**Data Sheet** 

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Download Rev 2 (PDF, 1MB)

My Maxim: Not Logged In

**UARTs** 

3

Interface

32-Bit

SDRAM

SPI/2-Wire

**GPIO** 

61

64

Shared, 8

Dedicated

Shared, 8

Dedicated

By logging in to My Maxim you can

subscribe to alerts for this data sheet.

Oper. Temp.

(°C)

0 to +70

Package/Pins

CSBGA/100

CSBGA/376

CSBGA/100

CSBGA/376

Maxim > Products > Video > MG2580, MG3500

MG2580, MG3500

# HD H.264 Video Codec

Highest-Quality, Lowest-Power Solution for Security DVRs and IP Cameras

User Comments (8) Technical Documents Related Products Ordering Info Status 2 Status Part Number

Active: In Production. See Ordering Information for details.

Active: In Production. See Ordering Information for details.

# Description

Overview

MG2580

MG3500

markets.

It offers a fully compliant baseline, main, and high-profile HD H.264 codec, MJPEG codec, HD MPEG2 decoder, video preprocessors and postprocessors, 240MHz ARM9™ CPU, and a host of peripherals including Gigabit

The MG3500 is a highly integrated, low-power, HD H.264 codec SoC ideal for today's consumer and security

Ethernet MAC, USB 2.0 OTG, SD™ card, compact Flash, IDE, CE-ATA, SDIO, and MMC. At the heart of the audio/video subsystem are two real-time programmable multimedia engines (MME). One controls the video codecs and input/output processors, while the other implements the soft audio codecs and

low-level analytics, leaving the ARM9 processor completely available for application programs. An evaluation kit is available from Momentum Data Systems for qualified buyers.

**Key Features** Applications/Uses High, Main, and Baseline H.264 HD 1920 x 1080i Codec Compression cameras for consumer

Video

Inputs

1 x 8-Bit

2 x 8-Bit

4 Frame

Multiplexed

Video

1 x

2 x

8-Bit

8-Bit

Outputs

Audio

**Formats** 

AAC

AMR.

Dolby

G.7XX

MP1/2/3

# • HD 1920 x 1080i MPEG2 Decoder

- MJPEG Codec, Up to 12MP. Audio Formats Include AAC, G.7XX, AMR, MP1/2/3, and
- Dolby
- Dual, High-Profile 720p30 Multichannel 8 D1 or 16 CIF • 720p30 Full-Duplex Operation
- 1920 x 1080i MPEG2 to H.264 Transcoding
- AES and SHA Hardware Assist
- Motion Adaptive Deinterlacing and Noise Reduction Temporal/Spatial Filters
- · Video Cropping, Scaling, and Compositing · Frame- and Bit-Rate Control
- Advanced Edge Preservation
- **Key Specifications:**
- Video Processors

H.264 +

H.264 +

H.264 +

**MJPEG** 

@30fps

4 D1 + 4

Encodes

Decodes

Bitstream

I/F

MG3500.pdf

MG2580 ▼

Buy

N/A

Buy

Go

Package: Any

Status

0

No

Longer

Active

Available

Temperature: Any

Package:

TYPE PINS FOOTPRINT

DRAWING CODE/VAR \*

CSBGA;376 pin;324 mm²

CSBGA;376 pin;324 mm²

CSBGA;100 pin;100 mm<sup>2</sup>

Outline Drawing:21-0448 (PDF)

Outline Drawing:21-0448 (PDF)

Use pkgcode/variation: X37688+2\*

Land Pattern: 90-0300 (PDF)

Use pkgcode/variation: X37688+2\*

Land Pattern: 90-0300 (PDF)

Recommended

MG2580A3-376B

Replacement

or 8 D1

H.264

CIF

H.264

D1

CIF

Part Codec/ Multi-Number Decoder Channel

H.264

Codec

HD

MPEG2

Decoder

**MJPEG** 

Codec

HD

1080p30

H.264

Codec

HD

MPEG2

Decoder

**MJPEG** 

Codec

See All Video Processors (2)

High-Speed

Bitstream

**Pricing Notes:** 

HD 720p 720p30

MG2580

MG3500

video conferencing

Security IP Cameras and DVRs

CPU

240MHz

ARM9

Peripherals

Compact

Flash

Gigabit

Ethernet

MAC

MMC.

SD Card

SDIO

USB 2.0

OTG

Master/ Slave Host

SDIO/MMC/

CE ATA

Tape and Reel Sample 60

Temp

0°C to +70°C

0°C to +70°C

RoHS/Lead-Free?

Materials Analysis

Materials Analysis

Materials Analysis

RoHS/Lead-Free: Lead Free

RoHS/Lead-Free: Lead Free

(no rating)

2011-12-12

(no rating) 2011-12-09

(no rating)

2011-06-09

(no rating) 2011-06-09

(no rating)

2009-08-18

2009-08-17

# authorized distributor.

Diagram

I/F/ NAND/NOR/ CF/IDE 16 Data, 23 Address SDRAM DDR2 SDRAM Slave Host/ Master (1 or 2 Chips) Controller

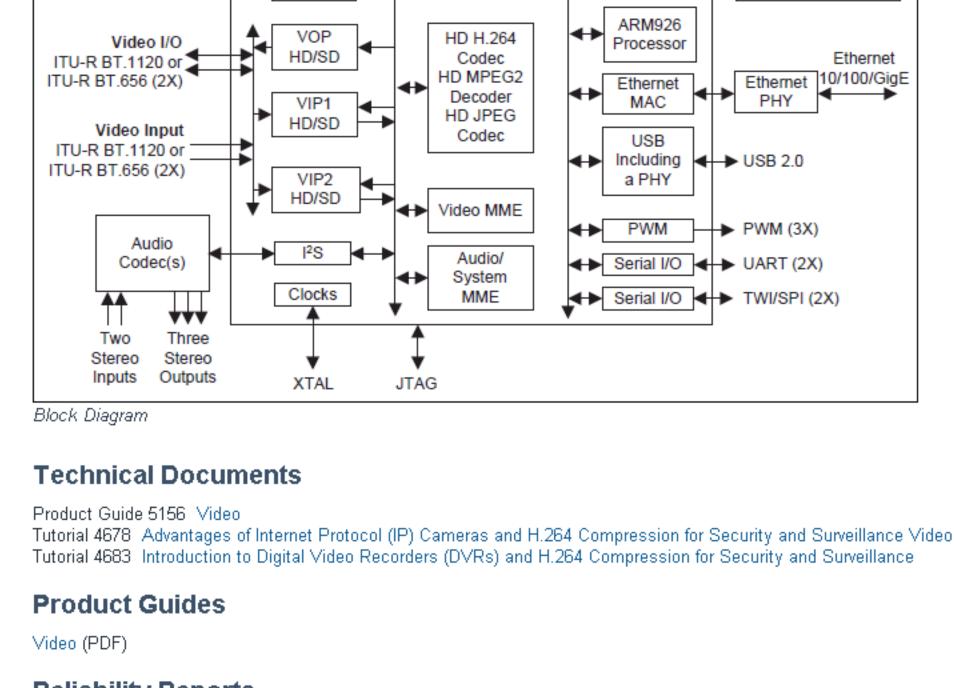
Host

SD/MMC

Controller

This pricing is BUDGETARY, for comparing similar parts. Prices are in U.S. dollars and subject to change. Quantity pricing may vary substantially and international prices

may differ due to local duties, taxes, fees, and exchange rates. For volume-specific prices and delivery, please see the price and availability page or contact an



Bridge

AES/SHA

## Reliability Reports Reliability Report:

Show FIT data for:

Request Reliability Report for: MG2580 🔻 Go

## none **Ordering Information**

Software/Models

Filters: Part Number:

Part Number

MG2580A2-376B

MG2580A3-376B

Free

Sample

MG2580AX	Buy	Active	Outline Drawing:21-0358 (PDF) Land Pattern: 90-0333 (PDF) Use pkgcode/variation: X100-5*	0°C to +70°C	See data sheet
			KIT;		
MG2580EVKIT	Buy	Active	Land Pattern: Not Available		See data sheet
MG3500A2-376B	Buy	Active	CSBGA;376 pin;324 mm² Outline Drawing:21-0448 (PDF) Land Pattern: 90-0300 (PDF) Use pkgcode/variation: X37688+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MG3500A3-376B	Buy	Active	CSBGA;376 pin;324 mm² Outline Drawing:21-0448 (PDF) Land Pattern: 90-0300 (PDF) Use pkgcode/variation: X37688+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MG3500AX	Buy	Active	CSBGA;100 pin;100 mm² Outline Drawing:21-0358 (PDF) Land Pattern: 90-0333 (PDF) Use pkgcode/variation: X100-5*	0°C to +70°C	See data sheet
		No	KIT;		
MG3500EVKIT	N/A	Longer Available	Land Pattern: Not Available		See data sheet
Didn't Find What You I     Part number suffixes:     Data Sheet or Maxim I     *Some packages have	Need? Ask our ap T or T&R = tape a Product Naming ( e variations, listed	oplications engineers. I and reel; += RoHS/lea Conventions. I on the drawing. "Pkg	://www.maxim-ic.com/sales. Expert assistance in finding parts, usually within o id-free; #= RoHS/lead-exempt; -D = drypack; -U/+ Code/Variation" tells which variation the product us y show a different suffix character.	U on DS parts = o	•
Similar Products I	by Function	า			
See All Video Processors (3	Products)				
Similar Products I	by Applicat	ion			
Digital Video Recorders (DV					
Elian video Necoldela (DV	113) 2 11.204 0000				

# 8 comments 🌌 webGuy - Re: Developer's Board

Surveillance DVR 4-Channel > H.264 Codec, 4+1 Encodes, and 1 Decode

Thanks for finding that. We've updated the link.

Benjammin - Developer's Board

Flat-Panel TVs > Video Camera IP Cameras > H.264 Codec SoC

Member comments

Hi Benjamin,

wG

Hi Peter,

Thanks,

wG

Check here as it looks like the link just moved: http://www.mds.com/products/mg3500evp-kit

webGuy - Re: Re: Re: H264 Encoderdecoder

Thanks for your post. Did you try placing a quote from this page:

http://www.maxim-ic.com/datasheet/index.mvp/id/6092/t/or

PeterS - Re: Re: H264 Encoderdecoder

Do these devices actually exist? Having found no data sheet, or even a mention of a data sheet on the Maxim website for the MG2580 and MG3500 I eventually (after a number of phone calls) and emails) received a link to a web page where I could request a data sheet which I duly filled in! That wa nearly 3 weeks ago and I have still received nothing! I now see that the link provided by Mobilygen to a development platform for these devices produces a 'Page Not Found' error which all leads me to the

conclusion that these devices have experienced problems in manufacture, and have been withdrawn? Am I correct? My project is already running 3 months late and I still don't know whether these devices are suitable, let alone available!! Moe - Re: H264 Encoderdecoder (no rating) 2010-01-08

Also, on the same page, under "Didn't Find what you need?" is a link entitled "Next Day Product Selection Assistance from Applications Engineers" -please

Do you provide any development pltform for the current H.264 codecs? (evaluation board, SDK, drivers, libraries etc)

The product manager has replied directly (quite some time ago, actually -- but I wanted to make sure).

click this link, fill in the form and they will respond to you. If you don't get a response, please post here again.

shai - H264 Encoderdecoder (no rating) 2009-11-16 I'm not a technical eng. Where can I find this platform encoder as a system. ready for work - with the box input and outputs, management software - and everything for this to be connected and working?

🌌 Mobilygen 🕒 Re: Development platform

Information is available at: http://www.mds.com/products/product.asp?prod=MG3500EVP-KIT Pat - Development platform (no rating)

Login or register to post a comment.

Next Day Product Selection Assistance from Applications Engineers

Information Index

Overview Description Key Features Applications/Uses

Notes and Comments

Document Ref.: 19-4514 Rev 2; 2010-07-30

This page last modified: 2012-03-15

Diagram

Parametric Search Applications Help

8 comments

**Your Comments** 

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**Technical Documents** Data Sheet Technical Documents Evaluation Kits **Key Specifications** Reliability Reports Software/Models

Ordering Info Price and Availability Samples Buy Online Package Information Lead-Free Information

Similar Products by Function Similar Products by Application Evaluation Kits Products with Similar Part Numbers Products Used With This

Related Products