VIAVI Solutions

PRODUCT CATALOG

VIAVI RF Adapters

VIAVI offers commonly-used RF and coaxial adapters for 50 Ohm applications that connect 2 different types of RF interfaces, from N to N, DIN, SMA, BNC, QMA, 4.1/9.5 Mini DIN and 4.3-10, and from 7/16 DIN to 7/16 DIN.

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Adapter Types

Selection Table

Adapter Types	Catalog Number	Connectors	Frequency Range
N to N	G700050575	N(f) to N(f)	DC to 18 GHz
	G700050580	N(m) to N(m)	DC to 11 GHz
	G710050575*	N(f) to N(f)	DC to 4 GHz
N to 7/16 DIN	G700050571	N(m) to DIN(f)	DC to 7.5 GHz
	G700050576	N(m) to DIN(m)	DC to 7.5 GHz
	G700050577	N(f) to DIN(f)	DC to 7.5 GHz
	G700050578	N(f) to DIN(m)	DC to 7.5 GHz
	G710050577*	N(f) to DIN(f)	DC to 4 GHz
	G710050578*	N(f) to DIN(m)	DC to 4 GHz
N to SMA	G700050573	N(m) to SMA(f)	DC to 18 GHz
	G700050587	N(f) to SMA(f)	DC to 18 GHz

* Not available in EU

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Adapter Types	Catalog Number	Connectors	Frequency Range
N to BNC	G700050574	N(m) to BNC(f)	DC to 4 GHz
N to QMA	G700050581	N(m) to QMA(f)	DC to 6 GHz
	G700050582	N(m) to QMA(m)	DC to 6 GHz
N to 4.1/9.5 Mini DIN	G700050583	N(m) to 4.1/9.5 Mini DIN(f)	DC to 6 GHz
	G700050584	N(m) to 4.1/9.5 Mini DIN(m)	DC to 6 GHz
N to 4.3-10	G700050585	N(m) to 4.3-10(f)	DC to 6 GHz
	G700050586	N(m) to 4.3-10(m)	DC to 6 GHz
7/16 DIN to 7/16 DIN	G700050572	DIN(m) to DIN(m)	DC to 7.5 GHz
	G700050579	DIN(f) to DIN(f)	DC to 7.5 GHz

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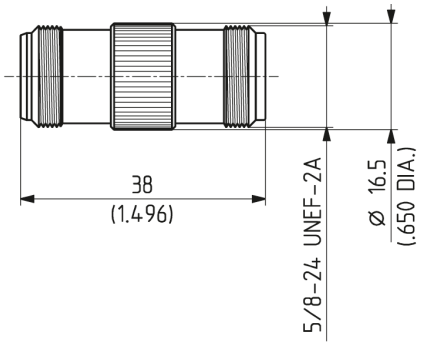
Specifications

N to N Adapters

G700050575



(mm)

Mechanical Data		
Connectors	N jack (female)	N jack (female)
Interface Material		
Center Contact:	Copper Beryllium Alloy	Copper Beryllium Alloy
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PTFE	PTFE
Coupling Nut:	–	–
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Sucopro Plating	Sucopro Plating
Outer Contact:	Sucoplate Plating	Sucoplate Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	–	–
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 18 GHz	
Return Loss	≥ 30 dB (DC to 2 GHz) ≥ 15 dB (2 to 8 GHz) ≥ 10 dB (8 to 12.4 GHz)	
VSWR	≤ 1.07 (DC to 2 GHz) ≤ 1.43 (2 to 8 GHz) ≤ 1.92 (8 to 12.4 GHz)	

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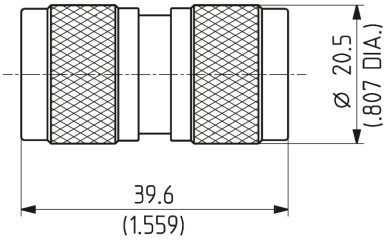
N to N Adapters

G700050580



(mm)

Mechanical Data		
Connectors	N plug (male)	N plug (male)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PTFE	–
Coupling Nut:	Brass	Brass
Gasket:	Silicone Rubber	Silicone Rubber
Interface Surface Plating		
Center Contact:	Gold Plating	Gold Plating
Outer Contact:	Sucoplate Plating	Sucoplate Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	Sucoplate Plating	Sucoplate Plating
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 11 GHz	
Return Loss	–	
VSWR	≤ 1.06 + 0.04 • f(GHz) (DC to 9 GHz) ≤ 1.40 (9 to 11 GHz)	

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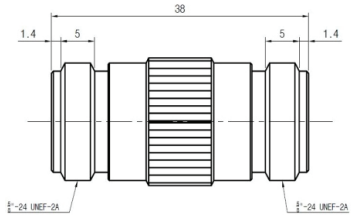
N to N Adapters

G710050575



(mm)

Mechanical Data		
Connectors	N jack (female)	N jack (female)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	–	–
Body:	Brass	Brass
Insulator:	PTFE	PTFE
Coupling Nut:	–	–
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Gold Plating	Gold Plating
Outer Contact:	–	–
Body:	Nickel Alloy Plating	Nickel Alloy Plating
Coupling Nut:	–	–
Environmental Data		
Temperature Range	-40 to 125°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 4 GHz	
Return Loss	–	
VSWR	≤ 1.1	

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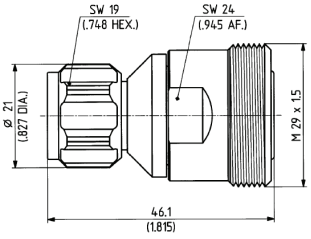
N to 7/16 DIN Adapters

G700050571



(mm)

Mechanical Data		
Connectors	N plug (male)	7/16 DIN jack (female)
Interface Material		
Center Contact:	Brass	Bronze
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	Brass	–
Gasket:	Silicone Rubber	–
Interface Surface Plating		
Center Contact:	Gold Plating	Sliver Plating
Outer Contact:	Sucoplate Plating	Silver Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	Sucoplate Plating	–
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 7.5 GHz	
Return Loss	–	
VSWR	≤ 1.03 + 0.02 • f(GHz)	

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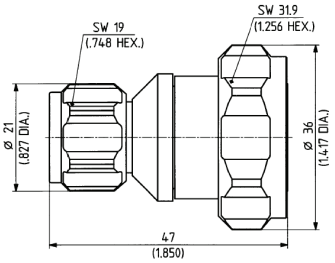
N to 7/16 DIN Adapters

G700050576



(mm)

Mechanical Data		
Connectors	N plug (male)	7/16 DIN plug (male)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PTFE	PFA/PTFE
Coupling Nut:	Brass	Brass
Gasket:	Silicone Rubber	Silicone Rubber
Interface Surface Plating		
Center Contact:	Gold Plating	Silver Plating
Outer Contact:	Sucoplate Plating	Silver Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	Sucoplate Plating	Sucoplate Plating
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 7.5 GHz	
Return Loss	–	
VSWR	≤ 1.03 + 0.02 • f(GHz)	

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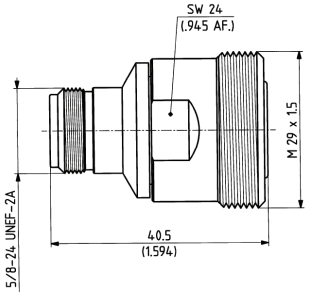
N to 7/16 DIN Adapters

G700050577



(mm)

Mechanical Data		
Connectors	N jack (female)	7/16 DIN jack (female)
Interface Material		
Center Contact:	Copper Beryllium Alloy	Bronze
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	–	–
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Gold Plating	Silver Plating
Outer Contact:	Sucoplate Plating	Sucoplate Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	–	–
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 7.5 GHz	
Return Loss	–	
VSWR	≤ 1.03 + 0.02 • f(GHz)	

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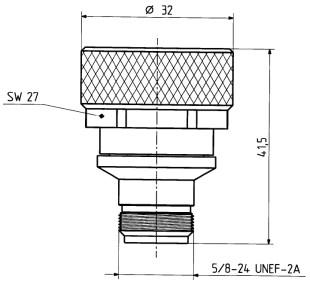
N to 7/16 DIN Adapters

G700050578



(mm)

Mechanical Data		
Connectors	N jack (female)	7/16 DIN plug (male)
Interface Material		
Center Contact:	Copper Nickel Alloy	Brass
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	–	Brass
Gasket:	–	Silicone Rubber
Interface Surface Plating		
Center Contact:	Gold Plating	Silver Plating
Outer Contact:	Sucoplate Plating	Silver Plating
Body:	Sucoplate Plating	Silver Plating
Coupling Nut:	–	Sucoplate Plating
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 7.5 GHz	
Return Loss	–	
VSWR	≤ 1.03 + 0.02 • f(GHz)	

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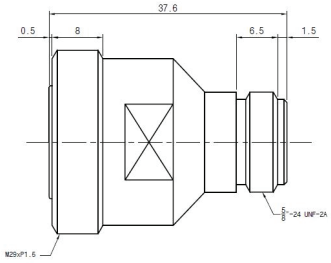
N to 7/16 DIN Adapters

G710050577



(mm)

Mechanical Data		
Connectors	7/16 DIN jack (female)	N jack (female)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	–	–
Body:	Brass	Brass
Insulator:	PTFE	PTFE
Coupling Nut:	–	–
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Gold Plating	Gold Plating
Outer Contact:	–	–
Body:	Ternary Alloy	Ternary Alloy
Coupling Nut:	–	–
Environmental Data		
Temperature Range	-55 to 135°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 4 GHz	
Return Loss	–	
VSWR	≤ 1.05	

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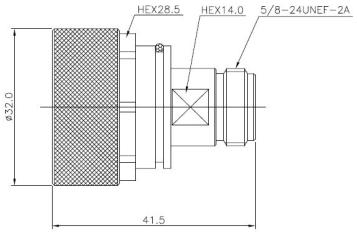
N to 7/16 DIN Adapters

G710050578



(mm)

Mechanical Data		
Connectors	7/16 DIN plug (male)	N jack (female)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	–	–
Body:	Brass	Brass
Insulator:	PTFE	PTFE
Coupling Nut:	–	–
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Gold Plating	Gold Plating
Outer Contact:	–	–
Body:	Ternary Alloy	Ternary Alloy
Coupling Nut:	–	–
Environmental Data		
Temperature Range	-55 to 135°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 4 GHz	
Return Loss	–	
VSWR	≤ 1.05	

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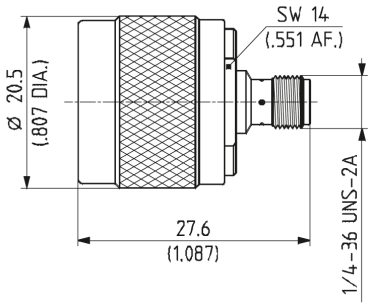
N to SMA Adapter

G700050573



mm)

Mechanical Data		
Connectors	N plug (male)	SMA jack (female)
Interface Material		
Center Contact:	Copper Beryllium Alloy	Copper Beryllium Alloy
Outer Contact:	Copper Beryllium Alloy	Copper Beryllium Alloy
Body:	Brass	Copper Beryllium Alloy
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	Brass	–
Gasket:	Silicone Rubber	–
Interface Surface Plating		
Center Contact:	Hard Au min. 1.3 µm	Gold Plating
Outer Contact:	Hard Au min. 0.8 µm	Gold Plating
Body:	Sucoplate min. 0.5 µm over Ag min. 2 µm	Gold Plating
Coupling Nut:	Sucoplate min. 2 µm	–
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 18 GHz	
Return Loss	–	
VSWR	≤ 1.05 + 0.015 • f(GHz) (DC to 12.4 GHz)	

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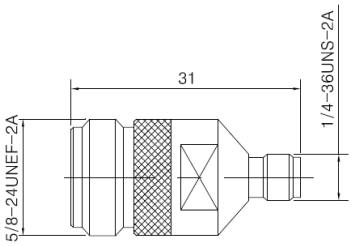
Type N to SMA Adapter

G700050587



(mm)

Mechanical Data		
Connectors	Type N jack (female)	SMA jack (female)
Interface Material		
Center Contact:	Beryllium Copper	Beryllium Copper
Body:	Brass	Brass
Interface Surface Plating		
Center Contact:	Gold Plating	Gold Plating
Body:	Metal Plating	Metal Plating
Environmental Data		
Temperature Range	-45 to 120°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 18 GHz	
Return Loss	-20 dB	
VSWR	1.22:1 min.	

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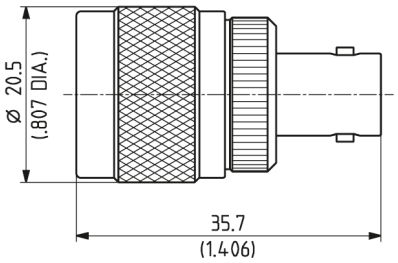
N to BNC Adapter

G700050574



(mm)

Mechanical Data		
Connectors	N plug (male)	BNC jack (female)
Interface Material		
Center Contact:	Copper Beryllium Alloy	Copper Beryllium Alloy
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	Brass	–
Gasket:	Silicone Rubber	–
Interface Surface Plating		
Center Contact:	Gold Plating	Gold Plating
Outer Contact:	Sucoplate Plating	Sucoplate Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	Sucoplate Plating	–
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 4 GHz	
Return Loss	≥ 20 dB	
VSWR	≤ 1.22	

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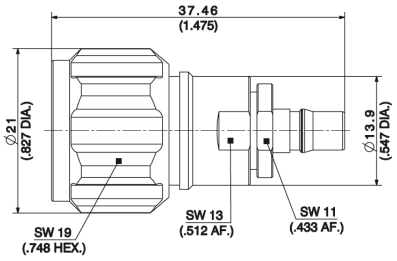
N to QMA Adapters

G700050581



mm)

Mechanical Data		
Connectors	N plug (male)	QMA jack (female)
Interface Material		
Center Contact:	Copper Beryllium Alloy	Copper Beryllium Alloy
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	Brass	–
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Gold Plating	Sucopro Plating
Outer Contact:	Sucoplate Plating	Sucoplate Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	Sucoplate Plating	–
Environmental Data		
Temperature Range	-40 to 85°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 6 GHz	
Return Loss	≥ 34 dB	
VSWR	≤ 1.04	

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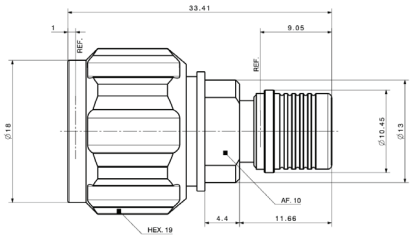
N to QMA Adapters

G700050582



(mm)

Mechanical Data		
Connectors	N plug (male)	QMA plug (male)
Interface Material		
Center Contact:	Copper Beryllium Alloy	Copper Beryllium Alloy
Outer Contact:	Brass	Bronze
Body:	Brass	Brass
Insulator:	PTFE	PTFE
Coupling Nut:	Brass	–
Gasket:	Silicone Rubber	–
Interface Surface Plating		
Center Contact:	Sucopro Plating	Sucopro Plating
Outer Contact:	Sucoplate Plating	Sucoplate Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	Sucoplate Plating	–
Environmental Data		
Temperature Range	-40 to 85°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 6 GHz	
Return Loss	–	
VSWR	≤ 1.04	

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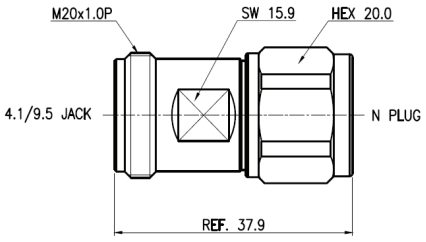
N to 4.1/9.5 Mini DIN Adapters

G700050583



(mm)

Mechanical Data		
Connectors	4.1/9.5 jack (female)	N plug (male)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	–	–
Body:	Brass	Brass
Insulator:	PTFE	PTFE
Coupling Nut:	Brass	Brass
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Silver Plating	Silver Plating
Outer Contact:	–	–
Body:	Tri-alloy Plating	Tri-alloy Plating
Coupling Nut:	Tri-alloy Plating	Tri-alloy Plating
Environmental Data		
Temperature Range	-45 to 125°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 6 GHz	
Return Loss	–	
VSWR	≤ 1.10 at 3 GHz ≤ 1.15 at 4 GHz ≤ 1.20 at 6 GHz	

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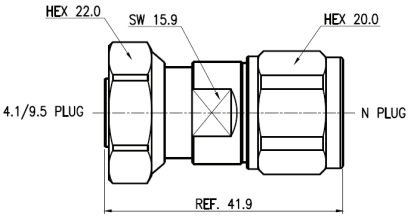
N to 4.1/9.5 Mini DIN Adapters

G700050584



(mm)

Mechanical Data		
Connectors	4.1/9.5 plug (male)	N plug (male)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	–	–
Body:	Brass	Brass
Insulator:	PTFE	PTFE
Coupling Nut:	Brass	Brass
Gasket:	–	
Interface Surface Plating		
Center Contact:	Silver Plating	Silver Plating
Outer Contact:	–	–
Body:	Tri-alloy Plating	Tri-alloy Plating
Coupling Nut:	Tri-alloy Plating	Tri-alloy Plating
Environmental Data		
Temperature Range	-45 to 125°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 6 GHz	
Return Loss	–	
VSWR	≤ 1.10 at 3 GHz ≤ 1.15 at 4 GHz ≤ 1.20 at 6 GHz	

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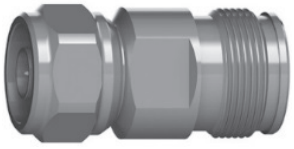
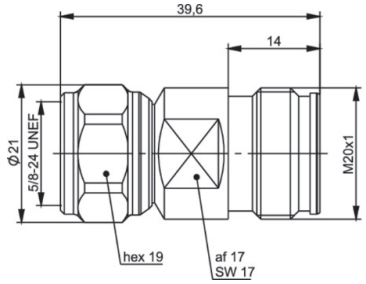
N to 4.3-10 Adapters

G700050585





(mm)

Mechanical Data		
Connectors	N plug (male)	4.3-10 jack (female)
Interface Material		
Center Contact:	Copper Alloy	Copper Alloy
Outer Contact:	Copper Alloy	Copper Alloy
Body:	Copper Alloy	Copper Alloy
Insulator:	PTFE	PTFE
Coupling Nut:	–	–
Gasket:	Silicone	Silicone
Interface Surface Plating		
Center Contact:	Silver Plating	Silver Plating
Outer Contact:	CuSnZn	CuSnZn
Body:	Nickel Plating	Nickel Plating
Coupling Nut:	–	–
Environmental Data		
Temperature Range	–	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 6 GHz	
Return Loss	≥ 40 dB at 1 GHz ≥ 35 dB at 4 GHz ≥ 28 dB at 6 GHz	
VSWR	–	

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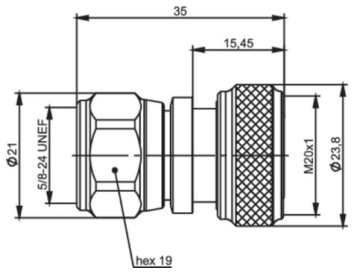
N to 4.3-10 Adapters

G700050586



(mm)

Mechanical Data		
Connectors	N plug (male)	4.3-10 plug (male)
Interface Material		
Center Contact:	Copper Alloy	Copper Alloy
Outer Contact:	Copper Alloy	Copper Alloy
Body:	Copper Alloy	Copper Alloy
Insulator:	PTFE	PTFE
Coupling Nut:	–	–
Gasket:	Silicone	Silicone
Interface Surface Plating		
Center Contact:	Silver Plating	Silver Plating
Outer Contact:	CuSnZn	CuSnZn
Body:	Nickel Plating	Nickel Plating
Coupling Nut:	–	–
Environmental Data		
Temperature Range	–	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 6 GHz	
Return Loss	≥ 40 dB at 1 GHz ≥ 35 dB at 4 GHz ≥ 28 dB at 6 GHz	
VSWR	–	

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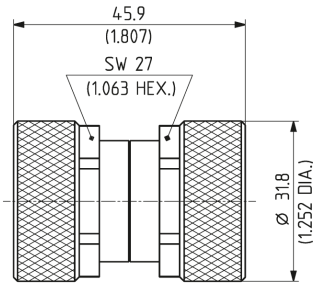
7/16 DIN to 7/16 DIN Adapters

G700050572



(mm)

Mechanical Data		
Connectors	7/16 DIN plug (male)	7/16 DIN plug (male)
Interface Material		
Center Contact:	Brass	Brass
Outer Contact:	Brass	Brass
Body:	Brass	Brass
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	Brass	Brass
Gasket:	Silicone Rubber	Silicone Rubber
Interface Surface Plating		
Center Contact:	Silver Plating	Silver Plating
Outer Contact:	Silver Plating	Silver Plating
Body:	Silver Plating	Silver Plating
Coupling Nut:	Sucoplate Plating	Sucoplate Plating
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 7.5 GHz	
Return Loss	≥ 40 dB (DC to 2 GHz) ≥ 36 dB (2 to 4 GHz) ≥ 34 dB (4 to 6 GHz)	
VSWR	≤ 1.02 (DC to 2 GHz) ≤ 1.03 (2 to 4 GHz) ≤ 1.04 (4 to 6 GHz)	

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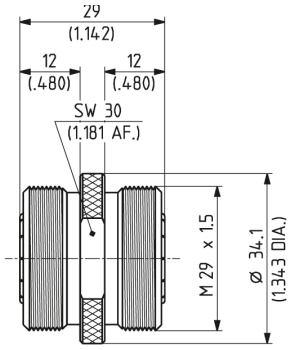
7/16 DIN to 7/16 DIN Adapters

G700050579



(mm)

Mechanical Data		
Connectors	7/16 DIN jack (female)	7/16 DIN jack (female)
Interface Material		
Center Contact:	Bronze	Bronze
Outer Contact:	Bronze	Bronze
Body:	Brass	Brass
Insulator:	PFA/PTFE	PFA/PTFE
Coupling Nut:	–	–
Gasket:	–	–
Interface Surface Plating		
Center Contact:	Silver Plating	Silver Plating
Outer Contact:	Silver Plating	Silver Plating
Body:	Sucoplate Plating	Sucoplate Plating
Coupling Nut:	–	–
Environmental Data		
Temperature Range	-65 to 165°C	
Electrical Data		
Impedance	50 Ω	
Frequency	DC to 7.5 GHz	
Return Loss	–	
VSWR	≤ 1.03 (DC to 3 GHz) ≤ 1.03 + 0.01 • f(GHz) (3 to 7.5 GHz)	

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