ERICSSON TT1222

MPEG-2 Standard Definition Integrated Receiver Decoder

Digital television's rapid expansion into a multi-channel environment creates new opportunities and challenges. To succeed in this new environment, cable, satellite and telco service providers and distributors need to move video and audio over a variety of networks with lower cost, more fully-featured and flexible equipment. To meet that demand, Ericsson has delivered the TT1222 professional receiver; designed to decode, monitor and distribute high volumes of video channels at very low cost while maintaining excellence in video quality.

The TT1222 offers bit-perfect decoding of MPEG-2 SD 4:2:0 profile video, handling all major CA standards, all major video formats and resolutions, including Russian SECAM and all major network architectures - including video over IP. The TT1222 is ideal for high-volume digital video turn-around from satellite for re-distribution from a cable headend or any last-mile network.

PRODUCT OVERVIEW

Affordable Digital TV Distribution

The TT1222 receiver provides a level of features, quality and sophistication that is unmatched in its affordability.

Comprehensive Transmission Security

The TT1222 offers tremendous breadth in decryption choice, supporting all major encryption systems including BISS 1 and E, Common Interface and Ericsson Director CA.

Sophisticated Functionality

Sophisticated technologies including service filtering and extensive VBI handling are just two of the advanced features that allow operators to carry professional high rate data streams thereby increasing operational efficiency and revenue potential.

Low-cost, Efficient Management

The TT1222 can be efficiently managed and maintained through integration into Director by Ericsson's control system.

This scalable system enables reliable, remote management and channel-tuning of large populations of receivers and reduces the need for costly, on-site operation.

BASE UNIT FEATURES

TT1222 – Common Interface Receiver (TT1222/CIBAS)

The TT1222's flexibility allows it to fit into most systems.

- Compatible with PAL, NTSC and SECAM video
- Common Interface for descrambling of most common CA systems
- Dual audio with XLR or screw terminal break-out cables

TT1222 – Russian SECAM Receiver (TT1222/RSBAS)

The TT1222/RSBAS featuring the same functions as the Common Interface receiver with the addition of broadcast quality Russian SECAM output.

Standard features for all units include:

- MPEG-2 SD 4:2:0 decoding for all common resolutions
- Automatic selecting of PAL/NTSC video formats
- Support for SECAM
- Extensive VBI handling
- Support for Aspect Ratio Conversion
- Subtitling capability that can be 'burnt' into the video
- Service Cycling through all decryptable services
- MPEG-1 Layer II (Musicam) audio outputs
- Dolby® Digital 5.1 down-mix to stereo
- Easy-to-use front panel display
- Web browser interface for remote control and monitoring
- Integrated with nCompass Control and Monitoring

HARDWARE OPTIONS

Transport Stream Input Options

QPSK Input (TT1222/HWO/QPSK)

- DVB-S QPSK Satellite demodulator
- 1x L-band input
- 1 Msym/s to 45 Msym/s

ASI Input (TT1222/HWO/ASI/IN)

- ASI Transport Stream input
- 1x BNC connector

Transport Stream Output Options

Single ASI Output (TT1222/HWO/ASI/OUT)

- ASI Transport stream output
- 1x BNC connector
- Output data rates up to 50 Mbps

Dual ASI/SDI Output (TT1222/HWO/ASI/SDI)

- 2x BNC connectors
- Output any permutation of ASI/SDI on output connectors
- TT1222/CIBAS model only

MPEG Transport Stream over IP (TT1222/HWO/IP/OUT)

- Dual 100BaseT IP output
- Pro-MPEG FEC capability
- MPTS or SPTS output stream

XLR Terminal Audio Break-Out Cable (TT12XX/CABLE/XLR)

- Provides XLR terminal connections for audio output
- 1x stereo pair per breakout cable via 2x XLR connectors

SOFTWARE OPTIONS

Decoding of Dolby® Digital AC-3 audio (TT1222/SWO/AC-3)

- Decoding of Dolby Digital 2.0 audio
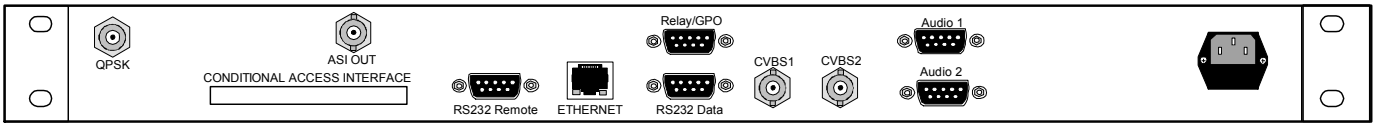- Down-mixing to stereo of Dolby Digital 5.1 audio

Director by Ericsson (TT1222/SWO/DirV5)

- Director over-air control
- Director CA
- Director over-air software downloads

SAMPLE CONFIGURATION

SPECIFICATIONS

Inputs

DVB QPSK Input

Connector: F-type (F) 75 ohm

Frequency range: 950 MHz to 2150 MHz

Symbol rates: 1 Msym/s to 45 Msym/s

LNB power: 13 V, 18 V or off

22 kHz tone: On/Off

Spectral inversion: Normal/inverted

DVB ASI Input

Connector: BNC (F)

Impedance: 75 ohm

Sustained TS rate: 50 Mbps

Outputs

Analog Video Output

2x BNC (F) 75 Ohm

PAL

NTSC

SECAM

Russian SECAM (Option)

SDI Digital Video Output (option)

2x BNC (F) 75 Ohm (Option)

EDH and VBI support

Two embedded uncompressed audio pairs

Analog Audio Output

9-way D-type, balanced (M)

Two balanced audio pairs - MPEG-1 Layer II or Dolby® Digital (AC-3) down-mixing

Digital Audio Output

9-way D-type, unbalanced (M)

Dolby Digital AC-3 down-mixing (option)

Serial Digital Audio (S/PDIF)

Serial Data Output

9-way D-type, (M)

Asynchronous RS232

DVB ASI Output (option)

1x BNC (F) 75 Ohm

2x BNC (F) 75 Ohm (option)

Sustained transport stream data rate: 50 Mbps

Enable/disable descrambling of one selected service

MPEG Transport Stream over IP (option)

Dual 100BaseT RJ-45 outputs

Pro-MPEG FEC output mode

Sustained transport stream data rate: 50 Mbps

MPTS output—CBR and VBR modes

SPTS output with service filtering—CBR mode

Features

Automatic Selection of PAL/SECAM/NTSC TS Handling

Complete DVB PSI/SI processing

PSI/SI disable for non-DVB streams

ATSC service selection

Auto-selection of language for audio, subtitling and Teletext

Service cycling through all decryptable services

Flexible VBI Handling

DVB Text (WST), reinserted in PAL and SECAM outputs (VBI)

Inverted Teletext insertion

Wide Screen Signaling (WSS) and Video Programming System (VPS)

Test Signal (VITS) generation

Closed captions

GCR

Sin (x)/x

On-Screen Processing

EBU-Teletext subtitling

DVB subtitling

Flexible CA Handling

DVB Common Interface:

Conax

Irdeto

Nagravision

CryptoWorks

MediaGuard

BetaCrypt

Viasat

Decryption of MPEG-4 services via CAM (no MPEG-4 decode)

Director (option)

BISS (Mode-1 and E)

Format Conversion

Letterbox handling

PAN/SCAN

14:9 Combination (PAL/SECAM only)

Control

Front panel keypad and LCD

nCompass Control and Monitoring

Over-air remote control with Director (option)

Web page control

Over-Air software download with Director (option)

Physical and Power

Dimensions (W x D x H)

435 x 275 x 44mm (19" x 10.75" x 1.75" approx.)

Input Voltage

110 VAC / 240 VAC

Power Consumption

20W Max. (depending on options fitted)

Cooling

Integrated fan, units may be stacked on top of each other

Environmental Conditions

Operating Temperature

0°C to +50°C (32°F to 122°F) without DVB CI module

Relative Humidity

5% to 95%