

XTC MOTORSPORTS INC.

XTC 5000

Engineering Specifications

A. General features

- Fully MPEG2, DVB compliant
- 44 Hours recording with built in 80GB HDD (Hard Disk Drive) in 4Mbps stream
- Within the same TP it is possible to record one channel and view another channel
- At the time of watching the live mode, pre-recording motion by time-shift default supported
- Automatic restoration ability for all files that were in process of recording at the time of an electricity failure
- Recording current program while playing back earlier program simultaneously
- Recording reservation function on Timer and EPG
- Recording and playback with time delay (Time-Shift function)
- 3 steps (x4, x8, x16) Fastforward and Rewind function
- Pause and step playback function
- HDD management function (Play, Move, Lock, Rename, Delete, Format)
- Various playback function (Jump, Repeat, Shuffle, Slow playback)
- Digital Audio with AC-3 support by SPDIF
- PIG (Picture In Graphic) support
- Provide friendly and easy-to-use menu system
- Various channel editing function
(favorite, moving, locking, renaming, deleting and sorting)
- Stores up to 5000 channels
- Easy and speedy software upgrade through RS-232 port
- Plug-and-play data transfer system (DSR to DSR)
- Timer function, automatically turns On/Off by setting function
(daily, weekly, monthly and one time)
- Automatic reserved channel moving system

- Provide Electronic Program Guide (EPG)
- More than 800 pages OSD Teletext (DVB ETS 300 706) and Subtitle function support
- Support for various video output : CVBS, S-VHS, YUV
- 256 colors On-Screen-Display
- PAL/NTSC automatic conversion
- Last channel automatically saving

B. Engineering Specifications

1. Front-End

1-1. LNB & Tuner Input

Input frequency	:	950 to 2150 Mhz
Digital signal input level	:	-65 to -25 dBm
LNB supply	:	13.5±0.5V / 18.5±0.7V, max.500mA
Band switch control	:	22KHz (Microprocessor control)
Connector	:	2 x F-Type, 3/8-32UNEF-2A (1 Input / 1 Loop through)

1-2. Demodulator

Demodulation type	:	QPSK demodulation and FEC decoding in accordance with DVB prETS 300 421
Symbol rate (Rs)	:	2 < Rs < 45 Mbaud
SCPC and MCPC capable		

2. Demultiplexing

In accordance with ISO 13818-1.

Simultaneous access will occur for the following :

- 1 video stream of data rate up to 15 Mbits/s
- 1 audio stereo/mono stream of data rate up to 448 kbits/s

32 PIDs Supported

3. Video Processing

Decompression	:	MPEG-2 Main Profile @ Main Level With Letter Box filter
Video buffer	:	64 Mbits of SDRAM is provided
Data rate	:	up to 15Mbits/s (Max. burst rate : 228 Mbits/s)
Video output	:	PAL-25 frame @720 x 576 NTSC-30 frame @720 x 480
Video format	:	4:3, 16:9

4. Audio Processing

Decompression	:	MPEG-1 layer I and II, Musicam
Outputs	:	Stereo Channel Dual Mono Joint Stereo Channel Mono Spdif with AC-3

5. Baseband Inputs / Outputs

5-1. Baseband Video

Video format	:	CVBS
Output impedance	:	75Ω unbalanced
Bandwidth	:	5MHz

Connector type	:	1 x RCA
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5-2. Baseband Audio Outputs

Connector type	:	2 x RCA (Left and Right)
Output impedance	:	600 Ω unbalanced
Level	:	0.6V rms \pm 2dB into 10k Ω

5-3. Digital Audio Output

Connector type	:	1 x Optic
Output type	:	Spdif encoded signals with ac-3
Sampling frequency rate	:	32 , 44.1 or 48khz

5-4. S-VHS Output

Video format	:	Y,C
Output impedance	:	75 Ω unbalanced
Bandwidth	:	5MHz
Connector type	:	1 x 4pin DIN

5-5. Component Outputs (YUV)

Connector type	:	3 x RCA (Y Pb Pr)
Output impedance	:	75 Ω unbalanced

6. Supply voltage to LNB

Voltage supply path	:	DC supplied from DSR on LNB coax cable
LNB type supported	:	LNB with integrated polarizer switch
LNB supply voltage	:	(software selectable) . Vertical polarization : 13.5 \pm 0.5V DC . Horizontal polarization : 18.5 \pm 0.7V DC
FSS/BSS Switching	:	A 22kHz \pm 4kHz microprocessor controlled switching signal is provided
Short circuit limit	:	500mA

7. External Switched 12V

Software switchable	:	12V or 0V
Current limit	:	100mA
Connector type	:	1 x RCA

8. Data Service Port

Connector	:	9-pin D-sub male
Data protocol	:	RS232C interface
		The DVB-DSR is seen as the Data Communication Equipment (DCE) and the PC (or other terminal) is seen as the Data Terminal Equipment (DTE).
Data rate	:	Maximum of 625K bits/s

Pin	Name	Function	Source
2	RXD	Receive data	PC
3	TXD	Transmit data	DSR
5	GND	Signal ground	

9. Microprocessor

Microprocessor	:	SGS-Thomson Sti5518
Clock frequency	:	81MHz
SDRAM Memory	:	8Mbyte
Flash memory	:	2Mbyte

10. RF Modulator

RF Output Signal	:	NTSC M
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Video Carrier Frequency	:	61.25 ± 90 kHz	US 3 CH
		67.25 ± 90 kHz	US 4 CH

11. Built-in HDD

Formatted Gbyte	:	80Gbytes
Interface	:	Ultra ATA/66
Spindle speed	:	5,400 RPM

12. Remote Control unit

Number of keys	:	41 Keys
Operating distance	:	up to 10m
Batterys	:	2 x 1.5V (AAA type)

13. Power Supply

Type	:	Switching mode
Main input voltage	:	90 - 250V AC @ 50Hz/60Hz±5%
Nominal power consumption	:	27W
Standby power consumption	:	7W
Typical supply currents		
- +3.3V	:	0.9A
- +5.0V	:	0.4A
- +7.0V	:	0.27A
- +12V	:	0.03A
- +22V	:	0.4A
- +30V	:	0.03A
- +12V HDD	:	0.45A
- +5V HDD	:	0.5A

14. Physical Characteristics

14-1. Front Panel

Keys	:	8 Keys
Indicators	:	Power on/off
Remote control input	:	Infra-red receiver
Display	:	4Digit (7Segment)

14-2. Rear Panel

Connectors	:	1 LNB Input / 1 Loop through output (2F-type : IEC169-24) 1 x 0/12 Volt (RCA) 2 x Audio L/R (RCA) 1 x CVBS (RCA) 3 x YUV (RCA) 1 x RS-232 (9-pin D-sub male) 1 x RF Modulator (2F-type : IEC169-24) 1 x S-VHS (4-pin Mini-Din) 1 x Digital Audio Output (optic)
Switch	:	1 x AC Power Switch

NOTE) The above specification is subject to be changed without notice in advance.