

DS72 SD Tivu

SATTELITE – DVB-S Zapper

MPEG2 SD

TECHNICAL SPECIFICATION



Version 3 – 14/06/2010

The design and mechanical are subject to modification without prior notice.

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HARDWARE FEATURES

SATELLITE FRONT END

SATELLITE RF INPUT

Input frequency range: 950 to 2150 MHz
RF Input level: -65 to -25 dBm
Input impedance: 75 Ohm unbalanced
Return loss: <-6 dB
Ku band reception: 10.7 to 12.75 GHz
IF Bandwidth: 36 MHz
Electrostatic Overload protection: 15 KV

LNB SUPPLY

Vertical supply voltage: 12.5V to 14V
Horizontal supply voltage: 17V to 19V
Current: 350 mA max, Overload Protected (up to 500mA)
Control voltage:
- Frequency: 22 kHz (+-2kHz and 50% +-10%),
- Duty Cycle: 50%+-10%
- Transition time: 15us max
- Amplitude: 0.60Vpp (+/- 0.20V)

SATELLITE DEMODULATOR

DVB-S

Constellation: QPSK
Roll off factor: 0.35
Symbol Rate: 10-45 MS/s
Code Rate: 1/2, 2/3, 3/4, 5/6, 7/8

DiSEqC 1.2 compliant

MICROPROCESSOR AND MEMORY

Processor: ST 5107
RAM Memory: 64 Mbytes
Flash Memory: 8 Mbytes

VIDEO DECODING

MPEG2

Standard MPEG-2 MP@ML for 50Hz
Input rates (max) : 15 Mbit/s

AUDIO DECODING

Stereo 2.0

MPEG-1 layer I & II (Musicam Audio)
Mode: Mono, Stereo, Joint stereo
Sampling frequency: 32/44.1/48 KHz

OUTPUT RESOLUTION / FORMAT

Resolution:

720x576@ 50Hz interlaced

Format function on TV scart:

- 4/3: Standard or Letter Box
- 16/9: Standard or Pan Scan

AUDIO VIDEO INPUT/ OUTPUT

TV SCART (output)

RGB, CVBS, Volume controllable
audio R/L, Audio mute, Fast blanking,
Slow blanking

AUX SCART (input, output)

- Input: RGB, CVBS, volume controllable audio R/L, audio mute, Slow blanking, Fast blanking
- Output: CVBS, audio R/L at fixed level

S/PDIF

- Output: Dolby Digital pass-through according to the broadcasted stream and user setting
Fixed audio level at -31 dBKFS

FRONT PANEL

1 x Bicolor LED indicator (Red/Green)
1 x IR sensor: 38 KHz
3 x Button (Power, P+, P-)
2 x Smartcard reader ISO7816

REAR PANEL

2 x IEC 169-24F female (RF signal input & Loophrough)
2 x SCART (TV, AUX)
1 x RCA (S/PDIF Digital Audio)
1 x RJ-11 (Modem)
1 x Power jack
1 x Power switch (Off mode)

CONNECTIVITY

PSTN Modem v.90/92

POWER SUPPLY

External Power Supply Unit
Main power: 100-240 V ~50/60 Hz
Output: 12V - 2A
Power consumption (IEC 62087 Ed 2):
- 17W Max. in Working mode
- 8W Max. in Standby mode
LNB power consumption: 9W Max.

MECHANICAL

Cabinet Color: Black Piano
Receiver Size (wxdxh): 258x170x42
Receiver Operating Temperature: +5°C to +40°C
Giftbox Size (wxdxh): 362x253x62
Weight (Receiver/Total): 0.87 / 1.45 kg
Storage Temperature: -25°C to +65°C
EAN Code: 3 245160 295108

ACCESSORIES

1 x Power Supply Unit
1 x Remote Controller
2 x Saline batteries
1 x User manual in Italian
1 x Tivu Smartcard

SOFTWARE FEATURES

EMBEDDED CAS

- Nagravision Tiger - Nasc 1.3 compliant

TIVU CHANNELS SEARCH AND INSTALLATION

- Quick guided installation at first time switch-on for Tivu channels, on HOTBIRD 13°E
- Signal level and quality indicators for antenna positioning and checking
- Easy Manual re-installation of Tivu Channels

OTHER SATELLITE INSTALLATION

- Supporting DiSECq v1.0: 4-port Switch or 2-ports ToneBurst
- Supporting DiSECq v1.2: Driving motorized dish
- Easy manual installation of FTA / Scrambled services on 3 Satellites: HotBird 13°E, Astra 19°E, Eurobird 9°E
- Full Satellite or one transponder fast search

MHP engine support: v1.0.2

- Auto start application once loaded (On / Off)
- Support MHP applications¹
¹ If broadcast

ELECTRONIC PROGRAMME GUIDE (EPG)

- Channel list and programs list (now/next)²
- Short/extended event Summary
- Tivu EPG³
² If broadcast
³ On further Sw release

CHANNEL LIST

- One touch key for channel list display
- LCN Ordering for Tivu Channels (Similar to DVB-T)
- Channels management: Re-order and/or Delete non-Tivu Channels
- Automatic and scheduled Tivu channels update (Similar to Network Monitoring on DVB-T)
- User-managed Favorite channels list

RADIO

- Support Tivu / FTA Radio services on all satellites
- 1-key Radio & TV mode switch

TELETEXT

- VBI re-inserting

LOCKING AND SECURITY

- Parental code protection on important technical items in the menu
- Channel locking
- Parental control: -7, -12, -14 and -18 years old
- Change PIN code

TIMER

- User-defined timers (Min. 30) for VCR / DVD-Recorder
- One-shot or repetitive recording (daily or once a week)

OSD

- User-defined Zapping timer display time
- Zapping banner: Service & Program name, program progress
- Volume level / Mute indicator

LNB & SATELLITE CONFIGURATION

- LNB Configuration choice: Universal or other pre-defined break-off frequency values
- LNB Control voltage: On or Off

AUDIO/VIDEO SET UP

- TV SCART :
- Screen format: 4/3 =>Pan & Scan or Letterbox; 16/9 =>Standard or Wide
- Mode: RGB or CVBS
- AV SCART :
- Input : RVB or CVBS
- Output : CVBS

USER PREFERENCE SET UP

- Menu language preferences: Italian, English and other European languages (French, German, Spanish)
- Audio and Sub-Titles language preferences: Italian, English and other European languages
- ISO 639 audio track preferences
- Local time settings (Manual time zone choice & Summer / Winter time)
- Modem setting: Dialing Prefix definition (up to 3 digits), and working mode (Tone or Pulse)
- Factory Reset (total re-installation)

TECHNICAL INFORMATION

- Antenna signal information (quality)
- Product data

OTA UPGRADE

- Fully OTA upgradable, though Tivu Home transponder
- Automatic OTA look-up at scheduled time, and auto-upgrade
- Manual OTA look-up

REMOTE CONTROL



REAR PANEL

