

# WHX-9000D

## 8-Way FTA Receiver



WHX-9000D is a high-density 8-way receiver equipped with 8 independent tuners can be choose from DVB-T/T2, DVBS/S2, DVB-C, DTMB, ATSC and ISDB-T. The remultiplexing capabilities enable the creation of new transport streams that are subsets of the original inputted stream. Customized services may be output as multiple up to 128 SPTS or MPTS over IP. WHX-9000D is accommodated in a standard 1U x 19" rack mountable chassis.

### Main Feature

- 8xTuners Input, Supports variety of input options DVB-T2/T/S2/S/C/DTMB/ATSC/ ISDB-T
- Supports DVB-S2 Input Stream Identifier (ISI, optional) and DVB-T2 Multi PLP
- 128 channel IP output
- Support PMT automatic update
- Remote control/monitoring with SNMP and HTTP/Web interface
- On site software update through IP or USB

### Two RJ45 redundant output



### Support 8xTuners Input



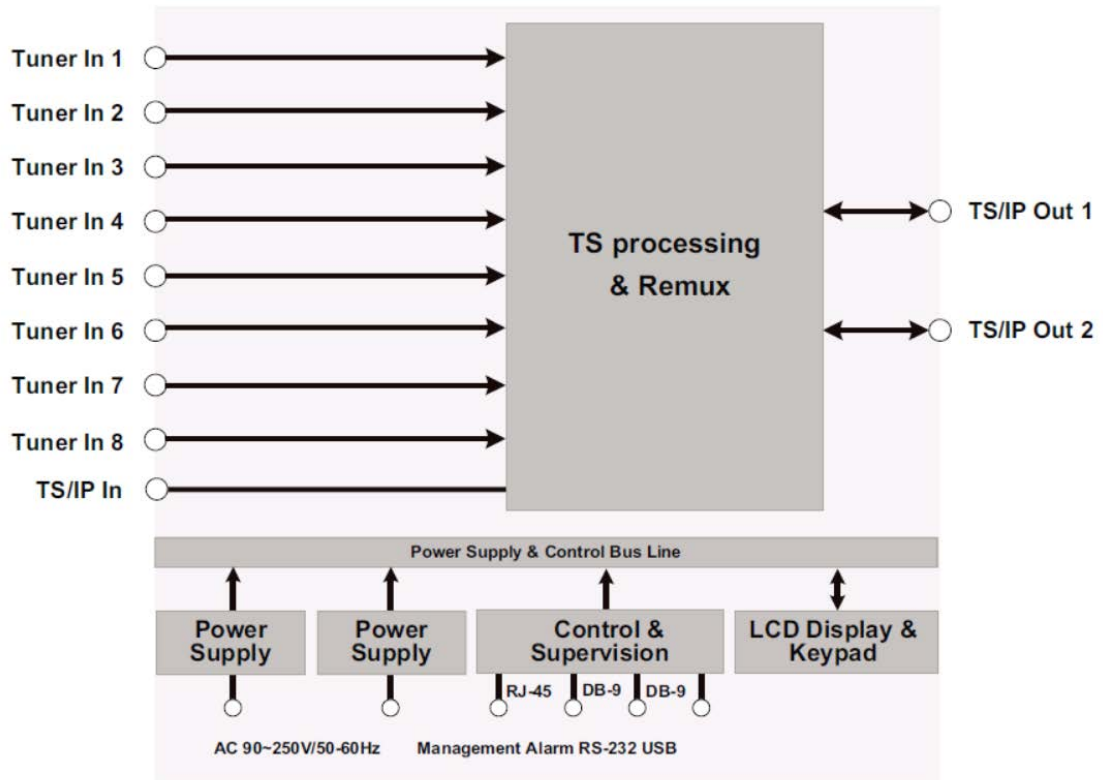
## Specification

Tuner Input	
DVB-S/S2 Tuner Input	
Connector Type	8×F type female 75Ω for Input
Input Frequency Range	950 ~ 2150MHz
Input Level	-25 ~ -65dBm
Symbol Rate	2 ~ 45MBaud
Roll-off Factor	DVB-S QPSK: 0.35 DVB-S2 8PSK: 0.35, 0.25, 0.2
FEC Code Rate	DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2 QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 8/10 DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
LNB Polarity Selection Voltage	0, 13V, 18V selectable
LNB Band Selection Tone	0/22KHz selectable
Satellite Selection Command	DiSEqC 1.0
ISI ID	1 ~ 255 user configurable
DVB-C Tuner Input	
Connector Type	8×F type female 75Ω for Input
Input Frequency Range	51 ~ 860MHz
Input Level	45 ~ 75dBμV
Symbol Rate	1 ~ 7MBaud (ITU J.83 Annex A)
Constellation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Bandwidth	6MHz, 7MHz, 8MHz
Input Return Loss	7dB (typ.)
DVB-T/T2 Tuner Input	
Connector Type	8×F type female 75Ω for Input
Input Frequency	104 ~ 862MHz (VHF/UHF)
Input Level	-20 ~ -70dBm
Constellation	DVB-T: QPSK, 16QAM, 64QAM DVB-T2: QPSK, 16QAM, 64QAM, 256QAM
Bandwidth	6MHz, 7MHz, 8MHz
FFT Mode	DVB-T: 2K, 8K DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
Guarding Interval	DVB-T: 1/4, 1/8, 1/16, 1/32 DVB-T2: 1/4, 5/32, 1/8, 5/64, 1/16, 1/32, 1/64, 1/128
FEC Code Rate	DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Input Return Loss	7dB (typ.)
DTMB Tuner Input	
Connector Type	8×F type female 75Ω for Input
Input Frequency Range	46.5~866MHz
Input Level	-87~-29dBm
Symbol Rate	7.56MBaud
Bandwidth	6MHz/7MHz/8MHz
Constellation	4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM
Guard Interval	PN420, PN595, PN945
Roll-off Factor	0.05
Interleaving Depth	240, 720
FEC Code Rate	0.4, 0.6, 0.8
ATSC Tuner Input	
Connector Type	8×F type female 75Ω for Input
Input Frequency Range	54~864MHz
Input Level	-75~-7dBm(ATSC 8VSB)
Symbol Rate	10.762MBaud
Constellation	8VSB
Roll-off Factor	0.115
Bandwidth	6MHz

TS Processing	
TS Input Management	Remux among Tuners
TS Output Management	Remux for ASI output
PSI/SI	PSI/SI table regeneration, NIT and SDT edition, LCN Edition and Re-generation
Descrambler	DVB Common Scrambling Algorithm (CSA)
BISS Mode	BISS-1, BISS-E
Common Interface	8 x PCMCIA slots, compatible with major CA CAMs in the market
ASI Output	
Connector Type	9 independence BNC female, 75Ω,
Standard	DVB-ASI, EN50083-9
Output Bit Rate	≤ 200Mb/s
TS Processing	8xASI out pass through the TS from CI 1 to CI8, 1xASI Out from Remux,
ASI Input	
Connector Type	1×BNC female, 75Ω
Standard	DVB-ASI, EN50083-9
Input Bit Rate	≤100Mb/s
Connector Type	1×BNC female, 75Ω
TS over IP	
Connector Type	RJ-45, IEEE 802.3, 10/100/1000 Base-T
Output capability	128*SPTS or MPTS UNICAST/MULTICAST
Max Effective Bit Rate	500Mb/s
Protocol	UDP / RTP ICMP, ARP, IGMPv3
Control & Monitoring	
Connector Type	RJ-45, 100M
Remote Control	SNMP V2, HTTP
Serial Port	1×RS-232 D-sub female
Alarm	1xD-sub 9 male
Physical	
Dimension	44mm x 255mm x 430mm
Weight	3.5kg
Power Supply	AC 90V ~ 260V, 50/60Hz
Operating temperature	0~45°C
Storage temperature	-20~70°C

**Block Diagram**

WHX-9000D Functional Block Diagram



**Back Panel Interface**

