

# IP Mod™ ISDB-Tb 4ch

**Broadcast Quality, Modular, 1 RU frame with four single channel ISDB-Tb RF modulators. ASI, IP, or Files In and ISDB-Tb out. Designed for Hospitality Industry where ISDB-Tb content is delivered routinely to televisions via existing RF infrastructure.**



**ISDB-Tb**

**DVB**  
Digital Video  
Broadcasting



## Features

- Modulator with up to four each single channel modulator modules
- Inputs: DVB-ASI, files from internal microSD Card, and IP (UDP/RTP)
- Supports Pro-MPEG FEC on IP input
- Outputs: One ISDB-Tb channel per module
- Each modulator module may have up to four BNC connectors which can be DVB-ASI input, DVB-ASI output, or SMPTE-310M input
- SNMP (Gigabit Ethernet) management support
- Optional FAULT contact output
- ETS 302 307 standard compliant
- Supports subtitles
- Programmable RF output frequency 55~2150 MHz (1 Hz step)
- Programmable RF output level -80 ~ 0dBm (0.1dB step)
- White noise addition over modulated signal to have desired C/N ratio
- SNMP (10/100/1000 Ethernet) remote web-based LAN management
- Firmware upgradeable via Internet
- SNMP management support (GigE)
- 2 lines by 40 characters LCD display

## Overview

ISDB-Tb (Integrated Services Digital Broadcast – Terrestrial) is the modulation standard for over the air television in Brazil and some surrounding countries. It is based on the ARIB standard originally developed for Japan

Test modulators are often required to supply signals for digital signage, hospitality, and product test purposes. These modulators fully simulate the signals from the TV transmitters found in the real world. The main difference is that these are fully controllable by you and the transmitted signal is managed by a scheduling enabled control application. The control software manages the frequency (channel) and the other pertinent parameters.

This unit accommodates four single channel modulators with IP or ASI input. In effect you end up with an "Edge ISDB-Tb" device.

## Applications

- Hospitality
- Product Testing

**DVEO**  
Digital Video ExtraOrdinaire™

Computer Modules, Inc.

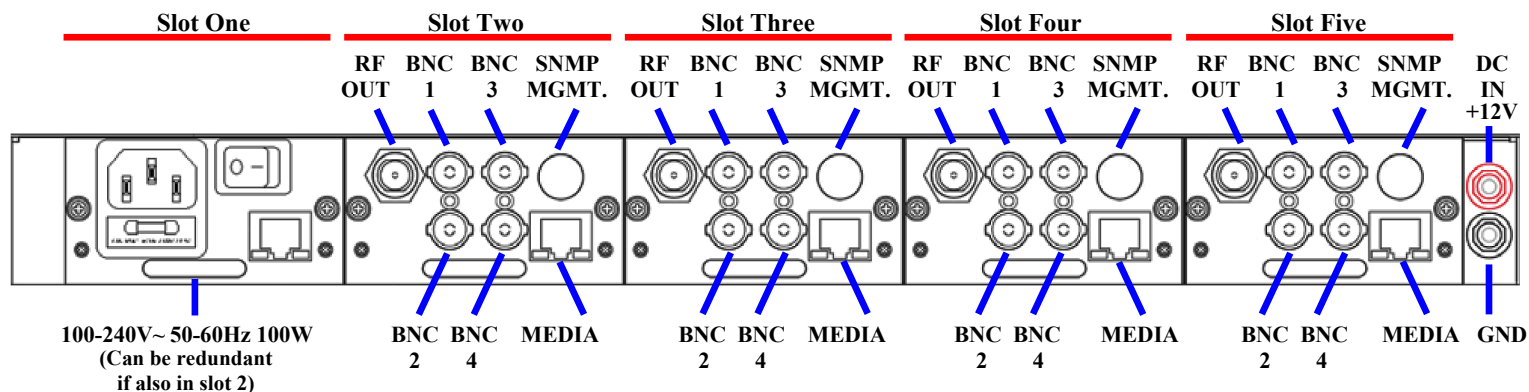
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## Rear View



## Specifications

<b>Front Display/Keys</b>	<ul style="list-style-type: none"> <li>2 lines by 40 characters LCD</li> <li>11 keys for Easy Control</li> <li>ENTER, EXIT, ARROW, and Slot Selection Keys</li> </ul>
<b>Slots</b>	Five slots: One power supply module and four ISDB-Tb modulator modules
<b>TS Input</b>	
Formats:	IP (with FEC), DVB-ASI
Connectors:	75 ohm BNC, RJ-45
<b>ISDB-Tb RF Output</b>	
Standard	ARIB STD-B31 v1.6 compliant
Mode	Mode I, Mode II, Mode III
Code Rates	1/2, 2/3, 3/4, 5/6, 7/8 selectable
Mapping	DQPSK, QPSK, 16QAM, 64QAM
Guard Interval	1/4, 1/8, 1/16, 1/32
Timing	Mode I - 0, 4, 8, 16
Interleaving	Mode II - 0, 2, 4, 8
Length	Mode III - 0, 1, 2, 4
Number of Segments	1 / 13 Segment
Support TMCC Info & Generation (ISDB-T info & IIP)	*ISDB-T direct modulation from DVB-ASI input is supported
<b>Audio Output</b>	
Signal:	AES3-id (Select ASI or AES3-id output at front panel)
Connectors:	75 Ohm BNC – one audio output per module
Format:	Dolby AC-3 audio with 5.1, AAC, MPEG 1/2, PCM
1st Audio Output (one per module):	Connector: 75 Ohm BNC
Audio Pairs Decoded:	Standard – Select any one of four stereo pairs Optional – audio decoder board for selecting one additional stereo pair, for a total of 2 of 4 stereo pairs
<b>Audio Levels</b>	Set to +4dBm for -20dBFS digital audio contents when the audio attenuation menu is set to zero. The audio level can be attenuated using the front panel audio configuration menu.

<b>Digital Audio Output</b>	Choose either PCM mode or COMPRESSED audio output mode for MAIN channel. The chosen audio mode is used for all BNC output ports. You can have PCM mode only for the SUB channel. You may have COMPRESSED audio out of MAIN channel over BNC port and PCM audio out of SUB channel over BNC port. Output supports 2 channels, not 5.1
<b>Audio Decoding Standard</b>	ISO/IEC 14496-3:2009 (MPEG-4 HE AACv2)
<b>Redundancy</b>	ASI or RF input with auto failover
<b>Display</b>	Video and TS parameters displayed via "on screen" mode (see manual)
<b>Ethernet Input/Output</b>	10/100/1000 Mbps, MPEG over RTP/UDP FEC supported (Pro MPEG) (IP in)
<b>Management Ethernet</b>	10/100/1000 Mbps SNMP, Web-browser manager
<b>Optional FAULT Output</b>	Contact Open on Fault
<b>Output DC Blocking Voltage</b>	50V max
<b>Network Management</b>	NMS supported through SNMP
<b>Local Management</b>	Front panel display LCD display for use with optional decoder module
<b>Unit</b>	1 RU 19-inch rackmountable
<b>Operating Temperature</b>	+0 ~ +45°C (32 to 113°F)
<b>Storage Temperature</b>	-20 ~ +50°C (-4 to 122°F)
<b>Operating Humidity</b>	10 to 90%, Non-condensing
<b>Power Supply Module</b>	AC 100-240V~ 50-60Hz 120W max DC 12V 8A max output
<b>Dimensions</b>	HxWxL: 1.7 x 19 x 13.6 inches (4.3 x 48.26 x 34.55 cm)
<b>Weight</b>	14 lbs. (6.356 kg.)
<b>Conformities</b>	 FCC, RoHS CE Mark: Electromagnetic Compatibility Directive 2004/108/EC Low Voltage Directive 2006/95/EC

## Ordering Info

- IP Mod ISDB-Tb 4ch
- IP Mod ISDB-Tb 4ch /FO – with Optional FAULT Output
- IP Mod ISDB-Tb 4ch /FO – with Optional Decoder module and LCD video preview screen
- IP Mod ISDB-Tb 4ch /PS – replace one or more tuner modules with an additional power supply