MILITARY & AEROSPACE FIBER OPTICS

Monthly Newsletter Covering Defense, Aerospace, Government and Homeland Security Fiber Optic Markets

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Summary By Appropriation Title
FY 2011 Base Budget

(Dollars in Billions)

Appropriation Title	FY 2010	FY 2011	Δ FY 2010 – FY 2011
Military Personnel	$135.0	$138.5	+2.6%
Operation and Maintenance	184.5	200.2	+8.5%
Procurement	104.8	112.9	+7.7%
RDT&E	80.1	76.1	-5.0%
Military Construction	21.0	16.9	-19.5%
Family Housing	2.3	1.8	-19.3%
Revolving and Management Funds	3.1	2.4	-23.7%
Total	**$530.7**	**$548.9**	**+3.4%**

Numbers may not add due to rounding

TOP NEWS

DOD releases defense reviews, 2011 budget proposal, and 2010 war funding supplemental request

President Barack Obama sent to Congress a proposed defense budget of $708 billion for fiscal 2011.

The budget request for the Department of Defense (DoD) includes $549 billion in discretionary budget authority to fund base defense programs and $159 billion to support overseas contingency operations (OCO), primarily in Afghanistan and Iraq. This proposal continues the reform agenda established in last year's DoD budget request and builds on the initiatives

In This Issue...

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identified by the 2010 Quadrennial Defense Review (QDR) and 2010 Ballistic Missile Defense Review (BMDR).

The QDR examines DoD strategies and priorities. It assesses the threats and challenges that the nation faces and re-balances DoD's strategies, capabilities, and forces to ensure the U.S. military has the flexibility to address today's conflicts and tomorrow's threats.

The BMDR evaluates the ballistic missile threat to the U.S. and its allies and articulates policy. It determines the appropriate role of ballistic missile defense in the country's national security and military strategies.

"The fiscal 2011 budget request builds on the reforms begun in last year's defense budget," said Defense Secretary Robert Gates. "These substantial changes to allocate defense dollars more wisely and reform the department's processes were broadened and deepened by the analysis and conclusions contained in the Quadrennial Defense Review."

The fiscal 2011 base budget request represents an increase of $18 billion over the $531 billion enacted for fiscal 2010.

This is an increase of 3.4 percent, or 1.8 percent real growth after adjusting for inflation.

The DoD needs modest real growth to maintain, train, and equip the forces that sustain our wartime efforts.

The fiscal 2011 OCO request will provide additional resources needed to sustain U.S. forces in Operation Enduring Freedom – in Afghanistan and elsewhere – and Operation Iraqi Freedom. Included are funds for pay and benefits, logistics and other support, force protection, continuing efforts to counteract improvised explosive devices, as well as funding to fully support the buildup in Afghanistan and to carry out a responsible drawdown in Iraq.

"The choices made and priorities set in these budget requests and strategic defense reviews reflect America's commitment to succeed in the wars we are in while making the investments necessary to prepare for threats on or beyond the horizon," said Gates.

Also accompanying the 2011 budget proposal is a fiscal 2010 supplemental request of $33 billion to support the added costs of the President's new strategy in Afghanistan and strengthen U.S. force levels with approximately 30,000 additional troops.

"To make sure we have the resources needed to support our troops deploying to the Afghanistan theater, I will be asking the Congress to enact the supplemental by spring 2010," said Gates.

Key highlights of the proposed DoD budget are outlined in the attached summary and charts. For more information and to view the entire fiscal 2011 budget proposal, please visit http://www.budget.mil and download the "FY 2011 Budget Request Overview Book."

The 2010 QDR and BMDR are available online at www.defense.gov/DefenseReviews.

Transcripts from applicable budget and strategic defense review briefings can also be viewed at www.defense.gov/transcripts.

BID

Army Corps of Engineers asks for industry bids on fiber-optic cable and related supplies

The Vicksburg District of the U.S. Army Corps of Engineers in Vicksburg, Mississippi, are asking the fiber optics industry to bid on a contract to provide several thousand feet of fiber-optic cable and related supplies.

The solicitation number for this federal request for quotation (RFQ) is W912EE-10-T-0021. Specifically, the Corps of Engineers needs the following:

- 6,880 feet of Corning outdoor fiber-optic cable, part number FAN-BT25-06 or equivalent;
- 8,000 feet of Belden multi-conductor cable, part number Belden 5300F1

or equivalent;
- 48 UniCam multimode composite ferrule connectors;
- 10 Corning buffer tube fan-out kits, part number FAN-BT25-06 or equivalent;
- nine NVT-214A-M video transceivers, part number NV-214A-M;
- eight Corning wall-mountable fiber connector enclosure, part number WCH-02P-1215T or equivalent; and
- eight NVT-NV-872 active video receivers, part number NV-872-A.

Companies interested should submit price quotes no later than February 12, 2010. Send quotes to Leah McCain at the Army Corps of Engineers Vicksburg District by e-mail at Leah.B.McCAin@usace.army.mil, or by post at U.S. Army Corps of Engineers, ATTN: Leah B. McCain, 4155 East Clay St., Vicksburg, MS 39183.

For questions or concerns, contact Leah McCain by phone at 601-631-7905, or at the e-mail address above. More information is online at https://www.fbo.gov/spg/USA/COE/DACA38/W912EE-10-T-0021/listing.html.

BUSINESS

Mohawk announces the addition of Net-Reps Inc. to their sales force

Mohawk, a manufacturer of copper cable and fiber-optic products, announced the appointment of Net-Reps Inc. to their sales force. Net-Reps Inc. was founded by Jesse Meyer, RCDD and Ryan McCray in 2008.

Jesse has worked in the data communications industry for over 14 years. He has experience in distribution, contracting, and manufacturer representation. He has cultivated many strong relationships in the Southern Virginia market and has a B.S. in Psychology from Virginia Tech.

Ryan has been actively selling in the data communications industry for over 10 years. Ryan has developed solid relationships with distribution, contractors, and end-users in the northern Virginia and Maryland markets. Ryan has a B.S. in Education from the University of Maryland.

Through knowledge, energy, service, and integrity, Net-Reps Inc. creates and maintains long-term relationships with individuals in the entire sales channel (manufacturer, distribution, contractors, end users, specifiers) to increase market share and give their manufacturers the best possible representation.

NEW PRODUCTS

Mohawk announces the release of their 6 LAN Plus cable

Mohawk, a manufacturer of copper cable and fiber-optic products, announced the release of our 6 LAN Plus Category 6e copper cable. With today's evolving data capabilities, installation of an enhanced Category 6 cable provides assurance of current and future data needs with one installation. 6 LAN Plus is a patented, cost-effective mid-grade Category 6 solution with exceptional data transmission support.

6 LAN Plus is an enhanced unshielded twisted pair Category 6e cable for use in horizontal cabling systems per TIA-568-C. It exceeds performance requirements of TIA-568-C and ISO/IEC 11801 Category 6. Constructed with #23 AWG solid bare copper, the insulated conductors are assembled into four tightly twisted pairs featuring flat core separator technology and ripcord under an overall jacket. 6 LAN Plus is listed as C(ETL)US type CMP for plenum and C(UL)US type CMR for Riser. Plenum and riser are ETL verified to TIA-568-C.2 Category 6 and Mohawk's internal stringent performance requirements.

The company commented, "The 6 LAN Plus cable is an excellent addition to our Open Architecture philosophy, which allows flexible and warranted options for your complete

Campus-Wide network system installation. 6 LAN Plus is compatible with our numerous connectivity partners for high bandwidth network installations."

Mohawk releases newly redesigned tactical fiber-optic cable

Mohawk, a manufacturer of copper cable and fiber-optic products, announced the release of their newly redesigned tactical fiber cable, which they say is a sure fit in today's harsh applications. The robust cable design was developed and constructed from rugged military mechanical standards and will stand up to harsh field abuse.

The company says that this re-deployable cable is ideal for use in broadcast applications, military communications, mining, and industrial applications.

Mohawk's tactical fiber is designed to perform at the highest standards, even when exposed to harsh elements and tight bend radiuses.

The cables are durable and resistant to abrasion, cut-through, and crushing. They are also smaller and lighter than most traditional cables used in these applications, resulting in smaller bend radius capability and improved flexibility in a broad range of outdoor temperatures and weather conditions.

Mohawk also offers its tactical fiber in factory preterminated assemblies. SC/ST/LC/FC fan-outs or SMPTE 358 hermaphroditic connectors are available in custom lengths.

Conolog starts production of 'GlowWorm' fiber-optic detector

Conolog Corporation an engineering and design company that provides digital signal processing solutions to global electric utilities, announced that it has completed field testing and started production/marketing of its "GlowWorm" fiber-optic detector that may be used in any fiber-optic line or network without the need to cut the cable.

The president of Conolog, Marc Benou, stated, "Our 'GlowWorm' surpassed our expectations in field tests and demonstrated its capabilities in fiber-optic networks as well as lines.

This application of passive detection technology is unique to Conolog and will allow utilities and other customers to quickly determine the source of a fiber-optic signal failure."

Benou concluded, "Conolog products continue to demonstrate the global applications of our products, ease of installation and our commitment to low maintenance and long term security and reliability."

Tunable bandpass filters now offered in 390-700nm range

Available in 25.2 x 35.6 x 2.0 mm sizes, VersaChrome bandpass filters offer tuning range of greater than 12 percent of normal-incidence wavelength and average transmission of greater than 90 percent with steep edges and wideband blocking.

Applications include fluorescence microscopy, imaging, and quantitation, as well as spectral imaging. Due to their polarization insensitivity, optical quality, and damage threshold, filters are also suited for wide range of laser applications.

US Conec offers cleaning tool for ODC-Series, outdoor 1.25-mm connectors

US Conec Ltd. has released the IBC Brand Cleaner ODC. This mechanical cleaning tool uses a dry cleaning strand to remove dust and liquid residue from the end face of plug and socket ODC-series connectors.

This version of the IBC cleaning tools features a new, highly flexible cleaning tip and a ribbed alignment cap.

These features, combined with a reinforced nozzle, make the IBC Brand Cleaner ODC tool well suited for cleaning connectors deployed outdoors, says US Conec.

The tool uses what the company describes as “a simple pushing motion” for engagement and provides an audible click to alert the technician when the tool has been fully engaged. The tool locks at the end of life, preventing accidental cross contamination.

The IBC tool is designed to enable its cleaning strand to be guided precisely across the cleaning tip to ensure consistent contact with the center of the ferrule while not scratching the end-face. This feature of the IBC tool eliminates the need to re-install the cleaning strand across the cleaning tip as is the case with many competing mechanical cleaners, US Conec asserts.

The IBC Brand Cleaner ODC reduces cleaning costs to less than $0.25 per cleaning, says the company. IBC Brand Cleaners provide improved reliability, better cleaning performance, faster cleaning times, and lower cleaning costs than current methods such as sticks and swabs, US Conec concludes.

AFL launches new mass transit fiber-optic cable

AFL Telecommunications announces the introduction of its new Low Smoke Zero Halogen (LSZH) Loose Tube Cable with

Thermoset Jacket for mass transit applications. Consisting of a thermoset jacket, the low-smoke zero-halogen loose tube cable is specifically designed for harsh environments. The cable design includes a dry-core water blocking system, SZ-stranded core for easy mid-span access and a flame retardant, highly chemical resistant, cross-linked UV resistant outer jacket.

The Mass Transit cable is suitable for subway tunnels, railway right-of-ways, mining, airport terminals, confined space pathways and steam tunnels.

Available in fiber counts up to 60 in single-mode or multimode. The cable is listed to NEC OFNG-LS and suitable for outdoor and indoor installations.

For more detail on this product and other fiber-optic cables and accessories, visit www.AFLtele.com.

Opnext delivers world’s first ultrahigh speed SMT multiplexer IC for 100G coherent transponders

Opnext Inc., a provider of state-of-the-art laser technology and hi-h speed optical communications, announced that it has developed the world’s first ultrahigh speed Surface Mount Technology (SMT) multiplexer integrated circuit (IC) for 100Gbps applications.

The SiGe (silicon germanium) 0.13-micrometer process technology chip was designed in-house to be used inside Opnext’s coherent 40Gbps and 100Gbps transponder modules and subsystems.

The 128Gbps multiplexer IC transmits the data in 32Gbps lanes suitable for transmission using the DP-QPSK modulation scheme, as documented in the OIF 100G Ultra Long Haul DWDM Framework, for 100GbE and OTU4 transmission in the Wide Area Network (WAN).

The multiplexer IC employs ball grid array (BGA) technology to allow standard SMT manufacturing processes. This enables higher-density transponder designs with ICs mounted directly onto the printed circuit boards (PCBs).

“One of the major challenges of increasing 40G production was the manufacturability, quality and performance consistency of the hardware,” said Roberto Marcoccia, vice president of R&D for Opnext’s subsystems business unit.

“This SMT IC eliminates the radio frequency (RF) connectors and coaxial cabling, a major source of these volume manufacturing issues.”

Opnext continues to employ selective vertical integration on components like this new SMT IC with the goal of delivering the lowest cost and highest performance 100Gbps OIF MSA compliant solution to its OEM partners.

PARTNERSHIP

3SAE partners with DPM Photonics

3SAE Technologies Inc. announced it has signed a consulting and distribution agreement with DPM Photonics to make 3SAE Technologies' new large-diameter fiber fusion splicing and preparation technologies available to high-power fiber laser manufacturers and to military, aerospace, and industrial medical markets throughout the United States.

The association between DPM Photonics and 3SAE Technologies personnel dates back to 2003, during the advent of large mode area fiber fusion splicing and cleaving.

The partnership between the two companies is truly synergistic, combining years of optical component and fiber-based device experience with a strong engineering background in fusion splicing and fiber preparation techniques for their assembly and manufacture.

"DPM Photonics is major addition to our nationwide distribution channel," said Don Grasso, chief executive officer of SAE Technologies Inc.

"The synergy between our products and their services make DPM Photonics a unique partner that can discuss detailed customer applications on a technical level as well as support custom product development."

DPM Photonics was founded in February 2009, offering consulting services in the areas of fiber optics, fiber-based components, fiber lasers/amplifiers, precision optics and optical design.

Its clients include start-up ventures, major corporations, and government agencies. It has since expanded its business to include product representation and development services.

Its product lines enable users and fabricators of mid- to high-power active devices and include a wide variety of high-power precision optics and fiber-based components (PM and non-PM).

NETWORKS

XO expands international reach to Latin America via south Texas gateway serving Mexico

XO Communications announced that it is increasing its international network connectivity to Latin America by establishing a new gateway on the U.S.-Mexico border in McAllen, Texas. XO is also expanding its fiber network in southern Texas by 800 miles, providing greater diverse long-haul routes to San Antonio and Houston through Laredo, McAllen, Harlingen, Corpus Christi, and Victoria. The increased connectivity will expand domestic and international customer access to XO's Tier 1 IP backbone and 28,000 route-mile U.S. long-haul/metro network (1.2 million-total-mile network).

With a presence in the largest U.S.-Mexico cross-border telecom corridor, XO now has the ability to provide direct network access to dozens of U.S. and Mexican telecom carriers through a carrier-neutral facility in McAllen. This international gateway in McAllen represents XO's fourth to Latin America, with others in Miami, San Diego, and Los Angeles.

Mexico is the third-largest destination for telecom traffic from the U.S., with the U.S.-Mexico voice, private-line, and IP services market totaling nearly $1 billion annually (FCC International Report, 2009). In addition, the country's mobile subscriber base is growing 10 percent annually, and its broadband subscriber base is expanding 35 percent annually, according to COFETEL, Mexico's federal government telecom regulator. "With double-digit growth in mobile and broadband services in Mexico, the Texas-Mexico border is a natural point for XO's network expansion," said Don MacNeil, vice president of XO Carrier Services Operations. "By expanding the reach of our nationwide network and establishing points of presence across Southern Texas, XO will be able to offer carriers and their customers

competitively priced, high-speed private line (DS3-10G wave), IP/MPLS transit, and wholesale voice termination services."

This network expansion comes on the heels of XO's announcement of increased connectivity throughout the Inland Empire region of Southern California. These expansions support the company's strategy to broaden its service areas within existing XO markets and to expand into new markets.

SUBMARINE CABLES

FCC Releases Public Notice Regarding Applications to Connect Submarine Cables to Cuba

The FCC has issued a public notice modifying its application process for submarine cable service to Cuba. These changes are based upon a letter received from the U.S. Department of State. The following is the original Public Notice.

Modification of Process to Accept Applications for Service to Cuba and Related Matters

By the International Bureau:

The Commission has received a letter dated January 12, 2010, from the U.S. Department of State detailing policy guidance on licensing the provision of telecommunications service between the United State and Cuba.

The State Department letter rescinds its 1993 policy guidance to the Commission and replaces it with the guidance outlined below. State recommends that the Commission use the following policy guidelines in reviewing proposals for telecommunications services between the United States and Cuba:

a) The Commission should apply its International Settlements Policy (ISP) and the appropriate benchmark settlement rate with respect to proposals for the provision of telecommunications services to Cuba; however, in implementing this recommendation, the Commission should be prepared, to the extent necessary, to grant waivers reasonably limited in duration to enable carriers within its jurisdiction to provide telecommunications service between the United States and Cuba.

b) The Commission should send applications for the provision of telecommunication services between the United States and Cuba to the State Department for review. If the State Department does not object within 30 days of receipt, the Commission should assume that the State Department does not object to the grant of the application on foreign policy grounds.

The State Department letter notes that nothing in the guidance should be interpreted as establishing a policy to authorize investment in Cuba's domestic infrastructure. In addition, applications approved by the Commission may also need to be licensed, as appropriate, by the Office of Foreign Assets Control (OFAC) at the Treasury Department and/or the Bureau of Industry and Security (BIS) at the Department of Commerce.

The Commission will act upon applications to provide facilities-based telecommunications services between the United States and Cuba consistent with the guidance set out in the 2010 State Department letter and Commission's policies and rules.

In order to implement the new guidance, the Commission will retain Cuba on the Exclusion List. The Exclusion List for international section 214 applications identifies countries and facilities that are not covered by the grant of global section 214 authority under section 63.18(e)(1) of the Commission's rules. Carriers desiring to serve countries or use facilities included on the Exclusion List must file a separate application pursuant to section 63.18(e)(3). Cuba will continue to be identified on the list as a country for which a separate application is required pursuant to section 63.1 8(e)(3). The Commission will process applications for the provision of services to Cuba

on a non-streamlined basis and coordinate with the State Department prior to action as provided in the State Department letter. In addition, in order to implement the guidance in the State Department letter, the Commission will continue to apply to Cuba the International Settlements Policy (ISP), which currently applies to Cuba and certain other countries, and the 1997 Benchmarks Policy, both subject to requests by U.S. carriers reasonably limited in duration for limited waivers based upon the unique circumstances presented. The ISP governs how U.S. carriers negotiate with foreign carriers for the exchange of international traffic in order to prevent foreign carriers with market power from discriminating or using threats of discrimination or other anticompetitive actions, against competing U.S. carriers as a strategy to obtain pricing concessions regarding the exchange of international traffic. The Commission's 1997 Benchmarks Order established benchmark rates U.S. carriers are permitted to pay foreign carriers for terminating traffic. The goal of the Benchmarks Policy has been to reduce substantially above-cost settlement rates paid by U.S. carriers to foreign carriers for termination of international traffic.

For further information, contact James Ball, David Krech, or Imani Ellis-Cheek, Policy Division, International Bureau, at 202-418-1460.

First Segment of EASSy Completed

The West Indian Ocean Cable Company (WIOCC) has announced that the first section of the EASSy system is laid in Maputo Bay, Mozambique marking a major milestone in the system's construction.

WIOCC will offer a range of services to African and international carriers, extending the reach of the EASSy network through interconnection agreements with operators of other international submarine cable systems giving access to Asia, the Middle East, Europe and the Americas. WIOCC will also take advantage of its owners' extensive national networks to extend services from EASSy's coastal landing stations to key cities in each country, and for the first time open up access to many land-locked countries in Africa's interior.

The East African Submarine Cable system (EASSy) project consists of the construction of a 10,000 km fiber-optic submarine cable along the East African coast, linking Sudan to South Africa with other landing points in Djibouti, Somalia, Kenya, Tanzania Comoros, Madagascar and Mozambique. In a related project, EASSy signatories are building of terrestrial fiber backhauls to link the land-locked countries of the region to the cable (Ethiopia, Uganda, Burundi, Rwanda, Malawi, Zambia, Zimbabwe, Botswana, Swaziland and Lesotho).

POLICY

ACA: new broadband stimulus loan/grant rules from NTIA and RUS further disadvantage small cable providers

According to the American Cable Association, new rules adopted by the National Telecommunications and Information Administration and the Rural Utilities Service would further advantage certain segments of the telecommunications industry over small cable operators interested in obtaining broadband infrastructure loans and grants available under the American Recovery and Reinvestment Act of 2009 for last-mile broadband deployment.

"ACA is disappointed that NTIA and RUS structurally modified the programs in a way that makes it harder for small cable providers to receive last-mile funding," said ACA president and CEO Matthew M. Polka. "The rules seem to favor every entity except small cable operators, who are well-positioned to deliver state-of-the-art broadband facilities in rural and remote communities at low costs. Not surprisingly, we will be closely monitoring the implementation of the programs to ensure that small cable operators are not unfairly treated."

Small cable operators should not be disadvantaged because regulations have been written that side with competitors to many ACA members, Polka explained in a letter sent February 2 to Assistant Commerce Secretary and NTIA Administrator Lawrence E. Strickling and RUS Administrator Jonathan S. Adelstein.

"The American taxpayer will be disappointed to learn that the program was changed to give greater priority to awarding particular segments of the telecommunications industry with broadband funding over equally or better qualified applicants, including ACA members, that could provide the same broadband service at a lower cost," Polka said.

Under last year's economic stimulus law, Congress provided NTIA and RUS with $7.2 billion in funding for broadband infrastructure loans and grants issued to eligible entities. All funds need to be allocated by September 30, 2010. According to ACA, NTIA and RUS made various adjustments to its second-round funding rules that dismayingly tilt in favor of rural telephone and satellite companies to a degree that more than likely gives them a decided advantage over smaller cable operators that decide to apply for last-mile grants and loans.

Polka noted that in the rules, RUS opted to increase from five to eight the number of points out of 100 automatically awarded to applicants that have borrowed funds under Title II of the Rural Electric Act of 1936, which are overwhelmingly traditional phone companies. Moreover, RUS plans to set aside $100 million in grants specifically for satellite broadband targeted at rural unserved areas.

This decision to bolster incumbent RUS borrowers has taken on greater urgency because NTIA says that most of its $2.6 billion in broadband grants will go to middle-mile projects, while the RUS's $2.2 billion in grants and loans will mostly go toward building last-mile infrastructure projects.

"If preference had to be given to past borrowers, we thought 5 points was too much last round. Now, we are perplexed that RUS would make matters worse by increasing that amount to 8 points. In our new era of open government, we would have hoped for a clear explanation of changes that so apparently disadvantage small cable," Polka said. "Favoritism and disparate regulatory treatment are not a formula for success."

To their credit, NTIA and RUS did respond to some of ACA's concerns. For example, NTIA eliminated the strict prohibition on the sale of funded facilities within 10 years; RUS eliminated the definition of "remote," thereby broadening access to grants in lieu of loans; and the NTIA eliminated the requirement that certain applicants had to apply with RUS first before being eligible to obtain NTIA grants.

"But for the agencies' decision that RUS will be the primary source of last-mile funding and the RUS's increased preference for awarding certain segments of the industry, these rule changes would have encouraged more small cable providers to participate.

As it stands now, I'm afraid that we'll see fewer small cable operators seeking to apply for money to help the Obama Administration achieve the goal of making broadband service both universal and affordable to every American in the near future," Polka said.

ACA is encouraged to learn that NTIA and RUS will soon send out approximately 1,400 letters to applicants whose proposed projects will not be receiving loans and grants under the first round of funding applied for last year. These letters will inform ACA members whether they need to consider applying in the second round.

Last year, more than 80 ACA member companies applied for broadband stimulus funding for an array of last-mile and middle-mile projects totaling more than $1.3 billion. Of the 80, only one was granted.

The turnout by ACA members would have been greater if certain funding restrictions had not made it so difficult for small cable companies to apply.

NEW PRODUCTS

JDSU introduces DMC to boost efficiency of optical fiber network testing

JDSU is introducing the Dual Module Carrier (DMC) for the T-BERD/MTS-8000 portable fiber-optic network test equipment, which enables technicians to determine and troubleshoot network traffic problems from two directions using one test solution, rather than both ends of a local circuit.

In the typical CO and Tier 2/3 troubleshooting environment, two testers have traditionally been necessary to determine that the network segment is properly passing traffic. Now, using one T-BERD/MTS-8000 DMC, technicians can find network traffic problems from both directions with one set of test equipment. The T-BERD/MTS-8000 offers concurrent capture/decode and TCP WireSpeed testing on two 10-Gigabit Ethernet ports. A 10M to 10-Gigabit Ethernet, DS1/E1 to OC-192/STM-64, OTN, PDH, Next-generation SONET/SDH, and Fibre Channel test solution, the T-BERD/MTS-8000 DMC is capable of simultaneous troubleshooting both sides of a circuit — using one tester.

The DMC also offers the ability to run four concurrent tests, so technicians can share a test set for installation and troubleshooting in a central office, and offers service provider labs sufficient port density for long-term equipment “soak” testing across several interfaces with the portability needed to take soak testing to the field.

For more information, contact JDSU online at www.jdsu.com.

MARKET INTELLIGENCE

Opportunities in Military Fiber Optics 2010 – a New IGI Certified Report

New Report Outlines Critical Developments in Military Fiber Optics Now in its fourth edition, Opportunities in Military Fiber Optics 2010 provides powerful insight into the most up-to-date military fiber optics trends. Become an expert in the latest military developments by utilizing the vital information contained in this report, including:

* Comprehensive profiles of 43 DoD fiber optic contractors, including the majors your company needs to do business with and their contact information.

* Exclusive interviews with DARPA Program Managers Dr. Michael Haney and Dr. Adel Saleh about their ground-breaking work in next-generation fiber optics programs.

* Interviews with the successful Ciena Government Solutions Division team, which now does approximately $50 million in business annually with the U.S. Department of Defense and intelligence community.

* A complete transcript of the landmark cyber security workshop at the Federal Communication Commission led by admiral Jamie Barnett and attended by many industry experts.

* A detailed analysis of the 51 DoD SBIRs awarded to 27 vendors in the last year.

* A chronology of critical events for the calendar year 2009 in military applications of fiber optics, including dates of awards, important solicitations, and agency developments.

* A review of all DARPA programs focused on fiber optics including dollar amounts by fiscal year.

With Opportunities in Military Fiber Optics 2010, you can stay abreast of all of the military fiber optics trends, know which programs will make money for your company, and successfully leverage the valuable information contained in the report to generate new revenue.

This is your opportunity to get the insight the leading Pentagon funding agents and defense contractors have for a fraction of what the other market research companies charge. Begin 2010 by maximizing your

revenue potential by doing business with the U.S. government. You will be glad you took advantage of this opportunity! For more information or to order the report, visit www.igigroup.com or call: Dr. Hui Pan, +1-617-782-5033, email, hpan@igigroup.com.

Status of the multibillion-dollar MEMS industry for 2009

Research and Markets announced the addition of the "Status of the MEMS Industry 2009" report to their offering.

In the face of a collapsing mainstream semiconductor sector over the past 18 months, the MEMS business held its own and remained flat. While this is great news for MEMS overall, for the many MEMS companies that made production infrastructure investments in 2006 and 2007, flat business made 2008 and 2009 really difficult. The MEMS industry remains highly diverse, and as such, the impact of the financial collapse and economic recession has been varied. While established applications have struggled, new ways to package and integrate MEMS devices in systems buttressed the industry. New MEMS devices are indeed growing very fast: two-axis gyros, MEMS IMUs, and MEMS oscillators, to name a few.

Several companies stopped their MEMS production entirely or in part (Delphi, Continental, Colibrys, Systron Donner Automotive), while others saw their businesses enter a huge growth phase (InvenSense, Kionix, STMicroelectronics, SiTime).

All in all, booming new business was entirely offset by flagging established business, with the net result flat. Innovation in MEMS is changing: few totally new devices are now launched, and most new applications are linked to new usage of existing devices (human machine interface, replacement of existing technologies). With packaging averaging more than 40 percent of the cost of a MEMS device, strong efforts are being put into adapting the packaging to drive out cost and enter new applications (like mobile applications). In parallel, MEMS foundries are coming out of the economic downturn in a strong position: more system manufacturers have made the decision to stop internal MEMS manufacturing and are now working with MEMS foundries.

MEMS foundries are extremely active with these new customers. As can be expected, this growth is attracting new players like TSMC, UMC, and others. In addition, wafer-level packaging and 3D chip stacking using through silicon vias (TSV) are also growth drivers for the MEMS foundries.

Driven by cost-reduction goals needed for consumer applications, investments in 8-inch infrastructure continued despite the downturn.

"Status of the MEMS industry 2009" provides an analysis of the evolution of MEMS applications and markets:

- Updated data on MEMS markets;
- Analysis of the industry from the manufacturing and innovation points of view;
- Analysis of the strategies of the main players;
- Evolution of the equipment markets for MEMS production;
- MEMS packaging trends.

Market trends

The MEMS markets are flat since 2007: from $7.1 billion in 2007, to $6.8 billion in 2008, and an estimated $6.9 billion in 2009. But that result is the sum of a huge plus in consumer electronics applications, which grew at 25 percent CAGR, and a huge minus with established automotive business taking a big hit. A restart of the net growth is expected after 2010, with a CAGR of 12 percent in the next four years.

The production equipment market is extremely low at $140 million (in 2008, 2009, and 2010) and will restart in 2011:

1. The production infrastructure in place is sufficient to absorb the growth for the next two years and we will have

to wait until 2011 for a significant restart of the MEMS production equipment market;

2. The MEMS foundry growth in 2008 and 2009 was limited at 6 percent (after years of 30 percent growth annually) and will restart in 2010 with more than 25 percent CAGR expected in the next 4 years.

Report highlights

- Analysis of the business trends and expected evolution of the 15 major applications areas of MEMS devices (pressure sensor, ink jet, accelerometer, gyroscopes, silicon microphone, microfluidic devices, thermography, micro displays picoprojector, optical MEMS, RF MEMS);
- Long-term vision of MEMS markets 2008-2020: evolution of the MEMS markets, current drivers of the industry;
- Technology and business trends at equipment and materials level;
- Detailed analysis of the evolution of the MEMS foundry business and of the main players: What is the strategy of each of the top 30 MEMS manufacturers?
- Evolution of MEMS packaging: How MEMS companies are learning from changes in the packaging fields (TSV, WLP, Si Interposers);
- Analysis of the latest 12 months' M&A in MEMS and venture capital investments in MEMS.

Who should buy?

- The executives of MEMS companies, to look at the complete MEMS business and the major evolution that could impact the industry in the long term;
- The technology teams of MEMS companies, looking to learn from the development of the other parts of the MEMS industry;
- The end users, trying to understand the evolution of the MEMS industry and find data on each application and who is doing what;
- The marketing and technology team of equipment and materials manufacturers, looking to have a complete picture of MEMS world and the key metrics of the industry.

Benefits of the report

- What are the market shares of MEMS manufacturers per application?
- What is the evolution of the MEMS foundry business?
- What are the trends and competitive landscape in the MEMS production equipment business?
- Detailed analysis of the major 15 applications of the MEMS markets:
  * Pressure sensor
  * Accelerometer
  * Gyroscope
  * Inkjet head
  * Silicon microphone
  * Optical MEMS
  * Micro displays
  * Micro bolometers
  * Microfluidics for research
  * Microfluidics for diagnostic
  * Microfluidics for drug delivery
  * RF MEMS
  * Micro tips and probes
  * Micro fuel cells
  * Emerging applications.
- Strategic analysis of each application and analysis of the competitive landscape
- Detailed equipment manufacturer analysis
- Detailed analysis of the evolution of the MEMS packaging