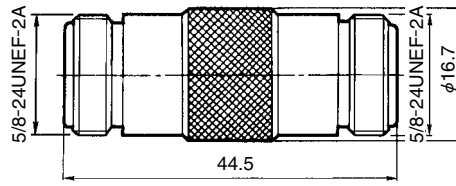
Unit : mm

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

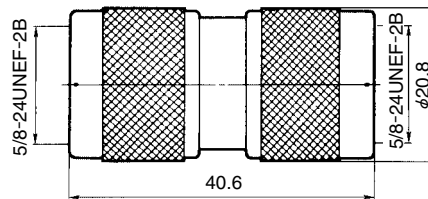
■Adapter

●Straight adapter (jack-jack type)



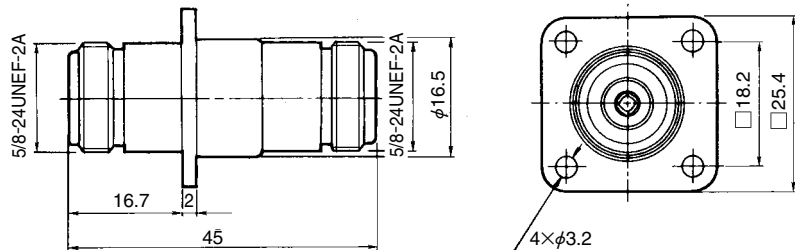
Part No.	HRS No.	Packaging
UG-29B/U(40)	301-0035-6 40	1

(Plug-plug type)



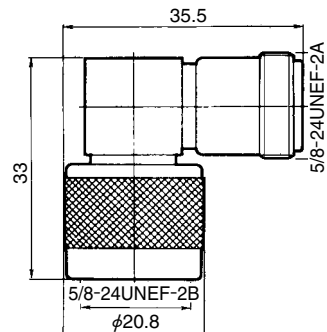
Part No.	HRS No.	Packaging
UG-57B/U(40)	301-0018-7 40	1

●Panel mount adaper (jack-jack type)



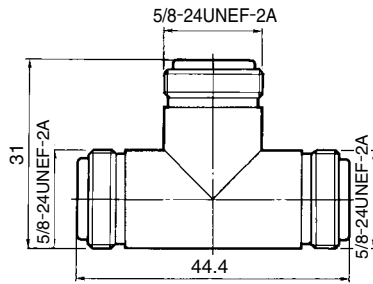
Part No.	HRS No.	Packaging
N-PA(40)	301-0036-9 40	1

●Right angle adapter (Plug-jack type)



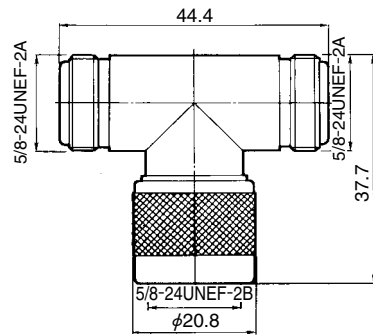
Part No.	HRS No.	Packaging
UG-27C/U(40)	301-0015-9 40	1

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



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

(Jack-plug-jack)

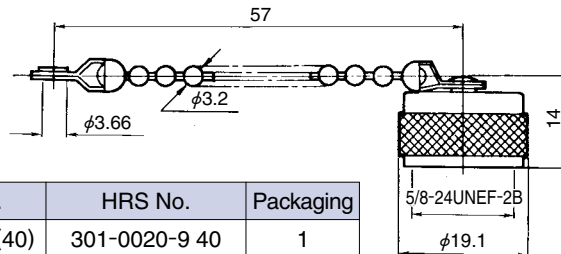


Part No.	HRS No.	Packaging
UG-107B/U(40)	301-0016-1 40	1

Conversion adapters

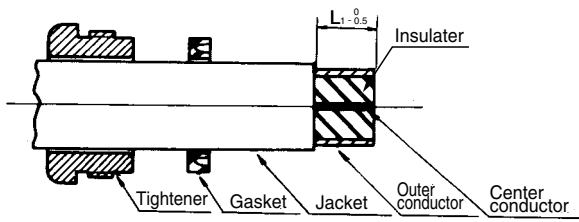
Mating portion 1		Mating portion 2		Part No.	HRS No.	Packaging
Series name	Mating portion	Series name	Mating portion			
N	Plug	BNC	Plug	NP-BNCP(40)	311-0050-7 40	1
			Jack	JUG-201A/U(40)	311-0007-8 40	
		M	Jack	NP-MJ(40)	311-0019-7 40	
			Jack	N.P-S.J(40)	311-0245-6 40	
		SMA (HRM)	Plug	HRM-555S(40)	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**

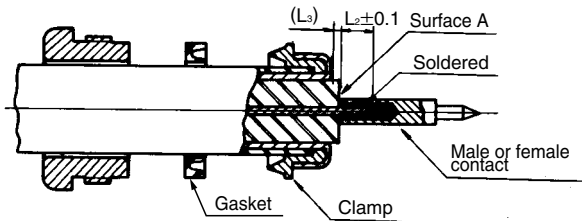


Part No.	HRS No.	Packaging
MX-913/U(40)	301-0020-9 40	1

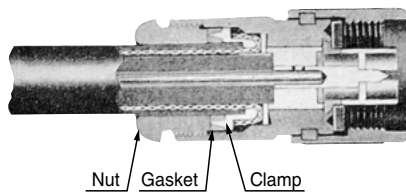
◆ Cable assembly procedure



The cable ends are processed as shown in the drawing. For the dimensions L_1 , refer to Table 1, which shows dimensions 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 outer 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 at 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

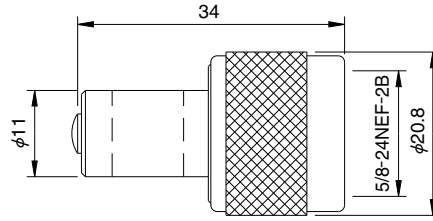
1. The cable dimensions L are based on the MIL and DSP standards. They may differ somewhat depending on the type of cable. In such cases, match the dimensions with the connectors.
2. Some clamps and gaskets does not have not V-shaped, but the assembling procedures are the same.

Table 1 Dimensions L arranged by part number

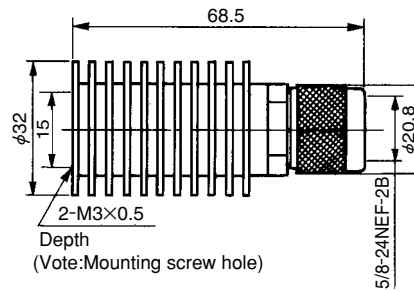
Unit : mm

Part No.	HRS No.	$L_{1-0.5}$	$L_{2+0.1}$	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)

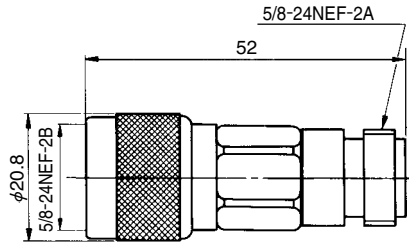


Part No.	HRS No.	Frequency range (GHz)	V.S.W.R.(Max)			Power (W)	Weight (g)	Packaging
			DC~4GHz	4~6GHz	6~8GHz			
N-TMP-1-1(50)	353-0137-5 50	DC~8	1.10	1.15	1.20	1	59	1



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

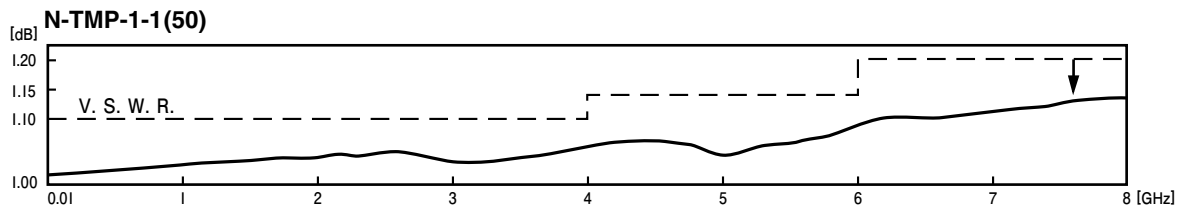
Fixed Attenuators(plug-jack)



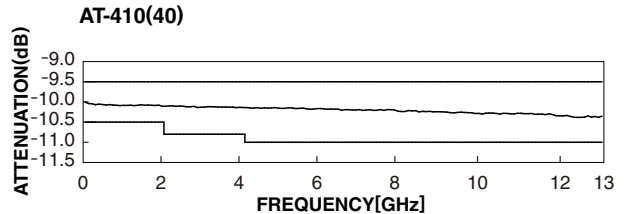
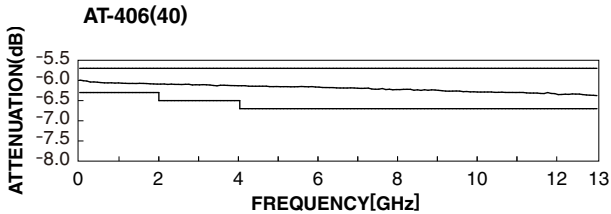
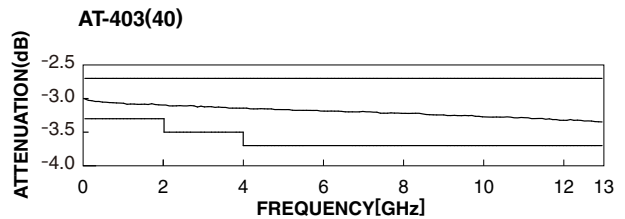
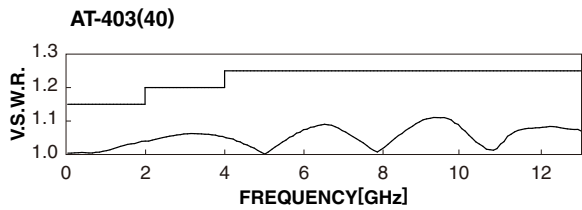
Part No.	HRS No.	Frequency range (GHz)	V.S.W.R.(Max)			Attenuation(dB)			Power (W)	Weight (g)	Packaging
			DC~2GHz	2~4GHz	4~13GHz	DC~2GHz	2~4GHz	4~13GHz			
AT-401(40)	354-0081-9 40	DC~13	1.15	1.20	1.25	1±0.3	1 ^{+0.5} _{-0.3}	1 ^{+0.6} _{-0.3}	2	77	1
AT-402(40)	354-0082-1 40					2±0.3	2 ^{+0.5} _{-0.3}	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



USA:

HIROSE ELECTRIC (U.S.A.), INC. HEADQUARTERS
 2688 Westhills Court, Simi Valley, CA 93065-6235
 Phone : +1-805-522-7958
 Fax : +1-805-522-3217
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. SAN JOSE OFFICE
 3255 Scott Boulevard, Building 7, Suite 101
 Santa Clara, CA 95054
 Phone : +1-408-253-9640
 Fax : +1-408-253-9641
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. CHICAGO OFFICE
 580 Waters Edge Lane, Suite 205 Lombard IL
 60148
 Phone : +1-630-282-6706
 Mail : inquiries@hirose.com
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. DETROIT OFFICE (AUTOMOTIVE)
 37677 Professional Center Drive, Suite #100C
 Livonia, MI 48154
 Phone : +1-734-542-9963
 Fax : +1-734-542-9964
<http://www.hirose.com/us/>

THE NETHERLANDS:

HIROSE ELECTRIC EUROPE B.V.
 Hogehillweg #8 1101 CC Amsterdam Z-0
 Phone : +31-20-6557460
 Fax : +31-20-6557469
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. GERMAN BRANCH
 Herzog-Carl-Strasse 4 D-73760 Ostfildern
 (Scharnhäuser Park)
 Phone : +49-711-4560-02-1
 Fax : +49-711-4560-02-299
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. NUERNBERG OFFICE
 Muggenhofer Str. 136 90429 Nuernberg
 Phone : +49-911 32 68 89 63
 Fax : +49-911 32 68 89 69
<http://www.hirose.com/eu/>

UNITED KINGDOM:

HIROSE ELECTRIC EUROPE BV (UK BRANCH)
 4 Newton Court, Kelvin Drive, Knowlhill,
 Milton Keynes, MK5 8NH
 Phone : +44-1908 202050
 Fax : +44-1908 202058
<http://www.hirose.com/eu/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO., LTD.
 1601, Henderson Metropolitan, NO.300, East Nanjing
 Road, Huangpu District, Shanghai, China 200001
 Phone : +86-21-6391-3355
 Fax : +86-21-6391-3335
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO.,LTD. BEIJING BRANCH
 A1001, Ocean International Center, Building 56# East 4th
 Ring Middle Road, ChaoYang District, Beijing, 100025
 Phone : +86-10-5165-9332
 Fax : +86-10-5908-1381
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC TECHNOLOGIES (SHENZHEN) CO., LTD.
 Room 09-13, 19/F, Office Tower Shun Hing Square, Di Wang Commercial Centre,
 5002 Shen Nan Dong Road, Shenzhen City, Guangdong Province, 518008
 Phone : +86-755-8207-0851
 Fax : +86-755-8207-0873
<http://www.hirose.com/cn/>

HONG KONG:

HIROSE ELECTRIC HONGKONG TRADING CO., LTD.
 Room 1001, West Wing, Tsim Sha Tsui Centre, 66
 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong
 Phone : +852-2803-5338
 Fax : +852-2591-6560
<http://www.hirose.com/hk/>

TAIWAN:

HIROSE ELECTRIC TAIWAN CO., LTD.
 103 8F, No.87, Zhengzhou Rd., Taipei
 Phone : +886-2-2555-7377
 Fax : +886-2-2555-7350
<http://www.hirose.com/cn/>

KOREA:

HIROSE KOREA CO., LTD.
 1261-10, Jeoungwhang-Dong, Shihung-City,
 Kyunggi-Do 429-450
 Phone : +82-31-496-7000,7124
 Fax : +82-31-496-7100
<http://www.hirose.co.kr/>

SINGAPORE:

HIROSE ELECTRIC SINGAPORE PTE. LTD.
 10 Anson Road #26-1, International Plaza
 079903, Singapore
 Phone : +65-6324-6113
 Fax : +65-6324-6123
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. DELHI LIAISON OFFICE
 Office NO.519, Regus-Green Boulevard, Level5, Tower C,
 Sec62, Plot B-9A, Block B, Noida, 201301, Uttar Pradesh, India
 Phone : +91-12-660-8018
 Fax : +91-120-4804949
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. BANGALORE LIAISON OFFICE
 Unit No.03, Ground Floor, Explorer Building International Tech
 Park Whitefield Road, Bangalore 560066 Karnataka, India
 Phone : +91-80-4120 1907
 Fax : +91-80-4120 9908
<http://www.hirose.com/sg/>

MALAYSIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. (REPRESENTATIVE OFFICE)
 1-10-07, Suntech @ Penang Cybercity (1164),Lintang
 Mayang Pasir 3,11950, Bayan Baru, Penang, Malaysia.
 Phone : +604-619-2564
 Fax : +604-619-2574
<http://www.hirose.com/sg/>



HIROSE ELECTRIC CO.,LTD.

2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
 TEL: +81-45-620-3526 Fax: +81-45-591-3726
<http://www.hirose.com>
<http://www.hirose-connectors.com>