SUNNISKY DTT1000 COFDM DVB-T Agile Modulator

SUNNISKY DTT1000 COFDM DVB-T agile modulator is specially designed to meet the requirement of Digital Terrestrial Television Broadcast application with high flexibility and stability（without the function of non-linear Pre-correction）. It could modulate input MPEG-2 TS signal into a DVB-T compliant COFDM RF output signal within the range from 48~860MHz. A key factor of DTT1000's success is the quality of the coding and COFDM modulation process in accordance with the rules for channel coding and modulation specified in the DVB-T standard ETSI EN 300 744

So, SUNNISKY DTT1000 is very suitable and the most economical choice to transmit   DVB-T   digital terrestrial TV programs with wireless digital transmission way.

Feature

- Fully complies with DVB-T ETSI/ETN 300 744 standard
- 1 SPI IN, 1 TS ASI inputs and 1 ASI loop output
- Modulation Constellation range of QPSK, 16QAM and 64QAM selectable
- Support 2K, 4K and 8K IFFT modes
- 6MHz or 7MHz or 8MHz channel bandwidth selectable
- 188 or 204 packet length is available
- With the design of high capability buffer; ASI interface supports burst and equality ways of input TS, and re-constructs equality adjust for input code rate in order to advance the efficiency of output TS
- NIT mapping and transmission; and supports NIT mapping over 44 output RF frequency point
- 10 groups PID filtering and re-mapping function
- Various of PSI/SI data table abstraction, parsing and modification, also could be made-to-order
- Replace and insert SI data table
- Null packet filtering for input data and filling for output data
- Multiple PCR correction for input data precisely
- Real-time monitor and display input system's bit rate and valid bit rate
- E3/DS3 interface (**Optional**)
- IF input and IF output port
- Adjustable 48~860MHz agile RF output
- -20dB RF test output is available (IF output is also available)
- Self-adjust filter circuit design in order to guarantee best suppressing feature out of band
- High RF output level from 105 to 115dBuV
- Automatically restored after power failure
- By 10/100BaseT Ethernet, it can realize remote control, network management and parameters setup (**Optional**)
- LCD display and user friendly operation
- Failure warning
- Low power consumption

Specification

Tuner & Channel	
Full compliance	DVB-T ETSI / EN300 744
Channel encoding	RS encoding with 204byte mode
modulation	COFDM
Constellations	QPSK, 16QAM, 64QAM
IFFT mode	2K, 8K
Channel Bandwidth	6 MHz or 7 MHz or 8 MHz **(optional)**

FEC Code Rate	1/2, 2/3, 3/4, 5/6 and 7/8
Guard Interval	1/4, 1/8, 1/16, 1/32, off
ASI IN/OUT	
Full compliance	EN 50083 ASI interface standard
Interface	ASI port, BNC connector, 75Ω
Packet Length	188 or 204
TS input available Bit Rate	1.5~31.67Mbps
IF IN/OUT	
IF frequency	35.25/36/36.15/44MHz /36MHz (selectable), 50Ω
IF bandwidth	≤8MHz
IF level	95dBuV(rms)
Return loss	≥18dB
RF Output	
RF output frequency	Agile 48MHz~860MHz, adjustable
RF output level	105~115dBuV（Adjustable）
RF Frequency accuracy	≤±20KHz
RF output impedance	BNC connector, 75Ω
RF harmonics and spurious	50dBc relative to total power
Modulation Error Ratio (MER)	≥38dB
Phase noise	≤-90dBc/Hz
Noise Figure	≤8dB@VHF;≤10dB@UHF
C/N	≥57dB@VHF; ≥54dB@UHF
Frequency Response	≤±2dB
RF output return loss	≥15dB
I/Q Amplitude Error	<0.2%
I/Q Phase Error	<0.2 degree
Shoulder	>45dB @ +/-5MHz from central frequency
General	
Operating temperature	0°C~55°C
Power requirement	AC 85 or 165~265V, 50Hz±2Hz, 40W
Net weight	6Kg
Gross weight	6.6Kg
Net Dimension	483mm×400mm×44mm
Dimension	550mm×510mm×170mm

Note: The information contained herein is subject to change without notice.

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