



Description

Smart TV Board is a digital and analog TV control board, which is suitable for Pan Europe and UK market. It can support more than 26 inchws LED panels which resolution is up to 1920x1080.

Smart TV Board can receive and decode both Free-To-Air DTV and CA DVB-T/S2 program. It can decrypt programs encrypted by Irdeto, Viaccess, Conax with built-in CI(optional).

Smart TV Board support two kinds of main chip: MSD309BT-Z1、MSD308BT-Z1, only with MSD308BT-Z1, DVB-C is available.

Smart TV Board's USB slot can be used for Software upgrade, multimedia playback, PVR and time-shift.

General

Marketing Area	Pan Europe, UK	
OSD Language	English, French, German, Italian, Spanish,	
Panel	Panel Type	LED
	Interface	Dual/Single LVDS Interface
	Max Resolution	1920 x 1080

TV Input

ATV	
Receiving Range	48.25MHz ~ 863.25MHz
Input Impedance	75Ω
Video System	PAL, SECAM
Sound System	BG, DK, I, L/L'
	NICAM/A2
TELETEXT	1000 Pages
Max Storage Channels	100 CH

DTV

Receiving Range	DVB-T/C VHF(174MHz ~ 230MHz)	
	DVB-T/C UHF(474~862MHz)	
	DVB-S/S2 UHF(950MHz~2150MHz)	
Input Impedance	75Ω	
Channel Bandwidth	7MHz/8MHz	
Modulation	DVB-T	COFDM 2K/8K QPSK,16QAM,64QAM
	DVB-S/S2	QPSK ,8PSK
	DVB-C (only with MSD308BT-Z1)	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Video System	MPEG-2 MP@ML, MPEG-2, MP@HL,H.264	
Sound System	MPEG-1 layer 1/2,MPEG-2 layer 2, DD,DD+	
Basic Functions	EPG, SUBTITLE, LCN, TELETEXT (Europe), MHEG-5(UK)	
Common Interface	Built-in	
Video System	DVB-T/C >=400CH	
	DVB-S/S2 >=3500CH (dynamic)	

Substitutable Primary Materials

Name	Type	Brand	Backup Type	Backup Brand
FLASH	W25Q64BVSSIG (64M bits)	Winbond	MX25L6406EM2I-12G	Macronix
DDR	H5TQ1G63DFR-PBC (1G bits 1600MHz)	Hynix	K4B1G1646G-BCK0	Samsung
			W631GG6KB-12	Winbond
Amplifier	TPA3124D2PWPR	TI	--	--
Tuner(DVB-T+C)	TDA18273	NXP	--	--
Tuner(DVB-S/S2)	M88TS2022	Montage	--	--

Video Input

PC-RGB	Format	Up to 1920×1080@60Hz
CVBS	Video System	PAL/NTSC/SECAM
	Video Level	1.0 V _{p-p} ±5%
Component	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	
Full HD	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	
SCART	CVBS & RGB	

Audio Input

PC Audio	Earphone Input	0.2 ~ 2.0 V _{RMS}
CVBS/Component Audio	L/R RCA Input	0.2 ~ 2.0 V _{RMS}

Audio Output

Frequency Response	100Hz~15KHz @±3dB (1KHz, 0dB reference signal)
Max Output Power	2×9W(8Ω) THD+N<10%@1KHz (Power Supply: 24V, Audio Input: 0.5V _{RMS})

Power

Requirement	24V/12V/5V/5VSB
To Panel	5V/12V
Management	Standby Power Consumption < 0.2W(Board Only)

Others

Comb Filter	3D
Deinterlace	3D
Key Functions	MENU, CH+, CH-, VOL+, VOL-, INPUT, POWER
Expandable Function	DVD, Ext-Full HD

Electrical Characteristics & Requirements

Power Supply Mode	Symbol	Voltage Range	Max Current	Ripple Voltage @25°C	Startup time	Rise time
Comb Filter	24V	24V±1V	1200mA	240mV _{p-p}	≤100ms	≤50ms
	12V	12V±0.6V	1600mA	120mV _{p-p}	≤100ms	≤50ms
	5V	5.1V±0.05V	1500mA	50mV _{p-p}	≤100ms	≤50ms
	5VSB	5.1V±0.05V	500mA	50mV _{p-p}	--	≤50ms

USB Multimedia Playback Format

Media	File Ext.	Codec		Remark
		Video	Audio	
Movie	.mpg	MPEG-1, MPEG-2	MP3, WMA, AAC, AC3, PCM	Max Solution: 1920 x 1080 Max Date Rate: 40 Mbps
	.avi	DivX, Xvid, MJPEG MPEG-4 SP/ASP H.264		Max Solution: 1920 x 1080 Max Date Rate: 20 Mbps
	.ts	MPEG-2, H.264		
	.mov .mkv	MPEG-4 SP/ASP, H.264		
	.dat	MPEG-1		
	.mp4	MPEG-4 SP/ASP, H.264, MPEG-1, MPEG-2		
	.vob	MPEG-2		
	.rm .rmvb	RV8/RV9/MP2	Cook, MP2	Max Solution: 1920 x 1080
Music	.mp3	--	MP3	Sample Rate: 8K~48KHz Bit Rate: 32K~320Kbps
	.wma	--	WMA	Channel: Mono/Stereo
	.m4a/.aac	--	AAC	Sample Rate: 16K~48KHz Bit Rate: 32K~442Kbps Channel: Mono/Stereo
Audio	.jpg/.jpeg	Progressive JPEG		Max Resolution: 1024 x 768
		Baseline JPEG		Max Resolution: 8192 x 8192
	.bmp	BMP		Max Resolution: 6500 x 6500 Pixel Depth: 1/4/8/16/24/32 bpp
	.png	Non-Interlaced		Max Resolution: 3000 x 3000
Interlaced			Max Resolution: 1500 x 1500	