

## **RADIO FREQUENCY INTERFERENCE STATEMENT**

Note : This equipment has been tested and found to comply with the limits for a Class B Digital device, pursuant to part 15, Subpart B of the FCC Rules. This equipment generates, Uses, and can radiate radio frequency energy. If not installed and used in accordance with The instructions, it may cause interference to radio communications.

The limits are designed to provide reasonable protection against such interference in a Residential situation. However, there is no guarantee that interference will not occur in a Particular installation. If this equipment does cause interference to radio or television Reception, which can be determined by turning the equipment on and off, the user is Encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the affected radio or television.
- Increase the separation between the equipment and the affected receiver.
- Connect the equipment and the affected receiver to power outlets on separate circuits.
- Consult the dealer or an experienced radio/TV technician for help.

# SAFETY CAUTIONS

This IRD has been manufactured to meet international safety standards.  
Please read carefully the following safety precautions before you handle the IRD.

<b>MAINS SUPPLY</b>	Use only 85-265V AC 50/60Hz.
<b>LOCATION</b>	Locate the IRD indoor place properly to prevent any hazards or malfunctions from lightening, raining and direct sunlight.
<b>CLEANING</b>	<ol style="list-style-type: none"> <li>1. Disconnect the IRD power cord from the wall socket before cleaning it.</li> <li>2. Use a cloth lightly dampened with water (no solvents) to clean the exterior of the IRD.</li> </ol>
<b>OVERLOADING</b>	Do not overload wall outlets, extension cords or adapters. These can cause fire or electrical shock.
<b>VENTILATION</b>	<ol style="list-style-type: none"> <li>1. Do not block the decoder's ventilation slots.</li> <li>2. Ensure that a free airflow is maintained around the IRD.</li> <li>3. NEVER stand the IRD on soft furnishings or carpets.</li> <li>4. Do not use or store the IRD where it is exposed to direct sunlight or near a heater. NEVER stack other electronic equipment on top of the IRD.</li> </ol>
<b>LIQUIDS</b>	Keep liquids away from the IRD.
<b>SAMILL OBJECTD</b>	Coins or other small objects must be kept away from the IRD. They can fall through the ventilation slots of the IRD and cause serious damage.
<b>ATTACHMENTS</b>	Do not use any attachments that are not recommended. These may cause hazards or damage the equipment.
<b>CONDITIONAL ACCESS and/or COMMON INTERFACE MODULE</b>	Main power cord must be disconnected before entering or removing the CAM and/or Common Interface Module.
<b>CONNECTION TO THE SATELLITE DISH LNB</b>	Before connecting or disconnecting the cable from the satellite dish to the IRD, disconnect the IRD from the main power. <b>FAILURE TO DO SO CAN DAMAGE THE LNB.</b>
<b>EARTHING</b>	The LNB cable <b>MUST BE EARTHED</b> to the system earth for the satellite dish. The earthling system must comply with SABS 061.
<b>LIGHTNING</b>	<ol style="list-style-type: none"> <li>1. It is recommended that the IRD should remain connected at all times to the main power supply and satellite dish (except when working on the LNB).</li> <li>2. However, the Manufacturer's instructions for safeguarding other equipment connected to the IRD, i.e, TV set, etc., must be followed during lightning storms.</li> <li>3. Lightning protection devices for the terrestrial antenna, mains, LNB and the modem telephone line, are essential.</li> </ol>
<b>SERVICING</b>	<ol style="list-style-type: none"> <li>1. Do not attempt to service this product yourself.</li> <li>2. Refer all servicing to qualified service agents.</li> </ol>



# Introduction

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## About This Manual

This manual describes how to install and operate the Model DTR5000N. Only qualified personnel should handle any problems beyond this manual.

## General Description

The DTR5000N is a high-performance IRD (Integrated Receiver Decoder). DTR5000N is fully compliant with the MPEG2 based DVB transmission standards for in-home reception of satellite digital broadcast services such as digital TVs, radio channels, and data.

The most significant feature of the DTR5000N is to support a great variety of data broadcast services such as the download of software, Internet services, and delivery of audio and/or video signals. In the case of data broadcast services, a client will transmit service requests over the terrestrial link (i.e. PSDN/PSTN) to a server located somewhere on the Internet. The server, then, will route the requested service to a satellite up-link site where it will be broadcast to all the clients over satellite network.

The following diagram shows how DTR5000N can be used in the Satellite Data/TV broadcasting network for personal users or corporate users with LAN facilities.

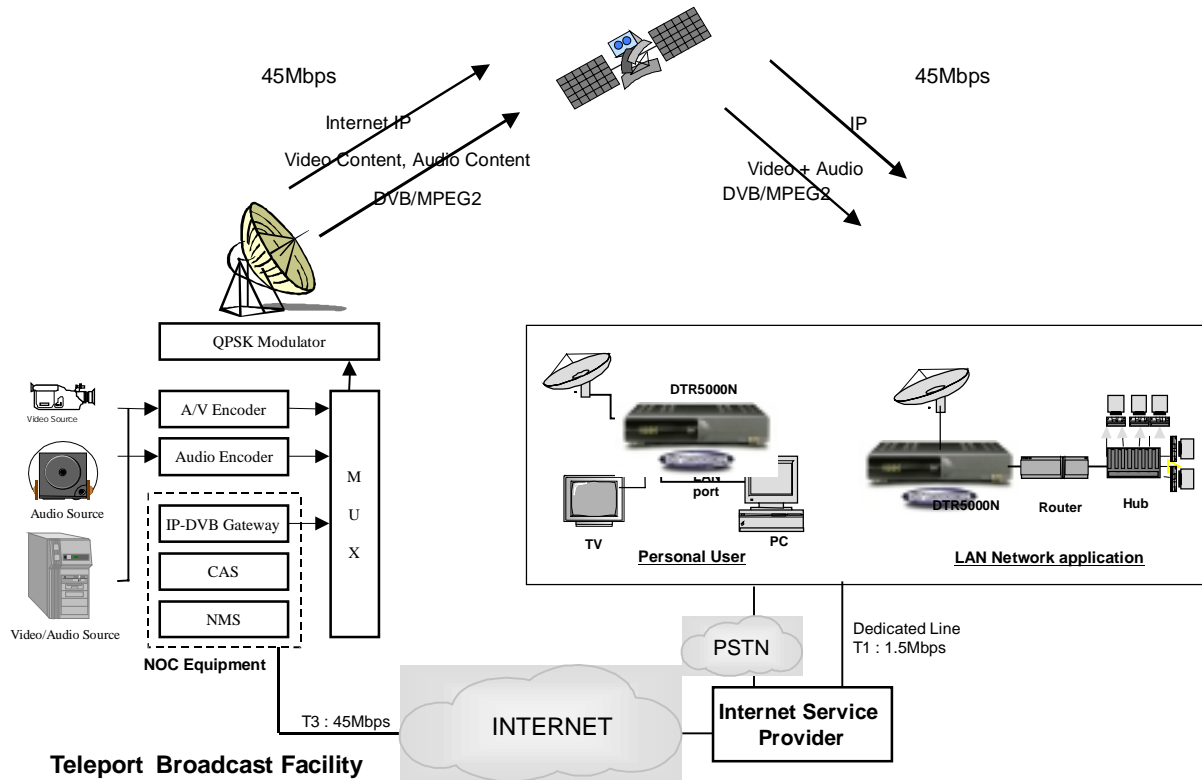


Fig. 1 DTR5000N in Satellite Data/TV broadcasting network

The DTR5000N first recovers MPEG2 Transport Stream packets received from the satellite. Then the device determines if it should receive the packet or not, based on the dedicated PID of the data broadcast services and MAC address or IP address filtering. Once the device decides to accept the data, then, it extracts the IP datagrams from those packets using the same DVB data broadcasting specification. After converting them into Ethernet frames, the DTR5000N distributes the resultant Ethernet frames onto LAN (Local Area Network) so that all users attached to the LAN can receive the Ethernet data.

## General Features

Features equipped in DTR 5000N are as follows :

- Fully compliant with MPEG2 based DVB transmission standards
- Fully Universal Tuner with 950-2150MHz
- QPSK Demodulator
- Extended Symbol Rate (2-45MS/s)
- SCPC and MCPC, C-/Ku-bands
- Automatic Detection of Video Polarity
- Automatic Detection of Forward Error Correction
- Automatic Channel Surfing Function
- Automatic NTSC/PAL Detection
- Simple Video Converter (NTSC PAL)

- Lip-sync Error Correction Function
- Wide PLL Modulator (CH21-69, PAL-B, G, I, D, K)
- Useful High Speed System Port for System Diagnostic and Upgrade
- DiSEqC1.0 LNB Control Software
- TV/VCR scart connectors
- Teletext : CCIR/ITU-R Broadcast Teletext System B
- Smart Card interface for CAS
- Fully compliant with DVB data broadcasting specification (ETSI 301 192)
- Simultaneous decoding of up to Max. 32 PIDs with the exception of A/V
- Support for IP unicasting and multicasting
- Fast Ethernet (100base T ) or Ethernet ( 10Base T ) Output port for connection to LAN
- Internal Modem (Plug in type, Optional)
- User-friendly defined On-screen-display (OSD)
- Support remote configuration of parameters via Telnet mode

