

FCC DOC TEST REPORT

Declaration of Conformity

according to

47 CFR, Part 2, Part 15, CISPR PUB. 22

Applicant : Netgear Inc.

Address 350 East Plumeria Drive, San Jose,

CA 95134, U.S.A.

Equipment : RANGEMAX WIRELESS-N DSL GIGABIT

MODEM ROUTER

Model No. : DGN3500; DGN3500B

Trade Name : NETGEAR

Laboratory accreditation



- The test result refers exclusively to the test presented test model / sample.
- Without written approval of Cerpass Technology Corp. the test report shall not be reproduced except in full.

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CERTIFICATE OF COMPLIANCE

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47 CFR, Part 2, Part 15, CISPR PUB. 22

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Equipment : RANGEMAX WIRELESS-N DSL GIGABIT

MODEM ROUTER

Model No. : DGN3500; DGN3500B

I HEREBY CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 – 2003** and the energy emitted by this equipment was *passed* CISPR PUB. 22, FCC Part 15 in both radiated and conducted emission class B limits.

Testing was carried out on Jul. 27, 2009 at Cerpass Technology Corp.

Signature

Anson Chou

EMC/RF B.U. Vice General Manager

 Cerpass Technology Corp.
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1. Test Configuration of Equipment under Test

1.1. Feature of Equipment under Test

| Spreading | • | 802.11b: DSSS, CCK(QPSK, BPSK) | | | |
|-----------------|---|---|--|--|--|
| | | 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) | | | |
| _ | | 802.11n: OFDM(64QAM, 16QAM, QPSK, BPSK) | | | |
| Frequency Range | : | 802.11b/g/n:2.4~2.4835GHz | | | |
| Number of | : | USA, Canada, and Taiwan: 1~11 | | | |
| Channels | | Japan: 1~14 | | | |
| | | Most European Countries: 1~13 | | | |
| | | France: 10~13 | | | |
| Data Rate | : | 802.11b: 11, 5.5, 2, 1Mbps | | | |
| | | 802.11g:54, 48, 36, 24, 18, 12, 9, 6 Mbps | | | |
| | | 802.11n: | | | |
| | | HT40 mode: 270/15, 243/14, 216/13, 162/12, 108/11, 81/10, 54/9, | | | |
| | | 27/8, 135/7, 121.5/6, 108/5, 81/4, 54/3, 40.5/2, 27/1, 13.5/0Mbps | | | |
| | | HT20 mode: 130/15, 117/14, 104/13, 78/12, 52/11, 39/10, 26/9, | | | |
| | | 13/8, 65/7, 58.5/6, 52/5, 39/4, 26/3, 19.5/2, 13/1, 6.5/0Mbps | | | |
| Modulation | : | 802.11n: OFDM | | | |
| | | 802.11g: OFDM | | | |
| | | 802.11b: CCK, DQPSK, DBPSK | | | |
| Antenna | : | Ant1: PIFA Antenna/ Gain: 2dBi | | | |
| | | Ant2: PIFA Antenna/ Gain: 2dBi | | | |
| Security | : | IEEE802.1x and WPA (available in the future) | | | |
| ĺ | | WEP 64 bit, 128 bit | | | |
| Transmit Power | : | FCC: | | | |
| | | 802.11b: 17~18dBm(Average) | | | |
| | | 802.11g: 54M = 15dBm(Average) | | | |
| | | 36M~48M = 16dBm(Average) | | | |
| | | 6M~24M=17dBm~18dBm(Average) | | | |
| | | 802.11n: | | | |
| | | HT40 mode: 13.5M, 27M, 40.5M, 54M, 81M, 108M, 162M, 216M = | | | |
| | | 16~18dBm(Average) | | | |
| | | 121.5M, 135M, 243M, 270M=13~15dBm(Average) | | | |
| | | HT20 mode: 6.5M, 13M, 19.5M, 26M, 39M, 52M, 78M, 104M = | | | |
| | | 16~18dBm | | | |
| | | 58.5M, 65M, 117M, 130M=13~15dBm(Average) | | | |
| | | ETSI: | | | |
| | | 802.11b: 17~18dBm(Average) | | | |
| | | 802.11g: 48M~54M=13dBm~15dBm(Average) | | | |
| | | 6M~36M=16dBm~18dBm(Average) | | | |
| | | 802.11n: | | | |
| | | HT40 mode: 13.5M, 27M, 40.5M, 54M, 81M, 108M, 162M, | | | |
| | | 216M=16~18dBm(Average) | | | |
| | | 121.5M, 135M, 243M, 270M=13~15dBm(Average) | | | |
| | | HT20 mode: 6.5M, 13M, 19.5M, 26M, 39M, 52M, 78M, 104M= | | | |
| | | 16~18dBm(Average) | | | |
| | | 58.5M, 65M, 117M, 130M= 13~15dBm(Average) | | | |
| | | Jo.Sivi, OSIVI, TTIVI, TSUIVI= TS~TSUDITI(AVERAGE) | | | |

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1.2. Test Manner

- During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- b. The complete test system included remote workstation, PC, Monitor, Mouse, Keyboard, Printer and EUT for EMI test. The remote workstation included Notebook.
- The result of conduction test as follow:

Model: DGN3300:

Test Mode 1: model: LINK LAN (1G) + Wireless (13.5M), Adapter: FA-1201500SUA Test Mode 2: model: LINK LAN (1G) + Wireless (13.5M), Adapter: AD661G0916BLF Model: DGN3300B:

Test Mode 3: model: LINK LAN (1G) + Wireless (13.5M), Adapter: FA-1201500SUA Test Mode 4: model: LINK LAN (1G) + Wireless (13.5M), Adapter: AD661G0916BLF The test mode 1 was the worst case; it was reported as final data.

The result of disturbances at telecommunication ports test as follow:

Model: DGN3500

Test Mode1: ISN RJ11, Adapter: FA-1201500SUA Test Mode2: ISN LAN (10M), Adapter: FA-1201500SUA Test Mode3: ISN LAN (100M), Adapter: FA-1201500SUA Test Mode4: ISN LAN (1G), Adapter: FA-1201500SUA Test Mode5: ISN RJ11, Adapter: AD661G0916BLF Test Mode6: ISN LAN (10M), Adapter: AD661G0916BLF

Test Mode7: ISN LAN (100M), Adapter: AD661G0916BLF Test Mode8: ISN LAN (1G), Adapter: AD661G0916BLF

Model: DGN3500B

Test Mode8: ISN RJ11, Adapter: FA-1201500SUA Test Mode9: ISN LAN (10M), Adapter: FA-1201500SUA Test Mode10: ISN LAN (100M), Adapter: FA-1201500SUA Test Mode11: ISN LAN (1G), Adapter: FA-1201500SUA Test Mode12: ISN RJ11, Adapter: AD661G0916BLF Test Mode13: ISN LAN (10M), Adapter: AD661G0916BLF Test Mode14: ISN LAN (100M), Adapter: AD661G0916BLF

Test Mode15: ISN LAN (1G), Adapter: AD661G0916BLF The test mode 1~4 were the worst case; it was reported as final data.

The results of radiation test as follow:

Model: DGN3500

e.

Test Mode 1: model: LINK LAN (1G) + Wireless (13.5M), Adapter: FA-1201500SUA - Vertical Test Mode 2: model: LINK LAN (1G) + Wireless (13.5M), Adapter: FA-1201500SUA -Horizontal Test Mode 3: model: LINK LAN (1G) + Wireless (13.5M), Adapter: AD661G0916BLF - Vertical Test Mode 4: model: LINK LAN (1G) + Wireless (13.5M), Adapter: AD661G0916BLF - Horizontal Model: DGN3500B

Test Mode 5: model: LINK LAN (1G) + Wireless (13.5M), Adapter: FA-1201500SUA - Vertical Test Mode 6: model: LINK LAN (1G) + Wireless (13.5M), Adapter: FA-1201500SUA -Horizontal Test Mode 7: model: LINK LAN (1G) + Wireless (13.5M), Adapter: AD661G0916BLF - Vertical Test Mode 8: model: LINK LAN (1G) + Wireless (13.5M), Adapter: AD661G0916BLF - Horizontal The test mode 1 was the worst case, it was reported as final data.

f. An executive program, "Ping.exe" under WIN XP, which transmits and receives data to the remote workstation through Wireless.

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1.3. Description of Test System

| Device | Manufacturer | Model No. | Description |
|-------------|--------------|---------------|--|
| PC | IBM | IGV | Power Cable, Unshielding 1.8 m |
| Monitor | ViewSonic | G90fB | Power Cable, Adapter Unshielding 1.8 m Data Cable, VGA Shielding 1.35 m |
| Keyboard | IBM | KB-0225 | Data Cable, PS2 Shielding 1.85 m |
| Mouse | IBM | MU29J | Data Cable, PS2 Shielding 1.85 m |
| Modem | ACEXX | DM-1414 | Power Cable, Adapter Unshielding 1.8 m Data Cable, RS232 Shielding 1.35 m |
| Printer | HP | Desk Jet 400 | Power Cable, Adapter Unshielding 1.8 m Data Cable, Print Shielding 1.6 m |
| Remote work | station | | |
| Notebook | DELL | PP10L | Power Cable, Adapter Unshielding 1.8 m |
| Notebook | TOSHIBA | PSA50T-05M00C | Power Cable, Adapter Unshielding 1.8 m |
| DSLAN | 2YXZL | IES-1000 | Power Cable, Unshielding 1.8 m |

Use Cable:

| 000 000:0: | | | | | | | |
|------------|----------|-------------------|--|--|--|--|--|
| Cable | Quantity | Description | | | | | |
| RJ45 | 3 | Unshielding, 3.0m | | | | | |
| RJ45 | 1 | Unshielding, 1.5m | | | | | |
| RJ11 | 1 | Unshielding, 5.0m | | | | | |

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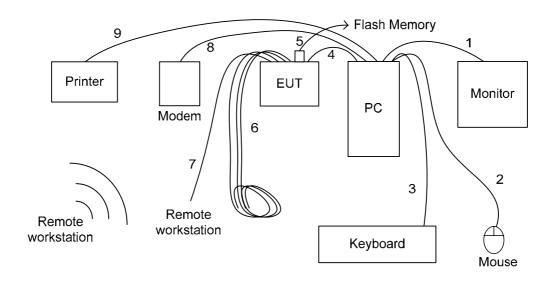
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1.4. Connection Diagram of Test System



- 1. The VGA cable is connected from PC to Monitor.
- 2. The PS2 cable is connected from PC to the Mouse.
- 3. The PS2 cable is connected from PC to the Keyboard.
- 4. The RJ45 cable is connected from PC to the EUT.
- 5. The Flash Memory is connected to the EUT.
- 6. These RJ45 cables (*3) are floating.
- 7. The RJ11 Cable is connected from EUT to the Remote workstation.
- 8. The RS232 cable is connected from PC to the Modem.
- 9. The Print cable is connected from PC to the Printer.
- * The EUT keeps to transmit and receive data to remote workstation by Wireless.

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1.5. General Information of Test

| Test Site : | Cerpass Technology Corp. 2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C. | | | |
|--------------------------------|---|--|--|--|
| Test Site Location (OATS1-SD): | No. 7-2, Moshihkeng, Fongtian Village, Shihding Township, Taipei County, Taiwan, R.O.C. | | | |
| FCC Registration Number : | TW1049, 982971, 488071 | | | |
| IC Registration Number : | 4934C-1 | | | |
| VCCI Registration Number : | T-543 for Telecommunication Test C-3328 for Conducted emission test R-3013 for Radiated emission test | | | |
| Test Voltage: | AC 120V / 60Hz | | | |
| Test in Compliance with: | ANSI C63.4-2003 FCC Part 15 Subpart B | | | |
| Frequency Range | Conducted Emission Test: from 150kHz to 30 MHz | | | |
| Investigated : | Radiated Emission Test: from 30 MHz to 6,000 MHz | | | |
| Test Distance : | The test distance of radiated emission below 1GHz from antenna to EUT is 10 M. The test distance of radiated emission above 1GHz from antenna to EUT is 3 M. | | | |

1.6. Measurement Uncertainty

| Measurement Item | Measurement Frequency | Polarization | Uncertainty |
|--------------------|-----------------------|--------------|-------------|
| Conducted Emission | 9 kHz ~ 30 MHz | LINE/NEUTRAL | 2.71 dB |
| Radiated Emission | 30 MHz ~ 1GHz | Vertical | 3.89 dB |
| Radiated Emission | SU WITZ ~ IGTZ | Horizontal | 3.59 dB |

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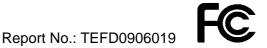


1.7. History of this test report

■ ORIGINAL.

 $\hfill\square$ Additional attachment as following record:

| Attachment No. | Issue Date | Description |
|----------------|------------|-------------|
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2. Test of Conducted Emission

2.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

| Frequency (MHz) | Quasi Peak (dB µ V) | Average (dB μ V) | |
|--------------------|------------------------|---------------------|--|
| 0.15 – 0.5 | 66-56* | 56-46* | |
| 0.5 – 5.0 | 56 | 46 | |
| 5.0 – 30.0 | 60 | 50 | |

2.2. Test Procedures

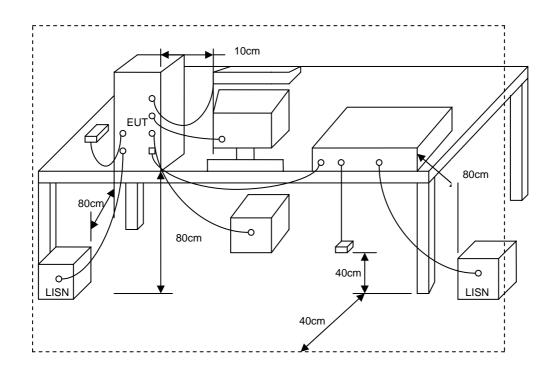
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

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2.3. Typical test Setup



2.4. Measurement equipment

| Instrument | Manufacturer | Model No. | Serial No. | Calibration Date | Valid Date |
|--------------|--------------|-------------|------------|------------------|------------|
| EMI Receiver | R&S | ESCI | 100443 | 2008/09/27 | 2009/09/26 |
| LISN | NSLK 8127 | Schwarzbeck | 8127-516 | 2009/05/15 | 2010/05/14 |
| LISN | ROLF HEINE | NNB-2/16Z | 03/10058 | 2009/04/18 | 2010/04/17 |
| ISN | TESEQ GMBH | ISN T4 | 20158 | 2009/04/24 | 2010/04/23 |

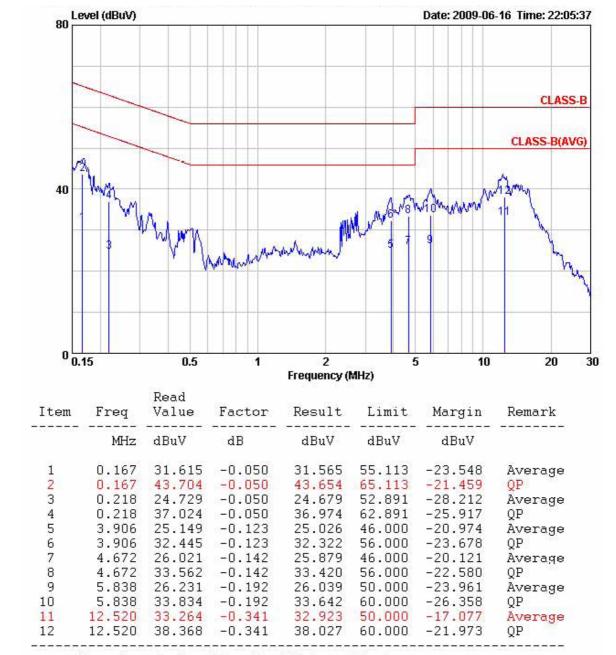
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2.5. Test Result and Data

| Power | : | AC 120V | Pol/Phase : | LINE |
|-------------|---|----------------------------|---------------|-------|
| Test Mode 1 | : | LINK LAN (100M) + Wireless | Temperature : | 25 °C |
| Memo | : | Adapter: FA-120150SUA | Humidity : | 56 % |



Remarks: 1. Result = Read Value + Factor

2. Factor = LISN(ISN) Factor + Cable Loss

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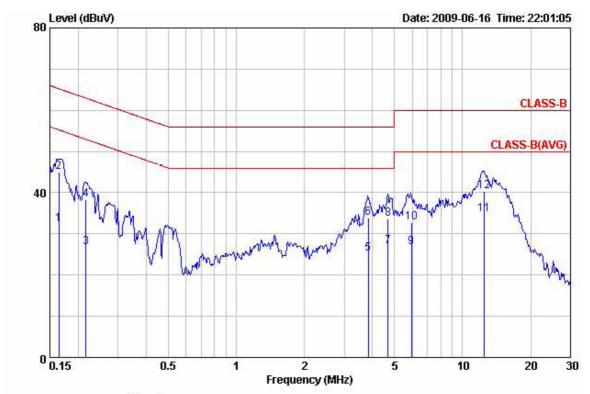
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| Power | : | AC 120V | Pol/Phase : | NEUTRAL |
|-------------|---|----------------------------|---------------|---------|
| Test Mode 1 | : | LINK LAN (100M) + Wireless | Temperature : | 25 °C |
| Memo | : | Adapter: FA-120150SUA | Humidity : | 56 % |



| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|--|--|--|--|--|--|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 2 3 4 5 6 7 8 9 10 11 12 | 0.164 0.164 0.216 0.216 3.827 3.827 4.678 4.678 5.943 5.943 12.480 | 32.336 45.081 26.780 38.469 25.330 33.845 26.967 33.752 26.760 32.816 34.973 40.510 | -0.050 -0.050 -0.050 -0.050 -0.071 -0.071 -0.092 -0.092 -0.119 -0.119 -0.252 | 32.286 45.031 26.730 38.419 25.259 33.774 26.875 33.660 26.641 32.697 34.721 40.258 | 55.259 65.259 52.964 62.964 46.000 56.000 46.000 50.000 60.000 | -22.973 -20.228 -26.234 -24.545 -20.741 -22.226 -19.125 -22.340 -23.359 -27.303 -15.279 -19.742 | Average QP Average QP Average QP Average QP Average QP Average QP Average |

Remarks: 1. Result = Read Value + Factor 2. Factor = LISN(ISN) Factor + Cable Loss

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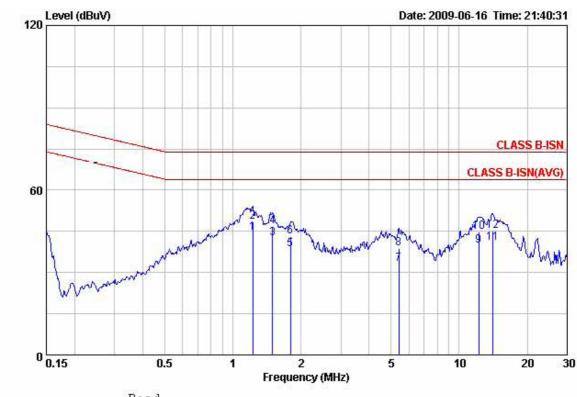
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2.5.1 Conducted Emission for Telecommunication Port Test Data

| Power | : | AC 120V | Temperature : | 25 °C |
|-------------|---|------------------------|---------------|-------|
| Test Mode 1 | : | ISN RJ11 | Humidity : | 56 % |
| Memo | : | Adapter: FA-1201500SUA | | |



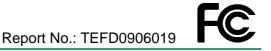
| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|--------------|-------------------------|----------------------------|-------------------------|----------------------------|----------------------------|-------------------------------|--------------------------|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 2 3 | 1.223 1.223 1.495 | 34.909 38.898 32.980 | 9.433 9.433 9.415 | 44.342 48.331 42.395 | 64.000 74.000 64.000 | -19.658 -25.669 -21.605 | Average QP Average |
| 4 5 6 | 1.495 | 37.483 | 9.415 9.399 | 46.898 38.573 | 74.000 64.000 | -27.102 -25.427 | QP Average |
| 7 | 1.800 5.419 5.419 | 33.618 23.831 29.500 | 9.399 9.350 9.350 | 43.017 33.181 38.850 | 74.000 64.000 74.000 | -30.983 -30.819 -35.150 | QP Average QP |
| 8 9 10 | 12.188 | 30.505 35.458 | 9.370 9.370 | 39.875 44.828 | 64.000 74.000 | -24.125 -29.172 | Average QP |
| 11 12 | 14.063 14.063 | 31.426 35.753 | 9.384 9.384 | 40.810 45.137 | 64.000 74.000 | -23.190 -28.863 | Average QP |

Remarks: 1. Result = Read Value + Factor

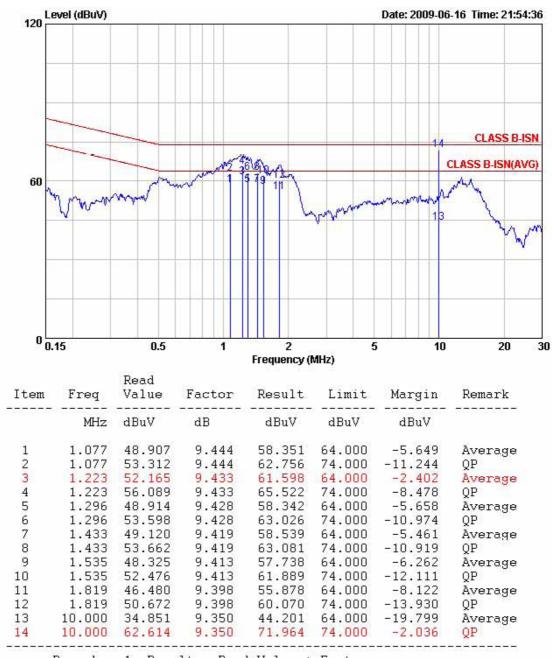
2. Factor = LISN(ISN) Factor + Cable Loss

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| Power | : | AC 120V | Temperature : | 25 °C |
|-------------|---|------------------------|---------------|-------|
| Test Mode 2 | : | ISN LAN (10M) | Humidity : | 56 % |
| Memo | : | Adapter: FA-1201500SUA | | |



Remarks: 1. Result = Read Value + Factor

2. Factor = LISN(ISN) Factor + Cable Loss

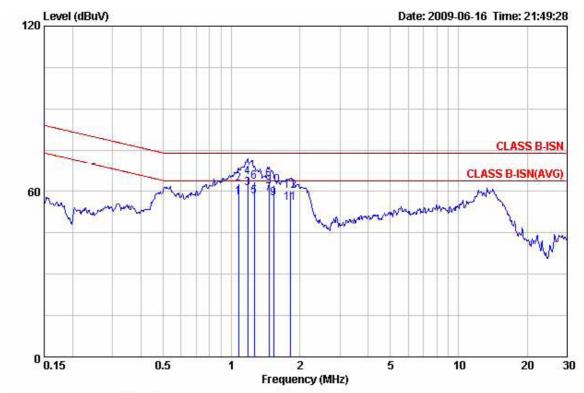
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| Power | : | AC 120V | Temperature | : | 25 °C |
|-------------|---|------------------------|-------------|---|-------|
| Test Mode 3 | : | ISN LAN (100M) | Humidity | | 56 % |
| Memo | | Adapter: FA-1201500SUA | | | |



| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|--------------------------------------|-------|---------------|--------|--------|--------|---------|--|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | ###################################### |
| 1 | 1.077 | 48.464 | 9.444 | 57.908 | 64.000 | -6.092 | Äverage |
| 2 | 1.077 | 53.439 | 9.444 | 62.883 | 74.000 | -11.117 | QP |
| 3 | 1.178 | 51.641 | 9.436 | 61.077 | 64.000 | -2.923 | Average |
| 4 | 1.178 | 55.747 | 9.436 | 65.183 | 74.000 | -8.817 | QP |
| 2 3 4 5 6 7 8 9 | 1.262 | 48.875 | 9.430 | 58.305 | 64.000 | -5.695 | Average |
| 6 | 1.262 | 53.966 | 9.430 | 63.396 | 74.000 | -10.604 | QP |
| 7 | 1.464 | 49.755 | 9.417 | 59.172 | 64.000 | -4.828 | Average |
| 8 | 1.464 | 53.781 | 9.417 | 63.198 | 74.000 | -10.802 | QP |
| 9 | 1.535 | 48.058 | 9.413 | 57.471 | 64.000 | -6.529 | Average |
| 10 | 1.535 | 52.629 | 9.413 | 62.042 | 74.000 | -11.958 | QP |
| 11 | 1.819 | 46.426 | 9.398 | 55.824 | 64.000 | -8.176 | Average |
| 12 | 1.819 | 50.890 | 9.398 | 60.288 | 74.000 | -13.712 | QP |

Remarks: 1. Result = Read Value + Factor

2. Factor = LISN(ISN) Factor + Cable Loss

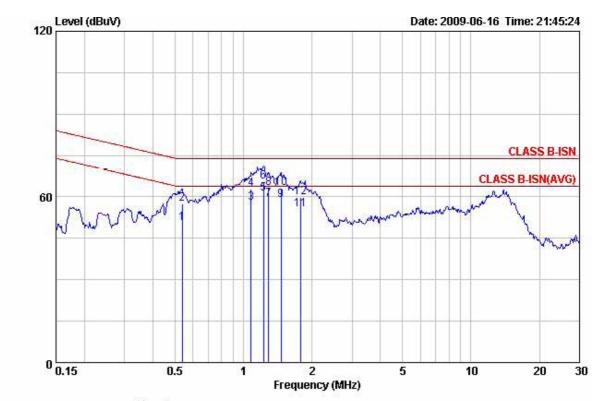
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| Power | : | AC 120V | Temperature : | 25 °C |
|-------------|---|------------------------|---------------|-------|
| Test Mode 4 | : | ISN LAN (1G) | Humidity : | 56 % |
| Memo | : | Adapter: FA-1201500SUA | | |



| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|------------------|-------|---------------|--------|--------|--------|---------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.538 | 41.027 | 9.522 | 50.549 | 64.000 | -13.451 | Average |
| 2 3 4 5 | 0.538 | 48.034 | 9.522 | 57.556 | 74.000 | -16.444 | QP |
| 3 | 1.082 | 48.501 | 9.443 | 57.944 | 64.000 | -6.056 | Average |
| 4 | 1.082 | 53.558 | 9.443 | 63.001 | 74.000 | -10.999 | QP |
| 5 | 1.223 | 51.896 | 9.433 | 61.329 | 64.000 | -2.671 | Average |
| 6 | 1.223 | 56.137 | 9.433 | 65.570 | 74.000 | -8.430 | QP |
| 7 | 1.289 | 49.737 | 9.428 | 59.165 | 64.000 | -4.835 | Average |
| 8 9 | 1.289 | 53.688 | 9.428 | 63.116 | 74.000 | -10.884 | QP |
| 9 | 1.464 | 49.272 | 9.417 | 58.689 | 64.000 | -5.311 | Average |
| 10 | 1.464 | 53.844 | 9.417 | 63.261 | 74.000 | -10.739 | QP |
| 11 | 1.781 | 45.930 | 9.400 | 55.330 | 64.000 | -8.670 | Average |
| 12 | 1.781 | 50.527 | 9.400 | 59.927 | 74.000 | -14.073 | QP |

Remarks: 1. Result = Read Value + Factor 2. Factor = LISN(ISN) Factor + Cable Loss

Test engineer:

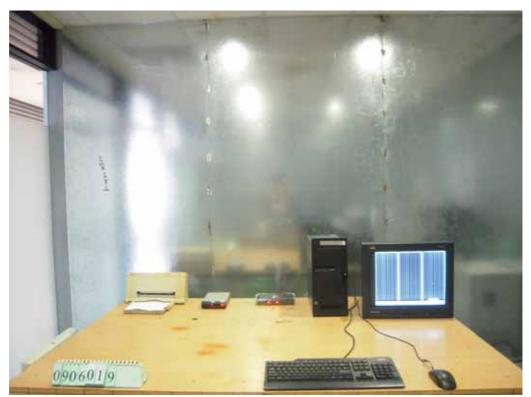
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2.6. Test Photographs

2.6.1 Test Photographs of Power Port



Front View



Rear View

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2.6.2 Test Photographs of Telecommunication Port



Rear View

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3. Test of Radiated Emission

3.1. Test Limit

Radiated emissions from 30 MHz to 6,000 MHz were measured with a bandwidth of 120 kHz according to the methods defines in ANSI C63.4-2003. The EUT was placed on a nonmetallic stand in the open-field site, 0.8 meter above the ground plane, as shown in section 3.2. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions. For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency (MHz) | Distance Meters | Radiated (µ V / M) | Radiated (dB µ V/ M) |
|--------------------|--------------------|-----------------------|-------------------------|
| 30-88 | 3 | 100 | 40.0 |
| 88-216 | 3 | 150 | 43.5 |
| 216-960 | 3 | 200 | 46.0 |
| Above 960 | 3 | 500 | 54.0 |

For unintentional device, according to CISPR PUB.22, for Class B digital devices, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 10 meters shall not exceed the below table.

| Frequency (MHz) | Distance Meters | Radiated (dB µ V/ M) | |
|--------------------|--------------------|-------------------------|--|
| 30-230 | 10 | 30 | |
| 230-1000 | 10 | 37 | |

3.2. Test Procedures

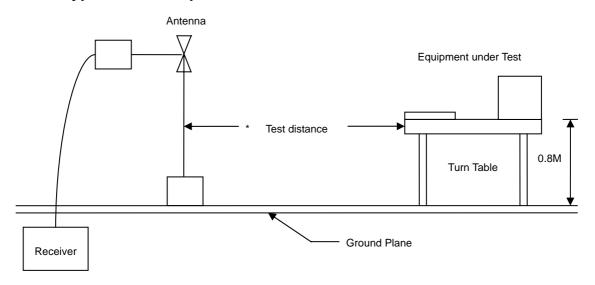
- a. The EUT was placed on a Rota table top 0.8 meter above ground.
- b. The EUT was set 3/10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 6 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 6 dB margin will be repeated one by one using the quasi-peak method and reported.

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3.3. Typical test Setup



3.4. Measurement equipment

| Instrument | Manufacturer | Model No. | Serial No. | Calibration Date | Valid Date |
|-------------------|--------------|-----------|------------|------------------|------------|
| Bilog Antenna | Schaffner | CBL6112B | 2840 | 2009/05/14 | 2010/05/13 |
| Signal Generator | HP | 8648B | 3629U00612 | 2008/10/08 | 2009/10/07 |
| Amplifier | Agilent | 8447D | 2944A10593 | 2009/05/21 | 2010/05/20 |
| EMI Receiver | HP | 8546A | 3807A00454 | 2008/08/07 | 2009/08/06 |
| Spectrum Analyzer | R&S | FSP40 | 100047 | 2009/03/26 | 2010/03/25 |
| Horn Antenna | EMCO | 3115 | 31589 | 2009/05/04 | 2010/05/03 |
| Preamplifier | Agilent | 8449B | 3008A01954 | 2009/02/27 | 2010/02/26 |

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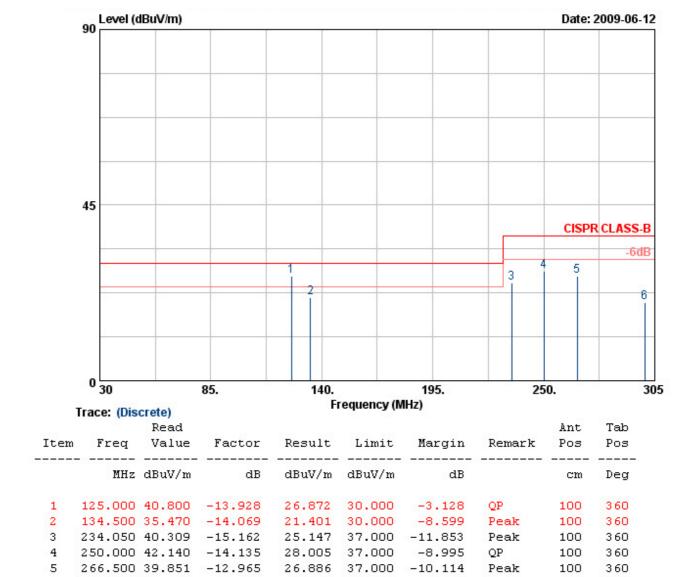


100 360

Report No.: TEFD0906019

3.5. Test Result and Data

| Power | : | AC 120V | Pol/Phase : | VERTICAL |
|-------------|---|--------------------------|---------------|----------|
| Test Mode 1 | : | LINK LAN (1G) + Wireless | Temperature : | 21 °C |
| Memo | : | Adapter: FA-1201500SUA | Humidity : | 60 % |



Remarks: 1. Result = Read Value + Factor

6 300.050 31.179 -11.187 19.992 37.000 -17.008 Peak

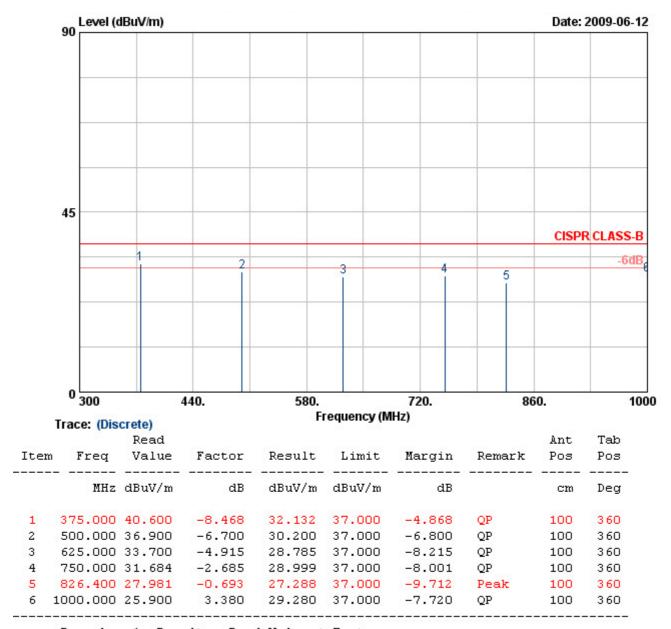
2. Factor = Antenna factor + Cable loss - Amplifier factor

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| Power | : | AC 120V | Pol/Phase : | VERTICAL |
|-------------|---|--------------------------|---------------|----------|
| Test Mode 1 | : | LINK LAN (1G) + Wireless | Temperature : | 21 °C |
| Memo | : | Adapter: FA-1201500SUA | Humidity : | 60 % |



Remarks: 1. Result = Read Value + Factor

2. Factor = Antenna factor + Cable loss - Amplifier factor

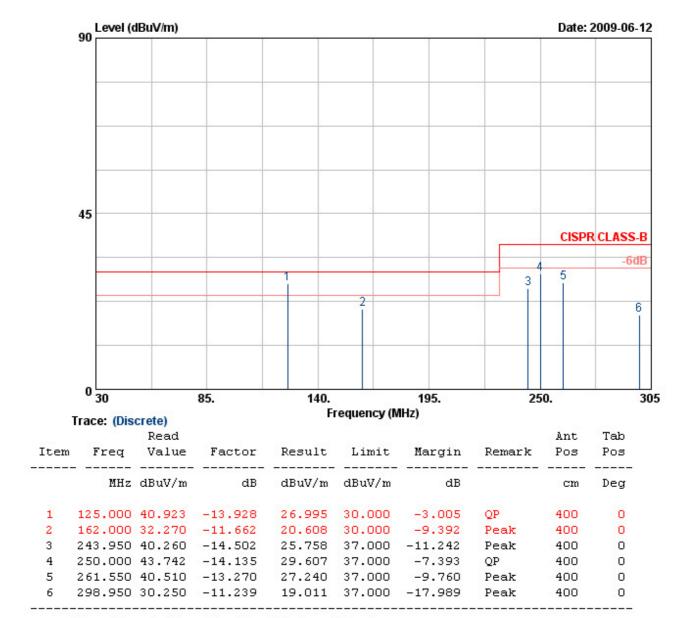
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| Report | No: | TEFD | 0906019 |
|--------|-----|------|-----------|
| Report | INO | | J9000 I 9 |

| Power | : | AC 120V | Pol/Phase : | HORIZONTAL |
|-------------|---|--------------------------|---------------|------------|
| Test Mode 1 | : | LINK LAN (1G) + Wireless | Temperature : | 21 °C |
| Memo | : | Adapter: FA-1201500SUA | Humidity : | 60 % |



Remarks: 1. Result = Read Value + Factor

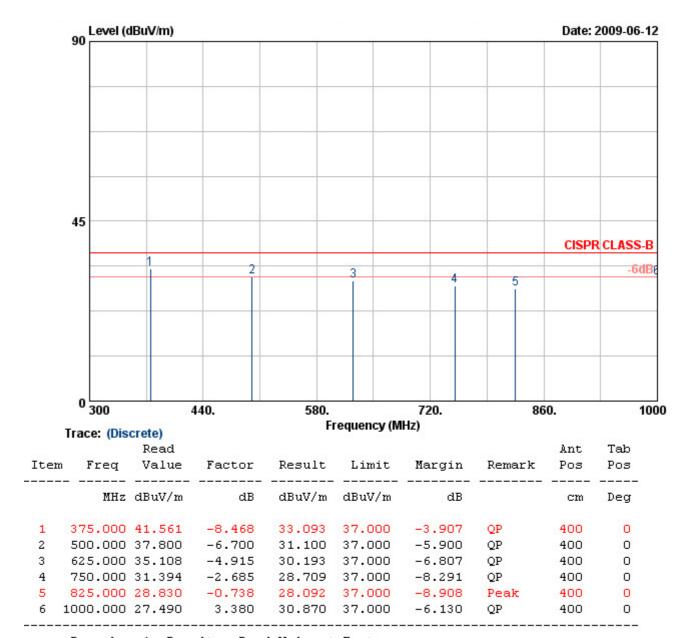
2. Factor = Antenna factor + Cable loss - Amplifier factor

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| Power | : | AC 120V | Pol/Phase : | HORIZONTAL |
|-------------|---|--------------------------|---------------|------------|
| Test Mode 1 | : | LINK LAN (1G) + Wireless | Temperature : | 21 °C |
| Memo | | Adapter: FA-1201500SLIA | Humidity : | 60 % |



Remarks: 1. Result = Read Value + Factor

2. Factor = Antenna factor + Cable loss - Amplifier factor

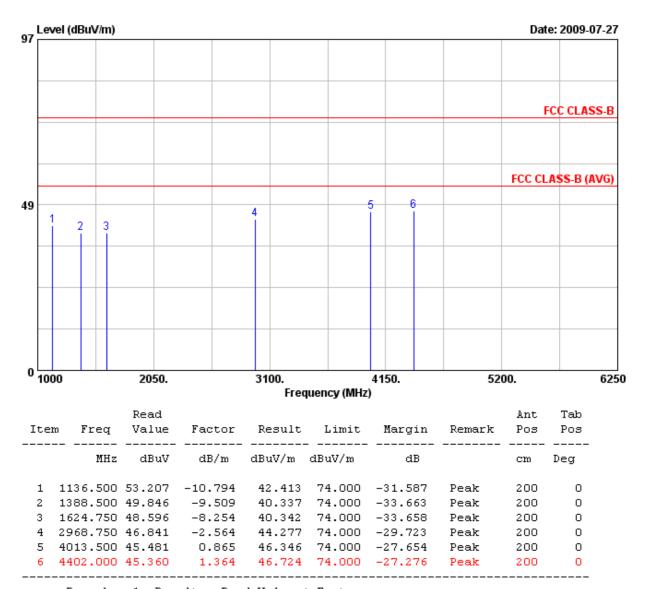
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| | | | _ |
|--------|------|-------------|---|
| Renort | N∪ . | TEFD0906019 | 4 |
| | | | |

| Power | : | AC 120V | Pol/Phase : | VERTICAL |
|-------------|---|--------------------------|---------------|----------|
| Test Mode 1 | : | LINK LAN (1G) + Wireless | Temperature : | 21 °C |
| Memo | : | Adapter: FA-1201500SUA | Humidity : | 60 % |



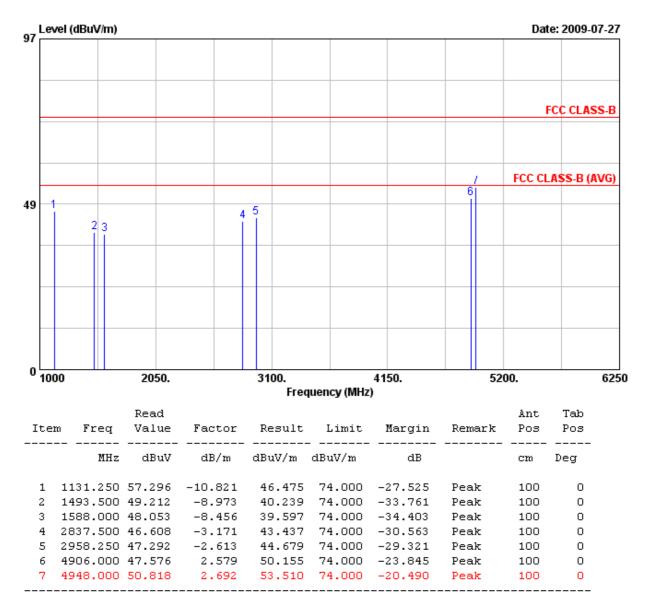
Remarks: 1. Result = Read Value + Factor

2. Factor = Antenna factor + Cable loss - Amplifier factor

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| Power | : | AC 120V | Pol/Phase : | HORIZONTAL |
|-------------|---|--------------------------|---------------|------------|
| Test Mode 1 | : | LINK LAN (1G) + Wireless | Temperature : | 21 °C |
| Memo | : | Adapter: FA-1201500SUA | Humidity : | 60 % |



Remarks: 1. Result = Read Value + Factor

2. Factor = Antenna factor + Cable loss - Amplifier factor

Test engineer: Ray

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3.6. Test Photographs



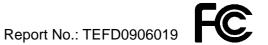
Front View



Rear View

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Appendix A. Photographs of EUT

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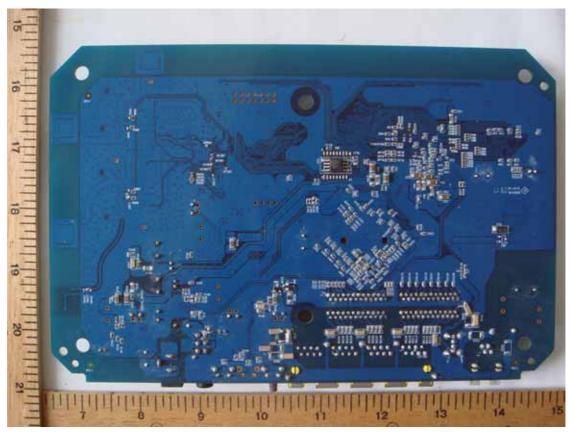
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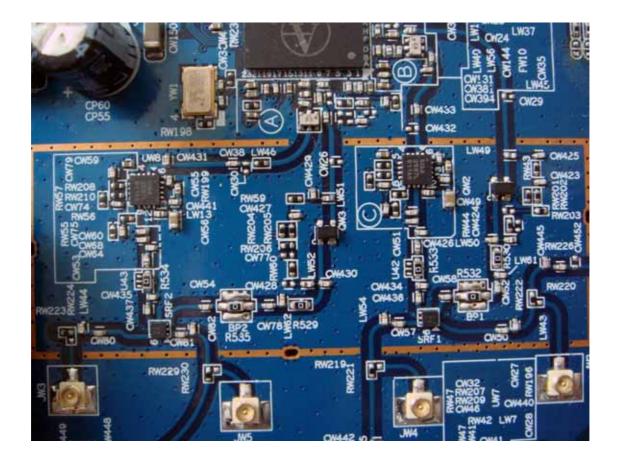
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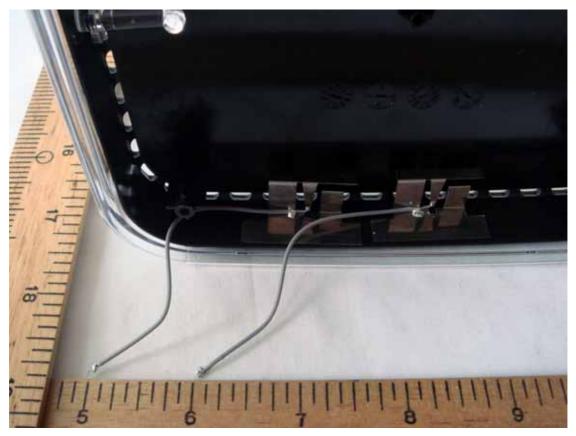
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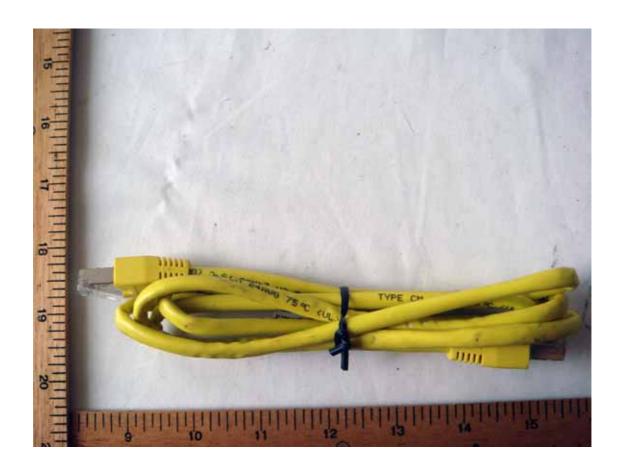


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Model: DGN3500B





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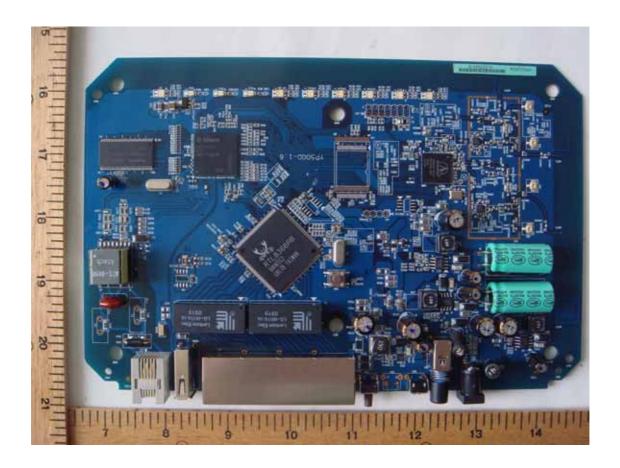


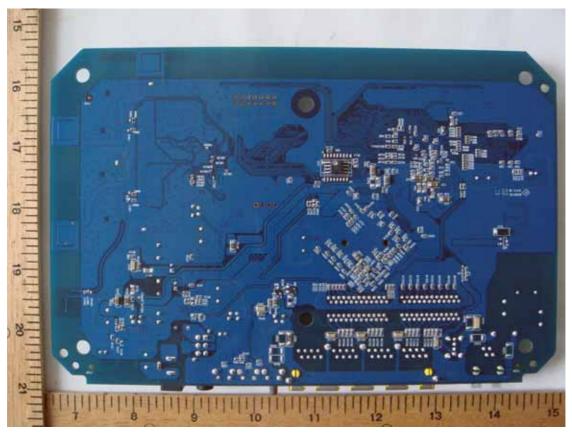
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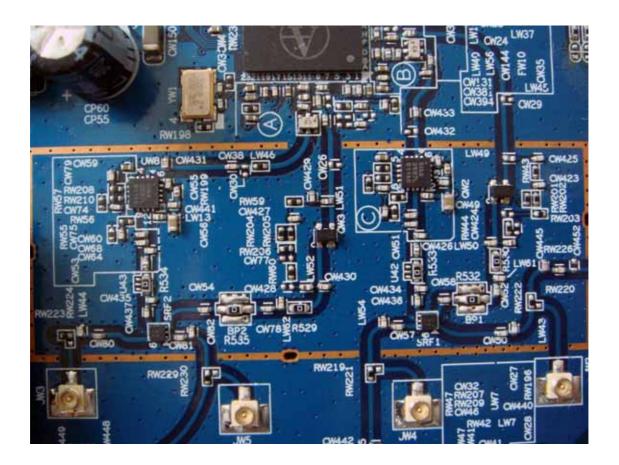
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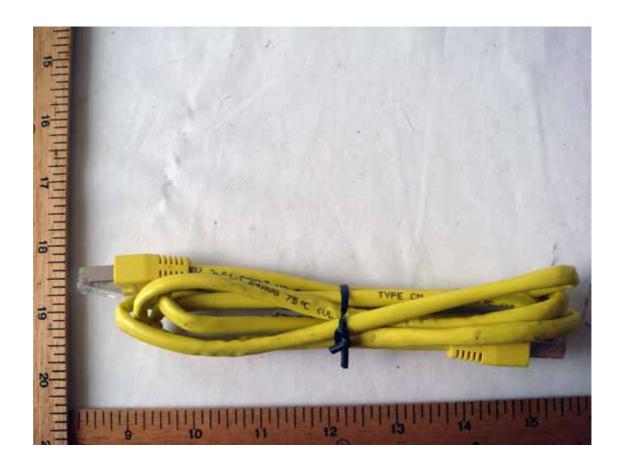
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