

## NOVA SECTOR-1

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### WIRELESS MESH BASESTATION NODE

- » Intelligent, robust platform enabling a wide variety of IP network services, such as VoIP, video streaming, file sharing, serial data broadcast, etc
- » Auto-configuring and self-healing 3rd generation mesh network
- » Available in 2.4GHz or 5GHz version
- » Dual linearly (H+V or 45/45) polarized sector antenna
- » Smart channel management minimizes interference and maximizes bandwidth.
- » Easy installation: compact all-outdoor single unit contains antenna and radio
- » ATEX version available on request

*NOVA SECTOR (The nCentric Base Station Sector node) has been designed specifically for offshore markets to provide reliable and flexible broadband communication to rigs, vessels and drones from onshore locations or fixed offshore infrastructure. When combined with a broadband internet uplink the NOVA SECTOR presents a low latency, high bandwidth alternative to VSAT at a fraction of the cost.*

### Power and flexibility with modular radio configuration

At the heart of each Nova Sector is a high-performance network controller, equipped with a high-power radio. The network controller can be equipped with a 5GHz or 2.4GHz radio module. On request other frequencies can be configured

### High gain sector for high range

To provide full coverage without sacrificing range and bandwidth the NovaSector is equipped with a built-in horizontally and vertically polarized sectorial antenna with the Nova Node, that can be mounted directly on the unit. The dual polarization increases performance in RF-hostile environments

### Intelligent mesh platform

Powering this high-end hardware platform is an equally exceptional, fully distributed, wireless mesh operating system. Managing all radios so channels are selected as intelligently as possible, Nova Node maximizes throughput, even over multiple hops.

Instead of an ordinary ad hoc routing protocol, a mobile-optimized, proactive mesh routing algorithm is employed resulting in a robust, self-configuring, and auto-healing network.

### Dual-radio version

A dual radio version, the NovaSector-2 also exists and incorporates a 2.4GHz and 5GHz radio in a single enclosure. The modules run independently and redundantly for maximal performance and reliability.

## GENERAL

### Unit type

All outdoor, sectorial base station

Single-radio with 2x2 MIMO

### Radio operation

OFDM

### Channel bandwidth

5/10/20/40 MHz

### Supported modulations

BPSK (up to 6.5Mbit/s), QPSK (up to 78Mbit/s), 16-QAM (up to 156Mbit/s), 64-QAM (up to 300Mbit/s)

## 5 GHz RADIO MODULE

### Frequency band

4900 ~ 5920 MHz ISM unlicensed worldwide

Maximal radio output power 30 dBm<sup>(1)</sup>

Maximal receive sensity -96 dBm

## 2.4 GHz RADIO MODULE (OPTIONAL)

### Frequency band

2400 ~ 2500 MHz ISM unlicensed worldwide

Maximal radio output power 30dBm<sup>(1)</sup>

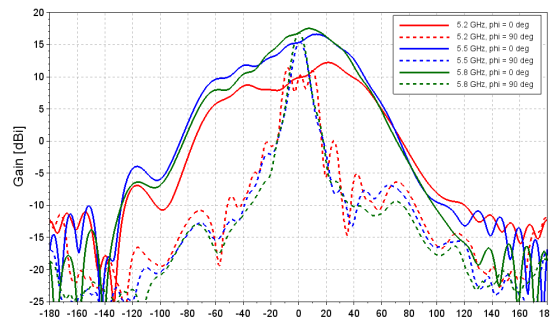
Maximal receive sensity -96 dBm

## ANTENNA

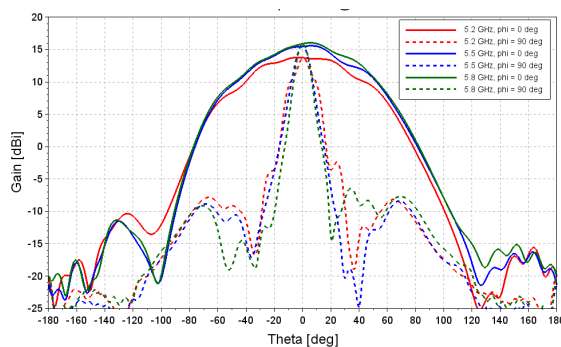
### Sectorial antenna

- » Gain 2 x 18dBi
- » Dual Linear Polarization Vertical or Horizontal
- » Azimuth beam width 90 deg
- » Elevation beam width 6 deg

### H-pol antenna plot



### V-pol antenna plot



<sup>(1)</sup> depending on country settings

Specifications are subject to change ©nCentric Inc.

## INTERFACES

### Ethernet

one GbE interface

### Antenna

Integrated

## PHYSICAL AND ELECTRICAL

### Size

632 mm (24.88 in) x 158 mm (6.22 in) x 64 mm (2.51 in)

### Weight

2.2 kg (4.85lbs)

### Typical power consumption

8 Watt

### Maximum power consumption

14 Watt

### Power over Ethernet

8-30 VDC passive

### Include power over Ethernet injector

90-264 VAC

### Mounting

Stainless steel pole mount with tilt and elevation adjustment

Maximum pole diameter 8cm (3.14 in)

## ENVIROMENTAL

### Operating temperature

-40°C (-40°F) to 70°C (158°F)

### Storage temperature

-40°C (-40°F) to 80°C (176°F)

### Operating humidity

5 to 95% non-condensing

### Lightning protection

DC ground

### Windload

150 km/h (93 mph)

## STANDARDS COMPLIANCE

### Radio

FCC part 15

Class A Digital Device, intentional radiator

### EMC

FCC 47 CFR part 15

### Safety

IEC60950-1 CB report / UL60950-1 / TUV EN60950-1

### RF safety

FCC OET Bulletin 65

### IP66

### CE mark

## PATENTS

US 168706

EP 1936878

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