

N4415A Test set (ATN-4111C)

System performance summary

The following specifications are applicable for a system in the following configuration:

Network analyzer	8753ES, Options 006 and 014
Test set	N4415A
Calibration kit	85052C, precision 3.5 mm
Test port cables	N4415A, Option B20

Dynamic range

Transmission measurements at 10 Hz IF bandwidth with full error correction and +15 dBm maximum output power.

30 kHz to 6 GHz	90 dB
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Measurement port characteristics

Residual uncertainties for corrected data using four-port error correction. These apply for 25 °C with less than 1°C variation from calibration.

Frequency range	.03-1 MHz	.001-2 GHz	2-4 GHz	4-6 GHz
Directivity	48 dB	48 dB	46 dB	44 dB
Source match	42 dB	42 dB	38 dB	35 dB
Load match	48 dB	48 dB	46 dB	44 dB
Refl. tracking (±)	.012 dB	.012 dB	.012 dB	.020 dB
Trans. tracking (±)	.006 dB	.006 dB	.006 dB	.013 dB

Test set typical performance

Frequency range	30 kHz - 6.0 GHz
Impedance	50 ohms
Insertion loss, source out to coupler in	
300 kHz to 6 GHz	4.5 dB max.
Insertion loss, port 2 or 4 to source out	
300 kHz to 6 GHz	7.5 dB max.
Insertion loss, ports 2 or 4 to A or B in	
300 kHz to 6 GHz	24 dB max.
Insertion loss, A and B in to A and B out	
300 kHz to 6 GHz	7.5 dB max.
Isolation, port to port and A to B	≥85 dB
Maximum operating level	+20 dBm
Damage level	+30 dBm
Test port connectors	7 mm
VNA connectors	50 ohm Type-N (f)
Weight	9 kg

Supported peripheral equipment

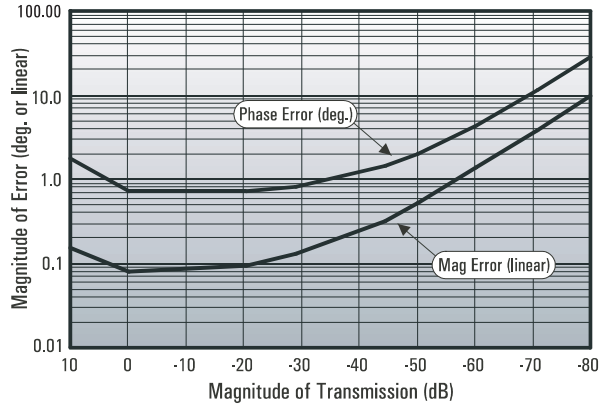
Network analyzer	8753E/ES, Options 006, and 014
Calibration kit	N4430A electronic calibration module, or 85033D, 85052D (3.5 mm), 85050B (7 mm), 85032 (Type-N)
Computer	Pentium II with ≥64 MB RAM, Windows 95/98/NT
Monitor	1024 x 768 minimum resolution
IEEE-488 card	Agilent 82340, 82341, or National Instruments (any model)

Ordering information

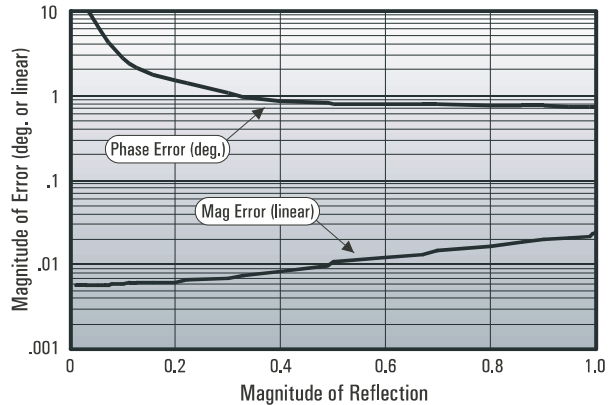
N4415A	30 kHz to 6 GHz S-parameter test set
Option 105 ⁶	Balanced measurement software
Option 110 ⁶	Balanced measurement software with time domain analysis
N4430A	4-port electronic calibration module
N4443A	Balanced measurement system, 30 kHz to 6 GHz. Includes 8753ES Options 006 and 014 and N4415A Option 105 (Source attenuator and bias networks included).
Option 060	4-port electronic calibration module
Option 110	Time domain analysis
The following options are available for the N4415A and N4443A:	
Option 301	DC-bias cable and adapter kit
Option 1CP	Rack-mount and handle kit
Option B20	Test port cables, 3 ft. 7mm to 3.5mm (m) (quantity 4)

Measurement uncertainties

Worst Case 3.5 mm Transmission Magnitude and Phase Uncertainty



Worst Case 3.5 mm Reflection Magnitude and Phase Uncertainty



6. Either Option 105 or 110 must be ordered at time of initial purchase.