

DRG 230

Digital Residential Gateway

Cost-efficient residential multi-service switch for triple play services

Key benefits:

- Cost-efficient multi-service switch for FTTx deployments
- Built for open-access environments
- Predefined and remotely configurable ports for PCs, IP phones, set-top-boxes and other devices
- High QoS and priority ports available
- Efficient troubleshooting via PacketFront's automated broadband solution



The DRG 230 is a high-performance, L2 non-blocking switch with a fiber optical or twisted pair uplink interface. Functionalities such as IGMP snooping for multicast control and Quality of Service (QoS) by port are included. The DRG 230 has eight predefined ports for connecting set-top boxes, gaming consoles, VoIP gateways, personal computers, and other devices. Through PacketFront Device Protocol (PFDP), the fiber links or twisted pair to each individual apartment, and consequently to all DRG 230 client interfaces, can be monitored by the operator. PFDP is the protocol that is used in BECS™, PacketFront's control and provisioning system. The DRG 230, in combination with BECS and ASR, offers the world-leading, open-access IP network architecture.

Purpose-built

The DRG 230 is tailored for the specific challenges in the end-user layer of a triple-play network. PacketFront has focused on areas such as built-in fiber optical interfaces, manageability, distribution of multicast services, quality

of service (QoS), traffic separation, low operation and maintenance costs, price level and superior mechanical design.

Service functionality

The DRG 230 is developed for superior handling of multicast traffic with support for multiple set-top boxes, i.e. one household can have multiple TV-sets. Furthermore, the DRG 230 supports traffic separation between voice, video, gaming, and data through the per-interface-based QoS features. Minimal delay and wire speed switching performance provide high quality delivery of multimedia services to end-user devices.

Provisioning and management

The DRG 230 is managed by using the PacketFront Device Protocol (PFDP) via PacketFront's ASR. BECS provides the interface for troubleshooting and remote configuration of the DRG 230. MAC addresses, port status, multicast forwarding tables, and speed/duplex relation – all can be monitored via BECS, which also provides the interface for configuring

media settings, QoS, Port Protect and Immediate Leave per end-user port.

Furthermore, the DRG 230 is designed to limit provisioning efforts. The DRG 230 has predefined interfaces for TV, voice, data, and game devices, thus making configuration of the devices unnecessary.

Performance cost

The DRG 230 is designed to be a cost-efficient product for the delivery of triple-play services. It supports all the features necessary for distributing advanced broadband services.

DRG 230

Interfaces

Model	Port	Speed	Specification	Wavelength (nm)	Max/Min output pwr (dBm)	Max/Min input pwr (dBm)
DRG 231	WAN	10/100 Mbps	Copper, UTP, Cat5, RJ-45	-	-	-
DRG 232m	"	100 Mbps	Multi-mode, dual-fiber, MT-RJ	850	50µm: -14/-22.5 62.5µm: -14/-19	-14/-31.8
DRG 236s	"	100 Mbps	Single-mode, single-fiber, SC	1310/1550	-8/-14	0/-31
DRG 237c	"	100 Mbps	Single-mode, dual-fiber, LC	1310	0/-20	0/-28

Performance

Switching capacity	1.8 Gbps non-blocking L2 switching bandwidth
MAC addresses	Support for 4000 MAC addresses
Packet buffer memory	256 KB

Protocols

Management protocols	Active PFDP for troubleshooting and configuration (Forced Reboot, and per customer port configuration of media setting, QoS, Port Protect and Immediate Leave)
Traffic protocols	802.3u 100BaseT and 100BaseFX, Auto MDIX
Multicast protocols	IGMP Snooping v1 and v2, 20 groups per port

Quality of Service

QoS	Wire speed HW port based QoS
Queue ratio	2:1

Physical

Dimensions	34 mm (D) x 105 mm (H) x 178 mm (W), 1.33" (D) x 4.13" (H) x 7.00" (W)
Weight	0.6 kg, 1.3 lbs
Mounting options	Desktop or wall mountable
Power requirements	Max 5W
Heat dissipation	Max 5W
Power supply	12VDC External wall socket mounted adapter 90-240 VAC 50-60Hz CE, FCC, ETL
LED indicators	Power, uplink, port link, port activity
Acoustic	<10dB noise
Operating conditions	Temperature 0°C to +40°C, 32°F to 104°F. Humidity 0-85% non-condensing
Storage conditions	Temperature -10°C to +70°C, 14°F to 158°F. Humidity 0-85% non-condensing

Regulatory compliance

CE-mark
ETL-mark
IEC/EN/UL 60950, IEC/EN/UL 60825, ETSI EN 300386
RoHS directive 2002/95/EC
WEEE directive 2002/96/EC