

6 CONDUCTED EMISSION DATA

The initial step in collecting data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, then these signals are then tested under quasi-peak detection mode for final results.

| | | |
|---------------|----------|------|
| HTS (CLIPPER) | Limits B | |
| MODEL | 0.45 | dBuV |
| CLIPPER | 30.00 | 48.0 |
| DATE | | 48.0 |
| 04/20/98 | | |

| Frequency MHz | L1 dBuV | Margin L1 dB | L2 dBuV | Margin L2 dB | Limit B dBuV |
|---------------|---------|--------------|---------|--------------|--------------|
| 0.43 | 49.0 | | 48.3 | | |
| 0.49 | 45.9 | 2.1 | 45.5 | 2.5 | 48.0 |
| 3.17 | 28.3 | 19.7 | 22.7 | 25.3 | 48.0 |
| 4.13 | 28.0 | 20.0 | 24.8 | 23.2 | 48.0 |
| 4.61 | 30.0 | 18.0 | 21.8 | 26.2 | 48.0 |
| 4.72 | 29.3 | 18.7 | 20.2 | 27.8 | 48.0 |
| 6.22 | 29.6 | 18.4 | 24.4 | 23.6 | 48.0 |
| 6.70 | 29.1 | 18.9 | 23.9 | 24.1 | 48.0 |
| 8.32 | 30.0 | 18.0 | 24.6 | 23.4 | 48.0 |
| 9.44 | 29.6 | 18.4 | 23.9 | 24.1 | 48.0 |
| 10.51 | 34.5 | 13.5 | 28.9 | 19.1 | 48.0 |
| 11.48 | 33.6 | 14.4 | 27.7 | 20.3 | 48.0 |
| 17.22 | 26.7 | 21.3 | 22.6 | 25.4 | 48.0 |
| | | | | | |

Part 15 Class B results below

TEST PERSONNEL

Tester Signature _____ Date _____

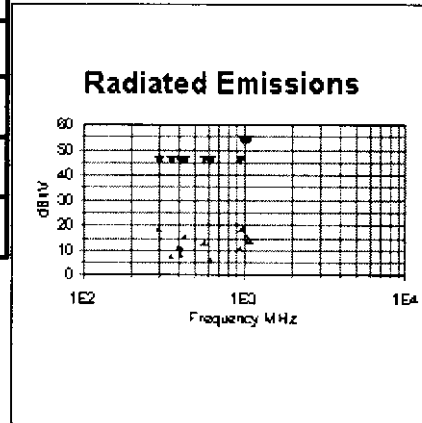
Printed Name Robert Howard

7 Radiated Emission Data Part 15 3 Meters

7.1 The following data lists the significant emission frequencies, measured levels, correction factors (including cable and antenna) the corrected reading, plus the class emission limits. Explanation of the Correction factor is given in paragraph 7.3.

| |
|--|
| Test Record Number 980403.0 |
| Class B Part 15 Radiated Emissions Test |
| Customer: HTS (CLIPPER) |
| MODEL CLIPPER |
| DATE 04/20/98 |

Set Antenna = 3 Meters



| FREQ. Mhz | LEVEL dBuV | Polar. | Coax dB | Ant. CF | FINAL dBuV | Class B | Part 15 |
|-----------|------------|--------|---------|---------|------------|-----------|-----------|
| | | | | | | LIMIT 3 M | MARGIN dB |
| 296.99 | 13.00 | H | 1.7 | 12.7 | 27.37 | 46.0 | 18.6 |
| 351.02 | 22.40 | H | 1.9 | 14.3 | 38.58 | 46.0 | 7.4 |
| 399.62 | 16.90 | H | 2.0 | 15.5 | 34.39 | 46.0 | 11.6 |
| 405.01 | 20.20 | H | 2.0 | 15.6 | 37.79 | 46.0 | 8.2 |
| 432.01 | 12.70 | H | 2.1 | 15.9 | 30.74 | 46.0 | 15.3 |
| 567.01 | 11.40 | V | 2.6 | 18.7 | 32.63 | 46.0 | 13.4 |
| 621.04 | 18.70 | V | 2.8 | 18.6 | 40.05 | 46.0 | 5.9 |
| 945.04 | 11.30 | H | 3.6 | 20.1 | 34.99 | 46.0 | 11.0 |
| 972.04 | 11.80 | H | 3.5 | 20.3 | 35.54 | 54.0 | 18.4 |
| 1052.26 | 14.30 | H | 3.6 | 20.9 | 38.78 | 54.0 | 15.2 |
| 1080.04 | 15.50 | V | 3.6 | 21.2 | 40.34 | 54.0 | 13.6 |

7.2 FIELD STRENGTH CALCULATION

7.2.1 The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a simple calculation is as follows:

$$FS = RA + AF = CF - AG$$

where

FS = Field Strength

RA= Receiver Amplitude

AF = Antenna Factor

CF = Cable Attenuation factor

AG = Amplifier Gain

Assume a reading of 33 dBuV is obtained. The Antenna Factor is 7.4 and a Cable Factor of 1.1 is added. The amplifier gain of 20 dB is subtracted, giving a field strength of 21.5 dB uV/m. The 21.5 dBuV/m value was mathematically converted to its corresponding level in uV/m.

$$FS = 33 + 7.4 + 1.1 - 20 = 21.5 \text{ dBuV/m}$$

$$\text{Level in uV/m} = \text{Common Antilogarithm } [(21.5 \text{ dBuV/m})/20] = 11.9 \text{ uV/m}$$

8 PHOTOGRAPHS OF TESTED EUT

Photographs follow this page

Reference FCC rules and regulations

Declaration of Conformity

§2.906 Declaration of Conformity.

(a) A Declaration of Conformity is a procedure where the responsible party, as defined in §2.909, makes measurements or takes other necessary steps to ensure that the equipment complies with the appropriate technical standards. Submittal of a sample unit or representative data to the Commission demonstrating compliance is not required unless specifically requested pursuant to §2.1076.

(b) The Declaration of Conformity attaches to all items subsequently marketed by the responsible party which are identical, as defined in §2.908, to the sample tested and found acceptable by the responsible party.

§2.945 Sampling tests of equipment compliance. - The Commission will, from time to time, request the responsible party to submit equipment subject to this chapter to determine the extent to which subsequent production of such equipment continues to comply with the data filed by the applicant (or on file with the responsible party for equipment subject to notification or a Declaration of Conformity). Shipping costs to the Commission's laboratory and return shall be borne by the responsible party.

§2.946 Penalty for failure to provide test samples and data.

(a) Any responsible party, as defined in §2.909, or any party who markets equipment subject to the provisions of this chapter, shall provide test sample(s) or data upon request by the Commission. Failure to comply with such a request with the time frames shown below may be cause for forfeiture, pursuant to §1.80 of this chapter, or other administrative sanctions such as suspending action on any applications for equipment authorization submitted by such party while the matter is being resolved.

(1) When the equipment is subject to authorization under a Declaration of Conformity, data shall be provided within 14 days of delivery of the request and test sample(s) shall be provided within 60 days of delivery of the request.

(2) For all other devices, test sample(s) or data shall be provided within 60 days of the request.

(b) In the case of equipment involving harmful interference or safety of life or property, the Commission may specify that test samples subject to the provisions of this section be submitted within less than 60 days, but not less than 14 days. Failure to comply within the specified time period will be subject to the sanctions specified in paragraph (a) of this section.

⊙ The Commission may consider extensions of time upon submission of a showing of good cause.

. - The general provisions of this subpart, shall apply to equipment subject to a Declaration of Conformity.

§2.1072 Limitation on Declaration of Conformity.

(a) The Declaration of Conformity signifies that the responsible party, as defined in §2.909, has determined that the equipment has been shown to comply with the applicable technical standards if no unauthorized change is made in the equipment and if the equipment is properly maintained and operated. Compliance with these standards shall not be construed to be a finding by the responsible party with respect to matters not encompassed by the Commission's rules.

(b) A Declaration of Conformity by the responsible party is effective until a termination date is otherwise established by the Commission.

⊙ No person shall, in any advertising matter, brochure, etc., use or make reference to a Declaration of Conformity in a deceptive or misleading manner or convey the impression that such a Declaration of Conformity reflects more than a determination by the responsible party that the device or product has been shown to be capable of complying with the applicable technical standards of the Commission's rules.

§2.1073 Responsibilities.

(a) The responsible party, as defined in §2.909, must warrant that each unit of equipment marketed under a Declaration of Conformity is identical to the unit tested and found acceptable with the standards and that the records maintained by the responsible party continue to reflect the equipment being produced under the Declaration of Conformity within the variation that can be expected due to quantity production and testing on a statistical basis.

(b) The responsible party, if different from the manufacturer, may upon receiving a written statement from the manufacturer that the equipment complies with the appropriate technical standards rely on the manufacturer or independent testing agency to determine compliance. However, the test records required by §2.1075 shall be in the English language and shall be made available to the Commission upon a reasonable request in accordance with the provisions of §2.1076.

© In the case of transfer of control of the equipment, as in the case of sale or merger of the responsible party, the new responsible party shall bear the responsibility of continued compliance of the equipment.

(d) Equipment shall be retested to demonstrate continued compliance with the applicable technical standards if any modifications or changes that could adversely affect the emanation characteristics of the equipment are made by the responsible party. The responsible party bears responsibility for the continued compliance of subsequently produced equipment.

(e) If any modifications or changes are made by anyone other than the responsible party for the Declaration of Conformity, the party making the modifications or changes, if located within the U.S., becomes the new responsible party. The new responsible party must comply with all provisions for the Declaration of Conformity, including having test data on file demonstrating that the product continues to comply with all of the applicable technical standards.

§2.1074 Identification. - Devices subject only to a Declaration of Conformity shall be uniquely identified by the responsible party. This identification shall not be of a format which could be confused with the FCC Identifier required on certified, notified, type accepted or type approved equipment. The responsible party shall maintain adequate identification records to facilitate positive identification for each device.

§2.1075 Retention of records.

(a) Except as shown in paragraph (b) of this section, for each product subject to a Declaration of Conformity, the responsible party, as shown in §2.909, shall maintain the following records:

(1) A record of the original design drawings and specifications and all changes that have been made that may affect compliance with the requirements of §2.1073.

(2) A record of the procedures used for production inspection and testing (if tests were performed) to insure the conformance required by §2.1073. (Statistical production line emission testing is not required.)

(3) A record of the measurements made on an appropriate test site that demonstrates compliance with the applicable regulations. The record shall contain:

(i) The actual date or dates testing was performed;

(ii) The name of the test laboratory, company, or individual performing the testing. The Commission may request additional information regarding the test site, the test equipment or the qualifications of the company or individual performing the tests;

(iii) A description of how the device was actually tested, identifying the measurement procedure and test equipment that was used;

(iv) A description of the equipment under test (EUT) and support equipment connected to, or installed within, the EUT;

(v) The identification of the EUT and support equipment by trade name and model number and, if appropriate, by FCC Identifier and serial number;

(vi) The types and lengths of connecting cables used and how they were arranged or moved during testing;

(vii) At least two photographs showing the test set-up for the highest line conducted emission and showing the test set-up for the highest radiated emission. These photographs must be focused originals which show enough detail to confirm other information contained in the test report;

(viii) A description of any modifications made to the EUT by the testing company or individual to achieve compliance with the regulations;

(ix) All of the data required to show compliance with the appropriate regulations;

(x) The signature of the individual responsible for testing the product along with the name and signature of an official of the responsible party, as designated in §2.909; and

(xi) A copy of the compliance information, as described in §2.1077, required to be provided with the equipment.

(b) If the equipment is assembled using modular components that, by themselves, are subject to authorization under a Declaration of Conformity and/or a grant of certification, and the assembled product is also subject to authorization under a Declaration of Conformity but, in accordance with the applicable regulations, does not require additional testing, the assembler shall maintain the following records in order to show the basis on which compliance with the standards was determined:

(1) A listing of all of the components used in the assembly;

(2) Copies of the compliance information, as described in §2.1077 for all of the modular components used in the assembly;

(3) A listing of the FCC Identifier numbers for all of the components used in the assembly that are authorized under a grant of certification;

(4) A listing of equipment modifications, if any, that were made during assembly; and

(5) A copy of any instructions included with the components that were required to be followed to ensure the assembly of a compliant product, along with a statement, signed by the assembler, that these instructions were followed during assembly. This statement shall also contain the name and signature of an official of the responsible party, as designated in §2.909.

⊙ The records listed in paragraphs (a) and (b) of this section shall be retained for two years after the manufacture or assembly, as appropriate, of said equipment has been permanently discontinued, or until the conclusion of an investigation or a proceeding if the responsible party is officially notified that an investigation or any other administrative proceeding involving the equipment has been instituted. Requests for the records described in this section and for sample units also are covered under the provisions of §2.946.

§2.1076 FCC inspection and submission of equipment for testing.

(a) Each responsible party, upon receipt of a reasonable request, shall submit to the Commission the records required by §2.1075 or one or more sample units for measurements at the Commission's laboratory.

(b) Shipping costs to the Commission's Laboratory and return shall be borne by the responsible party. In the event the responsible party believes that shipment of the sample to the Commission's Laboratory is impractical because of the size or weight of the equipment, or the power requirement, or for any other reason, the responsible party may submit a written explanation why such shipment is impractical and should not be required.

§2.1077 Compliance information.

(a) If a product must be tested and authorized under a Declaration of Conformity, a compliance information statement shall be supplied with the product at the time of marketing or importation, containing the following information:

(1) Identification of the product, e.g., name and model number;

(2) A statement, similar to that contained in §15.19(a)(3) of this chapter, that the product complies with part 15 of this chapters; and

(3) The identification, by name, address and telephone number, of the responsible party, as defined in §2.909. The responsible party for a Declaration of Conformity must be located within the United States.

(b) If a product is assembled from modular components that, by themselves, are authorized under a Declaration of Conformity and/or a grant of certification, and the assembled product is also subject to authorization under a Declaration of Conformity but, in accordance with the applicable regulations, does not require additional testing, the product shall be supplied, at the time of marketing or importation, with a compliance information statement containing the following information:

(1) Identification of the modular components used in the assembly. A modular component authorized under a Declaration of Conformity shall be identified as specified in paragraph (a)(1) of this section. A modular component authorized under a grant of certification shall be identified by name and model number (if applicable) along with the FCC Identifier number.

(2) A statement that the product complies with Part 15 of this chapter.

(3) The identification, by name, address and telephone number, of the responsible party who assembled the product from modular components, as defined in §2.909. The responsible party for a Declaration of Conformity must be located within the United States.

(4) Copies of the compliance information statements for each modular component used in the system that is authorized under a Declaration of Conformity.

- ⊙ The compliance information statement shall be included in the user's manual or as a separate sheet.

§15.27 Special accessories.

(a) Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors, are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e., shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge, at the time of purchase. Information detailing any alternative method used to supply the special accessories shall be included in the application for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in §2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of the text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

(b) If a device requiring special accessories is installed by or under the supervision of the party marketing the device, it is the responsibility of that party to install the equipment using the special accessories. For equipment requiring professional installation, it is not necessary for the responsible party to market the special accessories with the equipment. However, the need to use the special accessories must be detailed in the instruction manual, and it is the responsibility of the installer to provide and to install the required accessories.

⊙ Accessory items that can be readily obtained from multiple retail outlets are not considered to be special accessories and are not required to be marketed with the equipment. The manual included with the equipment must specify what additional components or accessories are required to be used in order to ensure compliance with this part, and it is the responsibility of the user to provide and use those components and accessories.

(d) The resulting system, including any accessories or components marketed with the equipment, must comply with the regulations.

Appendix A

Specifications for UUT.

| | |
|--|---|
| <p>System Specifications</p> <p><i>TV System:</i> <i>Input symbol rate:</i> <i>Modulation:</i> <i>Copy protection:</i> <i>Inner FEC:</i> <i>Outer FEC:</i> <i>Demultiplexing:</i> <i>Video decoding:</i> <i>Video resolution:</i> <i>Audio decoding:</i></p> | <p><i>NTSC</i> <i>15 to 30 Msps</i> <i>QPSK</i> <i>Macrovision 7.0 or higher</i> <i>Convolutional rate: 1/2, 2/3, 3/4, 5/6, 7/8</i> <i>Reed Solomon coding (204, 188) t=8</i> <i>ISO/IEC 13818-1</i> <i>ISO/IEC 13818-2 (MP-ML)</i> <i>720 x 576 resolution max.</i> <i>MPEG 1, layer 2</i></p> |
| <p>Physical</p> <p><i>Dimensions:</i> <i>Operating temperature:</i> <i>Storage temperature:</i> <i>Humidity:</i> <i>Cooling:</i></p> <p><i>Indicator:</i> <i>Colour:</i> <i>Mounting:</i> <i>Front panel:</i></p> <p><i>Rear panel:</i></p> | <p><i>2.75 in. H x 14.75 in. W x 9.75 in. D</i> <i>0 to 45 °C</i> <i>-20 to 70 °C</i> <i>0-90% (non-condensing)</i> <i>Convection, maximum temperature rise 25 °C with similar equipment stacked top/bottom</i> <i>Power LED (green)</i> <i>Black</i> <i>Free standing</i></p> <ul style="list-style-type: none"> • <i>ABS plastic, buttons, logo silk-screens (OEM only), smartcard receptacle</i> • <i>Power LED</i> • <i>IR sensor</i> <p>• <i>1 x set audio RCA (L/R), 1 video RCA</i> • <i>Modulator (RF input/output), tuner IF input</i> • <i>RJ-11 Modem connection</i> • <i>S-Video connector</i></p> |

The information in this document is private data and company confidential.

| | |
|---|---|
| <p>Feature Set</p> <p><i>Security system:</i></p> <p><i>Remote control:</i></p> <p><i>Front panel control:</i></p> <p><i>Front Panel Display:</i></p> <p><i>On-Screen Display:</i></p> <p><i>On-Screen Menus:</i></p> | <p><i>Nagra embedded conditional access; Nagra supplied smartcard; smartcard receptacle (ISO 7816 compatible)</i></p> <p><i>16 bit EchoStar database IR for system pack-outs OR 10 bit non-database IR for standalone pack-outs</i></p> <p><i>2 buttons (channel up, channel down, power (when pressed and held simultaneously), IR remote sensor</i></p> <p><i>Power LED (green)</i></p> <p><i>Current Model 3000 OSD – English character set (French for Express-Vu)</i></p> <p><i>Current Model 3000 UI, EPG</i></p> |
| <p>Tuner</p> <p><i>Input frequency range:</i></p> <p><i>Input impedance:</i></p> <p><i>Connector type:</i></p> <p><i>Input level:</i></p> <p><i>Input VSWR:</i></p> <p><i>LO leakage at input:</i></p> <p><i>Channel selection:</i></p> <p><i>Frequency step size:</i></p> <p><i>Noise figure:</i></p> | <p><i>950 to 1450 MHz</i></p> <p><i>75 Ω</i></p> <p><i>F-type female</i></p> <p><i>-65dBm to -25dBm (max.)</i></p> <p><i>2.0:1 (max.)</i></p> <p><i>-60dBm (typ), -50 dBm (max.)</i></p> <p><i>PLL frequency synthesizer</i></p> <p><i>500 kHz min.</i></p> <p><i>12dB max.</i></p> |
| <p>Power Supply</p> <p><i>Input voltage:</i></p> <p><i>Voltage frequency:</i></p> <p><i>Plug type:</i></p> <p><i>Protection:</i></p> | <p><i>110 +/- 22v VAC single phase</i></p> <p><i>60Hz +/-10 Hz</i></p> <p><i>2-pin polarized flat blade plug</i></p> <p><i>Internally fused, lightning, short circuit</i></p> |
| <p><u>CPU</u></p> <p><i>Microprocessor:</i></p> <p><u>MEMORY</u></p> <p><i>DRAM/VRAM:</i></p> <p><i>FLASH:</i></p> <p><i>EEPROM:</i></p> | <p><i>SGS 5500 running @ 50MHz</i></p> <p><i>Unified memory – 4 Mbits for microprocessing and applications; 12 Mbits for MP @ ML</i></p> <p><i>512 Kbyte</i></p> <p><i>16 Kbit</i></p> |
| <p>LNBF Power Supply</p> <p><i>Line level compensation:</i></p> <p><i>Vertical polarity switching:</i></p> <p><i>Horizontal polarity switching:</i></p> <p><i>Current:</i></p> <p><i>Protection:</i></p> <p><i>Control:</i></p> <p><i>Signaling:</i></p> | <p><i>1 V</i></p> <p><i>+13.0 Volts +/- 7%</i></p> <p><i>+18.5 Volts +/- 7%</i></p> <p><i>450mA max.</i></p> <p><i>Lightning, short circuit</i></p> <p><i>Support EchoStar 13/18v control words & timing for external switch box</i></p> <p><i>22kHz per Astra guidelines</i></p> |
| <p>Video Output</p> <p><i>Type:</i></p> <p><i>Resolution:</i></p> | <p><i>NTSC, reconstructed from CCIR 656 video data</i></p> <p><i>720x480max. (15 Mbps max.)</i></p> |

The information in this document is private data and company confidential.

| | |
|---|--|
| <p>Format: Frequency response: Level: Connector: S/N ratio: SVHS: Connector:</p> | <p>4:3 and 16:9 (pan-scan) +/- 1dB; 100 kHz to 4.2 MHz 1 V p-p into 75 Ω 1 x video RCA (color coded yellow) 55 dB (weighted) Standard YC S-video output 1 V p-p into 75 Ω Standard SVHS 5 pin mini-DIN</p> |
| <p>Audio Output Number of Channels: Operating modes: Output level: Output connector: Frequency response: Total Harmonic Distortion: Dynamic range: Left/right balance: S/N ratio: Sampling/resolution: Volume control:</p> | <p>2 standard (L&R) Stereo, dual mono, mono (mono is right channel) 775 mV rms max. output into 10K Ohm; reference is 1kHz tone w/volume control disabled (fixed) on factory test stream p/n (123476682-AA); value = 850 mV p-p 1 set RCA (L&R - color coded white and red) 20Hz to 20kHz +/- 1 dB @ 48kHz sample rate < 0.2 % at 1 kHz (CCIR weighted) 90 dB < 0.5dB 70 dB 256X over-sampled/16 bits Yes - 22 steps @ 2dB</p> |
| <p>RF Modulation TV Standard: Level: Channel Range: Pre-set Channel: Connector: Audio: RF bypass frequency: Insertion loss:</p> | <p>NTSC 66dB uV nominal into 75 Ω VHF 3-4; manual channel selection Channel 3 F-type female Mono 54-806 MHz 4dB (max. over freq. range)</p> |
| <p>Internal Modem Baud rate: Signal format: Connector: Instruction set: Auto-dialer type: Signal to noise performance: Active circuit isolation: Surge suppression: Line Interfacing:</p> | <p>2400 (max.) Compatible with V.22bis (2400), V.22 (1200), Bell 212A (1200), Bell 103 (300) RJ-11 Compatible with Hayes command set Both pulse and DTMF dialers to be provided Error-rate > 0.00011 for S/N > 14dB 600 Ω isolation transformer, 1500 VDC primary to secondary isolation. Off-hook relay must provide 1500 VDC contact to coil isolation FCC Part 68 Metallic surge: 800V peak @ 10 usec. Max. rise time. 560 usec. Min. decay time to half crest. Longitudinal surge: 1500V peak between tip & ring to ground. 10 usec. Max. rise time, 160 usec. Min. decay time to half crest. FCC Part 68 On-hook leakage tip to ring greater than 5 MΩ with applied voltage of less than 100V. Longitudinal balance: 60dB, 200-1000 Hz, 40dB, 1000-</p> |

The information in this document is private data and company confidential.

| | |
|--|--|
| <i>Off-hook detect:</i> | <i>4000 Hz. Off-hook DC impedance: less than 200 Ω Modem automatically ceases communication and releases phone line if second phone connected to the same line is detected off-hook</i> |
| Packaging <i>Box contents:</i> <i>Labeling:</i> | <i>IRD, IR remote w/batteries, user manual, RG-59, RJ-11, and RCA cables, dish antenna and LNBF (for system) External box gang label with UPC code, model #, place and date of manufacture, bar coded serial #, smart card #, conditional access #, and part #</i> |
| Agency Approvals <i>EMI Radiated Emission:</i> <i>Modem:</i> <i>Safety:</i> <i>ESD:</i> | <i>FCC Part 15 Class B FCC Part 68 UL approval 1409 IEC 801-2</i> |

The information in this document is private data and company confidential.

Product Description

Power Supply

The receiver is a DBS type satellite receiver intended for home use. The unit is connected to a 120 V 60 Hz source of power. The unit has mains filtering with “Y” capacitors and a common mode ferrite and power supply CM choke.

Antenna

The systems receives its satellite signal from a Dish located outside the home and connected to the receiver by a coax cable. The signal is down converted to a signal which is then sent over the coax to the set top receiver box. (EUT). The unit is designed to receive signals from satellites in the frequency range of 950- 1450 MHz.

Remote Control

The set box may be controlled via front panel controls or via an Infrared remote control.

Modem

The unit is provided with a data modem. This modem allows the unit to dial up the local service number of the purposes of billing, security and authorization of programs viewed. The modem is covered by a separate application under the Part 68 rules and regulations.

TV Input and Output Connections

The unit is connected to the TV input via the use of a 75 OHM coax cable. The unit is provided with a built in antenna switch to allow local direct viewing of over the air broadcast signals or the satellite signal. The output signal for the TV is generated in the unit is outputted on Channels 3 or 4 and is switch selectable on the rear panel.

Audio and Video Outputs

The unit is provided with Audio L and Audio R outputs as well as composet and S-Video output connectors on the rear panel.