



Concentric Technology Solutions Inc

Solutions for the Wireless Industry

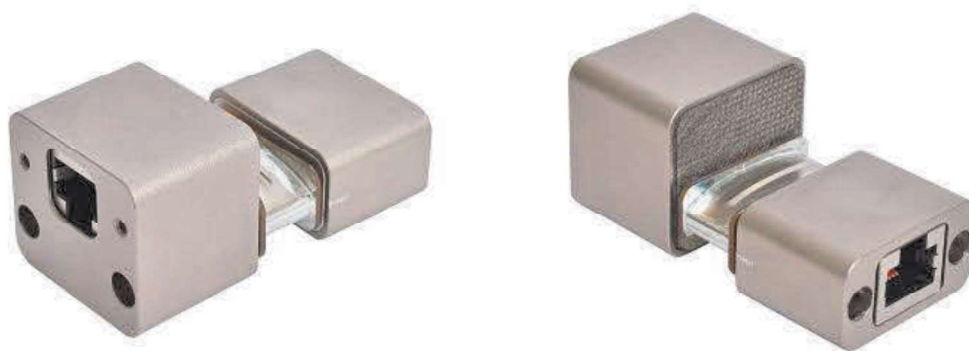


RJ-45 Adapter

(RF Filtered)

Data Sheet

RJ-45 Adapter



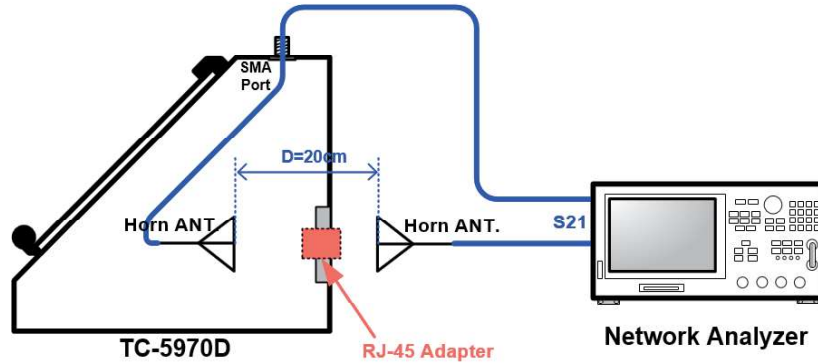
General Specifications

Product Category	RJ-45 Adapter (RF Filtered)
Part Number	3904-0296A
Connector Inside Type	RJ-45
Connector Inside Gender:	Female
Connector Outside Type	RJ-45
Connector Outside Gender:	Female
Filtered:	Filtered (Cutoff Frequency: 500 MHz)
Capacitance	10 pF, 60 VDC
Current Rating	1.5 A
Operating Temperature	0 ~ 50 °C
Data Speed	< 10 Gbps
Application	Ethernet: 10BASE-T / 100BASE-TX Gigabit Ethernet: 1000BASE-T / 10GBASE-T
Product Category	RJ-45 Adapter (RF Filtered)

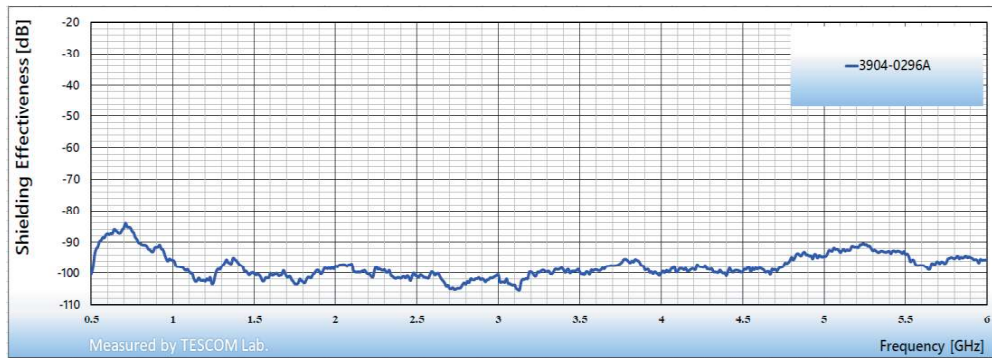
Shielding Effectiveness

Test Setup: Network Analyzer: E5071C (Max. 8.5 GHz), N5290A (Max. 67GHz)

Test Antenna: 3908-0046A (0.5 to 8 GHz), DRH-67 (6 to 67 GHz) / Shield Box: TC-5970D (Tescom)



Test Result



1) 0.5 to 6 GHz



2) 6 to 67 GHz

Frequency	0.5 to 2 GHz	2 to 6 GHz	6 to 67 GHz
Shielding Effectiveness	60 dB ↑	70 dB ↑	60 dB ↑

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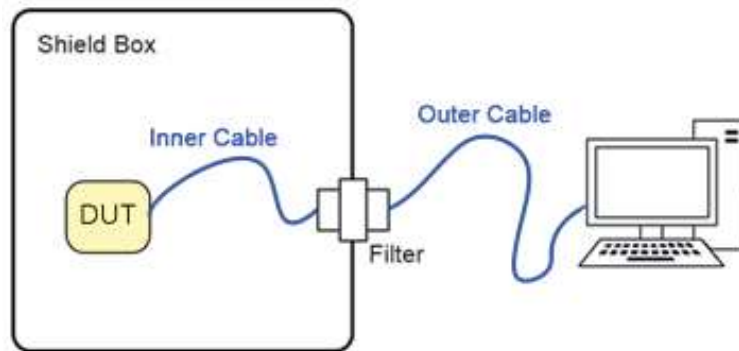
Ordering Information

Order Number	Product
3904-0296A	RJ-45 Data Adapter RJ-45 cables are sold separately

Option Cables

Order Number	Product
4008-0024	RJ45 8(p) - RJ45 8(p) CAT6 2 m
4008-0025	RJ45 8(p) - RJ45 8(p) CAT6 30 cm

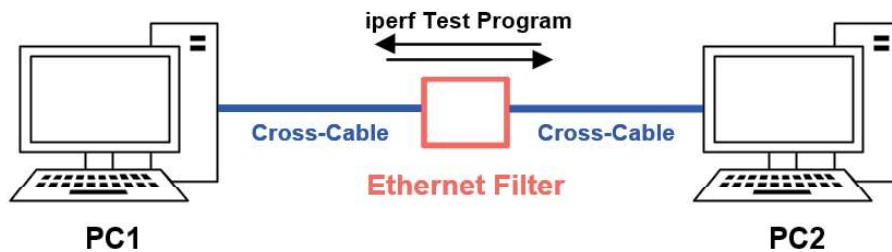
Cable Length Limit



	Innner Cable Length Limit	Outer Cable Length Limit	Cable
1000BASE-T	~2 m	~ 2 m	CAT6~
10GBASE-T	~1 m	~ 1 m	CAT6A~

Appendix: Gigabit Ethernet (Data Transfer Test)

Test Setup:



Test Result:

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Speed	Test Setup	Transfer Bytes	Bandwidth
1 Gbits/sec	Ethernet Filter Direct Connection	990.6 MBytes 991.0 MBytes	98.9 Mbytes/sec 99.0 Mbits/sec
10 Gbits/sec	Ethernet Filter Direct Connection	8.60 GBytes 9.32 GBytes	7.39 Gbits/sec 8.0 Gbits/sec

* 1 Gbps = 125 Mbyte

* Above results may vary depending on the Test PC specification.

```

C:\windows\system32\cmd.exe
[ ID] Interval      Transfer      Bandwidth
[ 3] 0.0-10.0 sec   995 MBytes   99.3 MBytes/sec

C:\windows\system32\cmd.exe
C:\wiperf>iperf -c 192.168.2.120 -f Mbytes -l 1000

Client connecting to 192.168.2.120, TCP port 5001
TCP window size: 0.06 MByte (default)

[ 3] local 192.168.2.117 port 1396 connected with 192.168.2.120 port 5001
[ ID] Interval      Transfer      Bandwidth
[ 3] 0.0-10.0 sec   974 MBytes   97.2 MBytes/sec

C:\wiperf>iperf -c 192.168.2.120 -f Mbytes -l 1000
connect failed: No route to host

C:\wiperf>iperf -c 192.168.2.120 -f Mbytes -l 1000

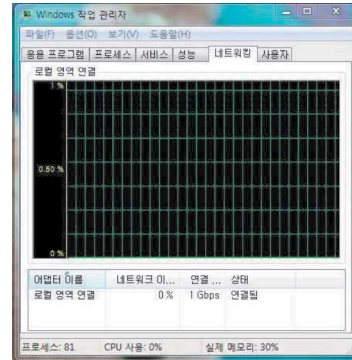
Client connecting to 192.168.2.120, TCP port 5001
TCP window size: 0.06 MByte (default)

[ 3] local 192.168.2.117 port 1396 connected with 192.168.2.120 port 5001
[ ID] Interval      Transfer      Bandwidth
[ 3] 0.0-10.0 sec   994 MBytes   99.3 MBytes/sec

C:\wiperf>

```

< Data throughput test using iPerf: 1 Gbps >



< Windows Task Manager Link Speed: 1 Gbps >

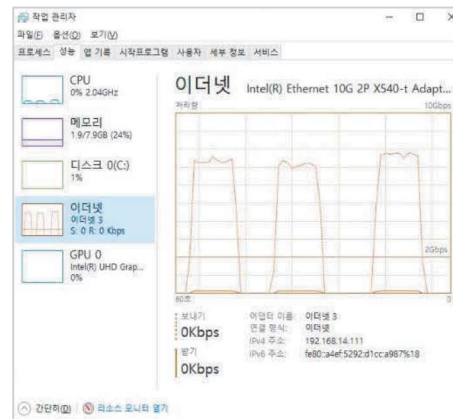
```

관리자: 명령 프롬프트
300 0.00-10.00 sec 352 MBytes 296 Moits/sec sender
300 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
300 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
302 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
304 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
304 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
306 0.00-10.00 sec 352 MBytes 296 Moits/sec sender
306 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
308 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
308 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
310 0.00-10.00 sec 352 MBytes 296 Moits/sec sender
310 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
312 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
312 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
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314 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
316 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
316 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
318 0.00-10.00 sec 352 MBytes 296 Moits/sec sender
318 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
320 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
320 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
322 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
322 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
324 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
324 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
326 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
326 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
328 0.00-10.00 sec 352 MBytes 295 Moits/sec sender
328 0.00-10.00 sec 352 MBytes 295 Moits/sec receiver
330 0.00-10.00 sec 8.60 GBytes 7.39 Gbits/sec sender
330 0.00-10.00 sec 8.59 GBytes 7.38 Gbits/sec receiver

perf Done.
wiperf3>iperf3 -c 192.168.14.193 -p 25

```

< Data throughput test using iPerf: 10 Gbps >



< Windows Task Manager Link Speed: 10 Gbps >

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

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