



Technion
Technology
Transfer

Excellence
Applied.

Your commercial gateway
to Technion IP



Technion Research &
Development Foundation

NEW
TECHNOLOGIES
AVAILABLE FOR
COMMERCIALISATION

July 2011

Q3 Hardware Newsletter

SELECTED COLLABORATIVE PROJECTS

Tower
CMOS

Electro- Optics-
Elop
Remote Sensing

PCB Lasers
Multi Frequency
Laser

Rafael Advanced
Defense Systems
Pressure Regulation

Aeronatics
Ignition Engine

Abacus
Microwave
Technologies
Automotive Radar

Ricor Cryogenic
and Vacuum
Systems
Thermodynamics of
Stirling

Kinetics
Particles Filtering

Cyclone Aviation
Health Monitoring

COM-1106:

COMPACT AND WIDEBAND TAPERED SLOT ANTENNA FOR WPAN APPLICATIONS

The communication industry is growing at phenomenal rate. A clear trend is the future development of Wireless Personal Area Networks (WPAN) operating in the 60 GHz millimeter-wave band. WPAN devices require low-cost antennas that are not only compact and integrable with RF modules, but also efficient and wideband. Current technologies are expensive and exhibit poor performance rendering them unsuitable for many applications. Our technology provides a generic and efficient solution to this growing need. [Read more >](#)

COM-1154:

PHOTONIC-ENABLED ULTRA- HIGH-SPEED RF ANALOG-TO- DIGITAL CONVERSION

Digital Signal Processing (DSP) has revolutionized modern communications and radar systems and is an integral part of many other industries. For broadband systems, the application of DSP systems is hindered by the difficulty in capturing (digitizing) the wideband signal in real time. Although Wideband Analog-to-Digital Converters (ADC) are in high demand, a satisfactory solution doesn't exist yet in the market. This technology utilizes a number of innovation to create systems that easily outperform existing solutions. [Read more >](#)

COM-1186:

SEMICONDUCTOR TWO- PHOTON LASER

A laser based on emission of photon pairs has numerous applications. Such a device is valuable for quantum communication and cryptography, medical imaging, optical inspections and more. Currently, Two-Photon Laser (TPL) technology is expensive, bulky and suffers from low performances, which make it impractical for industrial use. Our breakthrough technology enables commercialization of TPLs. [Read more >](#)

COM-731:

GATE DIFFUSION INPUTS (GDI) CIRCUIT DESIGN

Our gate diffusion inputs (GDI) technology is superior when dealing with the rising challenges of digital circuits design. Current methods are based on standard logical gates and are not compatible with the increasing demands for low power designs in the electronics industry. Our technology is simple to implement, cost effective and based on multi-functional building blocks. [Read more >](#)

T³ BUSINESS CLASS

The Technion R&D Foundation is looking for entrepreneurs to commercialize Technion's groundbreaking technologies. The Technion Entrepreneur in Residence (EIR) program introduces entrepreneurs to the Technion's research environment, helps them identify promising technologies, and assists them with the launching of a start-up company.