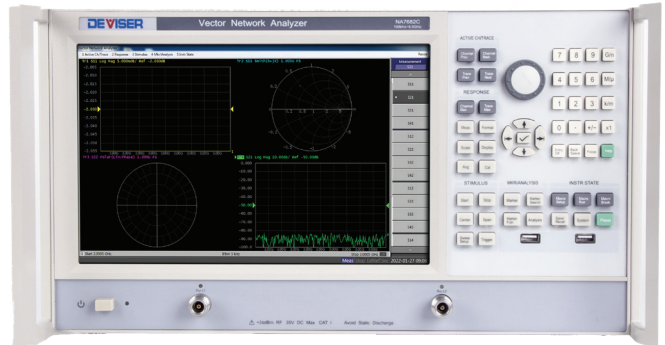


NA76xxC Series Vector Network Analyzer

Main Features

- 12.1" 1280x800 TFT touchscreen
- Wide frequency range: 100kHz to 8.5 GHz
- High dynamic range: 128dB (Typical)
- Very low noise floor: <0.005dB rms (at 3kHz IFBW)
- Fast measurement speed: 50 μ sec/point
- Accurate error correction and calibration function
- Connect with other systems via USB, LAN, and GPIB ports
- Software-enabled updates and measurement options available without the need to return to the factory or a factory authorized service center
- Intelligent assembly line structure enables automated factory production testing



Overview

Launched by Deviser Instruments Inc, the newly redesigned NA76xx Vector Network Analyzer (VNA) Series replicates most of the previously available applications which were already based on customer feedback. The new generation of VNA incorporates years of additional customer comments and allowed Deviser Instruments to fine tune the frontpanel layout, additional features such as 2 ports, along with an extended product line up providing customers with more choices .

The new VNA line up offers additional models with frequency ranges spanning from 100kHz to 3.0 GHz, 3.5 GHz, 6.0 GHz, and 8.5 GHz suitable for wireless communications, radio and television, automotive electronics, semiconductors, medical devices Parts and other RF related industries. R & D and production components applications, consumer products, industry, scientific research and education, military and other fields, provide high efficiency and testing means flexibility.

With the introduction, deployment and commercialization of 5G communications, the NA76xx series VNA allows you to target key 5G communication hardware devices such as; filters, amplifiers, isolators, NR5G antennas, feeders, etc., allowing for fast and efficient functions performance testing. For example; testing filters in 5G communications, the NA76xx VNA provides an efficient and wide dynamic range filters from three dimension: up to 128dB wide dynamic range test ability, unmatched measurement speed and accurate error correction/calibration function ensuring optimum test accuracy. Using a combined test profile, the NA76xx VNA can perform limit, ripple and bandwidth tests quickly, efficiently and accurately, reducing overall cost of testing.

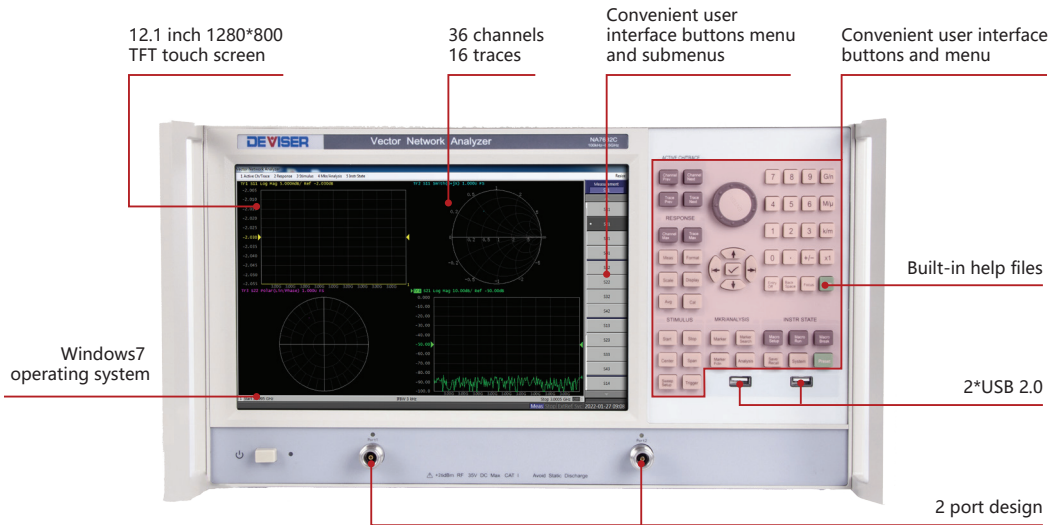
Practicality on site

The NA76xx Series VNA features a large high resolution 12.1", 1280*800 LCD color touchscreen optimized for ease of use. Multi-window functionality allows users to work with dialog boxes, measurement channels, and traces on the same screen. The user can drag-and-drop components with the touch screen or mouse, and rename measurement channels and traces for easy analysis.

Instantly recall saved instrument settings with the NA76xx Series' multiple configuration profiles. Customize and save your settings to a memory profile, then simply recall the saved profile at a later date for a quick setup prior to making measurements, or use those profiles for an automated testing sequence, saving valuable on-site testing time and reducing OPEX.

Model Guide

Model	Frequency	Impedance	Number of ports
NA7632C	100kHz to 3GHz	50 Ω	2-ports
NA7635B	100kHz to 3.5GHz	75 Ω	2-ports
NA7662C	100kHz to 6GHz	50 Ω	2-ports
NA7682C	100kHz to 8.5GHz	50 Ω	2-ports



Features and performance comparable to world-class equipment

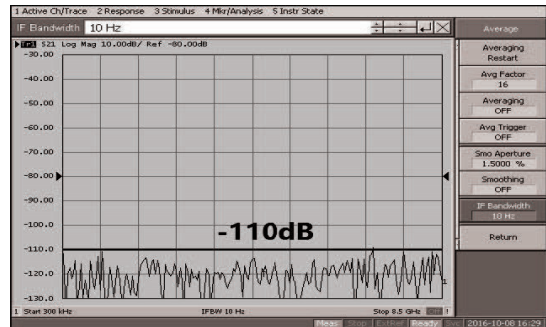
The NA76xx Series Vector Network Analyzer addresses valuable customer feedback with the latest advances in international test and measurement development. It offers broad functionality and performance specifications equal to competitive world-class brands at an extremely competitive price point.

Wide dynamic range

The NA76xx Series offers a very impressive > 123dB (typical 128dB) of dynamic range for extreme measurement accuracy. The NA7682C's noise floor can reach <-113dB (typical <-118dB) under optimal conditions (0dBm output, RBW = 10Hz), compared to popular competing analyzer reaching in the range of <-110dB.



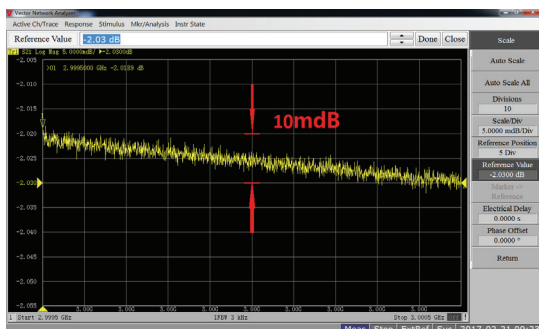
NA76xx



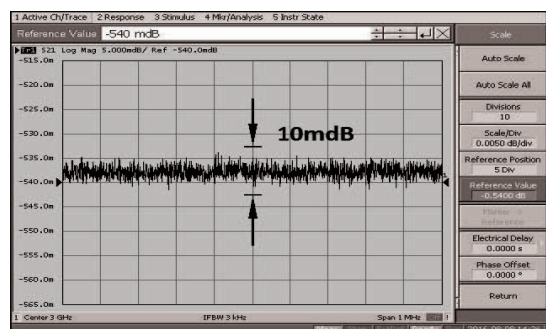
Competitive international brand

Low trace noise

The NA76xx Series noise floor sensitivity will compare easily with leading products worldwide, reaching under 0.005dB rms (RBW @ 3kHz). This helps minimize errors and produce best/high-quality measurement data for various applications.



NA76xx



International famous brand

High stability

NA76xx Series analyzers provides excellent overall stability, standing the test of time and temperature without accuracy degradation. The test engineer can safely rely on low amplitude and phase drift consistency when measuring S-parameters, measurement results and repeatability are achieved without recalibration within a few days after a calibration.

NA76xx		0.008dB/C
Currently the world's leading product		0.005dB/C
The previous generation products		0.02dB/C

Stability versus temperature

Fast measurement speed

With exceptional measurement speed, the NA76xx Series VNA models can increase productivity and overall engineer efficiency.

NA76xx (IFBW=30kHz)		128ms
Current leading product (IFBW=70kHz)		83ms
Previous generation (IFBW=6kHz)		848ms

Measurement speed comparison (1601 points, 2-Port Calibration, Center = 4GHz, Span = 200MHz)

Specifications

System Performance		
Dynamic range	RBW=10Hz (2-Ports)	-100dB (<300kHz) -105dB (300kHz to 5MHz) -128dB (5MHz to 6GHz) -123dB (6GHz to 8.5GHz)
Directivity		46dB (<3GHz) 42dB (3GHz to 6GHz) 38dB (6GHz to 8.5GHz)
Source match		40dB (<3GHz) 36dB (3GHz to 6GHz) 35dB (6GHz to 8.5GHz)
Load match		46dB (<3GHz) 40dB (3GHz to 6GHz) 36dB (6GHz to 8.5GHz)
Reflection tracking		0.03dB (<3GHz) 0.04dB (3GHz ~ 6GHz) 0.06dB (6GHz ~ 8.5GHz)
Transmission tracking		0.03dB (<3GHz) 0.06dB (3GHz to 6GHz) 0.10dB (6GHz to 8.5GHz)
Number of measuring points		2 to 10001
Measurement speed		50us/point (RBW = 30kHz)
Test Port Output		
Frequency resolution		1Hz
Frequency accuracy		±2ppm (5°C to 40°C)
Phase noise @ 10kHz		-85dBc/Hz (100kHz to 3GHz) -82dBc/Hz (3GHz to 8.5GHz)
Harmonics (+5dBm output)		-25dBc(< 5MHz), -30dBc(≥5MHz)
Level accuracy		±1dB(Typical), ±1.5dB(Maximum)
Source power range		-55dBm to +10dBm (100kHz to 4.5GHz) -55dBm to +8dBm (4.5GHz to 6GHz) -55dBm to +6dBm (6GHz to 8.5GHz)
Output power resolution		0.05dB
Test Port Input		
Maximum input		+10dBm (100kHz to 4.5GHz) +13dBm (4.5GHz to 6GHz) +13dBm (6GHz to 8.5GHz)
Damage level		+26dBm, ±35VDC
Noise floor	RBW=10Hz (2-Ports)	-90 dBm (<300kHz) -95 dBm (300kHz to 5MHz) -118dBm (5MHz to 6GHz) -113dBm (6GHz to 8.5GHz)

Trace Noise (0dBm input)	Magnitude RBW = 3kHz	8m dBrms (<300kHz) 5m dBrms (0.3MHz ~ 6GHz) 6m dBrms (6GHz ~ 8.5GHz)
	Magnitude RBW = 3kHz	0.060°rms (<300kHz) 0.040°rms (0.3MHz ~ 6GHz) 0.045°rms (6GHz ~ 8.5GHz)
Stability	Magnitude	±0.005dB/°C (<3GHz) ±0.01dB/°C (3GHz ~ 6GHz) ±0.02dB/°C (6GHz ~ 8.5GHz)
	Phase	±0.1°/°C (<3GHz) ±0.2°/°C (3GHz ~ 6GHz) ±0.4°/°C (6GHz ~ 8.5GHz)
Test Port Input		
Dynamic Accuracy	Magnitude	±0.25 dB (10 dBm) ±0.1 dB (-30 dBm) ±2.0 dB (-90 dBm)
	Phase	±5° (10 dBm) ±0.5° (-30 dBm) ±15° (-90 dBm)
General		
IFBW		1, 1.5, 2, 3, 4, 5, 7, 10, 15, 20, 30, 40, 50, 70, 100, 150, 200, 300, 400, 500, 700, 1kHz, 1.5kHz, 2kHz, 3kHz, 4kHz, 5kHz, 7kHz, 10kHz, 15kHz, 20kHz, 30kHz, 40kHz, 50kHz, 70kHz
Front panel	Display	12.1" 1280x800 TFT touchscreen
	RF port	Type-N (f), 50Ω
	USB	2x Type-A USB 2.0
Rear panel	External trigger input	Type BNC (f) Input level: 0.5V (low threshold), 2.1V (high threshold) Input level range: 0 to 5V Pulse width: ≥2us Polarity: positive or negative
	External reference input	Type: BNC (f) Input Frequency: 10MHz±10ppm Input level: -3to+10dBm
	Internal reference output	Type: BNC (f) Output Frequency: 10MHz ±1ppm Signal type: Sinewave Output level: 0dBm±3dB Output impedance: 50Ω
	Video output	15-pin, D-SUB(f), Drive VGA compatible monitor
	GPIO interface	24-pin, D-SUB (type D-24, f). Compatible w/ IEEE488
	USB interface	1x Type-A USB 3.0, 3x Type-A USB 2.0

Rear panel	LAN	2x RJ-45; 10/100/1000 Base-T
	Parallel port	25-pin, D-SUB; LPT print
	Serial port	9-pin D-SUB; compatible with RS-232
	Power Supply	Frequency: 47 to 63Hz Voltage: 90 to 264 VAC VAC Power: 150VA max
EMC	RF emission	EN 61326-1:2013 EN 61326-2-1:2013 CISPR 11:2009 CISPR 16-1 series Group 1, Class A
	Anti-interference level	EN 61326-1:2013 EN 61326-2-1:2013
	ESD	IEC 61000-4-2:2008 ±4kV CD / ±8kV AD
	RF electromagnetic field	IEC 61000-4-3:2006 + A1 + A2 3 V/m, 80 to 1000 MHz 80% AM, 1kHz

Safety		IEC 61010-1:2006 / EN 61010-1:2006
Operating environment	Temperature	+5°C to +40°C
	Calibration	23°C ± 5°C
	Humidity	20%-80%
	Altitude	0 to 2000m
	Vibration	Standards: IEC 60068-2-6, 0.21G max, 5Hz to 50Hz
Storage environment	Temperature	-10°C to +60°C
	Humidity	20%-90%
	Altitude	0 to 4572m
	Vibration	Standards: IEC 60068-2-64, 0.5g max, 5Hz to 500Hz
	Impact	Standards: IEC 60068-2-27, 40g max
Size & weight	Dimensions	17.5" x 10.4" x 13.0" (445mm x 265mm x 330mm)
	Weight	2-Ports: 24.3 lb (11kg)

Ordering Information



N mechanical Calibration Kit



3.5mm mechanical Calibration Kit



N eCal Calibration Module



3.5mm eCal Calibration Module

Model	Order number	Descriptions
Models		
NA7632C	0130.7632.00	100kHz to 3GHz, 50Ω, 2-Ports Vector Network Analyzer
NA7635B	0130.7635.00	100kHz to 3.5GHz, 75Ω, 2-Ports Vector Network Analyzer
NA7662C	0130.7662.00	100kHz to 6GHz, 50Ω, 2-Ports Vector Network Analyzer
NA7682C	0130.7682.00	100kHz to 8.5GHz, 50Ω, 2-Ports Vector Network Analyzer
Standard configuration		
NA7600-600	6130.0200.01	12.1" touchscreen
DS8831-706	6190.0500.19	1.5m crossover LAN cable

Model	Order number	Descriptions
SA8300-700	6190.0500.40	1.5m power cable
NA7600-000	6130.0600.53	NA7600 Site Workbench and Documentation Disc (VNA Workbench software +Manual)
NA7600-701	6190.0900.20	4A safety tube
NA7600-002	6130.0600.55	NA76xx Series Certificate of Calibration
Options		
NA7600-800	2130.7600.00	Time Domain analysis software
NA7600-703	6130.0500.09	GPIO card option
75Ω RF Test Cable		
NA7600-702	6130.0500.08	N(m)-N(m), 3GHz, 75Ω, 0.6m, RF Test Cable

Model	Order number	Descriptions
NA7600-704	6130.0500.10	N(m)-N(m),3GHz,75Ω,1.0m,RF Test Cable
NA7600-705	6130.0500.11	N(m)-F(m),3GHz,75Ω,0.6m,RF Test Cable
NA7600-706	6130.0500.12	N(m)-F(m),3GHz,75Ω,1.0m,RF Test Cable
NA7600-707	6130.0500.13	N(m)-BNC(m),2GHz,75Ω,0.6m,RF Test Cable
NA7600-708	6130.0500.14	N(m)-BNC(m),2GHz,75Ω,1.0m,RF Test Cable
50Ω RF Test Cable		
NA7600-709	6130.0500.15	N(m)-BNC(m),2GHz,50Ω,0.6m,RF Test Cable
NA7600-710	6130.0500.16	N(m)-BNC(m),2GHz,50Ω,1.0m,RF Test Cable
NA7600-711	6130.0500.17	BNC(m)-BNC(m),2GHz,50Ω,0.6m,RF Test Cable
NA7600-712	6130.0500.18	BNC(m)-BNC(m),2GHz,50Ω,1.0m,RF Test Cable
NA7600-700	6130.0500.06	N(m)-N(m),6GHz,50Ω,0.6m,RF Test Cable
NA7600-713	6130.0500.19	N(m)-N(m), 6GHz, 50Ω, 0.6m, RF Test Cable
NA7600-714	6130.0500.20	N(m)-N(m),6GHz,50Ω,1.0m,RF Test Cable
NA7600-715	6130.0500.21	N(m)-N(f),6GHz,50Ω,0.6m,RF Test Cable
NA7600-716	6130.0500.22	N(m)-N(f),6GHz,50Ω,1.0m,RF Test Cable
NA7600-717	6130.0500.23	N(m)-SMA(m),6GHz,50Ω,0.6m,RF Test Cable
NA7600-718	6130.0500.24	N(m)-SMA(m),6GHz,50Ω,1.0m,RF Test Cable
NA7600-719	6130.0500.25	SMA(m)-SMA(m),6GHz,50Ω,0.6m,RF Test Cable
NA7600-720	6130.0500.26	SMA(m)-SMA(m),6GHz,50Ω,1.0m,RF Test Cable
NA7600-701	6130.0500.07	N(m)-N(m),9GHz,50Ω,0.6m,RF Test Cable
NA7600-721	6130.0500.27	N(m)-N(m), 9GHz, 50Ω, 0.6m, RF Test Cable
NA7600-722	6130.0500.28	N(m)-N(m),9GHz,50Ω,1.0m,RF Test Cable
NA7600-723	6130.0500.29	N(m)-N(f),9GHz,50Ω,0.6m,RF Test Cable
NA7600-724	6130.0500.30	N(m)-N(f),9GHz,50Ω,1.0m,RF Test Cable
NA7600-725	6130.0500.31	N(m)-3.5mm(m),9GHz,50Ω,0.6m,RF Test Cable
NA7600-726	6130.0500.32	N(m)-3.5mm(m),9GHz,50Ω,1.0m,RF Test Cable
NA7600-727	6130.0500.33	SMA(m)-SMA(m),9GHz,50Ω,0.6m,RF Test Cable
NA7600-728	6130.0500.34	SMA(m)-SMA(m), 9GHz,50Ω,1.0m,RF Test Cable
50Ω Phase-Stable Cable		
NA7600-731	6130.0500.59	N(m)-N(m), 9GHz, 50Ω, 0.6m
NA7600-732	6130.0500.60	N(m)-N(m), 9GHz, 50Ω, 1.0m
NA7600-733	6130.0500.61	N(m)-N(f), 9GHz, 50Ω, 0.6m
NA7600-734	6130.0500.62	N(m)-N(f),9GHz,50Ω,1.0m
NA7600-735	6130.0500.63	N(m)-SMA(m),9GHz,50Ω,0.6m
NA7600-736	6130.0500.64	N(m)-SMA(m),9GHz,50Ω,1.0m

Model	Order number	Descriptions
NA7600-737	6130.0500.65	SMA(m)-SMA(m),9GHz,50Ω,0.6m
NA7600-738	6130.0500.66	SMA(m)-SMA(m),9GHz,50Ω,1.0m
50Ω Steel Armored & Phase Stable		
NA7600-786	6130.0501.14	N (m) -N (m), 9GHz, stable phase, armor, 50Ω, 0.6 m
NA7600-787	6130.0501.15	N (m) -N (m), 9GHz, stable phase, armor, 50Ω, 1.0 m
NA7600-788	6130.0501.16	N (m) -N (f), 9GHz, stable phase, armor, 50Ω, 0.6 m
NA7600-789	6130.0501.17	N (m) -N (f), 9GHz, stable phase, armor, 50Ω, 1.0 m
NA7600-790	6130.0501.18	N(m) -SMA(m), 9GHz, stable phase, armor, 50Ω, 0.6 m
NA7600-791	6130.0501.19	N (m) -SMA(m), 9GHz, stable phase, armor, 50Ω, 1.0 m
NA7600-792	6130.0501.20	SMA(m)-SMA(m),9GHz, stable phase, armor, 50Ω, 0.6 m
NA7600-793	6130.0501.21	SMA(m)-SMA(m),9GHz, stable phase, armor, 50Ω, 1.0 m
Option calibration Kit (incl. open circuit, short circuit, load)		
75Ω Calibration Kit (incl. open circuit, short circuit, load)		
CK-N030B	6130.0500.35	N(f) , DC to 3GHz , 75Ω
CK-N031B	6130.0500.36	N(m) , DC to 3GHz , 75Ω
CK-F030B	6130.0500.37	F(f) , DC to 3GHz , 75Ω
CK-F031B	6130.0500.38	F(m) , DC to 3GHz , 75Ω
CK-B020B	6130.0500.39	BNC(f) , DC to 2GHz , 75Ω
CK-B021B	6130.0500.40	BNC(m) , DC to 2GHz , 75Ω
N 50Ω Calibration Kit (incl. open circuit, short circuit, load)		
CK-N060A	6130.0500.43	N(f) , DC to 6GHz , 50Ω
CK-N061A	6130.0500.44	N(m) , DC to 6GHz , 50Ω
CK-N090A	6130.0500.45	N(f) , DC to 9GHz , 50Ω
CK-N091A	6130.0500.46	N(m) , DC to 9GHz , 50Ω
CK-N180A	6130.0500.47	N(f) , DC to 18GHz , 50Ω
CK-N181A	6130.0500.48	N(m) , DC to 18GHz , 50Ω
Electronic Calibration kit		
ECK-N090A	2130.7682.02	N(f), 50Ω, 100kHz-9GHz
ECK-N091A	2130.7682.03	N(m), 50Ω, 100kHz-9GHz
ECK-4090A	2130.7682.00	3.5mm(f), 50Ω, 100kHz-9GHz
ECK-4091A	2130.7682.01	3.5mm(m), 50Ω, 100kHz-9GHz
ECK-F030B	2130.7682.04	F(f), 75Ω, 100kHz-3.5GHz

Model	Order number	Descriptions
ECK-F031B	2130.7682.05	F(m), 75Ω, 100kHz-3.5GHz
3.5mm 50Ω Calibration Kit (incl. open circuit, short circuit, load)		
CK-4060A	6130.0500.51	3.5mm (f), DC to 6GHz, 50Ω
CK-4061A	6130.0500.52	3.5mm (m), DC to 6GHz, 50Ω
CK-4090A	6130.0500.53	3.5mm (f), DC to 9GHz, 50Ω
CK-4091A	6130.0500.54	3.5mm (m), DC to 9GHz, 50Ω
CK-4260A	6130.0500.55	3.5mm (f), DC to 26.5GHz, 50Ω
CK-4261A	6130.0500.56	3.5mm (m), DC to 26.5GHz, 50Ω
Adapter		
75Ω Adapter		
NA7600-739	6130.0500.67	N(m)-F(f), DC to 3GHz, VSWR<1.15
NA7600-740	6130.0500.68	N(m)-F(m), DC to 3GHz, VSWR<1.15
NA7600-741	6130.0500.69	N(f)-F(f), DC to 3GHz, VSWR<1.15
NA7600-742	6130.0500.70	N(f)-F(m), DC to 3GHz, VSWR<1.15
NA7600-743	6130.0500.71	N(m)-BNC(f), DC to 2GHz, VSWR<1.1
NA7600-744	6130.0500.72	N(m)-BNC(m), DC to 2GHz, VSWR<1.1
NA7600-745	6130.0500.73	N(f)-BNC(f), DC to 2GHz, VSWR<1.1
NA7600-746	6130.0500.74	N(f)-BNC(m), DC to 2GHz, VSWR<1.1
NA7600-747	6130.0500.75	F(f)-F(f), DC to 3GHz, VSWR<1.15
NA7600-748	6130.0500.76	F(m)-F(m), DC to 3GHz, VSWR<1.15
50Ω Adapter		
NA7600-749	6130.0500.77	N(m)-BNC(f), DC to 2GHz, VSWR<1.1
NA7600-750	6130.0500.78	N(m)-BNC(m), DC to 2GH, VSWR<1.1
NA7600-751	6130.0500.79	N(f)-BNC(f), DC to 2GHz, VSWR<1.1
NA7600-752	6130.0500.80	N(f)-BNC(m), DC to 2GHz, VSWR<1.1
NA7600-753	6130.0500.81	N(m)-N(m), DC to 18GHz, VSWR<1.15
NA7600-754	6130.0500.82	N(m)-N(f), DC to 18GHz, VSWR<1.15
NA7600-755	6130.0500.83	N(f)-N(f), DC to 18GHz, VSWR<1.15
NA7600-756	6130.0500.84	N(m)-SMA(m), DC to 18GHz, VSWR<1.2
NA7600-757	6130.0500.85	N(m)-SMA(f), DC to 18GHz, VSWR<1.2
NA7600-758	6130.0500.86	N(f)-SMA(m), DC to 18GHz, VSWR<1.2
NA7600-759	6130.0500.87	N(f)-SMA(f), DC to 18GHz, VSWR<1.2
NA7600-760	6130.0500.88	N(m)-3.5mm(m), DC to 18GHz, VSWR<1.15

Model	Order number	Descriptions
NA7600-761	6130.0500.89	N(m)-3.5mm(f), DC to 18GHz, VSWR<1.15
NA7600-762	6130.0500.90	N(f)-3.5mm(m), DC to 18GHz, VSWR<1.15
NA7600-763	6130.0500.91	N(f)-3.5mm(f), DC to 18GHz, VSWR<1.15
NA7600-764	6130.0500.92	SMA(m)-SMA(m), DC to 18GHz, VSWR<1.2
NA7600-765	6130.0500.93	SMA(m)-SMA(f), DC to 18GHz, VSWR<1.2
NA7600-766	6130.0500.94	SMA(f)-SMA(f), DC to 18GHz, VSWR<1.2
NA7600-767	6130.0500.95	3.5mm(m)-3.5mm(m), DC to 26.5GHz, VSWR<1.15
NA7600-768	6130.0500.96	3.5mm(m)-3.5mm(f), DC to 26.5GHz, VSWR<1.15
NA7600-769	6130.0500.97	3.5mm(f)-3.5mm(f), DC to 26.5GHz, VSWR<1.15
Other Options		
75Ω Standard load		
NA7600-770	6130.0500.98	N(m), DC to 3GHz, 35dB
NA7600-771	6130.0500.99	N(f), DC to 3GHz, 35dB
NA7600-772	6130.0501.00	F(m), DC to 3GHz, 35dB
NA7600-773	6130.0501.01	F(f), DC to 3GHz, 35dB, 35dB
NA7600-774	6130.0501.02	BNC(m), DC to 2GHz, 35dB
NA7600-775	6130.0501.03	BNC(f), DC to 2GHz, 35dB
50Ω Standard load		
NA7600-776	6130.0501.04	BNC(m), DC to 2GHz, 35dB
NA7600-777	6130.0501.05	BNC(f), DC to 2GHz, 35dB
NA7600-778	6130.0501.06	N(m), DC to 6GHz, 35dB
NA7600-779	6130.0501.07	N(f), DC to 6GHz, 35dB
NA7600-780	6130.0501.08	SMA(m), DC to 6GHz, 35dB
NA7600-781	6130.0501.09	SMA(f), DC to 6GHz, 35dB
NA7600-782	6130.0501.10	N(m), DC to 9GHz, 35dB
NA7600-783	6130.0501.11	N(f), DC to 9GHz, 35dB
NA7600-784	6130.0501.12	3.5mm(m), DC to 9GHz, 35dB
NA7600-785	6130.0501.13	3.5mm(f), DC to 9GHz, 35dB
Other Options		
NA7600-729	6130.0500.57	Impedance converter N(50m)-N(75f), 3GHz
NA7600-730	6130.0500.58	Impedance converter N(75m)-N(50f), 3GHz