Model Numbers at a Glance

The frequency range and network analyzer requirements for the various multiport test system configurations are shown below in "Multiport Test System Configurations." Descriptions of analyzer options are shown in "Agilent Network Analyzer Option Reference Table" on page 4.

Multiport Test System Configurations

Multiport Test Set Model Number	System Frequency Range	Supported Network Analyzer			
		Model Number	Options[a]		
			Required	Compatible	Incompatible
N4413A[b]	50 MHz to 6.0 GHz	8753C[c]/D/E/ES	006[d], 011	1D5, 002, 010	075
N4414A[b]	300 kHz to 6.0 GHz				
N4415A[b]	30 kHz to 6.0 GHz	8753ES	006[d], 014	1D5, 002, 010	075, H16
N4416A[b]	300 kHz to 6.0 GHz	E8356A[e]/7A[e]/8A	015	010	
N4417A[f]	300 kHz to 9.0 GHz	E8356A[e]/7A[e]/8A	015	010	
		E8801A[e]/2A[e]/3A	014	010, 1E1, 1E5	
N4418A[b]	50 MHz to 20 GHz	8719D/ES[e] 8720D/ES	H32 or H42	010, 012, 400	007, 085, 089
		8722D/ES[g]	H32 or H44	010, 012, 400	007, 085, 089
N4419A	45 MHz to 20 GHz	E8362A/B	014	010, 022, 711, UNL	
N4421A	45 MHz to 50 GHz	E8364A/B	014	010, 022, 711, UNL	

a. This table lists only the most specifically relevant options. For compatibility with options not listed here, contact the factory.
b. This test set may also be labeled with an ATN model number. N4413: previously ATN-4111A; N4414A: previously ATN-4111B; N4415A: previously ATN-4111C; N4416A: previously ATN-4111D; and N4418A: previously ATN-4112A
c. 8753C requires firmware revision 4.13 or above.
d. Option 006 required only for operation above 3 GHz.
e. When the Multiport Test Set is used with this network analyzer model, the maximum system frequency is limited by the maximum operating frequency of the analyzer: 3 GHz for E8356A/E8801A, 6 GHz for E8357/E8802A, and 13.5 GHz for 8719D/ES.
f. E8356A/57A/58A requires N4417A Option 103; E8801A/02A/03A requires N4417A Option 104.
g. When an 8722D/ES is used with an N4418A, the N4418A requires Option 302. The system's maximum operating frequency is limited to 20.0 GHz.

"Agilent Network Analyzer Option Reference Table" (located below) lists common options for supported network analyzers. Refer to "Multiport Test System Configurations" on page 3 for compatibility of these options with the multiport test system.

Agilent Network Analyzer Option Reference Table

Option Numbers and Descriptions			
8753C/D/E/ES Options			
002	Harmonic-Measurement Upgrade	004	Step Attenuator Upgrade
006	6 GHz Upgrade for Standard Units	010	Time Domain Capability
011	Receiver Configuration	014	Configurable Test Set
075	75 ohm impedance	1D5	High Stability Frequency Reference
8719D/ES, 8720D/ES, and 8722D/ES Options			
007	Mechanical Transfer Switch	010	Time Domain Capability
012	Direct Sampler Access	085	High-Power Test Set
089	Frequency Offset Mode	1D5	High Stability Frequency Reference
400	Four-Sampler Test Set	H32	Front panel access to A and B samplers and Port 1 and Port 2 switch and coupler
H42	8719/8720 only: Front panel access to all samplers and Port 1 and Port 2 switch and coupler (installs options 400 and 012)	H44	8722 only: Front panel access to R1, R2, A, and B samplers, and Port 1 and Port 2 switch and coupler ports (installs options 400 and 012)
E8356A, E8357A, and E8358A Options			
010	Time Domain Capability	015	Configurable Test Set
E8801A, E8802A, and E8803A Options			
010	Time Domain Capability	014	Configurable Test Set
1E1	Add Source Attenuator	1E5	High Stability Time Base
E8362A/B and E8364A/B Options			
010	Time Domain Capability	014	Configurable Test Set
016[a]	Add Receiver Attenuators	022	Extended Memory
080[a]	Frequency Offset	081[a]	External Reference Switch
083[a]	Frequency Converter Measurement Application	711	Standard Power Range
UNL	Extended Power Range with Bias Tees		

a. This option has not been tested and is not specified with the Multiport Test System.

Specifications and Characteristics

The Agilent multiport test set power supply requirements, environmental operating conditions, and physical characteristics are displayed on the following pages.

Power Supply Requirements

The power supply requirements for the multiport test sets are listed below.

Input Voltage Range	100 to 120 Volts 220 to 250 Volts
Frequency Range	47 to 62 Hertz
Power	40 VA

Environmental Operating Conditions

The environmental operating conditions for the multiport test set are listed below.

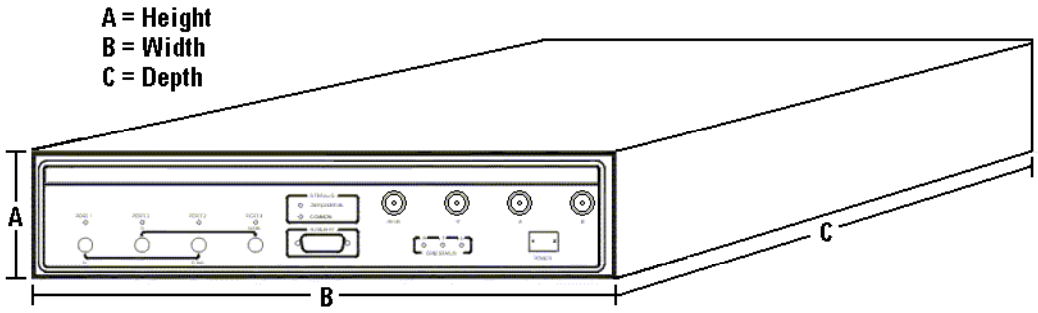
Operating Environment	Indoor use
Altitude	Operating:0 to 2.0 km (6,560 ft)
	Storage:0 to 15.24 km (50,000 ft)
Temperature	0 °C to 40 °C
Maximum Relative Humidity	80% for temperatures up to 31 °C decreasing linearly to 50% for a temperature of 40 °C

This product is designed for use in INSTALLATION CATEGORY II and POLLUTION DEGREE 2, per IED 61010-1 and 664, respectively.

Physical Characteristics

The weight and dimensions for each of the multiport test sets are listed below.

Weight and Dimensions



Model Number	Weight	Dimensions		
		Height (A)	Width (B)	Depth (C)
N4413A, N4414A, N4415A, N4416A, N4417A, N4418A, and N4419A	9.0 kilograms (19.9 pounds)	3.0 in (7.62 cm)	16.75 in (42.55 cm)	19.25 in (48.90 cm)
N4421A	9.0 kilograms (19.9 pounds)	5.5 in (13.97 cm)	16.75 in (42.55 cm)	16.75 in (42.55 cm)