



External Specification

DSL-G241GE

Dual Band Wireless AC1200 VDSL2/ADSL2+ Modem Router

RF Capability	2x2 MIMO with two spatial streams External Omni-directional antennas Maximal ratio combining (MRC) 20/40MHz channels (802.11n); 20/40/80 MHz channels (802.11ac) Antenna Type: 2.4GHz/5GHz external antenna x2 (5dBi)
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2.2.2 Radios

- a. 5GHz 802.11a/n/ac –860 Mbps(2x2)
- b. 2.4 GHz 802.11b/g/n –300 Mbps(2x2)

2.2.3. RF Capability

- a. 2x2 MIMO with two spatial streams
- b. External 5dBi antennas
- c. 20/40 MHz channels (802.11n); 20/40/80 MHz channels (802.11ac)

2.3 Hardware Interface

Interfaces	
Ethernet LAN	<ul style="list-style-type: none">- 1x 10/100/1000Base-T/TX MDI/MDIX RJ-45(8P8C) ports- Compliant with following standards:- IEEE 802.3/802.3u- Hardware based 10/100/1000, full/half, flow control auto

	<p>negotiation</p> <ul style="list-style-type: none"> - Non-blocking wire speed reception and transmission - Full duplex IEEE 802.3x flow control and half duplex back-pressure flow control - Broadcast storm protection - Automatic address learning, address aging and address migration - Integrated address Look-Up Engine, 1K absolute MAC addresses supported - IEEE 802.3az EEE compliant
Ethernet WAN	<p>1 x 10/100/1000 Mbps Gigabit Ethernet RJ-45(8P8C) port</p> <p>Complies IEEE 802.3 specification</p> <p>Compliant to EEE directive, through support of IEEE 802.3az</p>
VDSL2	<p>ITU-T G.993.2 (12/2011), Corrigendum 1, Amendment 2</p> <ul style="list-style-type: none"> • Annex A (NorthAmerica) • Annex B (Europe) 998 and 997 bandplans • 8a, 8b, 8c, 8d (Central Office), 12a, 12b, 17a (Cabinet) , 30a,35b
WLAN	<ul style="list-style-type: none"> - 5dbi antenna by default - Wireless on/off switch - Standard compliance : - 802.11b/g/n/a/ac - 802.11ac: BPSK, QPSK, 16QAM, 64QAM, up to 256QAM with OFDM - 802.11n: OFDM, BPSK, QPSK, 16QAM, 64QAM - 802.11g: PSK/CCK, DBPSK, DQPSK, OFDM, BPSK, QPSK, 16QAM, 64QAM - 802.11b: CCK(11&5.5 Mbps), DQPSK (2Mbps), DBPSK (1Mbps), DSSS - Operating Frequencies: - 2.4GHz band: 2400 ~ 2483.5MHz - 5GHz for 11ac: 5150MHz - 5250MHz,5250MHz~5350MHz 5470~5725MHz, 5725MHz~5850MHz - Channel Numbers: CH36~CH64/CH100~CH165 - 802.11b/g/n: 11 for North America; 13 for Europe; 14 for Japan
Status LED	<p>Radio status, 5GHz (x1)</p> <p>Radio status, 2.4GHz (x1)</p>

	Internet (x1) xDSL ((x1) Power (x1) LAN(x1) WPS(x1)
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2.4 Wireless

2.4.1 IEEE 802.11a Section

Feature	Detailed Description
Standard	IEEE 802.11a
Radio and Modulation Schemes	BPSK, QPSK, 16QAM, 64QAM with OFDM
Operating Frequency	5150MHz~5250MHz, 5250~5350MHz, 5470~5725MHz, 5725MHz~5850MHz
Channel Numbers	CH36~CH64/CH100~CH165
Data Rate	6,9,12,18,24,36,48,54Mbps
Media Access Protocol	CSMA/CA with ACK
Transmitter Output Power	20dBm@6Mbps
Effective Isotropic Radiated Power	25dBm
Receiver Sensitivity	-82dBm@6Mbps

2.4.2 IEEE 802.11b Section

Feature	Detailed Description
Standard	IEEE 802.11b
Radio and Modulation Schemes	DQPSK, DBPSK, DSSS, and CCK
Operating Frequency	2400MHz ~ 2483.5MHz (ISM Band)
Channel Numbers	Ch1 ~ Ch13
Data Rate	1, 2, 5.5 and 11Mbps
Media Access Protocol	CSMA/CA with ACK
Transmitter Output Power	20dBm@1Mbps
Effective Isotropic Radiated Power	25dBm
Receiver Sensitivity	-85dBm@1Mbps

2.4.3 IEEE 802.11g Section

Feature	Detailed Description
Standard	IEEE 802.11g
Radio and Modulation Schemes	BPSK, QPSK, 16QAM, 64QAM, and OFDM
Operating Frequency	2400 ~ 2483.5MHz ISM band
Channel Numbers	Ch1 ~ Ch13
Data Rate	6,9,12,18,24,36,48,54Mbps
Media Access Protocol	CSMA/CA with ACK

Transmitter Output Power	20dBm@6Mbps
Effective Isotropic Radiated Power	25dBm
Receiver Sensitivity	-82dBm@6Mbps

2.4.4 IEEE 802.11n Section (5 GHz)

Feature	Detailed Description
Standard	IEEE 802.11n
Radio and Modulation Schemes	BPSK, QPSK, 16QAM, 64QAM with OFDM (HT20 & HT40)
Operating Frequency	5150MHz~5250MHz, 5250~5350MHz, 5470~5725MHz, 5725MHz~5850MHz
Channel Numbers	CH36~CH64/CH100~CH165
Data Rate	From MCS0 to MCS15
Media Access Protocol	CSMA/CA with ACK
Transmitter Output Power	20dBm@MCS0
Effective Isotropic Radiated Power	25dBm
Receiver Sensitivity	-82dBm@MCS0

2.4.5 IEEE 802.11n Section (2.4 GHz)

Feature	Detailed Description
Standard	IEEE 802.11n
Radio and Modulation Schemes	BPSK, QPSK, 16QAM, 64QAM with OFDM (HT20 & HT40)
Operating Frequency	2400 ~ 2483.5MHz ISM band
Channel Numbers	Ch1 ~ Ch13
Data Rate	From MCS0 to MCS15
Media Access Protocol	CSMA/CA with ACK
Transmitter Output Power	20dBm@MCS0
Effective Isotropic Radiated Power	25dBm
Receiver Sensitivity	-82dBm@MCS0

2.4.6 IEEE 802.11ac

Feature	Detailed Description
Standard	IEEE 802.11ac
Radio and Modulation Schemes	BPSK, QPSK, 16QAM, 64QAM, 256QAM with OFDM*
Operating Frequency	5150MHz~5250MHz, 5250~5350MHz, 5470~5725MHz, 5725MHz~5850MHz
Channel Numbers	Ch36~CH64/CH100~CH165
Data Rate	VHT rate: 7.2Mbps up to 1300Mbps
Media Access Protocol	CSMA/CA with ACK
Transmitter Output Power	20dBm@MCS0
Effective Isotropic Radiated Power	25dBm
Receiver Sensitivity	-82dBm@MCS0

2.5 Wired Ethernet

2.5.1 IEEE 802.3 Section

Feature	Detailed Description
10/100/1000 BASE-TX Gigabit Ethernet	IEEE 802.3u compliance
	IEEE 802.3x Flow Control support
	IEEE 802.3x Flow Control support
	Support Full/Half Duplex operations
	Support Auto Negotiation
	Support Auto MDI/MDIX

2.8 Product Image

