

# PAN9320 full embedded WiFi Module Stand-alone 802.11 b/g/n, 32-bit MCU

### OUTLINES

PAN9320 is a stand alone 2.4GHz 802.11 b/g/n WiFi module, which can be integrated into various end applications. All protocols and applications are included and handled by the MCU on the module. Layout design efforts, calibration- and test efforts in production are reduced compared to discrete solutions. In Transparent Mode all data is send unmodified to e.g. smart devices, web server or pc applications via the UART interface of PAN9320. This significantly reduces time to market and development risks as internet functionality can be added very easily to existing end products with low performance host controller. The integrated memory can be used in the end application to store individual web contents such as html pages or image data. Simultaneous support of Accesspoint- & Infrastructure Mode enable easy setup up, allowing simultaneous WiFi connections from PAN9320 to smart devices and home area network routers. State of the art security protocols guarantee secured data transfer e.g. via integrated e-mail client or to cloud services.

### FEATURES

- Surface Mount Type 29,0 x 13.5 x 2.66 mm<sup>3</sup>
- Wireless Local Area Network (WiFi) module with integrated MCU and Radio (SoC)
- Integrated embedded WiFi stack, interfaces Telnet, http, Ajax, Jason, others
- Simultaneous support of Accesspoint- & Infrastructure Mode
- Supports TLS/SSL, https and WiFi security (WPA2) for secure data connection
- Plug&Play Name Services (DHCP, DNS) and access by names (http://yourdevice)
- Wireless Update of Radio Driver and MCU Firmware with integrated bootloader
- Supports IEEE 802.11 b/g/n, security standards WEP, WPA, WPA2, WPA2 PSK
- Tx power up to +18 dBm (IEEE 802.11b CCK) and 14dBm (IEEE 802.11g ODFM)
- High Rx sensitivity -98 dBm (IEEE 802.11b DSSS 1Mbps)
- Marvell® 88W8782 WLAN System-on-Chip (SoC) and 88MC200 (MCU) inside
- Integrated flash for customer web contents and configuration file 1,5MB (extentable)
- Easy to use Evaluation Board for quick development and reduced time to market
- Use of WebTechnologies (HTML, JavaScript), no need for WiFi Stack implementation
- Ready to use internet access (integrated EMail Server and Cloud Communication Client)
- Getting started Tutorials, Libraries, APIs
- Evaluation and Development software Wifigurator for Windows

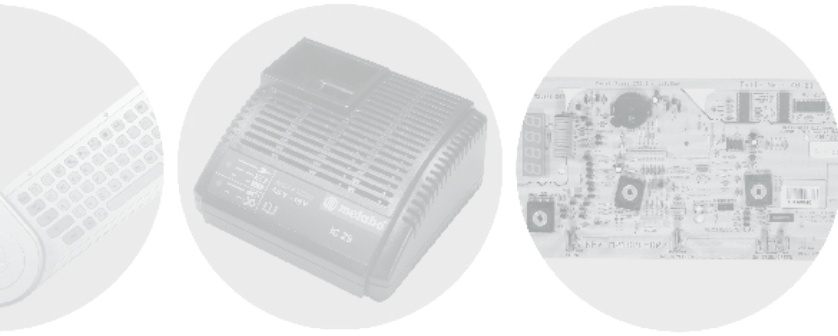
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PAN9320 WiFi E. Rev. 0.2



**MODULES**  
**WIRELESS**  
 Panasonic Industrial Devices Europe GmbH



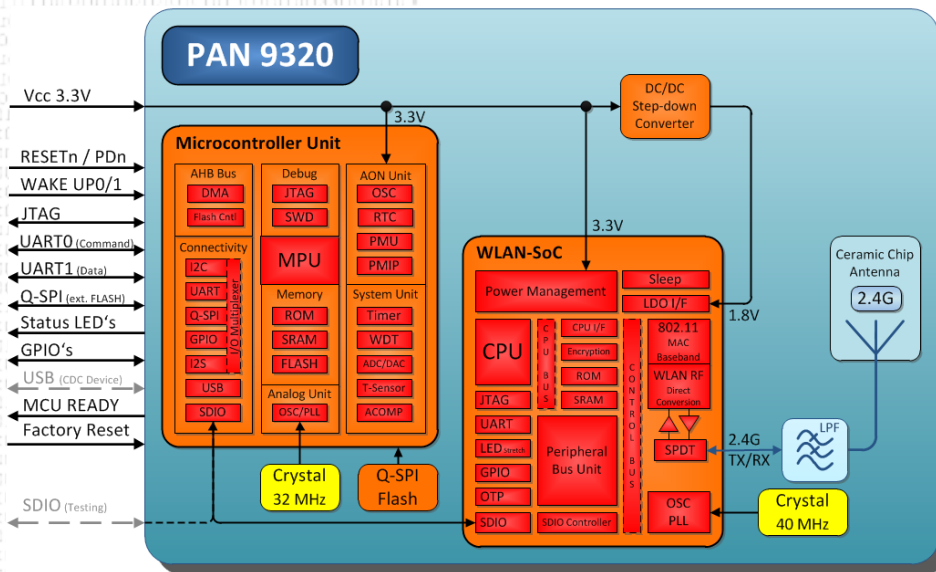
## APPLICATIONS

- White goods
- Home Automation
- Internet of Things
- Fitness Equipment
- Lighting Control
- M2M Communication
- Patient Monitors
- Printer
- Smart Meters
- Media Player
- Sensors
- Health&Fitness
- POS Terminal

## Part Number

Part-Number	Description
ENW49A01A3EF	PAN9320, VIPAR stack -30~70°C, chip antenna
ENW49A01AYEF	PAN9320-EMK
ENW49A01AZEF	PAN9320-IDB

## BLOCK DIAGRAM



## TECHNICAL CHARACTERISTICS

Parameter	Value	Condition / Note
Software		Full Embedded
Rx Sensitivity	-98 dBm	@1M-DSSS (Details see Datasheet)
Tx Power	+18 dBm	@ 11b
Power Supply	3.0 to 3.6 V	
Current Consumption	430 mA, 160 mA	Tx, Rx max @11b
Centre Frequency	2.4 GHz	802.11 b/g/n
Operating Temperature Range	-30~70°C	
Size	29.0x13.5x2.66	mm