

USB-AC51

Dual Band Wireless-AC600 USB Wireless
Adapter

Fast Small Stylish
Advanced AC
Performance



USB AC51 Key Selling Points

➤ **Extreme 11ac Speed**

- ✓ Dual-band 150Mbps + 433Mbps data rate
- ✓ 5GHz super transferring speed for both High quality web surfing and HD entertainment

➤ **Smallest Style Design**

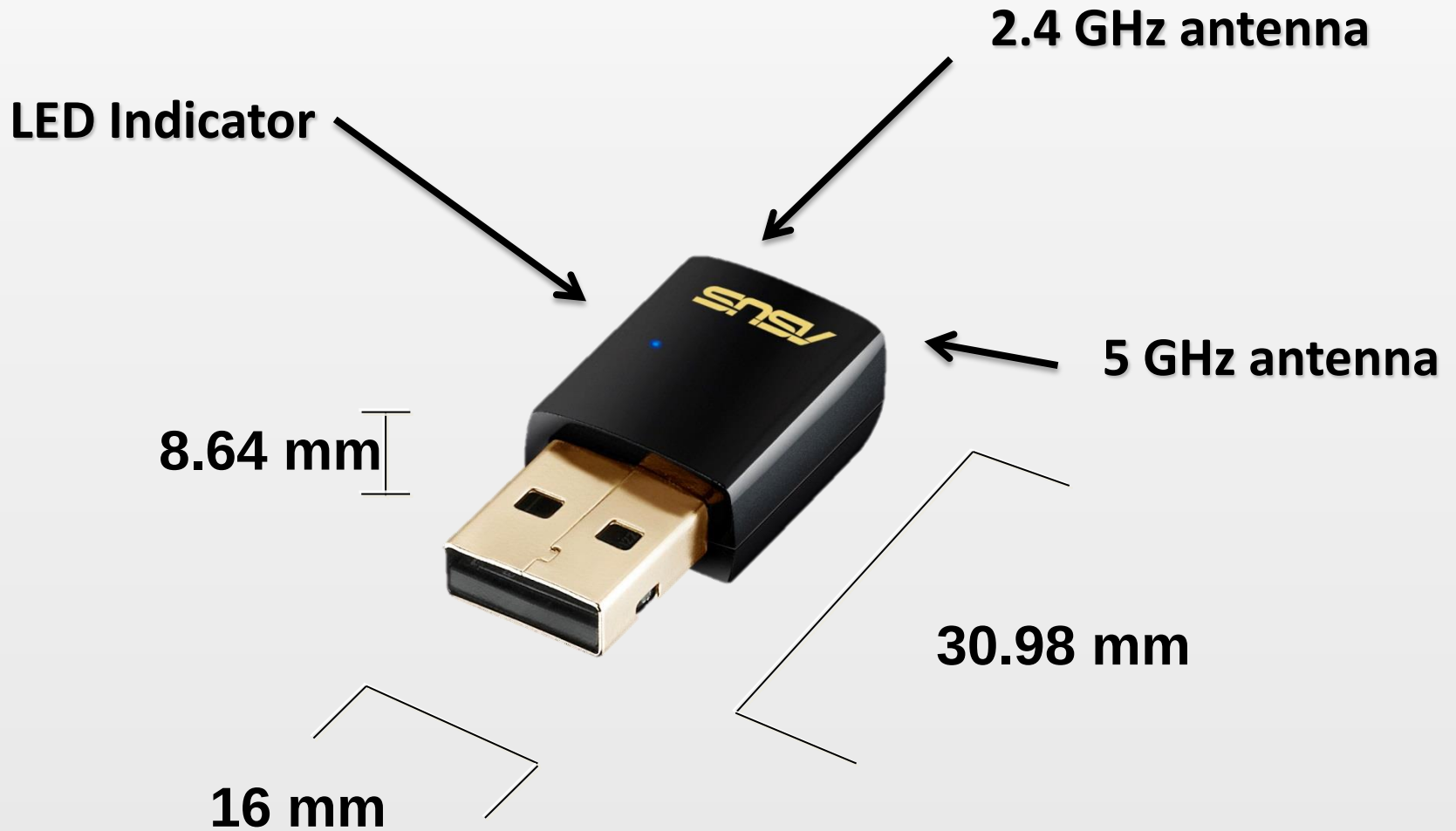
- ✓ Penny size perfect fit for any portable device without unplugging while transporting

➤ **ASUS Unique high-efficiency antenna Design**

- ✓ ASUS Antennas use the latest technology to provide a stronger receiving device comparing to others

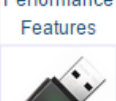
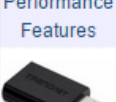
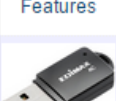
APPEARANCE
APPEARANCE

Appearance



MEDIA REVIEW

“# 1 Ranking in the Class AC580” - SmallNetBuilder.com

#1 1.0		ASUS USB-AC51 Dual-Band Wireless-AC600 Wi-Fi adapter Micro size AC580 class USB 2.0 adapter
Performance Features		Check NewEgg Check Amazon
#2 2.0		Buffalo Technology WI-U2-433DM AirStation AC433 Dual Band Wireless Mini USB Adapter Micro size AC580 class USB 2.0 adapter
Performance Features		Check NewEgg Check Amazon
#3 3.0 (Tie)		NETGEAR A6100 WiFi USB Mini Adapter Micro size AC580 class USB 2.0 adapter
Performance Features		Check NewEgg Check Amazon
#3 3.0 (Tie)		TP-LINK Archer T2U AC600 Wireless Dual Band USB Adapter Micro size AC580 class USB 2.0 adapter
Performance Features		Check NewEgg Check Amazon
#3 3.0 (Tie)		TRENDnet TEW-804UB AC600 Dual Band Wireless USB Adapter Micro size AC580 class USB 2.0 adapter
Performance Features		Check NewEgg Check Amazon
#4 4.0		Edimax EW-7811UTC AC600 Wireless Dual-Band Mini USB Adapter Micro size AC580 class USB 2.0 adapter
Performance Features		Check NewEgg Check Amazon

Ranker Performance Summary ASUS USB-AC51 Dual-Band Wireless-AC600 Wi-Fi adapter



Test Notes:

Firmware tested: 5.1.8.0 Win 7 64 bit

Read product review

Rankings shown are out of 7 AC580 products tested

1 for Total Wireless (1.0)

1 for Average Wireless Throughput (1.5)

#3 for 2.4 GHz Avg. Downlink Throughput [38.4688 Mbps]

#1 for 2.4 GHz Avg Uplink Throughput [38.2875 Mbps]

#1 for 5 GHz Downlink Throughput Avg. [143.7 Mbps]

#1 for 5 GHz Uplink Throughput Avg. [87.2125 Mbps]

1 for Maximum Wireless Throughput (1.5)

#2 for 2.4 GHz Downlink Throughput Max. [57.1 Mbps]

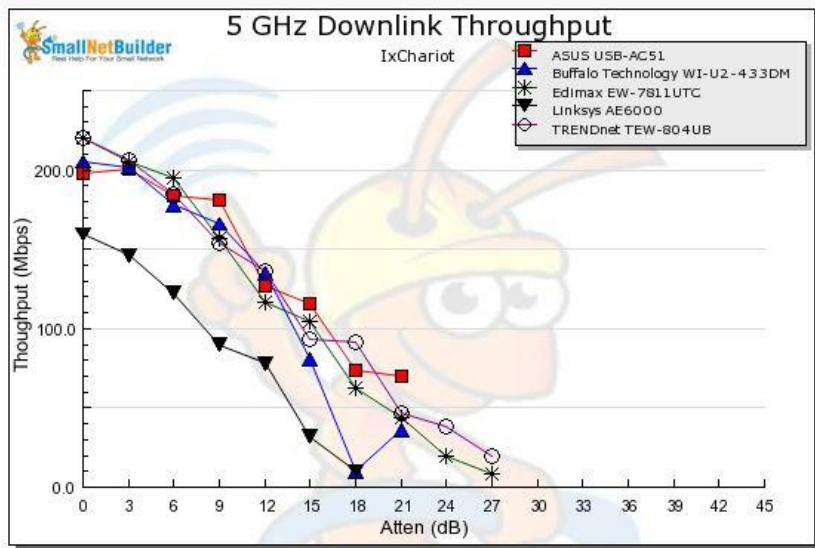
#1 for 2.4 GHz Uplink Throughput Max. [51.5 Mbps]

#2 for 5 GHz Downlink Throughput Max. [197.9 Mbps]

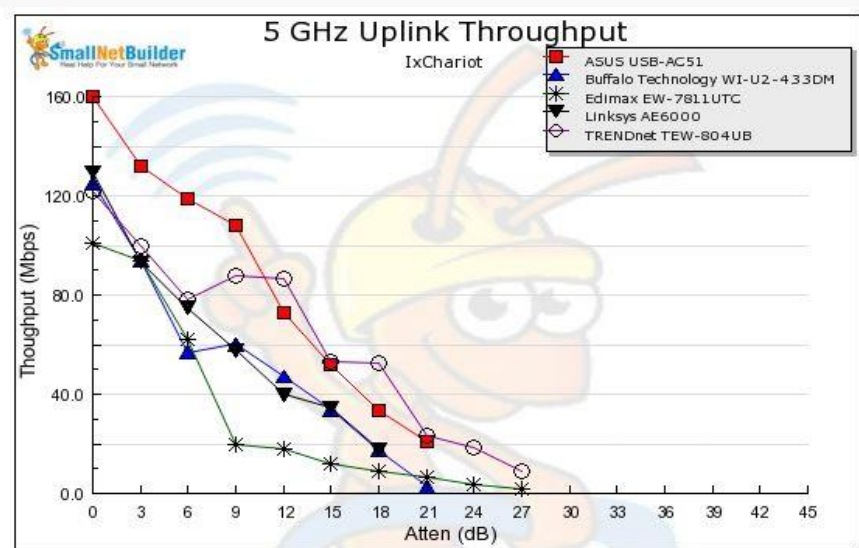
#1 for 5 GHz Uplink Throughput Max. [160 Mbps]

<http://www.smallnetbuilder.com/rankers/wireless-adapter-bridge/result/1799-asus-usbac51>

5 GHz Performance from Small Net Builder



Product	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
ASUS Dual-Band Wireless-AC600 Wi-Fi adapter (USB-AC51)	198	201	183	181	126	116	74	70								
Test Notes for ASUS Dual-Band Wireless-AC600 Wi-Fi adapter (USB-AC51): Firmware tested: 5.1.8.0 Win 7 64 bit																
Buffalo Technology AirStation AC433 Dual Band Wireless Mini USB Adapter (WI-U2-433DM)	205	201	178	166	135	81	10	36								
Test Notes for Buffalo Technology AirStation AC433 Dual Band Wireless Mini USB Adapter (WI-U2-433DM): Firmware tested: 1024.1.719.2013																
Edimax AC600 Wireless Dual-Band Mini USB Adapter (EW-7811UTC)	220	205	195	157	117	105	63	44	20	8						
Test Notes for Edimax AC600 Wireless Dual-Band Mini USB Adapter (EW-7811UTC): Firmware tested: 1024.9.1219.2013 Win 7																
Linksys Mini USB Wi-Fi Wireless AC583 Dual-Band Adapter 802.11ac (AE6000)	159	146	123	90	78	32	10									
Test Notes for Linksys Mini USB Wi-Fi Wireless AC583 Dual-Band Adapter 802.11ac (AE6000): Firmware tested: 5.0.4.0 Win 7 64 bit																
TRENDnet AC600 Dual Band Wireless USB Adapter (TEW-804UB)	220	206	185	154	136	94	92	46	38	20						
Test Notes for TRENDnet AC600 Dual Band Wireless USB Adapter (TEW-804UB): Firmware tested: 1024.4.910.2013 Win 7 64 bit																



Product	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
ASUS Dual-Band Wireless-AC600 Wi-Fi adapter (USB-AC51)	160	132	119	108	73	52	34	21								
Test Notes for ASUS Dual-Band Wireless-AC600 Wi-Fi adapter (USB-AC51): Firmware tested: 5.1.8.0 Win 7 64 bit																
Buffalo Technology AirStation AC433 Dual Band Wireless Mini USB Adapter (WI-U2-433DM)	125	94	57	60	47	34	18	3								
Test Notes for Buffalo Technology AirStation AC433 Dual Band Wireless Mini USB Adapter (WI-U2-433DM): Firmware tested: 1024.1.719.2013																
Edimax AC600 Wireless Dual-Band Mini USB Adapter (EW-7811UTC)	101	94	62	20	18	12	9	7	4	2						
Test Notes for Edimax AC600 Wireless Dual-Band Mini USB Adapter (EW-7811UTC): Firmware tested: 1024.9.1219.2013 Win 7																
Linksys Mini USB Wi-Fi Wireless AC583 Dual-Band Adapter 802.11ac (AE6000)	130	93	75	58	40	35	18									
Test Notes for Linksys Mini USB Wi-Fi Wireless AC583 Dual-Band Adapter 802.11ac (AE6000): Firmware tested: 5.0.4.0 Win 7 64 bit																
TRENDnet AC600 Dual Band Wireless USB Adapter (TEW-804UB)	122	100	78	68	53	53	23	18	9							
Test Notes for TRENDnet AC600 Dual Band Wireless USB Adapter (TEW-804UB): Firmware tested: 1024.4.910.2013 Win 7 64 bit																

SPECIFICATION

Specification

Network Standard	IEEE802.11a, IEEE802.11b, IEEE802.11g, IEEE802.11n, IEEE802.11ac
Interface	USB 2.0
Chipset	MT7610U
Antenna	Internal antenna x 2 (2.4GHz x 1 and 5GHz x 1)
Applications	Ethernet adapter
Operating Frequency	Selectable dual-band: 2.4GHz/ 5Ghz
Operating Channels	2.4GHz: US/ 11; EU/13 5GHz: US/36~48/149~165; EU/ 36~48
Data Rate	802.11ac: Up to 433Mbps 802.11n: Up to 150Mbps 802.11g: Up to 54Mbps 802.11b: Up to 11Mbps
Support OS	Windows Vista(x86/x64)/Win7(x86/x64)/Win8/Linux/Mac 10.6~9
Encryption	64/128-bit WEP, WPA, WPA2, TKIP, AES, WPA/ WPA2-PSK
Certifications	FCC, NCC, IC, CE
Physical Specifications	Dimensions : 30.98 x 16 x 8.64 mm (PCB: 26mm) Weight : 4 gram
Package Contents	Quick Start Guide x1 Warranty Card x1

USB-AC51

Competitor Analysis

competitor analysis

USB-AC51 Competitor Analysis

	ASUS	Netgear	EDiMAX	DLink	Linksys
Model Name					
	USB-AC51	A6100-10000S	EW-7811utc	DWA-171	AE6000
WLAN Standard	IEEE 802.11a/b/g/n/ac	IEEE 802.11a/b/g/n/ac	IEEE 802.11a/b/g/n/ac	IEEE 802.11a/b/g/n/ac	IEEE 802.11a/b/g/n/ac
Main Chipset	MTK MT7610U	Realtek RTL8811AU	Realtek RTL8811AU	Realtek RTL8811AU rev A1 MTK rev B1	MTK MT7610U
Operating Frequency	2.4G / 5G	2.4G / 5G	2.4G / 5G	2.4G / 5G	2.4G / 5G
Size	Dimensions: 30.98 x 16 x 8.64 mm (1.21 x .630 x .340 in) Weight: 4 g (.14 oz)	Dimensions: 36.1 x 18.4 x 8.1 mm (1.42 x .724 x .318 in) Weight: 8 g (.28 oz)	Dimensions: 40 x 16 x 7 mm (1.57 x .630 x .276 in) Weight: 3 g (.11oz)	Dimensions: 35.6 x 17.8 x 7.6 mm (1.4 x .7 x .3 in) Weight: 5.67 g (.20oz)	Dimensions: 35.1 x 14.99 x 7.8 mm (1.38 x 0.59 x 0.31 in) ; Weight: 0.01lbs
Data Rate	150 Mbps/433 Mbps	150 Mbps/433 Mbps	150 Mbps/433 Mbps	150 Mbps/433 Mbps	150 Mbps/433 Mbps
OS Support	Microsoft® Windows® 7, 8, XP, Vista®: (32/64-bit) Mac10.6~8, Linux	Microsoft® Windows® 7, 8, XP, Vista®: (32/64-bit)	Microsoft® Windows® 7, 8, XP, Vista®: (32/64-bit)	Microsoft® Windows® 7, 8, XP, Vista®: (32/64-bit)	Microsoft® Windows® 7, 8, XP, Vista®: (32/64-bit)

Performance Comparison (Internal Test)

➤ **Compete Product**

- ✓ ASUS USB-AC51
- ✓ Linksys AE6000
- ✓ Netgear A6100

➤ **Testing Equipment**

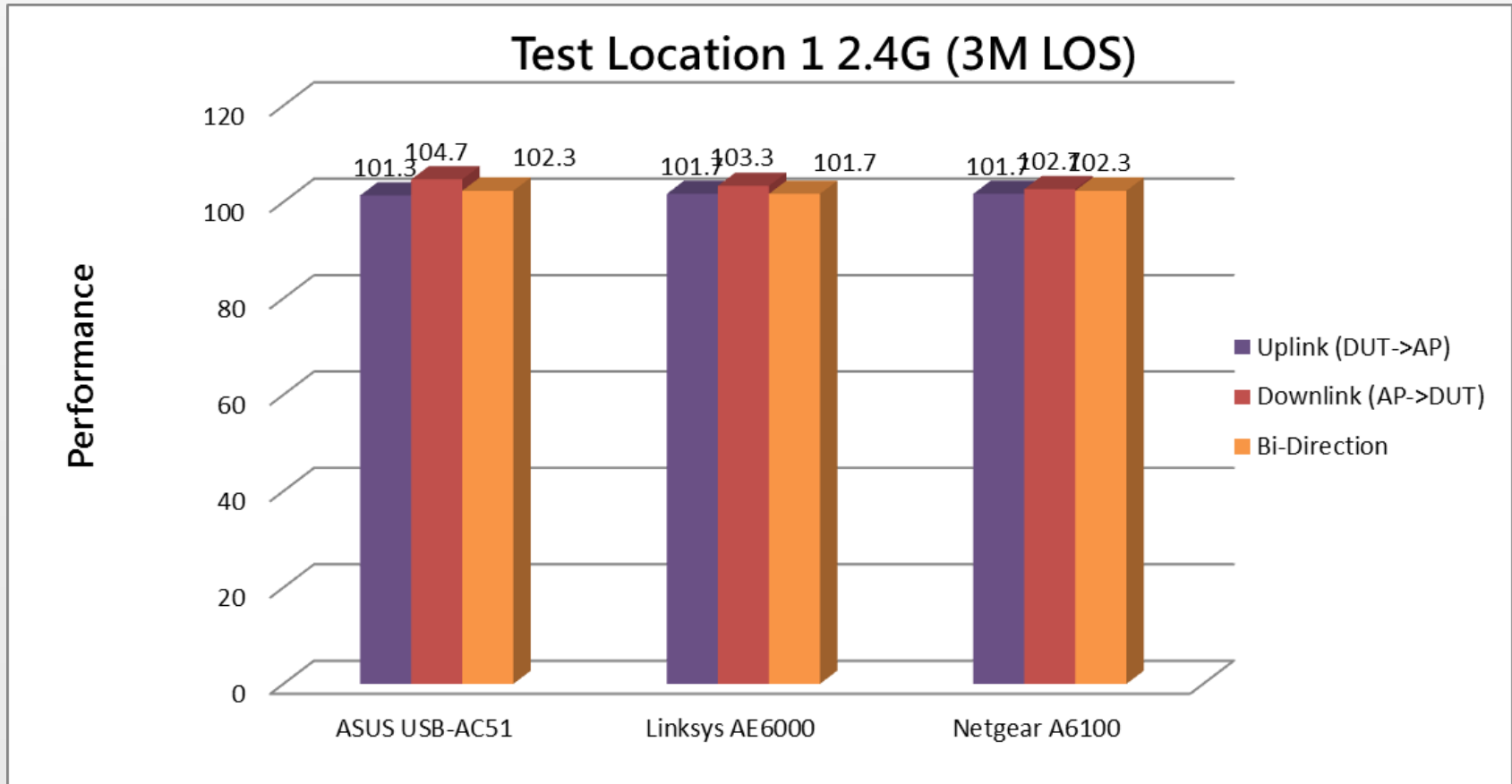
- ✓ IBM R61 CPU: Intel® Core™2 Duo T8100 2.1GHz, RAM:1GB__XP
- ✓ ASUS A45V CPU: Intel® Core™ i7 3610QM 2.3 GHz 2.3 GHz , RAM:8GB__Win7
- ✓ ASUS RT-AC66U Firmware Version 3.0.0.4.362

➤ **Location**

1. 3 Meters LOS
2. 31 Meters + 14 Meters NLOS
3. 20 Meters Separate Room

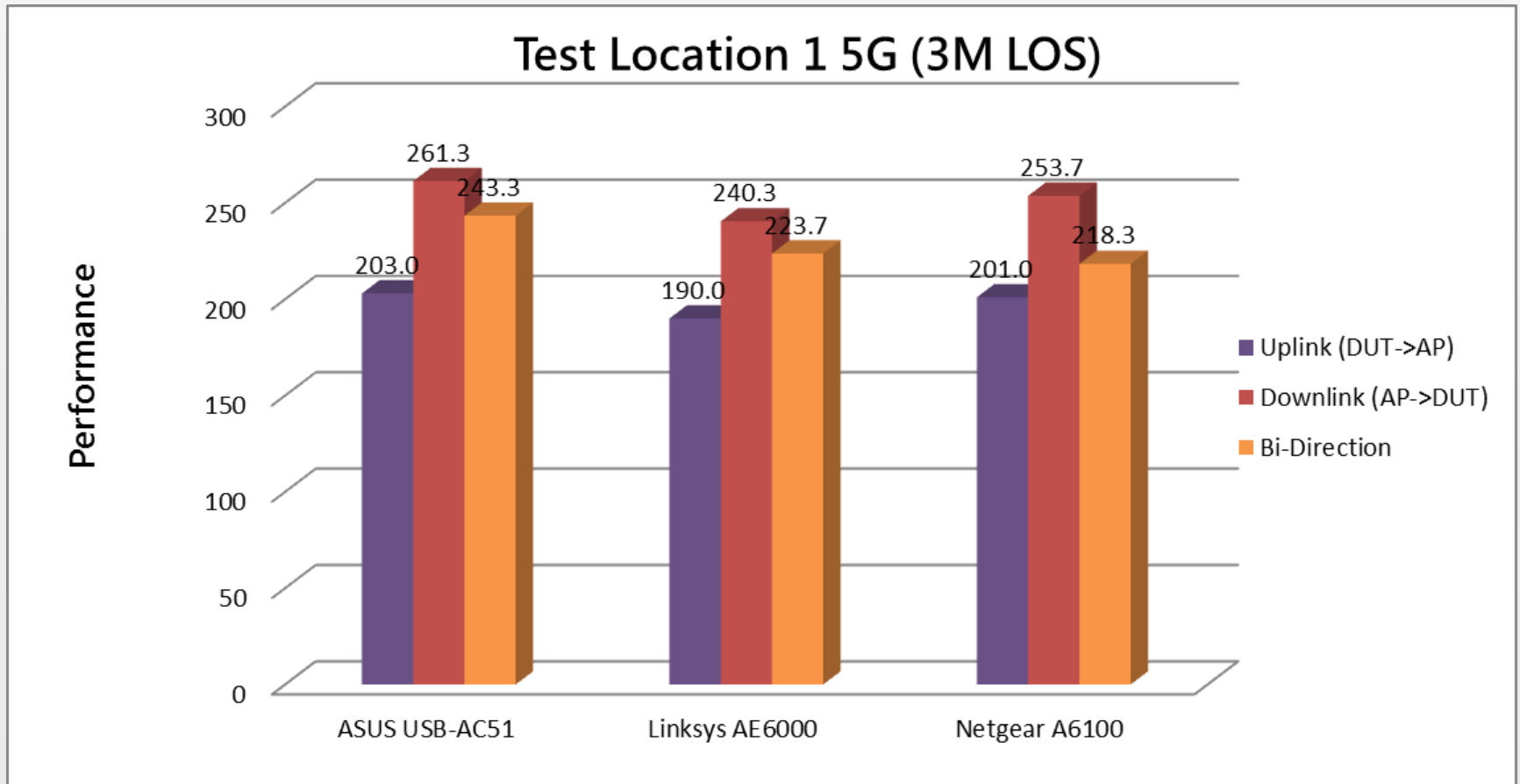
Performance Comparison

➤ Location 1 – 3 Meters LOS (2.4 GHz)



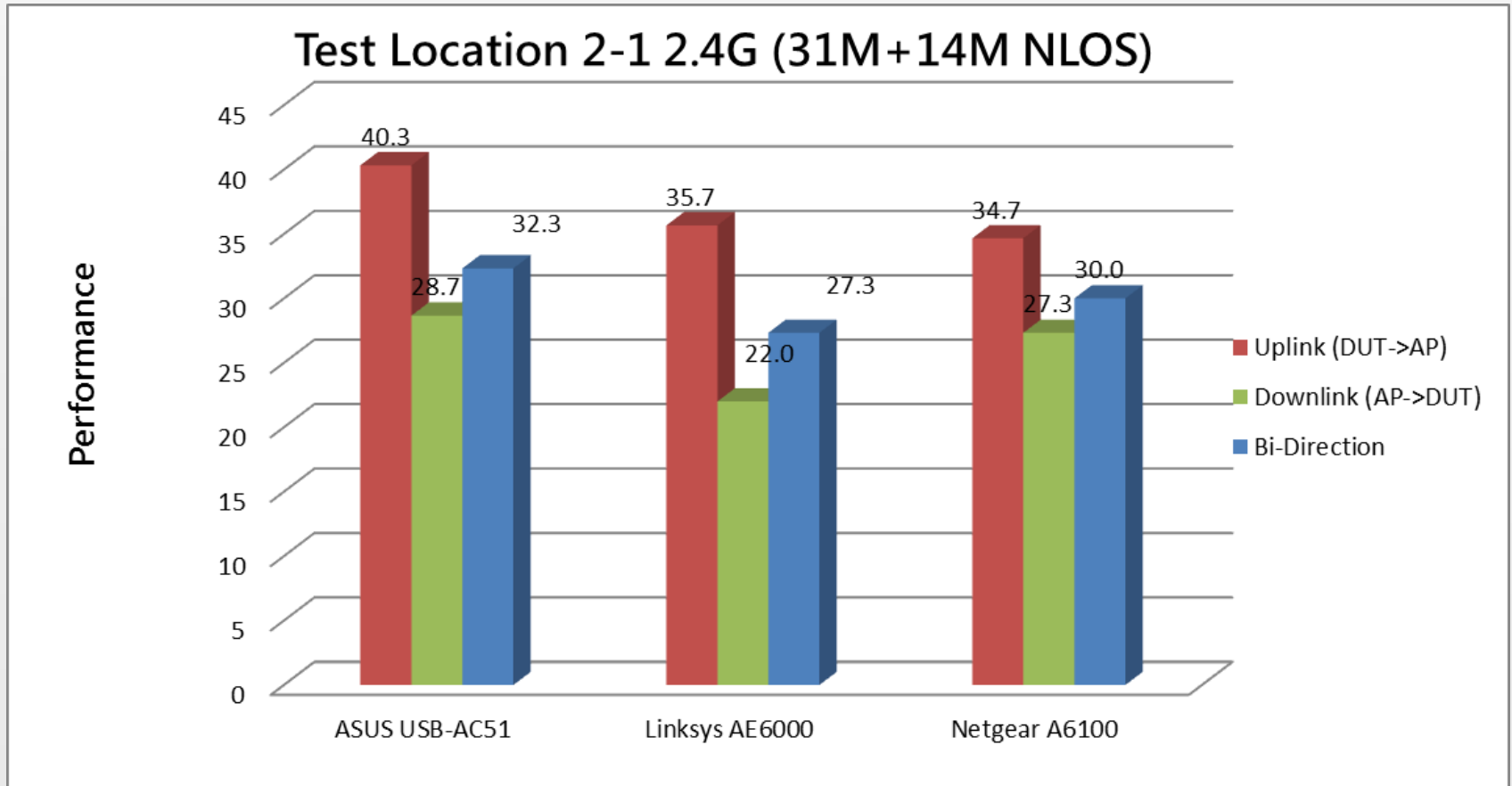
Performance Comparison

➤ Location 1 – 3 Meters LOS (5 GHz)



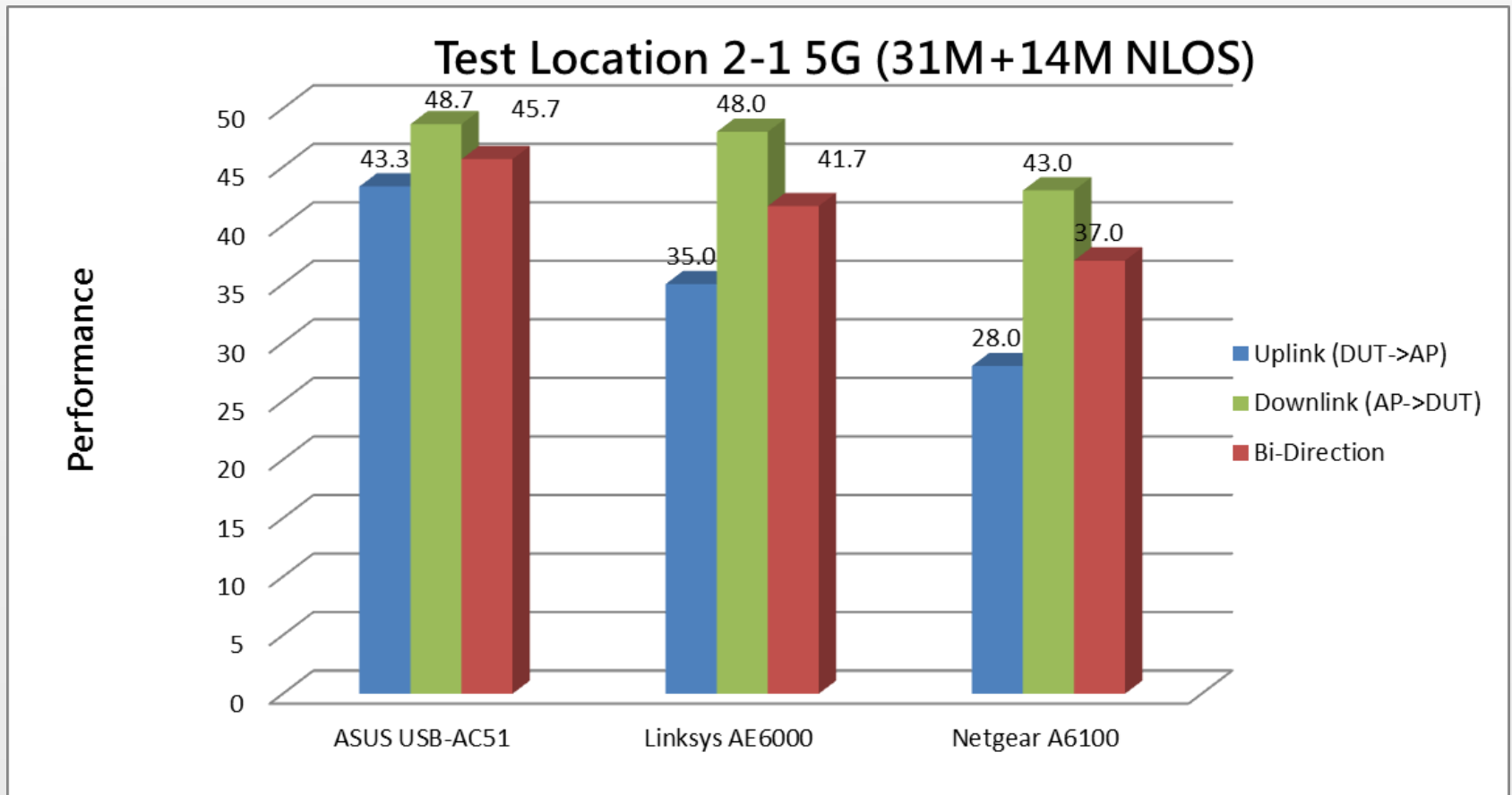
Performance Comparison

➤ Location 2 – 31 Meters + 14 Meters NLOS (2.4 GHz)



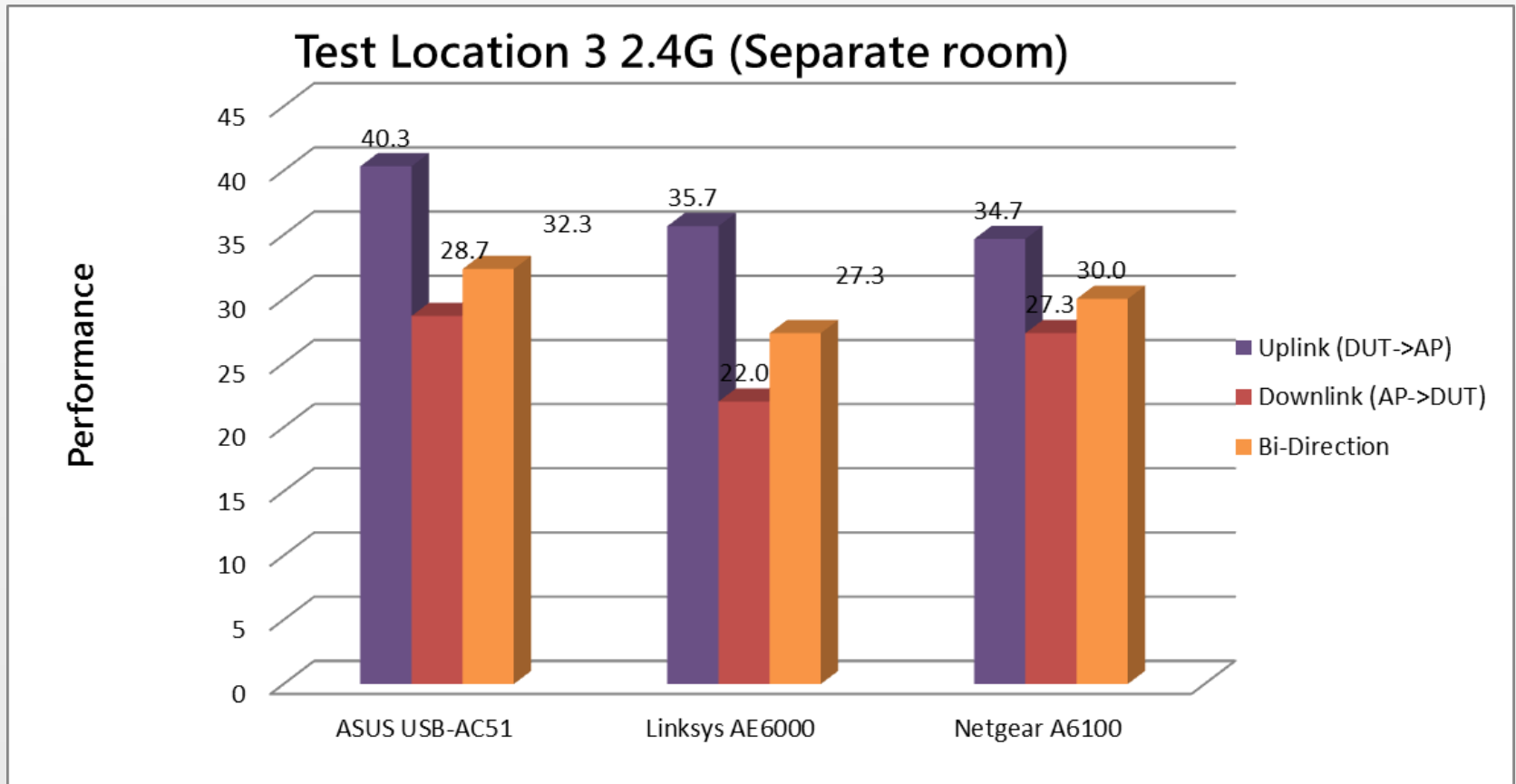
Performance Comparison

➤ Location 2 – 31 Meters + 14 Meters NLOS (5 GHz)



Performance Comparison

➤ Location 3 – 20 Meters Separate Room (2.4 GHz)



Performance Comparison

➤ Location 3 – 20 Meters Separate Room (5 GHz)

