Test Site Services, Inc.

P.O. Box 766
Marlboro, MA 01752
(508) 634-3444
(508) 634 0388
Email: tss@ma.ultranrt.com

PRELIMINARY IMMUNITY TEST REPORT

for

NAME: _____

STREET: _____

CITY: _____STATE: _____ ZIP:_____

Phone: _____

Fax :_____

TEST NUMBER   : _____ (to be filled in day of test)

PRODUCT NAME   : _____

DATE OF TEST   : ____/ ____/____ (to be filled in day of test)

ADMINISTRATIVE DATA

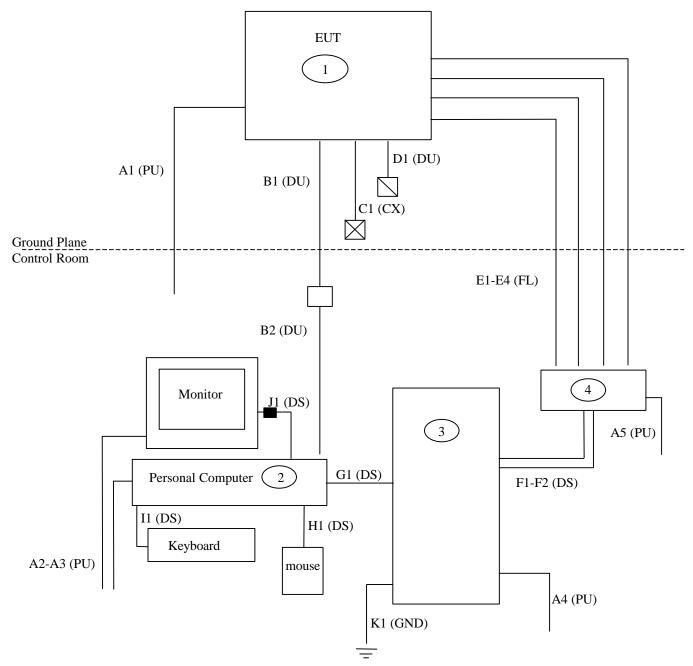Please underline appropriate regulation, test type and test method.

: REGULATION   : EMC Directive, 89/336/EEC using EN50082-1 (1992) / (1997)
: (Residential Commercial, Light Industrial)

: EMC Directive, 89/336/EEC using EN50082-2 (1995)
: (Industrial Environments)

: Medical Device Directive, 93/42/EEC using EN60601-1-2 (1993)

: Test Type	: Test Method
: ESD	: IEC 801-2 (1984)
	: IEC 801-2 (1991-04)
	: EN61000-4-2 (1996) / : IEC 1000-4-2 (1995)
: Radiated Immunity	: IEC 801.3 (1984)
	: EN61000-4-3 (1996)
: EFT/Burst	: IEC 801.4 (1988)
	: EN61000-4-4(1996) / IEC 1000-4-4 (1995)
: Surge Immunity	: EN61000-4-5 (1995) / : IEC 1000-4-5 (1995)
: Conducted RF Immunity	: EN61000-4-6 (1996) / : IEC 1000-4-6 (1995)
: Magnetic Field	: EN61000-4-8 1993) / : IEC 1000-4-8 (1993)
: Voltage Dips and short Interruptions	: EN61000-4-11 (1994) / IEC 1000-4-11 (1994)

Manufacturer   : _____

EUT Type   : _____

Model Number   : _____

Date(s) of Test   :   / /   / /   (to be filled in day of test)

Customer Personnel   : _____, Title _____

: _____, Title _____

TSS Personnel   : R. Wiedeman EMC Engineer

_____EMC Technician (to be filled in day of test)

_____EMC Technician

Test Location   : Open Area Test Site   : Anechoic Chamber
: 30 Birch Street   : 9 Technology Drive
: Milford, MA 01757   : Westboro, MA 01581

Returned via

: _____

<u>EUT DESCRIPTION</u>

1. Verbal description of what the EUT is and what does it do:

_____

_____

_____

_____

_____

_____

_____

A complete description of the EUT may be found on block identifier page one.

2. The tests were run in a typical system configuration including (support and other equipment):

(1) _____   (6) _____

(2) _____   (7) _____

(3) _____   (8) _____

(4) _____   (9) _____

(5) _____   (10) _____

3. Reason for test: (Engineering), (Audit), (Qualification) : (circle one then include reason, new product, rev. etc.)

4 Pass / Fail Criteria: (this information is manufacturer defined and must be provided before start of test)

5. Changes made during test: (to be filled in day of test)

    (1)   (4)

    (2)   (5)

    (3)   (6)

Deviations from Standard test method. (to be filled in day of test)

BLOCK DIAGRAM EXAMPLE

EUT

1

A1 (PU)

B1 (DU)

D1 (DU)

C1 (CX)

Ground Plane
Control Room

E1-E4 (FL)

B2 (DU)

Monitor

J1 (DS)

4

3

A5 (PU)

Personal Computer   2

G1 (DS)

F1-F2 (DS)

I1 (DS)

H1 (DS)

Keyboard

A2-A3 (PU)

mouse

A4 (PU)

K1 (GND)

DS=DATA CABLE SHIELDED   PS=POWER CORD SHIELDED   CX=COAXIAL CABLE
DU=DATA CABLE UNSHIELDED PU=POWER CORD UNSHIELDED FL=FIBER LINK
■ = FERRITE BEAD ◧ = LOOPBACK □ = CONNECTER
⊠ = TERMINATION   GND = EARTH GROUND

Include devices as blocks starting with EUT as 1 and support equipment as 2-10 etc. Device numbers to correspond to block identifier pages 1 through 10 etc. Show all suppression devices, i.e. ferrite beads and include in cable descriptions under misc. Include inter-connecting cables, power cables, accessory cables starting with power cables as A1- A10 etc. (where identical) and all other cables as B1,C1-C2 etc. using designations shown below. Show connectors only where they are interconnecting cables.

BLOCK DIAGRAM

EUT

Support

DS=DATA CABLE SHIELDED   PS=POWER CORD SHIELDED   CX=COAXIAL CABLE
DU=DATA CABLE UNSHIELDED   PU=POWER CORD UNSHIELDED   FL=FIBER LINK
■ = FERRITE BEAD ◻ = LOOPBACK ☐ = CONNECTER
⊠ = TERMINATION   GND = EARTH GROUND

EUT TECHNICAL DATA
BLOCK IDENTIFIER 1
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Rated)   : Volt / Freq._____Current_____

Power (Tested)   : Volt / Freq._____Current_____

Internal Options:

External Options:

This must be filled in before start of test

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

          : _____MHz.   _____MHz.   _____MHz.

          : _____MHz.   _____MHz.   _____MHz.

          : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 2
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

               : _____MHz.   _____MHz.   _____MHz.

               : _____MHz.   _____MHz.   _____MHz.

               : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 3
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

                : _____MHz.   _____MHz.   _____MHz.

                : _____MHz.   _____MHz.   _____MHz.

                : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 4
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

                : _____MHz.   _____MHz.   _____MHz.

                : _____MHz.   _____MHz.   _____MHz.

                : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 5
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

          : _____MHz.   _____MHz.   _____MHz.

          : _____MHz.   _____MHz.   _____MHz.

          : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 6
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

               : _____MHz.   _____MHz.   _____MHz.

               : _____MHz.   _____MHz.   _____MHz.

               : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 7
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

: _____MHz.   _____MHz.   _____MHz.

: _____MHz.   _____MHz.   _____MHz.

: _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 8
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

              : _____MHz.   _____MHz.   _____MHz.

              : _____MHz.   _____MHz.   _____MHz.

              : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 9
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

           : _____MHz.   _____MHz.   _____MHz.

           : _____MHz.   _____MHz.   _____MHz.

           : _____MHz.   _____MHz.   _____MHz.

Comments   :

SUPPORT EQUIPMENT TECHNICAL DATA
BLOCK IDENTIFIER 10
Please fill in all applicable information

Description   :

Manufacturer   :   Model No. :

Part #/Rev   :

Serial #   :

FCC/FTZ Ident   :

Power (Tested)   : _____

Internal Options:

External Options:

Freq. Generated: _____MHz.   _____MHz.   _____MHz.

         : _____MHz.   _____MHz.   _____MHz.

         : _____MHz.   _____MHz.   _____MHz.

         : _____MHz.   _____MHz.   _____MHz.

Comments   :

CABLE
DESCRIPTIONS

Please fill in all information including Misc. notes such as Coaxial RG 59, RS 232, UTP, STP, CAT 5, suppression devices i.e. ferrite beads etc.

(A   )   Function   :

                        Type   : Shielded   Unshielded

                        Length   : (   )   Feet   Meters

                        # of Conductors   : (   )

                        Connector Shell   : Shielded   Unshielded

                        Part Number   :

                        Misc.   :
                                                      :

                        Quantity   : (   )

(B   )   Function   :

                        Type   : Shielded   Unshielded

                        Length   : (   )   Feet   Meters

                        # of Conductors   : (   )

                        Connector Shell   : Shielded   Unshielded

                        Part Number   :

                        Misc.   :
                                                       :

                        Quantity   : (   )

(C   )   Function   :

                        Type   : Shielded   Unshielded

                        Length   : (   )   Feet   Meters

                        # of Conductors   : (   )

                        Connector Shell   : Shielded   Unshielded

                        Part Number   :

                        Misc.   :

                        Quantity   : (   )

CABLE
DESCRIPTIONS

Please fill in all information including Misc. notes such as Coaxial RG 59, RS 232, UTP, STP, CAT 5, suppression devices i.e. ferrite beads etc.

(D   )   Function   :

                           Type   : Shielded   Unshielded

                           Length   : (   )   Feet   Meters

                           # of Conductors   : (   )

                           Connector Shell   : Shielded   Unshielded

                           Part Number   :

                           Misc.   :
                                                   :

                           Quantity   : (   )

(E   )   Function   :

                           Type   : Shielded   Unshielded

                           Length   : (   )   Feet   Meters

                           # of Conductors   : (   )

                           Connector Shell   : Shielded   Unshielded

                           Part Number   :

                           Misc.   :
                                                   :

                           Quantity   : (   )

(F   )   Function   :

                           Type   : Shielded   Unshielded

                           Length   : (   )   Feet   Meters

                           # of Conductors   : (   )

                           Connector Shell   : Shielded   Unshielded

                           Part Number   :

                           Misc.   :

                           Quantity   : (   )

CABLE
DESCRIPTIONS

Please fill in all information including Misc. notes such as Coaxial RG 59, RS 232, UTP, STP, CAT 5, suppression devices i.e. ferrite beads etc.

(G   )   Function   :

Type   : Shielded   Unshielded

Length   : (   )   Feet   Meters

# of Conductors   : (   )

Connector Shell   : Shielded   Unshielded

Part Number   :

Misc.   :
                      :

Quantity   : (   )

(H   )   Function   :

Type   : Shielded   Unshielded

Length   : (   )   Feet   Meters

# of Conductors   : (   )

Connector Shell   : Shielded   Unshielded

Part Number   :

Misc.   :
                      :

Quantity   : (   )

(I   )   Function   :

Type   : Shielded   Unshielded

Length   : (   )   Feet   Meters

# of Conductors   : (   )

Connector Shell   : Shielded   Unshielded

Part Number   :

Misc.   :

Quantity   : (   )

CABLE
DESCRIPTIONS

Please fill in all information including Misc. notes such as Coaxial RG 59, RS 232, UTP, STP, CAT 5, suppression devices
i.e. ferrite beads etc.

(J   )   Function   :

Type   : Shielded   Unshielded

Length   : (   )   Feet   Meters

# of Conductors   : (   )

Connector Shell   : Shielded   Unshielded

Part Number   :

Misc.   :
         :

Quantity   : (   )

(K   )   Function   :

Type   : Shielded   Unshielded

Length   : (   )   Feet   Meters

# of Conductors   : (   )

Connector Shell   : Shielded   Unshielded

Part Number   :

Misc.   :
         :

Quantity   : (   )

(L   )   Function   :

Type   : Shielded   Unshielded

Length   : (   )   Feet   Meters

# of Conductors   : (   )

Connector Shell   : Shielded   Unshielded

Part Number   :

Misc.   :

Quantity   : (   )

**CABLE
DESCRIPTIONS**

Please fill in all information including Misc. notes such as Coaxial RG 59, RS 232, UTP, STP, CAT 5, suppression devices
i.e. ferrite beads etc.

(M   )   Function   :

                             Type   : Shielded   Unshielded

                             Length   : (   )   Feet   Meters

                             # of Conductors   : (   )

                             Connector Shell   : Shielded   Unshielded

                             Part Number   :

                             Misc.   :
                                                             :

                             Quantity   : (   )

(N   )   Function   :

                             Type   : Shielded   Unshielded

                             Length   : (   )   Feet   Meters

                             # of Conductors   : (   )

                             Connector Shell   : Shielded   Unshielded

                             Part Number   :

                             Misc.   :
                                                             :

                             Quantity   : (   )

(O   )   Function   :

                             Type   : Shielded   Unshielded

                             Length   : (   )   Feet   Meters

                             # of Conductors   : (   )

                             Connector Shell   : Shielded   Unshielded

                             Part Number   :

                             Misc.   :

                             Quantity   : (   )

CABLE
DESCRIPTIONS

Please fill in all information including Misc. notes such as Coaxial RG 59, RS 232, UTP, STP, CAT 5, suppression devices
i.e. ferrite beads etc.

(P   )   Function   :

                         Type   : Shielded   Unshielded

                         Length   : (   )   Feet   Meters

                         # of Conductors   : (   )

                         Connector Shell   : Shielded   Unshielded

                         Part Number   :

                         Misc.   :
                                              :

                         Quantity   : (   )

(Q   )   Function   :

                         Type   : Shielded   Unshielded

                         Length   : (   )   Feet   Meters

                         # of Conductors   : (   )

                         Connector Shell   : Shielded   Unshielded

                         Part Number   :

                         Misc.   :
                                              :

                         Quantity   : (   )

(R   )   Function   :

                         Type   : Shielded   Unshielded

                         Length   : (   )   Feet   Meters

                         # of Conductors   : (   )

                         Connector Shell   : Shielded   Unshielded

                         Part Number   :

                         Misc.   :

                         Quantity   : (   )

TEST SOFTWARE DESCRIPTION
This information must be included, Fill in all applicable information

PROGRAM and / or SOFTWARE INFORMATION

      TITLE   :

      PART NUMBER/REV.   :

      FUNCTION   :

      REPEAT TIME   : _____ SECONDS (cycle time must be included before start of test)

      ADDITIONAL NOTES   :

LAN INFORMATION

      SPEED (MBIT/S)   :   4   10   16   OTHER

      DATA PATTERN   :

      PACKET LENGTH   :

      DELAY (uS)   :

      BITS/SECOND   :

      % of UTILIZATION   :

RUN INSTRUCTIONS : (include start and run procedure, commands etc.)

OPERATIONAL MODES

OPERATIONAL MODES AVAILABLE: (include all available)

MODE TESTED :

FUNCTION : (how does this mode exercise the product)

RATIONALE : (Why was this mode chosen to be tested ?)

**EUT
I/O PORTS - CABLES
CONFIGURATION**

All testing was performed with the following cables/terminators connected to the EUT I/O Ports:

EUT I/O PORTS (All Available by Type)	Cable Attached (Yes/No)*

NOTE: CISPR & FCC Tests: ONE of each TYPE of PORT must be cabled.
NOTE: * If no include justification