

INNOVATION

Research & Development • Design & Engineering • Forecasting & Analysis
Consultancy • Certification & Standards • Efficiency • Emerging Technologies

Antaira Expands with New Ethernet Switches

Antaira Technologies — a global leading developer and manufacturer of industrial device networking and communication product solutions for harsh environment applications — is expanding its industrial networking infrastructure family with the LNX-2012GN-SFP series.

Antaira's new LNX-2012GN-SFP industrial gigabit managed Ethernet switch series has been designed to fulfill applications in harsh or outdoor environments. This unit has one of the highest density SFP fiber port counts in the market for a DIN-Rail unit. The extensive SFP fiber connectivity is ideal for centralized connection of multiple devices, especially in environments with a lot of electrical noise. Some applications where the LNX-2012GN-SFP switch works well included power-utility, factory-process control automation, wind-mills, mining infrastructures, and ITS — roadway traffic control-monitoring applications.

The LNX-2012GN-SFP series is a cost effective 20-port industrial gigabit managed Ethernet switch line that supports a 12~48VDC power input range. Each unit is designed with eight 10/100/1000Tx Fast Ethernet RJ45 ports and 12 100/1000 dual-rate SFP slots for fiber.

With a 40-gigabit backplane speed, the LNX-2012GN-SFP supports jumbo frames and wide bandwidth for large Ethernet data packet transmissions. These switches are also made with high-density port counts for edge-level connectivity solutions.

The LNX-2012GN-SFP product series provides high EFT, surge (2,000 VDC), and ESD (6,000 VDC) protection. These units are



Antaira Technologies

Antaira's new LNX-2012GN-SFP.

built to have a dual-power input design with reverse polarity protection, and there is also a built-in relay warning function to alert maintenance when any ports break or power failures occur. This makes it ideal for applications requiring high reliability and distance extension.

This product series is pre-loaded with "Layer 2" network management software that supports an ease-of-use Web Console or Telnet through the serial console by CLI configuration. This high-density managed switch line provides the ring network redundancy function with STP/RSTP/MSTP and the Super Ring redundancy protocol that supports a <30ms network recovery time, eliminating

the compatibility issue for any existing network concerns. In addition, the built-in SNMP, VLAN, IGMP, QoS features support network planners to increase data transmission performance within the network.

The LNX-2012GN-SFP series is backed by a five-year warranty, and the units are IP30 rated, compact, fanless, DIN-Rail, and wall mountable. Each series is built to withstand industrial networking hazards such as shock, drop, vibration, electromagnetic interference (EMI), and extreme temperatures. There are two operating temperature version models for either standard temperature (mi-

minus 10 to 70 degrees C) or extended temperature (minus 40 to 75 degrees C). The models are 96.4 millimeters

by 105.5 millimeters by 154 millimeters and weigh 2.7 pounds. ↵

Source Antaira Technologies
For more information,
go to www.antaira.com

Joint Project to Standardize Floating Turbines

DNV GL, the world's largest resource of independent energy experts and certification body, has launched a new joint industry project (JIP) together with 13 global partners to mutually develop a recommended practice for the coupled analysis of floating offshore wind turbines.

Despite the fact the wind industry has a strong focus on the development of floating offshore wind turbines, it is still missing a widely recognized and unified approach for the practical methods to build and validate the numerical models in accordance with the requirements in the standards.

Standardization is a key milestone to guide the industry toward the development of reliable floating wind turbines. Guidance includes setting up minimum requirements for the design on new concepts that can help investors' evaluation and supporting the more mature technologies toward a safe and secure commercialization.

The project is the first of its kind, bringing together multiple stakeholders from the wind, oil and gas, and maritime industries, making it the most interdisciplinary project that engages in the technical advancement for floating offshore wind projects to date.

The participants come from a broad range of industries, including utilities, component manufacturing, engineering consultants, maritime research institutes, shipyards, and academic research.

Companies contributing to the development of the new recommended practice include:

- Ramboll
- Ideol
- EDF
- MARIN

- STX Solutions Europe
- Esteyco
- NAUTILUS Floating Solutions
- Dr. Techn. Olav Olsen
- National Renewable Energy Laboratory (NREL)
- GICON®
- Glosten
- Atkins
- MARINTEK

"Ramboll supports this joint industry project and will contribute to this effort by providing our knowledge and experience in the design and analysis of floating wind turbines, covering coupled simulation as well as our structural, mooring, and cable expertise," said Denis Matha, floating

wind-turbine specialist from Ramboll. "We expect that this project will provide an excellent platform to jointly develop a recommended practice by addressing the key issues and bringing together the expertise of key stakeholders."

"We are happy to join this JIP and share our years of experience coupling multiple wind turbines with our patented floater," said Ideol CEO Paul de la Guérivière. "We have been convinced for a long time of the benefits of a common framework for the loads analysis of floating wind turbines and are confident that such efforts will lead to substantial gains in efficiency and cost. The recommended practice should strongly help the floating off-

FIVE STAR FILTER

LARGEST STOCK & READY TO SHIP

We provide a wide selection of high-quality filters for many wind turbines and compressors

- FILTER PADS
- BREATHER AIR FILTERS
- HIGH-PRESSURE HYDRAULIC CRANKCASE
- COMPRESSORS AND ENGINES
- OFF LINE LUBE FILTERS
- TOWER DOOR FILTERS

Call us today to experience our Can-Do Guarantee!

Phone 713.290.1972 Email service@5starfilter.com Website 5starfilter.com



DNV GL

shore wind industry and accelerate the development of commercial-scale floating wind farms.”

The new recommended practice will build on the experience from the application of the Offshore Standard DNV-OS-J103 “Design of Floating Wind Turbine Structures” published in 2013 and will contain methods and ways to fulfill the requirements set in DNV-OS-J103.

Since its publication, the offshore standard DNV-OS-J103 has been used broadly for the design of floating wind-turbine structures. At the time of publication, the practical experiences in the field of floating offshore wind energy have been rather limited in providing reliable information on validating numerical models for the turbine construction and reliable insight on the level of complexity required at each individual project stage.

Over the last three years, the industry has greatly advanced, moving the commercialization of the new technology forward, as the world’s first floating wind farm demonstration projects have since been launched.

Based on the latest knowledge and practical know-how, the joint approach of developing the future recommended practice will greatly reduce the risk of inadequate analysis, leading to substantial time savings. Further advantages stem from the focus on the design of floating wind turbines and the validation of numerical models in respect to their subsequent certification. The coherent structure of the recommended practice also provides a unified cost structure for the project development process.

The analysis of floating wind turbines is a complex challenge.

“The analysis of floating wind turbines is a complex challenge that requires the integration of different technologies and disciplines,” said Luca Vita, project manager of the Joint Industry Project and senior engineer at DNV GL — Energy, Renewables Certification. “The lack of a common agreement on the optimal approach to conduct these analyses during the different stages of the design process adds potential risk factors and time delays in the project development, but also in the cost evaluation of new conceptual designs. This project provides a unique platform to mutually develop an invaluable recommended practice which will be beneficial to each industry stakeholder, taking the wide-ranging spectrum of interdisciplinary skills and business objectives of each participant into account.”

“We are very happy to continue our commitment to making floating wind power a reality and a large scale energy technology,” said Johan Sandberg, Segment Leader — Floating Wind Turbines at DNV GL — Energy. “Understanding coupled analysis is a key part of designing and optimizing a floating wind turbine, and it is encouraging that the industry’s interest in this has been so strong. The partners in this project contribute with a wide range of valuable competences, which will make the result effective and credible.”

Source: DNV GL

For more information, go to www.dnvgl.com/energy



Cable Management for Wind Turbines



www.obous.com