



# System-On-Module: Puzzle Family

## Product Description:

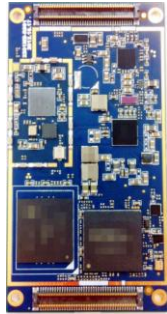

Puzzle family is the module designed in with powerful ARM based platform, Texas Instrument OMAP4. This System-On-Module (SOM) is able satisfy the development in applications required for low power consumption to high 3D graphics performance.



## Key Features:

- Ready to use off the shelf product
- TI OMAP4 Dual Core CPU with Scalable CPU Choices (4430/4470)
- Design reuse by SOM plus carrier board in terms of time to market
- Solid support and profession expertise on system design consult

## System on Module: Puzzle series

Product Name	Puzzle_B1	Puzzle_B2
		
Processor	Texas Instrument OMAP4470	Texas Instrument OMAP4430
Availability	MP	
Interface	Proprietary, B2B	Proprietary, B2B
OS	Android, Linux (3 <sup>rd</sup> party), WinEC7 (3 <sup>rd</sup> party)	
Remark	©Pin-to-pin compatible	

InnoComm Puzzle family is a production-ready SOM which combined with Android OS. This module, the foundation of your final devices, reduced the complexity of whole system design. In this way, you can eliminate the product development cycle, focus on the system integration and upper level of application development. Puzzle is a perfect choice to accelerate design speed of high-end, feature intensive products requested for faster computing power, connectivity ability and high performance resolution display.

## Applications:

- Digital Signage / Infotainment
- Infotainment / KIOSKS
- POS / Data Terminal
- Home Control System

## Support & Service:

- Development kits are available
- Hardware carrier board & customized design
- Customized software board support package
- Complete turnkey design reference

**System on Module: Puzzle, Cortex A9 Dual Core Engine Module**

<b>Core Engine Module</b>	
Processor	Texas Instruments
CPU	OMAP4430, Cortex A9, 1GHz Dual Core      OMAP4470, Cortex A9, 1.5GHz Dual Core
MIPS	7500 DMIPS
Graphics capability	PowerVR SGX540 2D/3D graphic core      PowerVR SGX544 2D/3D graphic core
Video acceleration	IVA 3 multimedia accelerator supporting up to 1080p & 1080p stereoscopic 3D
Memory	1GB LPDDR2 400MHz, 32-bit dual channels plus 8GB eMMC NAND Flash
Connectivity	Bluetooth 4.0 EDR, USB 2.0 OTG (480Mbps), USB 2.0 Host (480Mbps)
Wireless LAN	WIFI 802.11 b/g/n

<b>I/O (for carrier board)</b>	
Display interface	Dual channel LVDS, DPI, HDMI (Full HD 1080P supported by HDMI and dual channel LVDS interface, 1280x1024 supported by DPI interface)
Touch screen interface	I2C or USB
Camera	CSIx1 (for VGA, 1.3M, 2M, 5M)
Ethernet	Pre-integrated in the carrier board side.
Analog audio	Stereo headphone output, stereo speaker output
Digital audio	I2Sx1
Microphone	Analogx2
Other interfaces	SPIx1, UART x3, I2Cx3

<b>OS Support</b>	
Android	4.1 or above
Linux	3.x (3 <sup>rd</sup> party)
Window	WinEC7 (3 <sup>rd</sup> party)

<b>Electronic and Mechanical Specifications</b>	
Supply voltage	4.2V, 2A
SOM interface	80pin Board to Board connectors x2, 22 pin ZIF connector x1, RF connector x2, 30 pin I-PEX connector x1
Dimension	65 x 34 x 4.65mm
Environment	Operation temperature range from -20°C to + 70°C

**Ordering information**

- Puzzle EVB: Development kit
- PB1: OMAP4470
- PB2: OMPA4430

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