

DR9574S

WiFi7 triband onboard



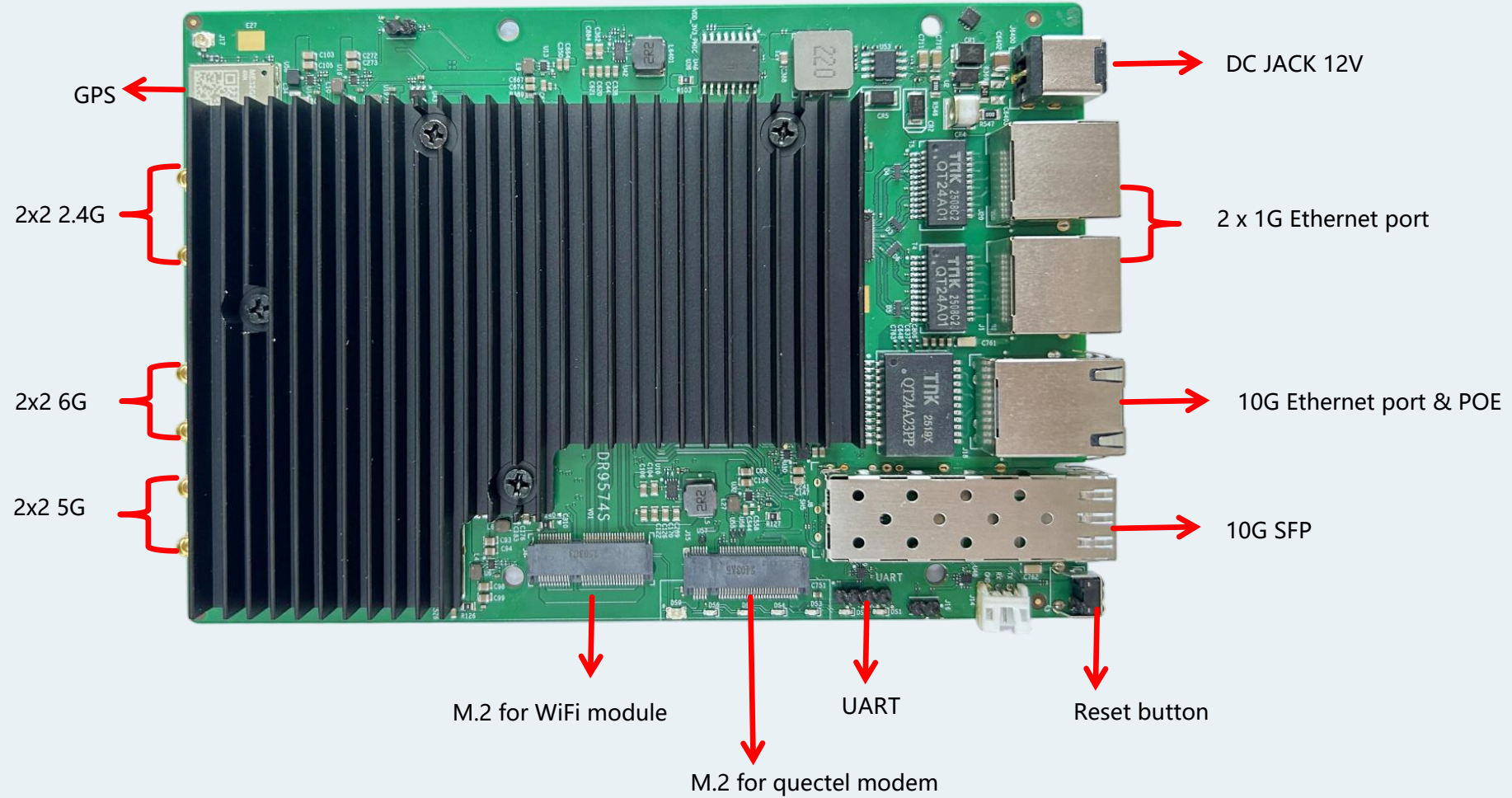
DR9574S



Features

- Qualcomm IPQ9574 Quad-Core ARM-A73 @ 2.2GHz processor.
- Qualcomm Atheros IPQ9574 for Industrial Grade;
- 2x2 on-board 2.4GHz radio, up to 573.6Mbps physical data rate;
- 2x2 on-board 5GHz radio, up to 2882Mbps, max 21dBm per chain
- 2x2 on-board 6GHz radio, up to 5765Mbps, max 19 dBm per chain
- 2 x M.2 (NGFF) E Key Socket with PCIe 3.0;
- 2 x 1Gbps ethernet port, 1x 10Gbps ethernet port & POE;
- 1 x 10Gbps SFP

Interface Map



Applications

- 802.11be support Access Point
- 802.11ax MU-MIMO OFDMA Access Point
- Internet of Things (IoT)
- HD streaming and gaming

Product Description

DR9574 based on IPQ9574 Chipset is an enterprise wireless module integrated with 2x2 MU-MIMO Wireless Module 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.

	Version	Radio0	Raido1	Raido2	10G SFP	10GCopper	1G Copper
1	DR9574S-2-57-57	2x2 2.4G	2x2 5-7G (5.180GHz-7.115GHz)	2x2 5-7G (5.150GHz-7.115GHz)	1	1	2
2	DR9574S-2-5-5	2x2 2.4G	2x2 5G (5.180 GHz-5.825 GHz)	2x2 5G (5.180 GHz-5.825 GHz)	1	1	2
3	DR9574S-2-6-6	2x2 2.4G	2x2 6G (5.955 GHz-7.115 GHz)	2x2 6G (5.955 GHz-7.115 GHz)	1	1	2
4	DR9574S-4-5	2x2 2.4G	4x4 5G (5.180 GHz-5.825 GHz)		1	1	2
5	DR9574S-4-6	2x2 2.4G	4x4 6G (5.955 GHz-7.115 GHz)		1	1	2
6	DR9574S-4-57	2x2 2.4G	4x4 5-7G(5.180GHz-7.115GHz)		1	1	2

Absolute Maximum Rating



Parameter	Rating	Unit
Supply Voltage	24V ~ 48V (DC Jack)	V
Operating Temperature Range	-40 ~ 70	°C
Storage Temperature Range	-40 ~ 90	°C
Operating Humidity Range	5 ~ 95 (non-condensing)	%
Storage Humidity Range	0 ~ 90 (non-condensing)	%

Hardware Specifications



Symbol	Parameter
CPU	Qualcomm-Atheros IPQ9574
CPU Frequency	Quad-Core ARM-A73 @ 2.2GHz processor 'Alder' Series
System Memory	2Gb (2x1Gb), DDR4 32-bit (2x16-bit) interface
Ethernet Port	2 x 1Gbps ethernet port; 1x 10Gbps ethernet port & POE; 1x 10Gbps SFP;
GPS	Optional
SGMII	1x SGMII Interface
UART	1x UART Interface
Wireless	2x2 On-board 2.4GHz radio, up to 573.6Mbps physical Data Rate 2x2 On-board 5GHz radio, up to 2882Mbps physical Data Rate 2x2 On-board 6GHz radio, up to 5765Mbps physical Data Rate

Channel Spectrum Widths for WLAN	Support 20/40MHz at 2.4GHz Support 20/40/80/160MHz at 5GHz Support 20/40/80/160MHz/320MHz at 6GHz
Host Interface	2 x M.2 E Key interface with PCIe 3.0
Antenna Cable / Port	6 x MMCX Connectors
ModulationTechniques	OFDMA: BPSK, QPSK, DBPSK, DQPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM,4096-QAM
Power	DC Jack: 12V-52V DC power supply POE:Active POE, 802.3at/BT,48V passive POE
Certification	REACH & RoHS Compliance
Dimensions (WxHxD)	16.1*11*1.6cm

Radio TX Specifications (2412MHz-2482MHz)



	Data Rate	TX Power (one chain)	TX Power (two chains)	Tolerance
2.4GHz 802.11b	1Mbps	24dBm	27dBm	±2dB
	2Mbps	24dBm	27dBm	±2dB
	5.5Mbps	23dBm	26dBm	±2dB
	11Mbps	23dBm	26dBm	±2dB
	1Mbps	24dBm	27dBm	±2dB
2.4GHz 802.11g	6Mbps	24dBm	27dBm	±2dB
	9Mbps	24dBm	27dBm	±2dB
	12Mbps	24dBm	27dBm	±2dB
	18Mbps	24dBm	27dBm	±2dB
	24Mbps	23dBm	26dBm	±2dB
	36Mbps	23dBm	26dBm	±2dB
	48Mbps	23dBm	26dBm	±2dB
	54Mbps	23dBm	26dBm	±2dB

Radio TX Specifications (2412MHz-2482MHz)



	Data Rate	TX Power (one chain)	TX Power (two chains)	Tolerance
2.4GHz 802.11n HT20	MCS0	24dBm	27dBm	±2dB
	MCS1	24dBm	27dBm	±2dB
	MCS2	24dBm	27dBm	±2dB
	MCS3	24dBm	27dBm	±2dB
	MCS4	23dBm	26dBm	±2dB
	MCS5	23dBm	26dBm	±2dB
	MCS6	23dBm	26dBm	±2dB
	MCS7	23dBm	26dBm	±2dB

Radio TX Specifications (2412MHz-2482MHz)



	Data Rate	TX Power (one chain)	TX Power (two chains)	Tolerance
2.4GHz 802.11n HT40	MCS0	24dBm	27dBm	±2dB
	MCS1	24dBm	27dBm	±2dB
	MCS2	24dBm	27dBm	±2dB
	MCS3	24dBm	27dBm	±2dB
	MCS4	23dBm	26dBm	±2dB
	MCS5	23dBm	26dBm	±2dB
	MCS6	22dBm	25dBm	±2dB
	MCS7	22dBm	25dBm	±2dB

Radio TX Specifications (2412MHz-2482MHz)



	Data Rate	TX Power (one chain)	TX Power (two chains)	Tolerance
2.4GHz 802.11AX HE20	MCS0	24dBm	27dBm	±2dB
	MCS1	24dBm	27dBm	±2dB
	MCS2	24dBm	27dBm	±2dB
	MCS3	24dBm	27dBm	±2dB
	MCS4	23dBm	26dBm	±2dB
	MCS5	23dBm	26dBm	±2dB
	MCS6	23dBm	26dBm	±2dB
	MCS7	23dBm	26dBm	±2dB
	MCS8	21dBm	24dBm	±2dB
	MCS9	21dBm	24dBm	±2dB
	MCS10	20dBm	23dBm	±2dB
	MCS11	20dBm	23dBm	±2dB

Radio TX Specifications (2412MHz-2482MHz)



	Data Rate	TX Power (one chain)	TX Power (two chains)	Tolerance
2.4GHz 802.11AX HE40	MCS0	24dBm	27dBm	±2dB
	MCS1	24dBm	27dBm	±2dB
	MCS2	24dBm	27dBm	±2dB
	MCS3	24dBm	27dBm	±2dB
	MCS4	23dBm	26dBm	±2dB
	MCS5	23dBm	26dBm	±2dB
	MCS6	22dBm	25dBm	±2dB
	MCS7	22dBm	25dBm	±2dB
	MCS8	20dBm	23dBm	±2dB
	MCS9	20dBm	23dBm	±2dB
	MCS10	20dBm	23dBm	±2dB
	MCS11	20dBm	23dBm	±2dB

Radio 2.4G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Sensitivity	Tolerance
2.4GHz 802.11AX HE20	MCS0	23dbm	26dbm	-93dbm	±2dB
	MCS1	23dbm	26dbm	-90dbm	±2dB
	MCS2	23dbm	26dbm	-87dbm	±2dB
	MCS3	25dbm	28dbm	-85dbm	±2dB
	MCS4	24dbm	27dbm	-83dbm	±2dB
	MCS5	23dbm	26dbm	-81dbm	±2dB
	MCS6	22dbm	25dbm	-78dbm	±2dB
	MCS7	21dbm	24dbm	-76dbm	±2dB
	MCS8	21dbm	24dbm	-75dbm	±2dB
	MCS9	20dbm	23dbm	-72dbm	±2dB
	MCS10	18dbm	21dbm	-69dbm	±2dB
	MCS11	16dbm	19dbm	-67dbm	±2dB

Radio 2.4G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Sensitivity	Tolerance
2.4GHz 802.11ax HT40	MCS0	23dbm	26dbm	-90dbm	±2dB
	MCS1	23dbm	26dbm	-88dbm	±2dB
	MCS2	23dbm	26dbm	-87dbm	±2dB
	MCS3	25dbm	28dbm	-85dbm	±2dB
	MCS4	24dbm	27dbm	-82dbm	±2dB
	MCS5	23dbm	26dbm	-79dbm	±2dB
	MCS6	22dbm	25dbm	-77dbm	±2dB
	MCS7	21dbm	24dbm	-75dbm	±2dB
	MCS8	21dbm	24dbm	-72dbm	±2dB
	MCS9	20dbm	23dbm	-69dbm	±2dB
	MCS10	18dbm	21dbm	-66dbm	±2dB
MCS11	16dbm	19dbm	-63dbm	±2dB	

Radio 5G Specifications



	Data Rate	TX Power (Per chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	5GHz 802.11be EHT20	MCS0	19dBm	22dBm	-92dBm
MCS1		18dBm	21dBm	-90dBm	±2dB
MCS2		17dBm	20dBm	-87dBm	±2dB
MCS3		17dBm	20dBm	-85dBm	±2dB
MCS4		16dBm	19dBm	-83dBm	±2dB
MCS5		16dBm	19dBm	-81dBm	±2dB
MCS6		15dBm	18dBm	-78dBm	±2dB
MCS7		15dBm	18dBm	-76dBm	±2dB
MCS8		14dBm	17dBm	-75dBm	±2dB
MCS9		14dBm	17dBm	-72dBm	±2dB
MCS10		13dBm	16dBm	-69dBm	±2dB
MCS11		13dBm	16dBm	-66dBm	±2dB
MCS12		12dBm	15dBm	-62dBm	±2dB
MCS13	12dBm	15dBm	-59dBm	±2dB	

Radio 5G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	5GHz 802.11be EHT40	MCS0	19dBm	22dBm	-90dBm
MCS1		18dBm	21dBm	-88dBm	±2dB
MCS2		17dBm	20dBm	-87dBm	±2dB
MCS3		17dBm	20dBm	-85dBm	±2dB
MCS4		16dBm	19dBm	-82dBm	±2dB
MCS5		16dBm	19dBm	-79dBm	±2dB
MCS6		15dBm	18dBm	-77dBm	±2dB
MCS7		15dBm	18dBm	-75dBm	±2dB
MCS8		14dBm	17dBm	-72dBm	±2dB
MCS9		14dBm	17dBm	-69dBm	±2dB
MCS10		13dBm	16dBm	-66dBm	±2dB
MCS11		13dBm	16dBm	-63dBm	±2dB
MCS12		12dBm	15dBm	-59dBm	±2dB
MCS13	12dBm	15dBm	-56dBm	±2dB	

Radio 5G Specifications



5GHz 802.11be EHT80	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	MCS0	19dBm	22dBm	-86dBm	±2dB
MCS1	18dBm	21dBm	-82dBm	±2dB	
MCS2	17dBm	20dBm	-80dBm	±2dB	
MCS3	17dBm	20dBm	-77dBm	±2dB	
MCS4	16dBm	19dBm	-74dBm	±2dB	
MCS5	16dBm	19dBm	-70dBm	±2dB	
MCS6	15dBm	18dBm	-68dBm	±2dB	
MCS7	15dBm	18dBm	-67dBm	±2dB	
MCS8	14dBm	17dBm	-64dBm	±2dB	
MCS9	14dBm	17dBm	-62dBm	±2dB	
MCS10	13dBm	16dBm	-59dBm	±2dB	
MCS11	13dBm	16dBm	-58dBm	±2dB	
MCS12	12dBm	15dBm	-55dBm	±2dB	
MCS13	12dBm	15dBm	-53dBm	±2dB	

Radio 5G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications	Tolerance
				Sensitivity	
5GHz 802.11be EHT160	MCS0	19dBm	22dBm	-88dBm	±2dB
	MCS1	18dBm	21dBm	-86dBm	±2dB
	MCS2	17dBm	20dBm	-83dBm	±2dB
	MCS3	17dBm	20dBm	-80dBm	±2dB
	MCS4	16dBm	19dBm	-78dBm	±2dB
	MCS5	16dBm	19dBm	-76dBm	±2dB
	MCS6	15dBm	18dBm	-74dBm	±2dB
	MCS7	15dBm	18dBm	-71dBm	±2dB
	MCS8	14dBm	17dBm	-68dBm	±2dB
	MCS9	14dBm	17dBm	-66dBm	±2dB
	MCS10	13dBm	16dBm	-63dBm	±2dB
	MCS11	13dBm	16dBm	-60dBm	±2dB
	MCS12	12dBm	15dBm	-56dBm	±2dB
MCS13	12dBm	15dBm	-53dBm	±2dB	

Radio 6G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	6GHz 802.11be EHT20	MCS0	19dBm	22dBm	-92dBm
MCS1		18dBm	21dBm	-90dBm	±2dB
MCS2		17dBm	20dBm	-87dBm	±2dB
MCS3		17dBm	20dBm	-85dBm	±2dB
MCS4		16dBm	19dBm	-83dBm	±2dB
MCS5		16dBm	19dBm	-81dBm	±2dB
MCS6		15dBm	18dBm	-78dBm	±2dB
MCS7		15dBm	18dBm	-76dBm	±2dB
MCS8		14dBm	17dBm	-75dBm	±2dB
MCS9		14dBm	17dBm	-72dBm	±2dB
MCS10		13dBm	16dBm	-69dBm	±2dB
MCS11		13dBm	16dBm	-66dBm	±2dB
MCS12		12dBm	15dBm	-62dBm	±2dB
MCS13	12dBm	15dBm	-59dBm	±2dB	

Radio 6G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	6GHz 802.11be EHT40	MCS0	19dBm	22dBm	-90dBm
MCS1		18dBm	21dBm	-88dBm	±2dB
MCS2		17dBm	20dBm	-87dBm	±2dB
MCS3		17dBm	20dBm	-85dBm	±2dB
MCS4		16dBm	19dBm	-82dBm	±2dB
MCS5		16dBm	19dBm	-79dBm	±2dB
MCS6		15dBm	18dBm	-77dBm	±2dB
MCS7		15dBm	18dBm	-75dBm	±2dB
MCS8		14dBm	17dBm	-72dBm	±2dB
MCS9		14dBm	17dBm	-69dBm	±2dB
MCS10		13dBm	16dBm	-66dBm	±2dB
MCS11		13dBm	16dBm	-63dBm	±2dB
MCS12		12dBm	15dBm	-59dBm	±2dB
MCS13	12dBm	15dBm	-56dBm	±2dB	

Radio 6G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications	Tolerance
				Sensitivity	
6GHz 802.11be EHT80	MCS0	19dBm	22dBm	-88dBm	±2dB
	MCS1	18dBm	21dBm	-86dBm	±2dB
	MCS2	17dBm	20dBm	-83dBm	±2dB
	MCS3	17dBm	20dBm	-80dBm	±2dB
	MCS4	16dBm	19dBm	-78dBm	±2dB
	MCS5	16dBm	19dBm	-76dBm	±2dB
	MCS6	15dBm	18dBm	-74dBm	±2dB
	MCS7	15dBm	18dBm	-71dBm	±2dB
	MCS8	14dBm	17dBm	-68dBm	±2dB
	MCS9	14dBm	17dBm	-66dBm	±2dB
	MCS10	13dBm	16dBm	-63dBm	±2dB
	MCS11	13dBm	16dBm	-60dBm	±2dB
	MCS12	12dBm	15dBm	-56dBm	±2dB
MCS13	12dBm	15dBm	-53dBm	±2dB	

Radio 6G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	6GHz 802.11be EHT160	MCS0	19dBm	22dBm	-84dBm
MCS1		18dBm	21dBm	-82dBm	±2dB
MCS2		17dBm	20dBm	-80dBm	±2dB
MCS3		17dBm	20dBm	-78dBm	±2dB
MCS4		16dBm	19dBm	-75dBm	±2dB
MCS5		16dBm	19dBm	-72dBm	±2dB
MCS6		15dBm	18dBm	-70dBm	±2dB
MCS7		15dBm	18dBm	-68dBm	±2dB
MCS8		14dBm	17dBm	-65dBm	±2dB
MCS9		14dBm	17dBm	-63dBm	±2dB
MCS10		13dBm	16dBm	-60dBm	±2dB
MCS11		13dBm	16dBm	-58dBm	±2dB
MCS12		12dBm	15dBm	-53dBm	±2dB
MCS13	12dBm	15dBm	-50dBm	±2dB	

Radio 6G Specifications



	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	6GHz 802.11be EHT320	MCS0	19dBm	22dBm	-82dBm
MCS1		18dBm	21dBm	-79dBm	±2dB
MCS2		17dBm	20dBm	-76dBm	±2dB
MCS3		17dBm	20dBm	-73dBm	±2dB
MCS4		16dBm	19dBm	-70dBm	±2dB
MCS5		16dBm	19dBm	-67dBm	±2dB
MCS6		15dBm	18dBm	-63dBm	±2dB
MCS7		15dBm	18dBm	-61dBm	±2dB
MCS8		14dBm	17dBm	-58dBm	±2dB
MCS9		14dBm	17dBm	-56dBm	±2dB
MCS10		13dBm	16dBm	-53dBm	±2dB
MCS11		13dBm	16dBm	-51dBm	±2dB
MCS12		12dBm	15dBm	-49dBm	±2dB
MCS13	12dBm	15dBm	-47dBm	±2dB	

Radio 6G Specifications



		QCN6274	QCN9274
Band Support	4 Single Bands	Support	Support
	2+2 Dual Bands	Support	Support
	2.4Ghz	Support	Support
	4.9GHz		Support
	5GHz	Support	Support
	6GHz	Support	Support
Performance	4K QAM	Support	Support
	Clients	256	512
	OFDMA uses	16	37
	DL OFDMA+TX BF	Support	Support
	DL/UL MU-MIMO	Support	Support
	MLO	Support	Support
	Puncture	Static	Static & Dynamic
Security	AES-CCMP/AES-GCMP	128/256	128/256
	WEP	Support	Support
	WPA/WPA2/WPA3	Support	Support
	FIPS	Support	Support



WALLYS

DR9574S