

SERIES HPQN CONNECTORS

DESCRIPTION

Designed by James Qu at Anoisn in 2006, the HPQN is a quick locking version of the widely used type N connector. By replacing the threaded interface of the original N with a snap-on coupling mechanism, the HPQN series is able to provide 10x faster mating, denser packaging and greater flexibility since the connector may be rotated 360° while in the mated position.

This was achieved without impairing electronic performance up to 11 GHz. by designing the locking mechanism around the industry standard geometry of threaded N connectors. The resulting high performance, in addition to the increased speed and convenience, makes the HPQN ideal for a wide range of applications. Additionally, when the HPQN is used with semi-rigid cable, conformable cable, test adaptors or high frequency terminations, it may be utilized in applications up to 18 GHz.

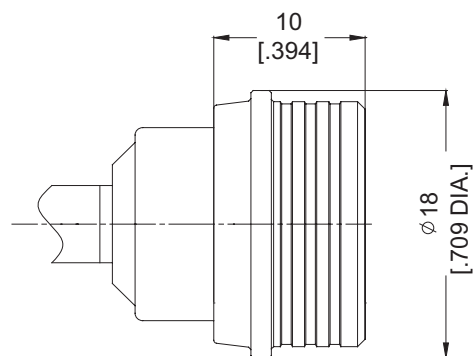


CONTENT

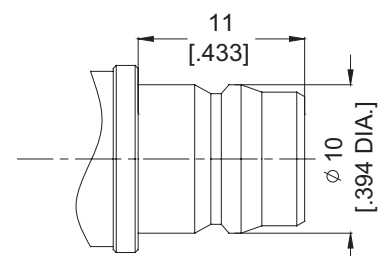
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INTERFACE DIMENSIONS

Plug (male)



Jack (female)



CHARACTERISTICS

ELECTRICAL	REQUIREMENTS
Impedance	50 Ω
Frequency range	DC to 18 GHz
Dielectric Withstanding Voltage	2500 V rms 50 Hz, sea level
Working Voltage	$\leq 1,000$ V rms 50 Hz, sea level
VSWR	Straight connector, .141": ≤ 1.28 (DC~18 GHz) Straight connector, RG316: ≤ 1.24 (DC~6 GHz) Right angle connector, .141": ≤ 1.45 (DC~18 GHz) Right angle connector, RG316: ≤ 1.32 (DC~6 GHz)
Insulation Resistance	5×10^3 M Ohms min.(initial)
Power Handling	300 W @ 2.5 GHz typical
Contact Resistance	
- Center contact	1.5 m Ω max.
- Outer contact	1.5 m Ω max.
Passive Intermodulation	-155 dBc @ 1.8 GHz 2x20 W static
RF-leakage	
DC to 3 GHz	-90 dB min.
3 GHz to 6 GHz	-75 dB min.

MECHANICAL	REQUIREMENTS
Mating Characteristics	
- Engagement Force	35 N typical
- Disengagement Force	45 N typical
Interface Retention Force	≥ 200 N (standard) ≥ 450 N (special application)
Durability (Mating Cycles)	200 min.

ENVIRONMENTAL	REQUIREMENTS
Temperature Range	-40°C to +125°C
Climactic Category	40/125/21 (IEC 60169_1 16.2)
Rapid Temperature Change	IEC 60169-1 16.4 (-40°C to +125°C)
Corrosion	Salt spray test per MIL-STD-202 F, Method 101 D, Condition B
Moisture Resistance	MIL-STD-202 F, Method 106 F
Vibration	IEC-1169-1 Paragraph9.3.3(10-500 Hz;5g)
Dust & Moisture protection	IEC 60529
IP Rating interface	IP 68

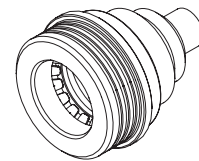
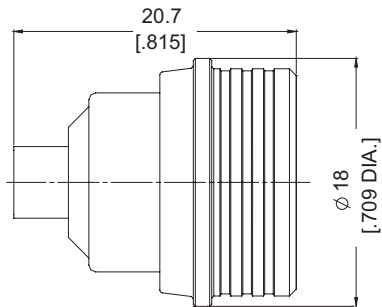
Note: The above characteristics are typical but may not apply to all connectors.

CABLE CONNECTORS

Straight Cable Plugs (male)

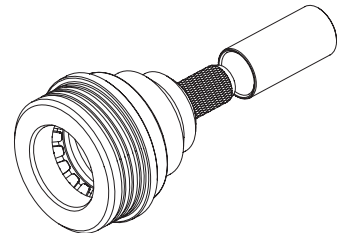
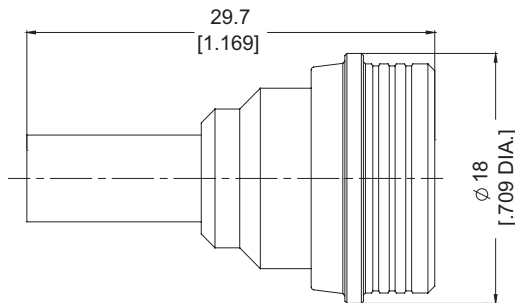
> for semi-rigid cables

Part No.	Description
ANO 5311-2010	HPQN straight plug solder for semi-rigid.141/RG402



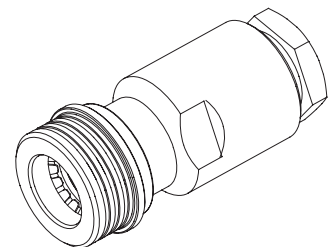
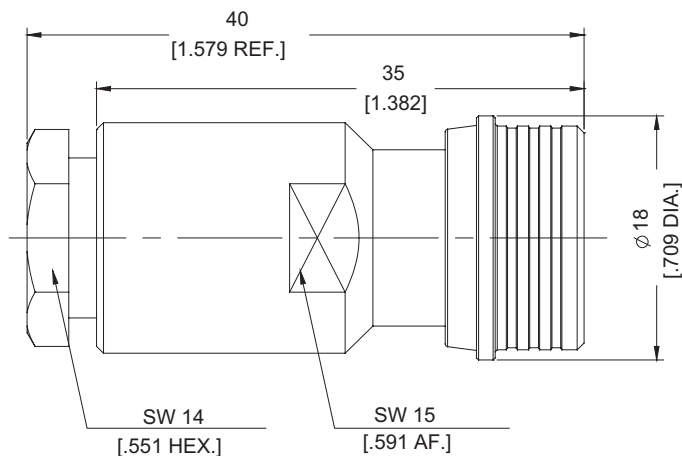
> for flexible cables

Part No.	Description
ANO 5311-2008	HPQN straight plug crimp for RG58/LMR195



> for flexible cables

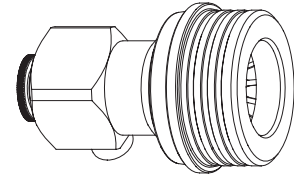
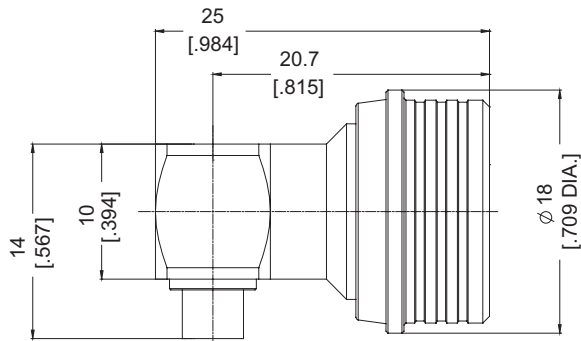
Part No.	Description
ANO 5311-2009	HPQN Straight plug clamp for LMR300



Right Angle Cable Plugs (male)

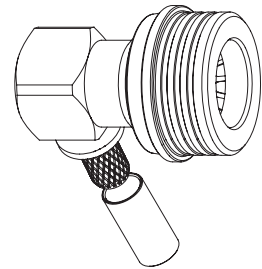
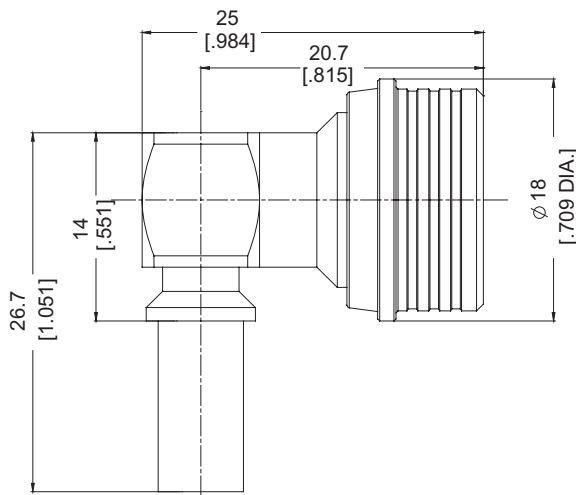
> for semi-rigid cables

Part No.	Description
ANO 5321-2011	HPQN right angle plug solder for semi-rigid.141/RG402



> for flexible cables

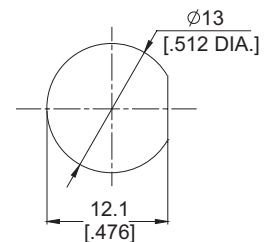
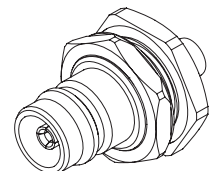
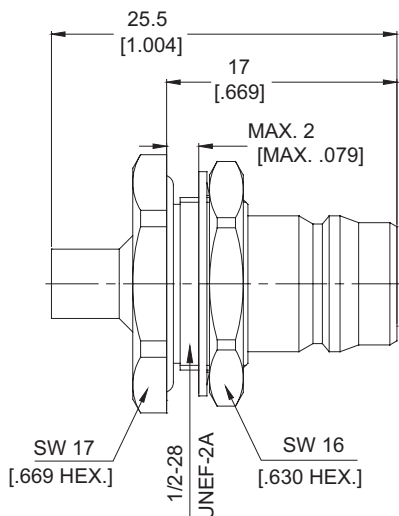
Part No.	Description
ANO 5321-2003	HPQN right angle plug crimp for RG58/LMR195



Straight Bulkhead Cable Jacks (female)

> for semi-rigid cables

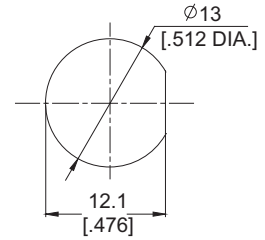
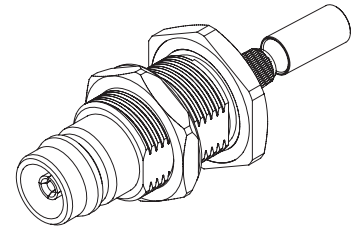
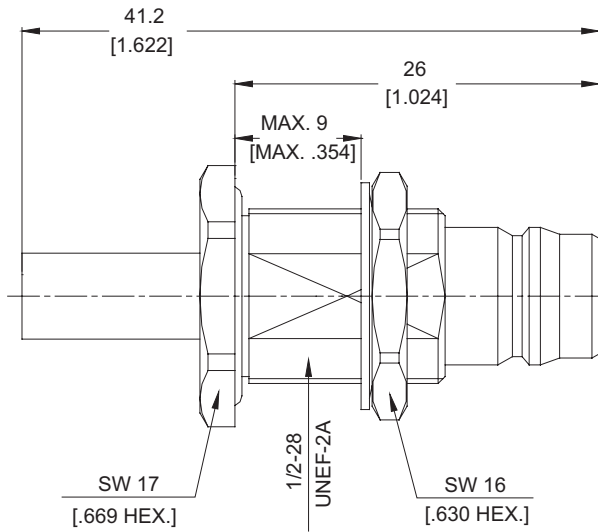
Part No.	Description
ANO 5312-1004	HPQN straight jack bulkhead solder for semi-rigid.141/RG402



Mounting Dimensions

> for flexible cables

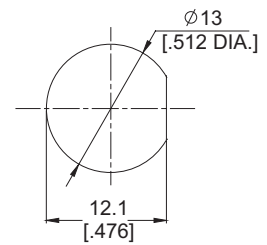
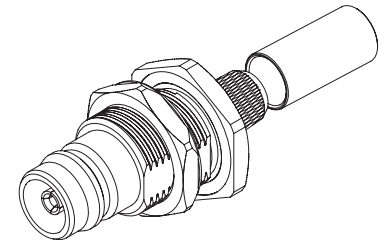
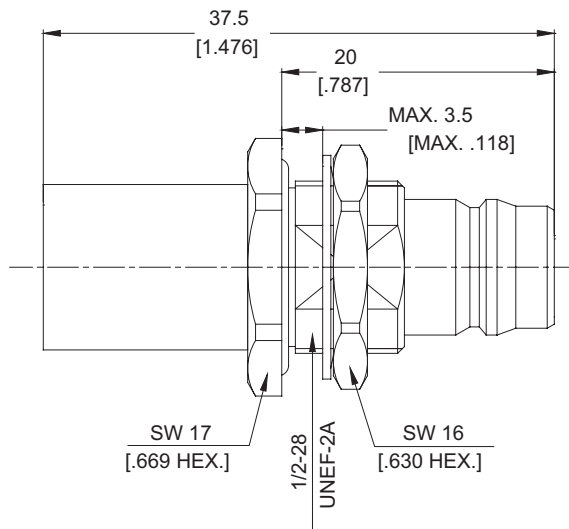
Part No.	Description
ANO 5312-2006	HPQN straight jack bulkhead crimp for RG58/LMR195



Mounting Dimensions

> for flexible cables

Part No.	Description
ANO 5312-2007	HPQN straight jack bulkhead crimp for RG400/RG142

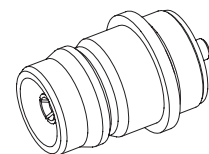
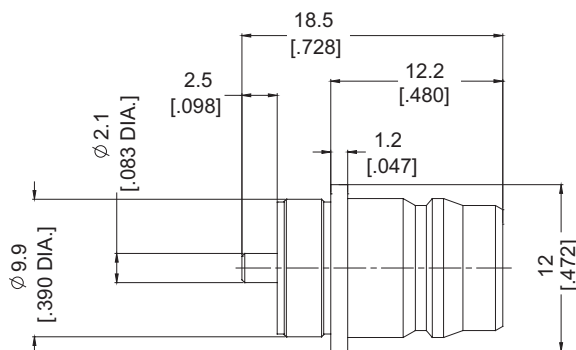


Mounting Dimensions

PANEL RECEPTACLES

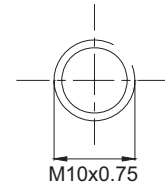
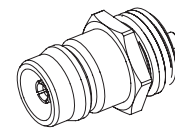
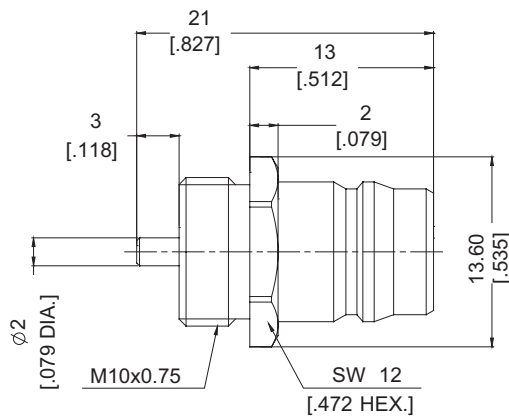
> Panel mount, receptacles

Part No.	Description
ANO 5312-5001	HPQN straight jack press-in chassis mount



> Panel mount, receptacles

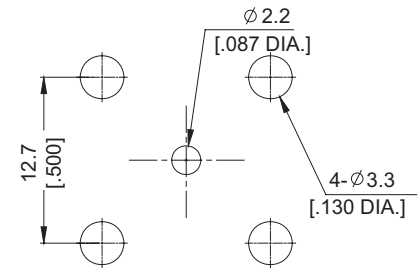
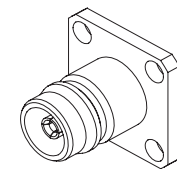
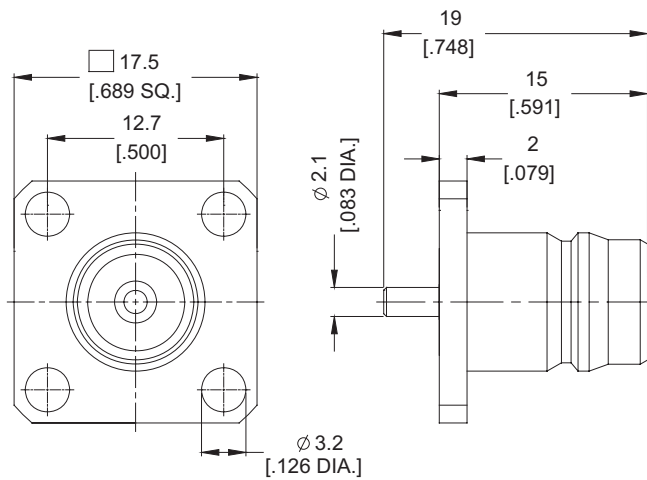
Part No.	Description
ANO 5312-5002	HPQN straight jack screw panel mounted



Mounting Dimensions

> Panel mount, receptacles

Part No.	Description
ANO 5312-3012	HPQN jack receptacle, 4 hole square flange

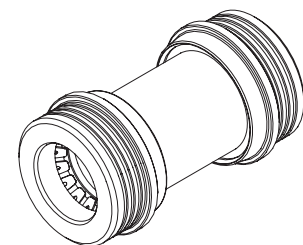
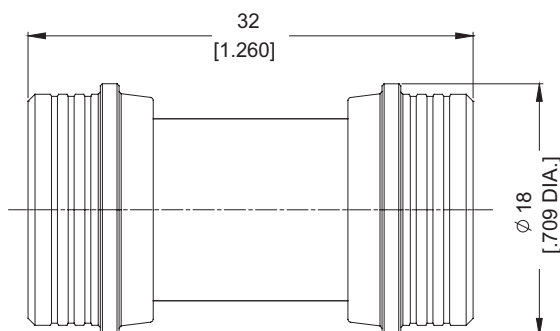


Mounting Dimensions

IN SERIES ADAPTER

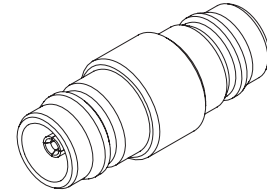
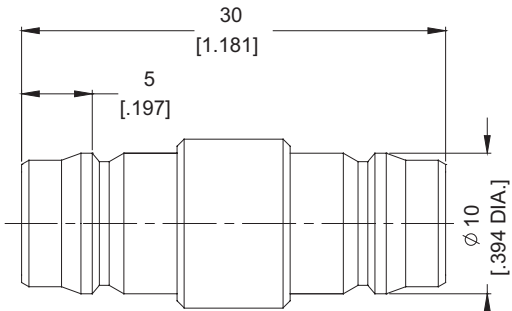
> HPQN / HPQN

Part No.	Description
ANO 531-531-1037	HPQN male to HPQN male



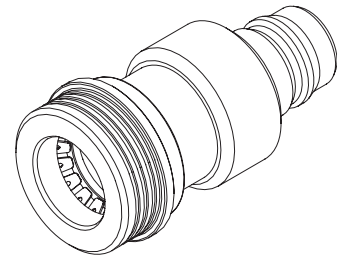
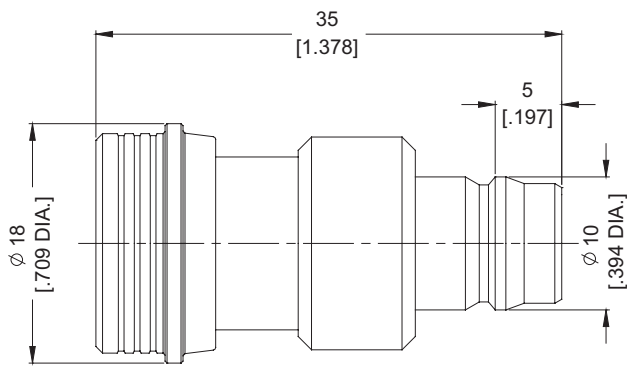
> HPQN / HPQN

Part No.	Description
ANO 532-532-1038	HPQN female to HPQN female



> HPQN / HPQN

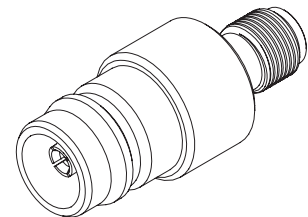
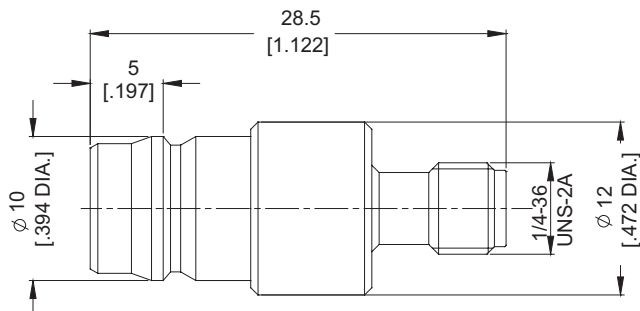
Part No.	Description
ANO 531-532-1039	HPQN male to HPQN female



BETWEEN SERIES ADAPTERS

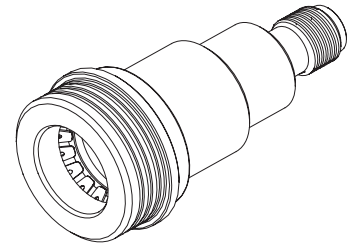
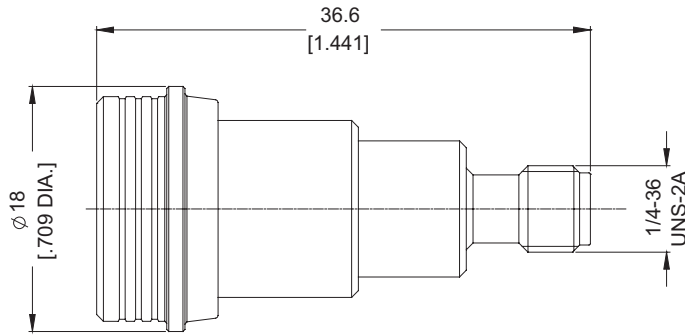
> HPQN / SMA

Part No.	Description
ANO 532-212-1041	HPQN female to SMA female



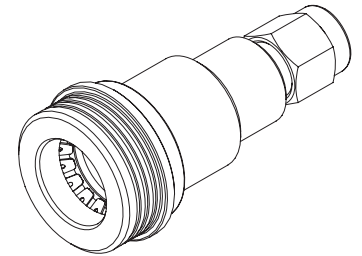
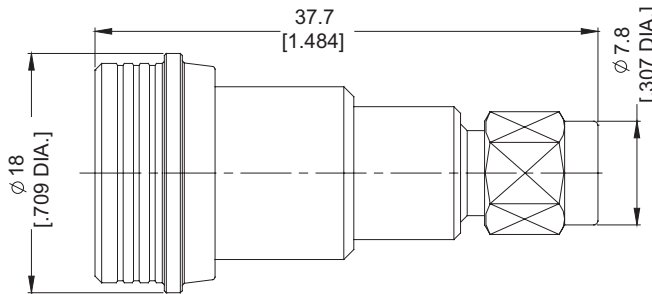
> HPQN / SMA

Part No.	Description
ANO 53I-212-1042	HPQN male to SMA female



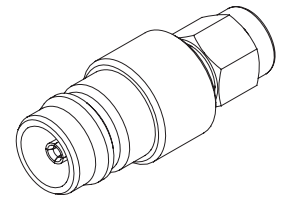
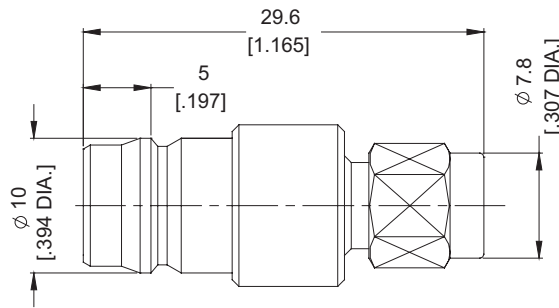
> HPQN / SMA

Part No.	Description
ANO 531-211-1040	HPQN male to SMA male



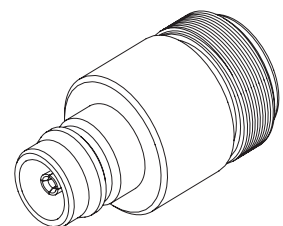
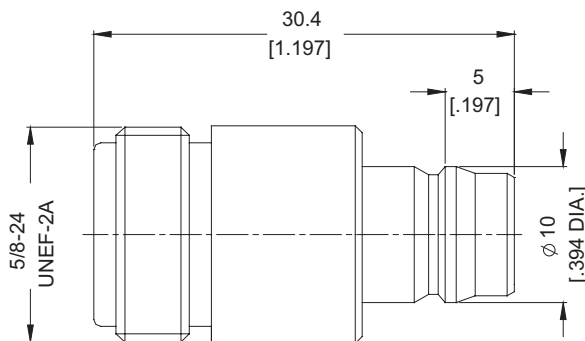
> HPQN / SMA

Part No.	Description
ANO 532-211-1043	HPQN female to SMA male



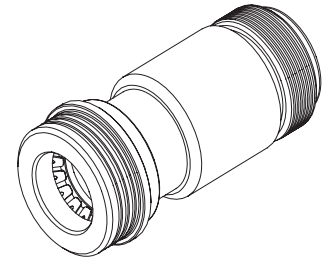
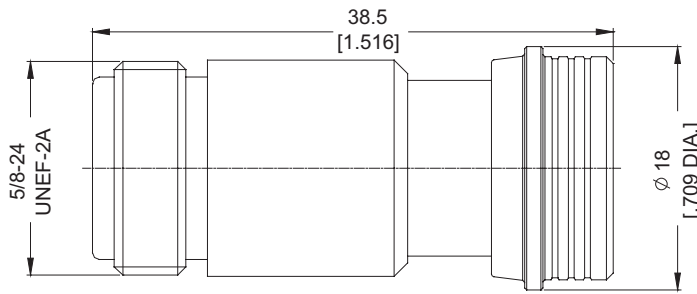
> HPQN / N

Part No.	Description
ANO 532-512-1045	HPQN female to N female



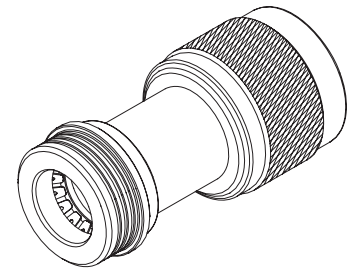
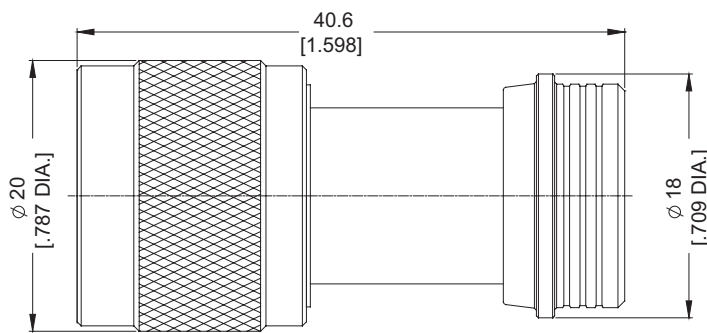
> HPQN / N

Part No.	Description
ANO 531-512-1046	HPQN male to N female



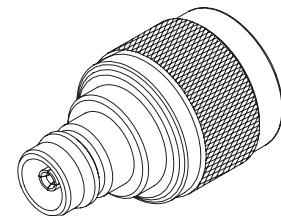
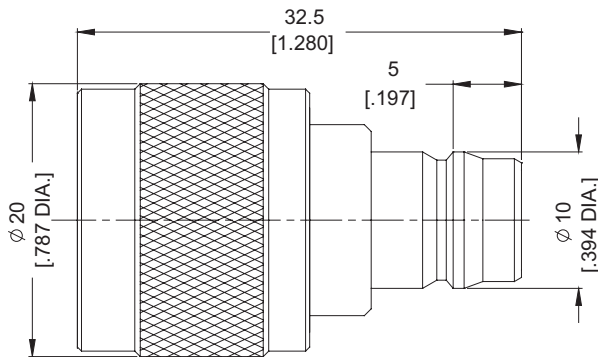
> HPQN / N

Part No.	Description
ANO 531-511-1044	HPQN male to N male



> HPQN / N

Part No.	Description
ANO 532-511-1047	HPQN female to N male



TERMINATION

> Low power 1 to 2W CW, 100W peak

Part No.	Description
ANO 531-701	RF Termination, HPQN Male, 1W, 0-6GHz

