

1 TEST REPORT

1.1 System test configuration

1.1.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it). Typical antennas was presented to the Universal Laundry Reading Station, which was itself connected to a personal computer. It has been tested with a laptop Dell Latitude CP mod PPL.

1.1.2 EUT Exercise software

The EUT exercise program (Hyper terminal running under windows 95) used during radiated and conducted testing was designed to exercise the Universal Laundry Reading Station in a manner similar to a typical use (reading the TAG in loop)

1.1.3 Special accessories

The cable used to connect the Universal Laundry Reading Station, to RS232 ports of the Personal Computer is shielded and attached to the product. It is connected to Com 1.

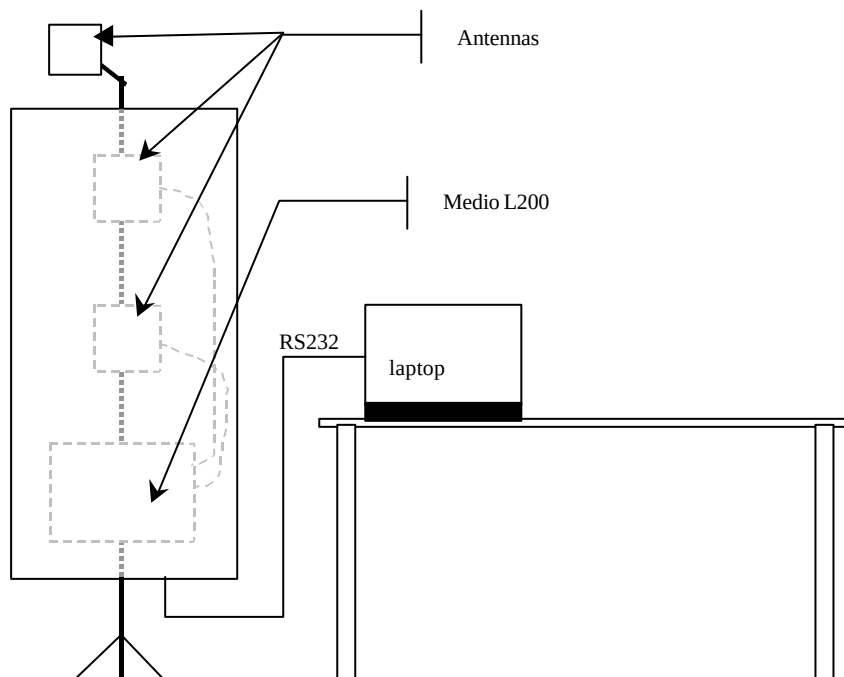
The TAG use with Generic Sorting Station , is a TAG 210, manufactured by GEMPLUS.

As shown in Figure#1, all interfaces cables used for compliance testing are shielded as normally supplied. All these cables are normally recommended to be used with the Personal Computer.

1.1.4 Equipment modifications

none

1.1.5 Configuration of tested system



1.2 RADIATED EMISSION DATA

1.2.1 Test Procedure (15.225)

The product has been tested according to ANSI C63.4-1992 and FCC PART15, Subpart C, Section 15.225.

The product has been tested with 230V / 50Hz power line voltage (requirements of §15.31 (e) are observed for found the worst case), at a distance of 3 meters from the antenna and compared to the FCC PART15, Subpart C, Section 15.225 limits. The radiated power output is 3W for all tests. Measurement bandwidth was 120 kHz from 30 MHz to 1 GHz, and 9kHz below 30 MHz. Requirements of 15.209e) have been observed.

Above 30MHz, antenna height search was performed from 1m to 4m for both horizontal and vertical polarization. Continuous linear turntable azimuth search was performed with 360 degrees range.

Below 30MHz, a loop antenna has been used in 2 polarization (axial and hortogonal), measurements distance was 10 meters. The average measure was compared to an extrapolated limit to 30 meters (requirement of §15.31)

Interconnecting cables and equipment's were moved to position that maximized emission. A summary of the worst case emissions found in all test configurations and modes is shown on the following page.

Test Equipment: HP-8574A E.M.I Receiver

HP-8568B Analyzer + HP-85650 Quasi-Peak adapter + HP-85685A RF Preselector.

EMCO 3104C Biconical Antenna & EMCO 3146 Log Periodic Antenna

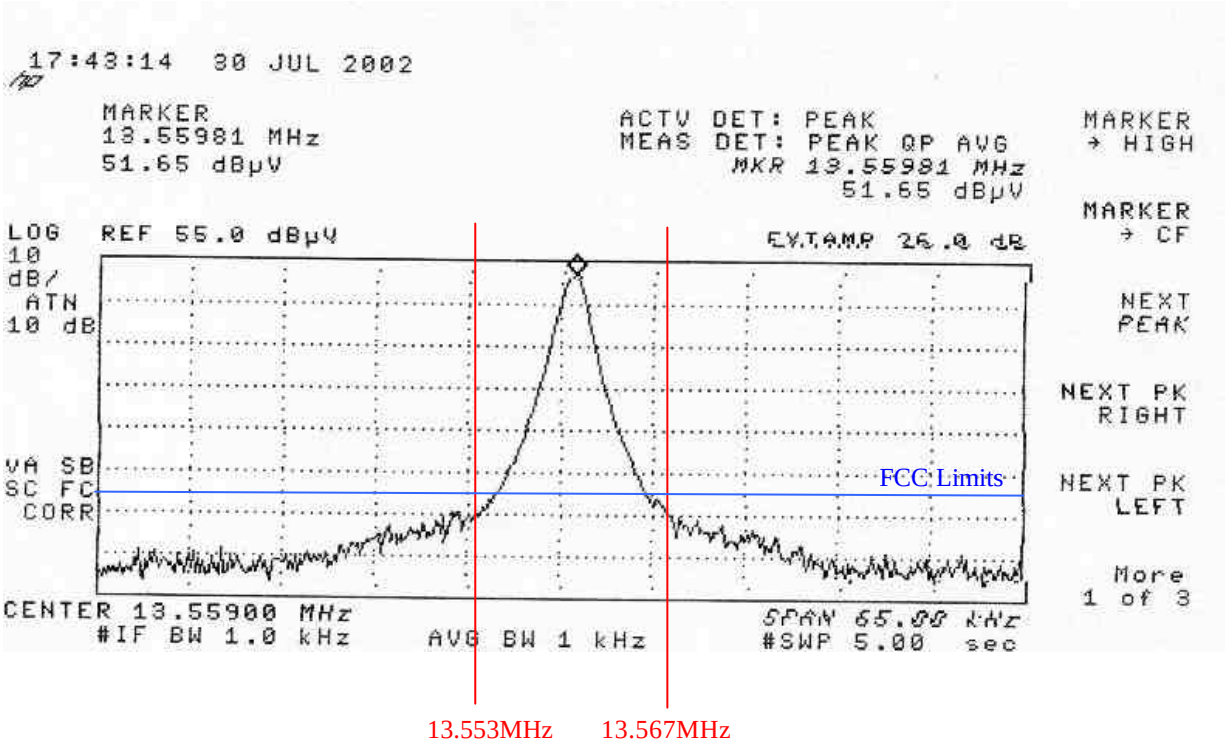
EMCO-1050, 6 meters height antenna mast & EMCO-1060, 3 meters diameter Turntable.

HP-8591EM Spectrum analyser

CHASE CBL6111A Antenna, 30-1000MHz

SIDEN TELEC, Model CT2A, Loop Antenna

1.3 bandedge



EXTAMP : 26dB
IF BW : 1.0kHz
AVG BW : 1kHz

SPAN 65.00 kHz
SWP : 5.00sec