

TCC892x STB Android Solution's System Specification

Version 1.01, 2012.06.22.

DISCLAIMER

All information and data contained in this material are without any commitment, are not to be considered as an offer for conclusion of a contract, nor shall they be construed as to create any liability. Any new issue of this material invalidates previous issues. Product availability and delivery are exclusively subject to our respective order confirmation form; the same applies to orders based on development samples delivered. By this publication, Telechips, Inc. does not assume responsibility for patent infringements or other rights of third parties that may result from its use.

Further, Telechips, Inc. reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of Telechips, Inc.

This product is designed for general purpose, and accordingly customer be responsible for all or any of intellectual property licenses required for actual application. Telechips, Inc. does not provide any indemnification for any intellectual properties owned by third party.

Telechips, Inc. can not ensure that this application is the proper and sufficient one for any other purposes but the one explicitly expressed herein. Telechips, Inc. is not responsible for any special, indirect, incidental or consequential damage or loss whatsoever resulting from the use of this application for other purposes.

COPYRIGHT STATEMENT

Copyright in the material provided by Telechips, Inc. is owned by Telechips unless otherwise noted.

For reproduction or use of Telechips' copyright material, permission should be sought from Telechips. That permission, if given, will be subject to conditions that Telechips' name should be included and interest in the material should be acknowledged when the material is reproduced or quoted, either in whole or in part. You must not copy, adapt, publish, distribute or commercialize any contents contained in the material in any manner without the written permission of Telechips. Trade marks used in Telechips' copyright material are the property of Telechips.

Important Notice

This product may include technology owned by Microsoft Corporation and in this case it cannot be used or distributed without a license from Microsoft Licensing, GP.

For customers who use licensed Codec ICs and/or licensed codec firmware of mp3:

"Supply of this product does not convey a license nor imply any right to distribute content created with this product in revenue-generating broadcast systems (terrestrial, Satellite, cable and/or other distribution channels), streaming applications(via internet, intranets and/or other networks), other content distribution systems(pay-audio or audio-on-demand applications and the like) or on physical media(compact discs, digital versatile discs, semiconductor chips, hard drives, memory cards and the like). An independent license for such use is required. For details, please visit <http://mp3licensing.com>".

For customers who use other firmware of mp3:

"Supply of this product does not convey a license under the relevant intellectual property of Thomson and/or Fraunhofer Gesellschaft nor imply any right to use this product in any finished end user or ready-to-use final product. An independent license for such use is required. For details, please visit <http://www.fraunhofer-gesellschaft.com>".

For customers who use Digital Wave DRA solution:

"Supply of this implementation of DRA technology does not convey a license nor imply any right to this implementation in any finished end-user or ready-to-use terminal product. An independent license for such use is required."

For customers who use DTS technology:

"Supply of this implementation of DTS technology does not convey a license, exhaust DTS' rights in the implementation, or imply a right under any patent, or any other industrial or intellectual property right of DTS to use, offer for sale, sell, or import such implementation in any finished end-user or ready-to-use final product. Notice is hereby provided that a license from DTS is required prior to such use."

"This product made under license to U.S. Patents 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,487,535; 6,226,616 and/or foreign counterparts."

"© 1996 - 2010 DTS, Inc."

	Specification			STB			Remark	
				2012.04	2012.05	2012.06		
	Boot loader	Type	Ik Boot	YES				
		Default Device	NAND (SLC/MLC)	YES			Recommend lager than 2GB	
eMMC			YES			Should be used the SD Port4 or Port5 for SD/eMMC boot.		
SD			YES					
Kernel	DRAM Control	DDR3	512M	YES				
			1024M	YES				
	Storage	NAND Driver	FAT	YES				
			NTFS	YES				
		SD/MMC	FAT	YES				
			NTFS	YES				
		USB Storage	FAT	YES				
			NTFS	YES				
	USB	OTG	USB 2.0 OTG	YES			Only support HID and MSC	
		Host 2.0	USB Host 2.0	YES				
	Audio	I2S Interface		YES				
		Audio Codec	WM8524	YES				
		SPDIF Interface	PCM	YES				
			Pass Through	YES				
		UAC		YES				
	Connectvity	Ethernet	GMAC/MII/RGMII	YES				
		Wifi	Realtek 8188CU	YES			802.11 b/g/n, USB Dongle	
			Realtek 8189	YES			802.11 b/g/n, SDIO I/F, Only for HDMI Dongle	
			Atheros 6103	YES			802.11 b/g/n, SDIO I/F	
			BCM4330	NO	YES			
	I/O	GPSB	SPI Host	YES				
			SPI Slave	YES				
			TSIF Serial	YES				
		TS Parallel		TBD				
		I2C		YES				
		UART		YES				
		Smart Card		YES				
		IR	CS-2000	YES				
			Novatek	YES				
			NEC	YES				
			Virtual Mouse	YES			Animate mouse operation with remocon/keyboard	
		Mouse	USB mouse	YES				
		Keyboard	USB keyboard	YES				
		Display Interface	CVBS	NTSC	YES			
				PAL	YES			
	Component		1920x1080i	YES			With THS8200 Chip	
			1280x720p	YES			With THS8200 Chip	
	HDMI		1920x1080p 50/60Hz	YES				
			1920x1080i 50/60Hz	YES				
			1280x720p 50/60Hz	YES				
			720x576p 50Hz	YES				
			720x480p 60Hz	YES				
			640x480p 60Hz	YES				
			Auto Mode	YES				
		Scale Up UI	YES					
	Native Framerate	NO	YES					
	Default Display	HDMI/Composite	YES					
	Default Resolution	1280x720 (Set-top)	YES					
	Camera	UVC		NO	YES			
	3D/2D	3D/2D	Mali400 Driver	YES				
	Power Mangment	Sleep		YES				
		Shutdown		YES				
	Application	DxB	T-DMB	Playback	YES			
				Recording (MP4)	YES			
Capture				YES				
DAB				YES				
SLS/DLS				YES				
TPEG				NOT SUPPORT			Not support	
TCC3150				YES				
TCC3161				YES				
TCC351X			YES					
DVB-T			Playback	YES				
			Recording (TS)	YES				
			Capture	YES				
DVB-T			EPG	YES			There could be patent issues about EPG For the patent about EPG, Telechips doesn't guarantee anything, and it should be handled by customer themselves.	
			TeleText	YES				
			SubTitle	YES				

Application	DxB		TCC351X	YES	
		ISDB-T (Full Seg)	Playback	YES	
			Dual Decoding	YES	
			Recording (TS)	TBD	
			Capture	YES	
		ISDB-T (Full Seg)	EPG	YES	There could be patent issues about EPG For the patent about EPG, Telechips doesn't guarantee anything, and it should be handled by customer themselves
			SubTitle	YES	
			CAS	YES	
			TCC353X	YES	
		ISDB-T (One Seg)	Playback	YES	
			Recording (TS)	YES	
			Capture	YES	
			EPG	YES	There could be patent issues about EPG For the patent about EPG, Telechips doesn't guarantee anything, and it should be handled by customer themselves
			SubTitle	YES	
			TCC351X	YES	
		ATSC	Playback	TBD	
			Recording (TS)	TBD	
			Capture	TBD	
			EPG	TBD	
			Closed Caption	TBD	
	IPTV	IPTV (TS Streaming)	UDP	YES	
			RTP	YES	
	Multimeida	Video	AVI	YES	
			3GP/MP4	YES	
			MOV	YES	
			MPG	YES	
			VOB	YES	
			MKV	YES	
			FLV	YES	
			TS/TP	YES	
		Additional Video Codec	WMV (License)	YES	
		Music	MP3	YES	
			MP2	YES	
			AAC	YES	
			OGG	YES	
			FLAC	YES	
			APE	YES	
		Progressive Download (HTTP)	AVI	YES	
			ASF	YES	
			3GP/MP4/MOV	YES	
			MPG	YES	
			VOB	YES	
			MKV	YES	
			FLV	YES	
			TS/TP	YES	
		Streaming Play (RTP/RTSP)	3GP/MP4	YES	Unicast only
		Network File System	NFS	YES	Work with PC appliction that suuport NFS.
			CIFS	YES	
		Effect	Telechips EQ	TBD	
			SRS (License)	TBD	
		Variable speed Playback	0.1 ~ 1.9(License)	TBD	Pitch control will be provided by 3rd party
			forward seek (x2 ~ x32)	YES	
			reverse seek (x2 ~ x32)	YES	
		Additional Audio Codec	AC3 (License)	YES	
			eAC3 (License)	YES	
			DTS (License)	YES	
			WMA (License)	YES	
	Multimeida	Subtitle	SMI	YES	
			SRT	YES	
			SUB	YES	
			MKV/TS Internal	YES	
		Multi Audiotrack		YES	
		Screen Mode		YES	Box, Pan&Scan, Full Screen support
		Video Repeat		YES	Normal/Repeat one/Repeat all support
		Video Preview		YES	Thumbnail of video file is not supported in preview mode
		Video Enhancement	Deinterlacing	YES	60Hz Deinterlacing support

Application	Photo	Format	JPEG	YES		
			GIF	YES		
			PNG	YES		
			BMP	YES		
			TIFF	TBD		
	WIFI	WIFI Direct		NO	YES	
		WIFI Tethering		YES		