



IWF Product Throughput Test report

May 20, 2013

Purpose

- ◆ **To provide a reproducible and reliable throughput data by control environment**
 - The EMI chamber (L*W*H: 7*4*2.5m) is selected to perform the test
 - Verified by InSSIDer software, no 2.4GHz nor 5GHz AP signal found inside the chamber
 - 50cm distance is selected to get the perfect communication link
 - All these conditions leads to AP and client running in MCS15 (300Mbps)

- ◆ **Long distance field throughput test report is also presented for reference**



Throughput Test at Nexcom Isolated Chamber

Model name	Operation Mode	Antenna gain (dBi)	Chamber (50CM) TCP hroughput (Mbps)		
			UP link	Down link	UP + Down link
SWF1210	2.4GHz Security Function Enable	3	26	40	66
	2.4GHz Security Function Disable	3	36	64	100
IWF2220	2.4GHz (AP Mode)	3	35	84	119
	5GHz (AP Mode)	5	40	71	111
	5GHz (WDS Mode)	5	80	57	137
IWF3320X	2.4GHz (AP Mode)	3	72	79	151
	5GHz (AP Mode)	5	64	86	150
	5GHz (WDS Mode)	5	86	68	154
IWF3320C	2.4GHz (AP Mode)	3	57	41	98
	5GHz (AP Mode)	5	74	46	120
IWF5320	2.4GHz (AP Mode)	3	76	80	156
	5GHz (AP Mode)	5	76	66	142
	5GHz (WDS Mode)	13	44	84	128

- IWF3320C is combo of AP + Controller with more complicated SW



Tester and Software

1. Notebook 1: Acer Travel Mate P633-M, Intel i5-3210M CPU 2.5GHz, Win 7 (64bit), Qualcomm Atheros AR5BWB222 NIC (802.11a/b/g/n 2x2)
2. Notebook 2: Acer Aspire 5745G , Intel i5 CPU 2.4GHz, Win 7 (64bit), TOTOLINK N500UMD (802.11a/b/g/n 2x2)
3. Software: Tamosoft version V1.0 Build 17
(<http://www.tamos.com/products/throughput-test/>)
4. Site survey by InSSIDer: version 2.1.6.135, scan result: no 2.4GH no 5GHz Wi-Fi signal found!
(<http://www.metageek.net/products/inssider/>)
5. The distance is fixed at 50 cm for both AP mode and WDS mode



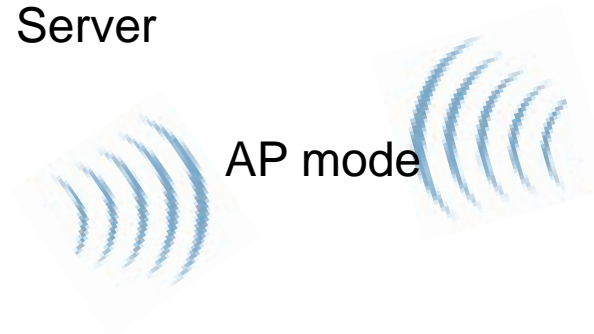
Testing configuration: AP mode



Notebook 1:
TamoSoft: Server



Notebook 2:
TamoSoft: Client



AP mode

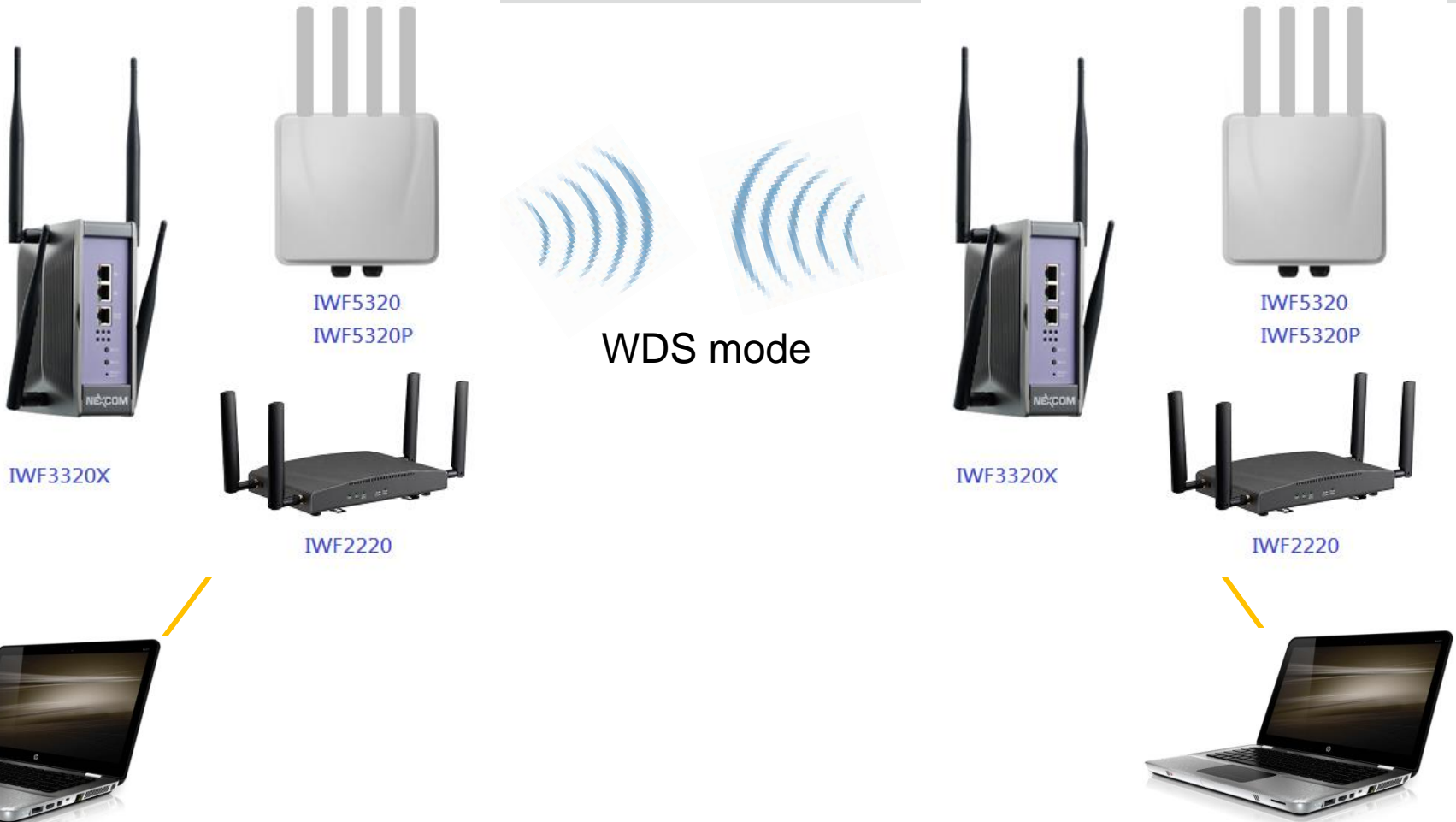


Only one AP been selected for testing

Ethernet: —



Testing configuration: WDS mode



IWF3320X

IWF5320
IWF5320P

WDS mode

IWF3320X

IWF5320
IWF5320P

IWF2220

IWF2220

Notebook 1:
TamoSoft: Client

Notebook 2:
TamoSoft: Server

Ethernet: —



All products and the Chamber



IWF5320/5320P Field Test



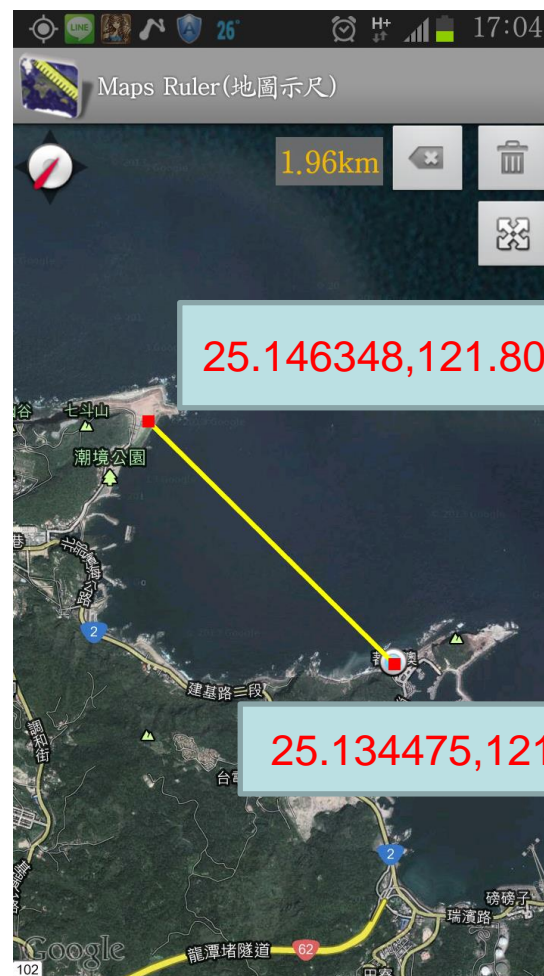
Field Throughput Test Result

	IWF5320 + 23dbi antenna	IWF5320P + 23dbi antenna
1.6KM (TCP)	74.5Mbps	192Mbps
1.6KM (UDP)	97Mbps	290Mbps
1.95KM (TCP)	20.8Mbps	182Mbps
1.95KM (UDP)	42.8Mbps	258Mbps

*Note: Throughput data is combined with Uplink and downlink

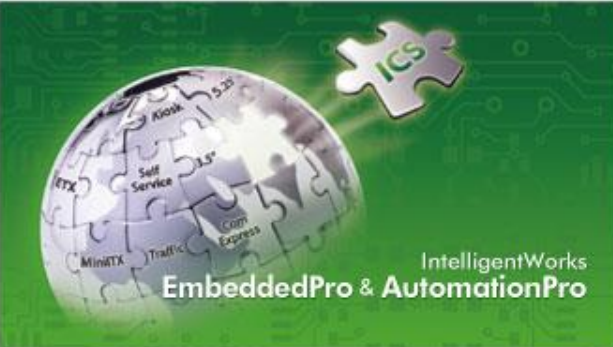


Field test location



Field test - Setup





Thank You!