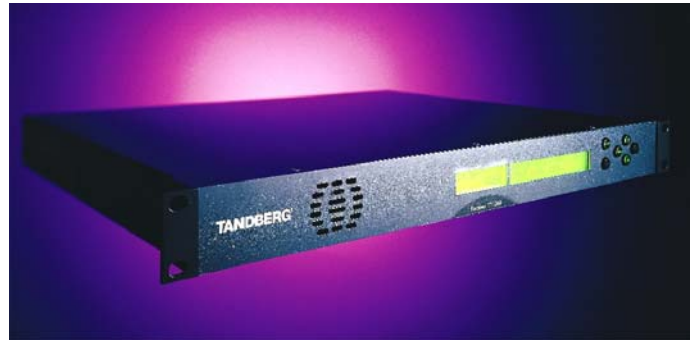




The TT1260 is a professional grade receiver decoder providing high quality MPEG-2 4:2:2P@ML and 4:2:0MP@ML decoding and advanced features for high performance applications.



## Business Benefits

### Flexibility

- A large range of input interface options including QPSK, 8PSK, 16QAM, COFDM, ASI, TTV G.703 and IP
- MPEG-2 4:2:0MP@ML or 4:2:2P@ML
- Multiple Video and Audio output formats

### Secure Transmission

The TT1260 supports a range of secure CA systems to meet the need for secure encrypted transmission of content

- DVB Common Interface (CI)
- BISS (1&E)
- RAS (1&2)
- TANDBERG Director

### Reduced cost of operations

- Remote over-air control of receiver population via TANDBERG Director
- Easy to use front panel control with context sensitive guidance
- Control of multiple receivers via the TANDBERG Device Controller (TDC) or via SNMP

### Transfer Private Data

- The TT1260 can receive several data formats including low-speed (RS232), high-speed (RS422) or High Speed Data over Ethernet (Data-Piping).

## Application

### Satellite Contribution & Distribution

A range of features makes this receiver ideal for highest quality reliable Distribution & Contribution of content.

- Support for very high bit-rate transport streams
- QPSK or higher order modulation schemes (8PSK or 16QAM)
- 4:2:2P@ML decoding providing maximum quality MPEG-2 video
- SDI, analogue (PAL/NTSC) and Transport Stream (ASI) outputs
- Options for secure transmission including Common Interface, RAS, BISS and TANDBERG Director descrambling functions.
- TANDBERG Director allows over air control of individual receivers, software download and forced tuning. These functions reduce the need to send service personnel to remote locations.

### Telcom Contribution & Distribution

The TT1260 is an ideal solution for an operator in the Telco Contribution and Distribution market with a built in TTV G.703 or 10/100 BaseT IP interface. For a more extensive telco interface range, the TT1260 is fully compatible with the TT6120 Medialink interface converter.

The full range of TT1260 functionality is accessible via its SNMP port using either the TANDBERG Device Controller (TDC) or nCompass control and monitoring solutions\*. This enables the user to gain full control of the TT1260's advanced functionality from a remote location.

### Mobile (DSNG)

The TT1260 in combination with the E5740, the TANDBERG Encoder designed specifically for mobile applications, creates the perfect solution with a complete matching of input, output and security features.

## Base units

### TT1260 – Common Interface (TT1260/CIBAS)

The Common Interface (CI) variant of the TT1260 is able to accept one Conditional Access Module (CAM) enabling the user to select the desired CA system and have the flexibility to change CA system at a later stage.

### TT1260 - Director (TT1260/DIRBAS)

The TANDBERG Director version of the TT1260 enables a secure transmission of valuable content and also the added benefit of over-air control reducing the need for local operators.

\*Refer to TDC release document for availability



## Options

### Transport Stream Input Options

The TT1260 comes with a range of Interface formats covering applications like Satellite Contribution & Distribution, Telco Contribution, Digital Terrestrial and Mobile applications. Equipped with the most extensive input interface range in the market, the TT1260 offers a space efficient cost optimised solution.

QPSK Input	(TT1260/HWO/QPSK)
ASI Input	(TT1260/HWO/ASI)
COFDM Input	(TT1260/HWO/COFDMx)
Higher Order Modulation Input	(TT1260/HWO/HOM)
8PSK License	(TT1260/SWO/8PSK)
16QAM License	(TT1260/SWO/16QAM)
G.703 Input	(TT1260/HWO/G703)
IP Input	(TT1260/HWO/IP)

### Transfer Data

The Transport Stream is increasingly being used for transferring data for applications like Telephony, Internet Access, Non-real time Video transfer or Price book download. The TT1260 can handle data transfer alongside the video signals at up to 5Mbit/sec (2 Mbit/sec for RS-422 data) and there is a choice of data interface depending on the transfer rate required.

High Speed Data Output	(TT1260/HWO/HSDATA)
High Speed Data over Ethernet	(TT1260/SWO/HSEETHER)

### Control

The TT1260 is designed to operate in applications from large multi channel Head-Ends to small flyaway systems. All these systems require different forms of control and the TT1260 comes with a comprehensive set of control interfaces. With RS-232/485 as standard and the possibility to upgrade to SNMP control, the TT1260 can easily fit into most applications.

SNMP Remote Control	(TT1260/SWO/SNMP)
---------------------	-------------------

### Conditional Access

Conditional Access solutions are well catered for in the TT1260 with DVB Common Interface allowing implementations using all major vendors security systems. Alternatively TANDBERG Television's own highly secure TANDBERG Director CA and control software can be used allowing complete management of a network of receivers.

BISS	(TT1260/SWO/BISS)
RAS 1	(TT1260/SWO/RAS)
RAS 2	(TT1260/SWO/RAS2)
TANDBERG Director	(TT1260/SWO/DIR)

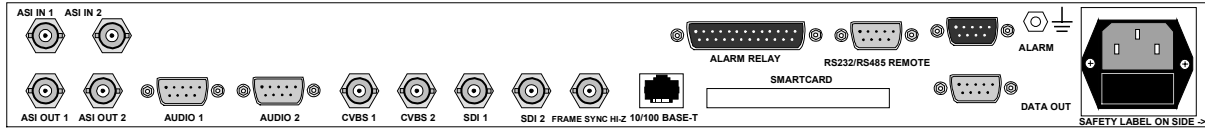
### Stream Processing Options

The TT1260 is able to perform several Transport Stream processing manipulations. This includes operating at very low symbol-rates ideal for mobile applications, and 4:2:0 only operations for cost sensitive applications.

Low Symbolrate Operation	(TT1260/SWO/LSYM)
4:2:0 Only Operation	(TT1260/SWO/420)



Sample configuration:



<p><b>VIDEO AND AUDIO FORMATS</b></p> <p><b>Video</b> Decoding of one video service 422P@ML up to 50 Mbps MP@ML up to 15 Mbps (4:2:0 Video Only Mode Option available)</p> <p><b>Audio</b> Decoding of two audio services Musicam: Analogue and digital output 20bit PCM@48 kHz: Analogue and digital output Dolby AC-3 2.0: Analogue and digital output Dolby E: Digital pass-through only</p> <p>All de-compressed audio embedded in SDI Dual Composite and Dual SDI video output Simultaneous analogue and digital audio output Extensive VBI support, including VBI in picture VBI inserted in both composite and SDI output</p>	<p><b>INPUTS</b></p> <p><b>DVB QPSK input</b> Connector: F-type (female), 75 ohm Frequency range: 950-2150MHz Symbol rates: 1-45 Mbaud/s LNB power: 13V, 18V or off 22KHz tone: On/off Spectral inversion: Automatic</p> <p><b>DVB ASI input</b> Connector: Dual BNC (female), 50 ohm Sustained TS data rate: 160Mbps Maximum burst time: 370µs at 216Mbps ASI Mode: Spread byte and packet burst modes. Packet Length: Auto-detecting 188/204 byte packets.</p> <p><b>TTV G.703</b> Connector: BNC (female) Network: G.703 compliant PDH Input: E3 or DS-3 (selectable) Bit-rates: 34 or 45 Mbit/s versions</p> <p><b>IP</b> Connector: RJ 45 Format: 10/100 BaseT FEC: Auto Detect</p> <p><b>Higher Order Modulation</b> Modulation: QPSK, 8PSK and 16QAM 1 - 45 Msymb/s Symbol Rate: Up to 110 Mbps Transport stream: 1/2, 2/3, 3/4, 5/6 and 7/8 QPSK FEC: 2/3, 5/6 and 8/9 8PSK FEC: 3/4 and 7/8 16 QAM FEC:</p>	<p><b>INPUTS</b></p> <p><b>DVB-T COFDM input</b> Connector: F-type (female), 50 ohm Frequency range: 47-862MHz Channel bandwidth: 6MHz, 7MHz or 8MHz Carrier mode: 2K and 8K selectable Carrier modulation: QPSK, 16QAM, 64QAM Autodetected Hierarchy: High/low Spectral inversion: Normal/inverted</p> <p><b>Frame Synch</b> Connector: BNC (female)</p> <p><b>OUTPUTS</b></p> <p><b>DVB ASI Output</b> Connector: BNC (female) 75 ohm  <ul style="list-style-type: none"> <li>Sustained transport stream data rate: 160Mbps (CA system dependent)</li> <li>Enable/disable descrambling of selected service</li> </ul> </p> <p><b>Data</b> RS-232 Low speed data (Max 38.4 Kbps) RS-422 High speed data (Max 2048 Kbps) Ethernet High speed data (Max 5000 kbps)  <ul style="list-style-type: none"> <li>Data-Piping only</li> </ul> </p> <p><b>Alarm Relay</b> Alarm Relays (summary and user customizable) Connector: 9Dsub, male Data Format: Asynchronous RS232</p> <p><b>Conditional Access</b></p> <p><b>Conditional Access options</b> DVB Common Interface TANDBERG Director TANDBERG RAS-1 &amp; 2 BISS mode-1&amp; E</p> <p><b>CONTROL</b></p> <ul style="list-style-type: none"> <li>Front panel keypad and LCD</li> <li>TDC remote control via SNMP</li> <li>Remote control via RS-232, TANDBERG remote control protocol</li> <li>Remote control via RS-232 / RS-485, fully implemented Altea remote control protocol</li> <li>TANDBERG Director inband remote control (only available with TANDBERG Director CA version)</li> </ul> <p><b>PHYSICAL AND POWER</b></p> <p><b>Dimensions:</b> (W x H x D) 435 x 275 x 44mm <b>Input Voltage:</b> 110/240VAC <b>Cooling:</b> Integrated fan, units may be stacked on top of each other</p> <p><b>ENVIRONMENTAL CONDITIONS</b></p> <p><b>Operating Temperature:</b> 0°C to +50°C (without DVB CI module) <b>Storage Temperature:</b> -20°C to +60°C <b>Relative Humidity:</b> 5 to 95%</p> <p><b>COMPLIANCE</b> CE compliant, UL compliant</p>
--	--	---

Dolby and Dolby Digital are trademarks of Dolby Laboratories Licensing Corporation.

TANDBERG Television maintains a policy of product improvement and reserves the right to modify the specifications without prior notice. ©TANDBERG Television Ltd 2003. All rights reserved.

Europe, Middle East and Africa	+44 (0)23 8048 4666	Asia	+852 2899 7000
Americas	+1 407 380 7055	Australasia	+61 2 9356 8599

V
www.tandbergtv.com