

## SUNNISKY TS2000-T/T2 Digital Multi-function DVB-T/T2 COFDM Terrestrial Processor & One way Gateway for DVB-T over IP

Based on open standards, SUNNISKY TS2000-T/T2 is one digital multi-function DVB-T/T2 COFDM processor with high level in technology and its application. Supporting MPEG-2 decoding, it can effectively receive DVB-T/T2 COFDM digital terrestrial TV signal, decode and output two ways independent TS stream signal simultaneously via its two ASI outputs interface, specially it has IP output port which could process the DVB-S over IP application which enables multiple TS stream signal feed to be carried over a IP network (6 TV programs as default, and 32 TV programs as Optional), besides analogue CVBS signal and 1 group analogue Left/right audio balance output with XLR interface (as default, Digital Audio AES/EBU output as Optional), two digital SDI outputs embedded audio signal.

Specially, by aid of its one ASI Input interface it has cascade (simply Re-multiplexer) function (need to be activated), the demodulating of DVB-T/T2 COFDM, and generating TS signal by itself and the input TS signal from its ASI input interface, which comes from the other equipment, will be multiplexed and filtered out unwanted service/TV programs into only one MPTS TS signal output and IP output at the same time.

SUNNISKY TS2000-T/T2 has embedded Common Interface which could provide great support for a wide variety of CA systems, for example, Conax, CryptoWorks, Irdeto, Mediaguard, Nagravision and Viaccess, etc. That is, it could receive encrypted DVB-T/T2 COFDM digital terrestrial TV programs with the help of one Smartcard and PCMCIA CI module which has the function of multi-decryption, in order to decrypt them as free TS stream signal.

With 10/100BaseT Ethernet, the SUNNISKY TS2000-T/T2 could realize remote control and management function by aid of its NMS (network management software system, as Optional). And being adopted the latest technology in DVB (digital video broadcasting) and IP, and it is specially designed for digital cable or terrestrial TV system and IPTV network for all of worldwide operators in order to realize the triple play service including real-time video, voice and data over digital TV and IP network infrastructure with increased flexibility.



### Feature

- Fully comply with DVB-T/T2 COFDM standard and MPEG-2 (MP@ ML) standard
- Support SD and HD digital terrestrial RF signal receiving
- Linux Operating System, and ARM7 MCU
- Decrypts the conditional access systems encrypted, for example, Conax, CryptoWorks, Irdeto, Mediaguard, Nagravision and Viaccess CA, etc. with the two CI slots of PCMCIA
- Two CI slots of PCMCIA modules could work and descramble multi-program stream simultaneously (under the condition of multiple TV programs in one RF Frequency/Channel)
- Multi-descramble function together with PCMCIA module which could support multi-descramble
- BISS function
- Support VBI teletext (DVB ETSI 300 706) EBU and DVB subtitle
- NIT search
- PMT update automatically
- PID filtering
- PSI/SI edit and generate
- One ASI input interfaces, the function of Re-Multiplexing, and realize the function of one way Gateway for DVB-ASI over IP
- Two independent TS stream signal outputs via two ASI ports with scrambled or non-scrambled stream
- Two ways Digital SDI video output ports embedded audio (need to be activated)
- Composite video (CVBS) output besides R/V, G/Y and B/U output
- 1 group analogue Left/Right audio balance output with XLR interface (as default, Digital Audio AES/EBU output as Optional)
- DVB-T/T2S over IP output with bit rate up to 70Mbps/s by 100M base-T
- Support UDP (User Datagram protocol) , and RTP

- IP transmission supports Unicast, Multicast modes (6 IP addresses-100Mbps Base-T as default, and 32 IP addresses-1000Mbps Base-T as Optional)
- Running continuously with excellent stability
- LCD display and user friendly operation
- Automatic recovery for latest system configuration due to expected or unexpected power off
- By 10/100BaseT Ethernet based on TCP/IP (optional), SNMP protocol, it can realize remote control, network management and parameters setup
- Software upgrade or link the other one to update via RS232 serial port

### Specification

<b>ANT. Signal Input and Tuner</b>	
Signal Input and Output	Loop through
Demodulation	COFDM
Input frequency	VHF:104MHz~230MHz; UHF:470MHz~862MHz
Input level	-70dBmV ~ -20dBmV
Input impedance	IEC type, 75Ω
Tuner Bandwidth	6/7/8MHz (Selectable)
<b>Channel Decoding</b>	
Complies with	DVB-T/T2 standard
Constellation	DVB-T: QPSK, 16QAM, 64QAM ; DVB-T2: QaPSK, 16QAM, 64QAM, 256QAM
FEC Decoder	DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8 with Constraint Length K=7; DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Guard Interval mode	DVB-T: 1/32, 1/16, 1/8, 1/4, off; DVB-T2: 1/4, 5/32, 1/8, 5/64, 1/16, 1/32, 1/64, 1/128
OFDM Spectrum/FFT mode	DVB-T: 2K, 8K; DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
Input Symbol rate	4.98~31.67Mbit/s
<b>Demultiplexer</b>	
Standard	ISO/IEC 13818-2
<b>Video decoding</b>	
Standard	ISO/IEC 13818-2; MPEG-2 MP@ML
Aspect ratio	4:3 and 16:9 Full; 4:3 Letterbox
Video format	720X576@ PAL; 720X480 @NTSC
<b>Audio decoding</b>	
Standard	ISO/IEC 13818-3 MPEG-1 layer I and II
Decoding	MPEG-1 layer I and II, Musiacam Compression Format
Audio output mode	Stereo, Left, Right, Mono channel
Volume Level	32 Levels
<b>Common Interface</b>	
Standard	EN 50221
CI Module	JEIDA 4.0 PCMCIA type II*2
Support	Conax, CryptoWorks, Irdeto, Mediaguard, Nagravision and Viaccess CA, etc.
<b>IP (DVB-ASI over IP) output</b>	
Connector	RJ45, 10M/100Mbps Base-T
Output bit rate	70Mbits/s (Max.)
UDP/RTP mode	Multicast or Unicast
Multicast control protocol	IGMP V2
<b>ASI-TS input</b>	
Interface	BNC connector*1, 75Ω
Signal level	800mVp-p

TS input available bit rate	≤160Mbps
Packet length	188 or 204
Data mode	Byte
<b>ASI-TS output</b>	
Interface	BNC connector*2, 75Ω
Output level	1Vp-p±0.1V
Data transmission rate	270Mb/s
Packet length	188 or 204
Data mode	Byte
<b>BNC Video Output</b>	
Connector	BNC, 75Ω
Video output bandwidth	8MHz
Amplitude frequency response	±5%
Non Linearity	<6%
<b>RCA Video and Audio Output</b>	
Video output Connector	CVBS RCA*1, 75Ω
Video output level	1Vp-p
Audio output Connector	Audio RCA*2 (Left & Right) ; Low impedance, 680Ω;
<b>Audio XRL Balance Output</b>	
Connector	XLR L*1, XLR R*1
Audio output level	0.6V rms/2dB into 10KΩ
Audio output impedance	600Ω
<b>Digital Audio AES/EBU (Optional)</b>	
Connector	9-pin D-sub male*2
<b>SDI Output</b>	
Connector	BNC*2, 75Ω
Data transmission rate	270Mb/s (Max.)
Max. output level	800mVp-p±10%
<b>RS-232</b>	
Connector	9-pin D-sub male, Maximum of 625K bits/s
<b>General</b>	
Power supply	SMPS, 90V~240V AC @ 50Hz~60Hz, 25W
Dimension	483mm×255mm×45mm
Weight	4.6Kg

Note: All specifications are subject to change without notice.



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