

# iDirect Universal Rack DXR2100



The DXR2100 is a single rack solution that combines both network processing and baseband processing. It is equipped with the latest virtualization and cloud technologies for strengthened security, streamlined operations, and a scalable deployment option. Operators can meet the need for high-quality connectivity today and be assured of capacity and scale as bandwidth demand increases. Our architecture is engineered to grow with you, ensuring seamless expansion without compromising efficiency.

## Highly Flexible and Scalable

Capacity can be extended easily and rapidly up to 8 Satellite networks, depending on forward technology and configuration, by adding additional multicarrier modulators, demodulators, servers, and activation in the NMS. High-capacity multicarrier modulator units support DVB-S2X carriers, whereas the high-capacity multicarrier demodulator can support our patented Mx-DMA MRC return link technology. The use of private cloud technology enables flexible virtual network function (VNF) deployment based on scalable compute and storage resources. The DXR2100 is a deployment option for both Dialog and Intuition.

## Best-in-Class Performance

The DXR2100 is designed for operators seeking high throughput, starting from a highly compact, scalable deployment, via its 10 Gbps Ethernet switching infrastructure. With support for forward DVB-S2X carriers up to 500 Msps, the DXR2100 can be used to leverage the high bandwidth transponders provided by High Throughput Satellites (HTS). A robust N:M redundancy scheme provides carrier grade reliability ensuring service availability.

## Markets

Enterprise  
SME  
Cellular Backhaul  
Government / Defense  
Offshore and Maritime  
Aero  
Land Mobility

## Main Advantages:

- Highly flexible and scalable architecture
- Support for Mx-DMA HRC and MRC return links
- Advanced security with integrated cloud native virtualization layer based on OpenShift
- Carrier grade reliability with built-in redundancy
- Pay-as-you-grow

## Forward Channel

Standard	DVB-S2/DVB-S2X ACM
Modulation	QPSK to 256APSK
Encapsulation	GSE, MPE
Carrier bandwidth	Max. 500 Msps, 525 MHz
Roll-off	5, 10, 15, 20, 25 and 35%
Data throughput	2 Gbps
Pre-distortion	Equalink

## Return Channel

### Mx-DMA High-Resolution Coding (HRC)

Modulation	VLSNR, QPSK, 8PSK, 16APSK, 32APSK
Carrier bandwidth	0.030 to 20 Msps

### Mx-DMA Multi-Resolution Coding (MRC)

Modulation	QPSK, 8PSK, 16APSK, 64APSK
Carrier bandwidth	0.1 to 100 Msps

## Hub Architecture

Modulator/Demodulator	Up to 12 slots
Modem Hardware	MCM7500 Multicarrier Modulator MCD7500 Multicarrier Demodulator XBB (Intuition)
Modem Redundancy	N:M redundancy
Fan in/out baseband matrix	
Private Cloud Infrastructure	
Scalable Compute & Storage options	

## Hub Interfaces

Ethernet User data	10 GbE (Optical or RJ45)
Ethernet Management data	1 GbE (RJ45) or 10 GbE (Optical or RJ45)
Out of Band Management	1 GbE (RJ45) or 1 GbE (Optical)
RF Output per satellite network	L-band (950 - 2400 MHz)
RF Input per satellite network	L-band (950 - 2150 MHz)
Reference Input	IEEE1588v2 or 10 MHz

## Mechanical & Environmental

Operating temperature	10° to 30°C / 50° to 95°F
Humidity	10 to 85% relative, non-condensing
Storage temperature	-30° to 60°C / -22° to 140°F

## Mains Power Supply

Power Supply	380-400 VAC 3PH+N+GND (EU+AUS) 208 VAC 3PH + GND (US)
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