



ITM-C-328

Serial-Color-Cam-Module with JPEG-Compression



General Description

The ITM-C-328 JPEG compression module performs as a video camera or a JPEG compressed still camera and can be attached to a wireless or PDA host. Users can send out a snapshot command from the host in order to capture a full resolution single-frame still picture. The picture is then compressed by the JPEG engine and transferred via RS-232 to the host.

Features:

- Low-cost, & low-powered solution for high resolution image capture
- Built-in down-sampling, clamping and windowing circuits for VGA/CIF/SIF/QCIF/160x128/80x64 image resolutions
- RS-232: 115.2K bps for transferring JPEG still pictures or 160x128 preview @8bpp with 0.75~6 fps
- JPEG CODEC with variable quality settings for different resolutions
- Built-in color conversion circuits for 4 gray/16 gray/256 gray/12-bit RGB/16-bit RGB/Pallet 256 RGB preview images

Specification:

- Imager: OV7640
- Array Size:..... 640 x 480 pix
- Pixel Size: 5,6 x 5,6 µm
- Scanning :..... Progressive
- Image Area:..... 3,6 x 2,7 mm
- S/N Ratio: 46 dB
- Operation Voltage:..... 3,3 VDC
- Lens: f 4.0mm F 2.2
- Dimension:..... 20 x 28 mm

OV528 Serial Bridge

The OV528 Serial Bridge is a controller chip that can transfer image data from CameraChips to external device. The OV528 takes 8-bit YCbCr 4:2:2 progressive video data from an OV7640 CMOS-Chip.

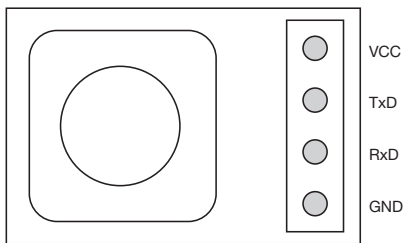
The camera interface synchronizes with input video data and performs down-sampling, clamping and windowing functions with desired resolution, as well as color conversion that is requested by the user through serial bus host commands.

The JPEG CODEC with variable quality settings can achieve higher compression ratio & better image quality for various image resolutions.

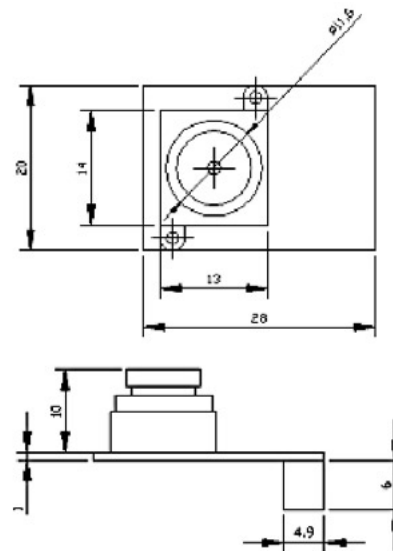


Pin Discription:

VCC: Power 3,3VDC
 TxD: Data Transmit (3,3V)
 RxD: Data Receive (3,3V)
 GND: Power Ground



Board Measurement



Electrical Specification

V_{DD} = 3.3V±10%, TA = 0 to 25°C

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V _{DD}	DC supply voltage		3.0	3.3	3.6	V
I _o	Normal Operation Current	Operating		60		mA
I _s	Suspend Current	Suspend		100		uA
V _{IH}	High level input voltage	TTL	2.0			V
V _{IL}	Low level input voltage	TTL			0.8	V

Lens Specification

Description	Parameter
Imager Format	1/4"
F/#	2.8
Focal length (mm)	4.63
Field of View Diagonal (deg)	57
Horizontal (deg)	42
Vertical (deg)	16.5
Distortion	-3.3%
Relative Illumination	67%
Filter Option IR-cut filter	included