PRODUCT BRIEF

Connected Home
Intel® AnyWAN™ Transceiver VRX618

Highly Integrated Solution for G.fast

Bring gigabit speeds to copper networks with Intel® AnyWAN™ SoCs and transceiver

Service providers must keep up with increasing demands for bandwidth while maximizing the value of their existing infrastructure. Intel® AnyWAN™ SoCs and the Intel® AnyWAN™ transceiver VRX618 allow service providers to harness the speed of the new G.fast standard, while maintaining backward compatibility with ADSL and VDSL for smooth migrations that minimize disruptions to infrastructure.

These highly integrated broadband WAN PHY solutions for universal gateway applications can deliver Gbps speeds.[1] They also offer network media flexibility and scalability in configuring customer premises equipment (CPE) systems, ranging from entry-level routers to high-end gateways. This provides system vendors, service providers, and retail OEMs with a home gateway platform that addresses advanced networking and services requirements for connected homes.

Gigabit speeds

The new G.fast standard delivers gigabit speeds over copper wires, making it cost effective to upgrade existing networks. Intel AnyWAN SoCs in combination with the Intel AnyWAN transceiver VRX618 can deliver Gbps speeds with downstream rates that are up to 10x faster, and upstream rates up to 100x faster, than with DSL.[1]

Intel has been a major contributor to G.fast standardization, enabling equipment manufacturers and service providers to design leading-edge and future-proof broadband gateways. The Intel AnyWAN transceiver VRX618 is part of a growing portfolio of transceivers from Intel that support G.fast high-end services up to 2 Gbps based on the G.fast profile 212.

Broad interoperability

Intel AnyWAN SoCs and the Intel AnyWAN transceiver VRX618 support all ADSLx and VDSLx modes, including vectoring up to profile VDSL 35b. This backward compatibility maximizes the value and longevity of existing network infrastructure. Intel's solution also features enhancements such as pair bonding and PHY layer retransmission according to the respective ITU-T standards. In addition, the Intel AnyWAN SoCs and transceivers share a common software foundation, allowing service providers to maximize hardware and software investments across designs.

Low-power networks

Minimizing the strain to the existing power infrastructure is important when upgrading technologies. With G.fast, Intel AnyWAN SoCs, and the Intel AnyWAN VRX618 transceiver, service providers can achieve up to 10x or faster speeds with less power consumption than DSL.[1] Intel AnyWAN solutions meet the voluntary Code of Conduct on Energy Consumption of Broadband Equipment set by the European Commission.

Product Details		
Main application	High-density customer premises equipment (CPE) systems with G.fast and VDSL2 support	
Technology features	• One-channel multistandard modem IC • Integrated digital and analog front end • Compliant with G.fast/VDSL2/ADSL2/ADSL2+ standards • PCIe* interface to Intel AnyWAN SoC • Low power consumption • Built-in PLLs and clock generation circuitry	• JTAG interface • Small footprint package MR-QFN 10x10 • Power supplies: 1.1 V and 1.5 V 3.3 V analog and digital I/O • Ambient temperature: 0 °C to 70+ °C
Standards compliance	• G.fast, profile 106a: ITU-T G.9701, ITU-T G.9700 – G.9701 amendment 2 (2015) including profile 106b • VDSL2: ITU-T G.993.2 – All profiles, up to VDSL2 annex-Q/profile 35b – Including VDSL2 vectoring ITU-T G.993.5 – Including VDSL2 retransmission ITU-T G.998.4	• ADSLx: ITU-T G.992.1/3/5 ADSL1/2/2+ • Handshake: ITU-T G.994.1 • SELT (single ended line testing): ITU-T G.996.2 • OAM: ITU-T G.997.1, G.997.2, TR-181i2, amendment 11 • G.bond: G.998.2 PAF bonding
Top-level DSL-related Broadband Forum (BBF) standards	• TR-67 ADSL1 interoperability test plan • TR-100 ADSL2/ADSL2+ performance test plan • TR-105 ADSL2/ADSL2+ functionality test plan • TR-114 VDSL2 performance test plan • TR-115 VDSL2 functionality test plan	• TR-138 accuracy tests for PLOAM and SELT • TR-249 testing of G.993.2 self-FEXT cancellation (vectoring) • TR-273 testing of bonded, multipair xDSL systems • WT-347 SELT for CPE • ID-337: FAST certification test plan
Product and package naming	Product name: VRX618 Product type/sales code: PSB80618MV11 Package: MR-QFN 10x10	

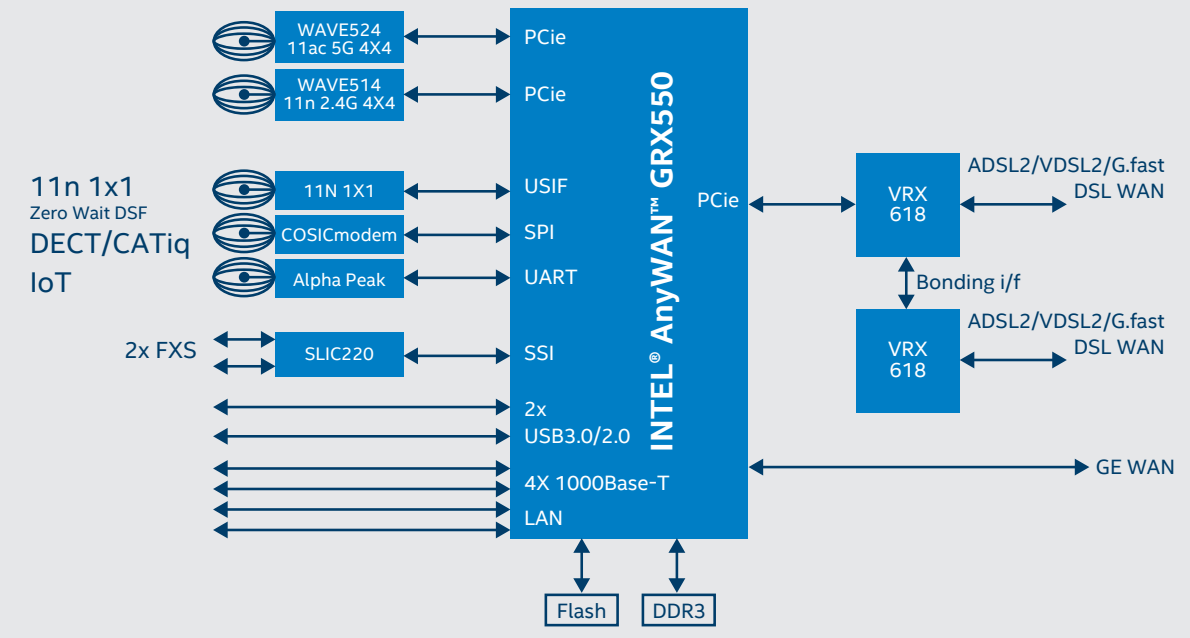

Figure 1. Application example: 802.11ac dual-band gateway based on Intel® AnyWAN™ SoC GRX550

Learn more

For information on Intel® products for the connected home, visit **intel.com/connectedhome**.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. Check with your system manufacturer or retailer or learn more at intel.com.

1. Source: Intel internal estimates. Actual broadband speeds depend on several factors, including the source and type of content, equipment and software used, the network characteristics, and the number of people using the network at the same time.

0818/LAS/CMD/PDF ♻Please Recycle 336168-001US