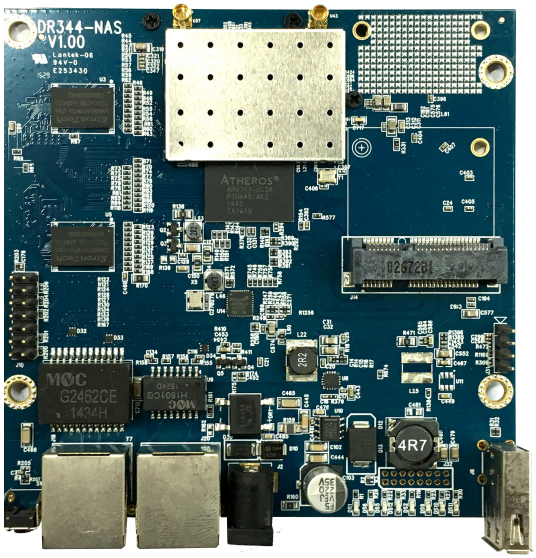
DR344-NAS27

Access Point Host Board

Wireless motherboard integrated with 1X5G radio

Features



- Featuring with industrial-grade Atheros's AR9344(560 MHz) chipset
- Integrated with 1 x 5G high power (up to 30dBm aggregate) Radio Card
- 1x10/100Mbps Fast Ethernet Port and 1x10/100/1000Mbps Gigabit Ethernet Port
- 2 x 5G MMCX Connectors
- 5M/10M/20M/40M Bandwidth
- 1 x USB2.0（Optional）
- Support LTE/3G application（Optional）
- RoHS compliance ensure a high level protection of human health and the environment from risks that can be posed by chemicals

Applications

- Security Surveillance
- Commercial radio coverage
- Hotel Wireless application
- Country coverage
- Forest fire protection engineering
- Some special scene application

Product Description

DR344-NAS27 based on Atheros/AR9344 chipset is an enterprise wireless motherboard integrated with 1x5G high power (up to 30dbm aggregate) Radio card designed specifically to provide users with mobile access to high-bandwidth video streaming, voice, and data transmission for office and challenging RF environment in factories, warehouses establishment. It can be easily ungraded to the latest version of firmware by just a few clicks on the GUI.

Absolute Maximum Rating

Parameter	Rating	Unit
Supply Voltage	0 to +26	V
Operating Temperature Range	-40 to +70	ºC
Storage Temperature Range	-65 to +105	ºC
Operating Humidity Range	5 to +95 (non-condensing)	%
Storage Humidity Range	0 to +90 (non-condensing)	%

Operating Conditions

Parameter	Rating	Unit
Supply Voltage	0 to +26	V
POE		V
Temperature	-40 to +70	ºC

Hardware Specifications

Symbol	Parameter
CPU	Atheros AR9344-AC2A 560 MHz processor frequency
System Memory	128M DDR2
NOR Flash	16MB
Switch IC	Atheros AR8035-AL1AR 1 GIGA port PHY/RGMII switch
Power IC	TI/TPS54360,TPS54319
Power consumption	2.04W(Board Only)
	6.6W(Board+2.4G card)
	7.1W(Board+5G card)
1000MLAN port POE define	Pin 4/5 and pin 7/8 connect to the anode or cathode respectively POE input
Antenna Connector	2 x 5G MMCX connectors（U3&U5）
Power Connector	1 x DC JACK（J2）D(center)=2.1mm Max 56V DC input /1 x 2 pin header pitch=3.96mm（J32）
Power Solution	DC Jack Input: 12-56V, Passive POE: 24 -56V
LAN Connector	1 x 100M LAN（J4） port / 1 x 1000M LAN port（J3）
ROHS Compliance	YES
Reset Button	RT push button（SW6）
Dimension	105mm x 105mm x 16mm
Socket Height	9.2mm

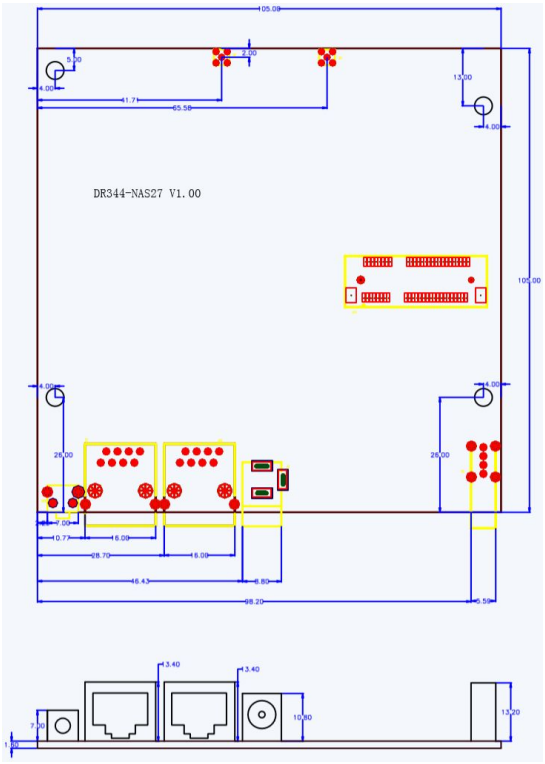
Radio TX Specifications

Operating Mode	Data Rate	Power	
		Chain0	Chain1
802.11a	6 Mbps	19dBm	19dBm
	54 Mbps	19dBm	19dBm
802.11n HT20	MCS0, MCS8	19dBm	19dBm
	MCS7, MCS15	19dBm	19dBm
802.11n HT40	MCS0, MCS8	19dBm	19dBm
	MCS7, MCS15	19dBm	19dBm

Radio RX Specifications

Operating Mode	Data Rate	Sensitivity
802.11a	6 Mbps	-94dBm
	54 Mbps	-75dBm
802.11n HT20	MCS0, MCS8	-92dBm
	MCS7, MCS15	-73dBm
802.11n HT40	MCS0, MCS8	-90dBm
	MCS7, MCS15	-70dBm

Dimension Drawing



Warning:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

• If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

The device operates in 5.18 ~ 5.24GHz / 5.745 ~ 5.825 GHz frequency range. It is restricted in indoor environment only. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

The device use the MMCX to connect with the antenna.

RF exposure warning:

The device complies with RF specifications when the device used at least 22 cm from your body.

The device complies with the requirements of FCC/CE RF Exposure.

NOTE: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.