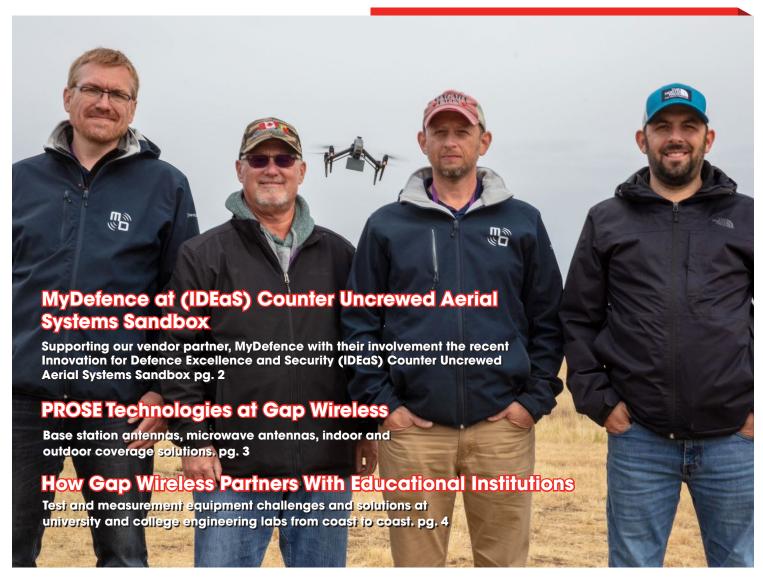




# CLOSING THE GAP

A Newsletter Dedicated to Cutting Edge Solutions for the Next Generation

**NOVEMBER 2022** 









## MyDefence at (IDEaS) Counter Uncrewed Aerial Systems Sandbox

Gap Wireless was excited to support our vendor partner MyDefence with their involvement in the recent Innovation for Defence Excellence and Security (IDEaS) Counter Uncrewed Aerial Systems Sandbox. The Sandbox was held in Suffield, Alberta, as the CAF looked to improve its capability in counter drone measures and warfare.

MyDefence offers a layered detect and defeat solution for static, man-portable and mobile platforms. Solutions are modular, scalable & flexible.

MyDefence RF sensors detect the control signal of Commercial Off the Shelf (COTS) UAS platforms. Contrary to much of the competition in the market, they can detect not only the signal from the controller to the UAS, but also the video downlink signal that feeds the First-Person View (FPV) back to the UAS pilot. They can detect these signals in the 433 MHz, 1.2 GHz (GNSS), 2.4 GHz, 5.2GHz and 5.8 GHz ranges. Their algorithm also supports the



ability for 900-915 MHz. Any alarm recorded by one of the connected sensors is instantly shown on the IRIS C2 system giving both direction, position and the make and model of known UAS. The UAS library holds 150+ UAS.

During the Sandbox, defence and security experts and innovators from Canada and abroad spent several days testing their solutions to detect and defeat mini and micro UAS at the unique experimental facility. MyDefence



did not use a rehearsed or staged product demonstration.

Although they did perform an overview of features and benefits, most tests were based on attendee questions regarding specific capabilities and "what-if scenarios".

This was a great opportunity for MyDefence to showcase their MyDefence Falcon, which is a UAS RF detector payload, ideally suitable for UAS able to carry >1kg, to detect and locate the hostile UAS pilot or UAS, providing UAS make/model, by searching for control signals and video feeds to and from the UAS. The Falcon comprises a UAS payload RF detector detecting in the 2.4GHz, 5.2GHz, 5.8GHz.

MyDefence also tested their Wingman 103, a ruggedized wearable, intuitive RF drone detector, the Wolfpack  $210 - a~360^{\circ}$  RF-detection product, and their Dobermann series 150/151 - jammers, which utilize smart jamming to defeat enemy drones.

Because of the positive feedback coming from various attendees regarding MyDefense's willingness to perform all tasks asked of them, the organizers of the Sandbox asked them to stay an additional week on very short notice to reschedule travel arrangements.

As the premier, authorized drone defence and C-UAS solutions distributor in Canada, Gap Wireless partners with industry leaders like MyDefence to deliver the most efficient, effective and integrated C-UAV/Detection & Drone Defence systems to defeat drones.





# PROSE Technologies at Gap Wireless



### Why Prose?

Innovation: Pioneering new technologies

Flexibility: Going the extra mile

Speed & Quality: Fast development, delivery, & robust

Immediate: Local & global support

The strategic focus of PROSE will be on the development of base station antennas, microwave antennas, indoor and outdoor coverage solutions, Open RAN sub-systems, and related services.

### **BTS Antennas**

Prose has been making rapid strides in the mobile cellular antenna market. With its 3 manufacturing bases and 4 R&D centers worldwide, Prose is ranked as a top player in the communication industry and has been offering a comprehensive BTS antenna portfolio including multi-port, multi-band, multi-beam, TDD/FDD hybrid, 5G small cell and Massive MIMO antennas, to meet global customer current and future demands in 4G and 5G mobile systems.

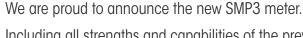
#### **Microwave Products**

Prose has a wide microwave antenna portfolio covering frequencies from 6GHz up to 80GHz for various application scenarios. Their current product portfolio includes the high wind-load series, E-band 1ft/2ft reflector series, E-band array series, Dual-band series, and Class 4 series among others.

**LEARN MORE** 

## Wavecontrol's New SMP3 Meter is Here!

## WAVECONTROL





Including all strengths and capabilities of the previous SMP2 meter, this new model offers unique features not existing in the market.

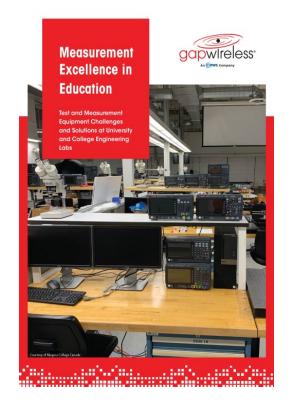
One of its unique features is the capability of measuring using the Weighted Peak Method up to 10 MHz, to fully comply with FCC, SC6, and other international standards requirements for low-frequency fields that provoke electrostimulation effects (non-thermal). Reaching 10 MHz closes a frequency gap not covered by other existing products.

Its advanced design, in combination with the SMP3-Streamer software, also allows the user to test EMF exposure according to the latest automotive standards.

Discover the improved way of measuring EMF with the SMP3 – Advanced Field Strength meter.



## How Gap Wireless Partners With Educational Institutions



Gap Wireless' partnership with institutions goes beyond cuttingedge test equipment from Keysight, UCL Swift, and VeEX. We strive to help institutions fulfil their mission to attract students, develop their skills to meet industry requirements, and connect them with the industry through networking events, webinars, and training seminars.

One of our first partnerships was with Humber College on a Fiber event. We helped attract 64 companies in the Fiber Industry to the event, drove demand for their graduates, and even a research project for their Applied Research Center from BLiNQ Networks.

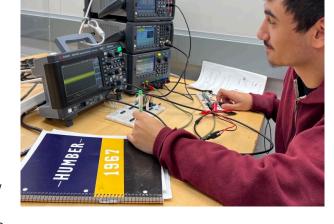
Other notable partnerships include multiple events on Vehicle-to-Vehicle Communications with Ontario Tech. The automotive companies we brought to the event loved the content, and Ontario Tech researchers established further connections to top-tier automotive companies. In addition, Keysight invited the Dean of Research at Ontario Tech to be a guest speaker at the Keysight Automotive Center of Excellence in Michigan, leading to further networking about Ontario Tech's climatic chamber and test capabilities.

Most recently, we have partnered with Niagara College on Fiber Measurement and Splicing events to increase the visibility of their course offering within the industry. As Niagara College embarks on a new RF/

Semiconductor Test program, we've set up several days of visiting our customers in the Ottawa area to establish relationships with the College.

The engineers and technicians of tomorrow must be trained with the best test and measurement equipment of today. Employers expect graduates to be familiar with the tools and techniques used in the industry to hit the bench running with mastery of the most popular equipment.

Gap Wireless strongly believes in supporting educational institutions and the students they serve by working closely with them to help their labs meet industry needs and get their students ready for the workforce. By using better tools,



students can learn to be the best engineers and technicians they possibly can be.

In this report, we'll look at benchtop and RF test equipment, fiber optics equipment, and courseware challenges at university and college labs from coast to coast, and the solutions we proposed and successfully implemented. In some cases, we've even provided students and educators with hands-on training for their new equipment so that they can maximise the time they spend doing what's most important: learning, teaching, and developing the skills needed to stay ahead in a fast-paced and increasingly vital industry.









## **Gap Wireless at APCO Canada**



# MISSION CRITICAL SOLUTIONS FOR PUBLIC SAFETY COMMUNICATION NETWORKS

Gap Wireless was excited to be exhibiting at Canada's largest Public Safety Communications Officials conference earlier this month in Whistler, BC.

We showcased our cuttingedge vendor partner solutions for professionals who supply, install and operate Emergency Communications Systems.

APCO Canada (The Association of Public-Safety Communications Officials) serves the people who supply, install and operate the Emergency Communications Systems used around the Country from coast to coast to coast. Members include 9-1-1, police, fire and emergency medical services as well as emergency management, disaster planning and federal search and rescue personnel.

The vendor partners solutions we showcased at APCO Canada 2022 include:

## Freedom Communications R8200

The ultra-portable LMR Test Solution for Subscriber and Infrastructure Testing.

### Wavecontrol Test Equipment for EMF Exposure Assessment

Wavecontrol offers a diverse range of products for both EMF safety and EMF testing needs.

### Fiplex FLEX DAS

Distributed Antenna Systems provide the ultimate in design, coverage, and efficiency for in-building public safety communications.

### **RFS Dragonskin**

The first and only in-building coaxial cable certified by UL without adding metal conduit and extensive wrapping, or building a fire-resistant enclosure.

# Keysight Oscilloscope Quiz Contest



# Test Your Oscilloscope Knowledge To Win a Keysight Oscilloscope!

Everyone who gets five or more answers correct on our Scope Quiz before November 24th, 2022, will be entered in a random draw for the following prizes that will take place on November 25th, 2022.

### **First Draw**

Keysight DSOX1202A Oscilloscope: 70MHz, 2 Analog Channels (\$750 Value)

### Second Draw \$500 AMEX Gift Card

**Third Draw** \$500 AMEX Gift Card

#### Rules

No purchase required. Contest begins on October 12th, 2022 9 AM EST and ends on November 24th, 2022 5pm EST. There is a total of three prizes available to be won consisting of: (i) Keysight DSOX1202A Oscilloscope: 70MHz, 2 Analog Channels (\$750 Value); (ii) \$500 AMEX gift card; and (iii) \$500 AMEX gift card. Open to legal residents of Canada and United States. Excluding who are under the age of 18 in their province, state or territory of residence at time of entry. Odds of winning depend on number of eligible entries received and the level of skill in the oscilloscope quiz before the contest closes. Limit of 1 entry per person.

TAKE THE QUIZ NOW

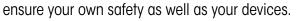




## Keysight E36150 Series Autoranging Bench DC Power Supply

The E36150 Series power supplies are designed for versatility and are perfect for various applications, including R&D, design validation, reliability, and quality testing across all types of industries. Both E36154A (30V; 80A) & E36155A (60V; 40A) feature an autoranging architecture and peak power handling capabilities allowing you to meet your various test requirements with plenty of usable power and flexibility.

The E36154A brings in a new key innovation — a detachable front binding post that supports a high current up to 80A. The detachable binding post allows easy access to the power outputs allowing for seamless wire connections to your DUTs. More importantly, the front binding post has a built-in auto-protection mechanism to



KEYSIGHT aapwlreless\* **TECHNOLOGIES** Authorized Distributor



These unique power supplies will offer advanced feature capabilities:

### **Advanced Features and Capabilities**

- Data logging built-in memory and front USB host
- Voltage and current traces measurements
- Output sequencing/synchronization with input/output triggers
- Low-range current measurement
- Adjustable voltage slew rate
- LIST mode output
- Peak Power Handling
- Scope View (Upgrade Option)
- AWG (Upgrade Option)

**LEARN MORE** 

## Keysight CXG & CXA Signal Analyzer Bundles

Ordering Options for Your CXA is Easier, Faster, and More Economical!



The N9000B CXA signal analyzer is crafted for essential RF and microwave signal characterizations, that span from frequency selective power measurements to noise analysis, EMI emission test, and digital signal demodulation analysis. Keysight made the CXA signal analyzer scalable via kinds of performance options to address your different testing needs while remaining cost-effective. Knowing what options you need to order could be intimidating, so we have just put together a set of Good, Better, Best value bundles – making ordering these options easier, faster and more economical than ever before

10% Effective Savings with Good Bundles

15% Effective Savings with Better Bundles

20% Effective Savings with Best Bundles

What are the Good-Better-Best Value Bundles?

The bundles are designed as a pre-configured solution with the most popular options to fit evolving applications from general-purpose to wireless communications to education



# RD Microwaves DAS-B28 16 Position Attenuator Tray

RD Microwaves has released a unique attenuation solution based upon a low PIM module that offers a low-cost modular solution that is offered as an individual connectorized unit or packaged in a variety of enclosures. The basic module covers



600-6000MHz including CBRS, C-Band, LAA, and WIMAX, and is available with power levels of 20, 40, or 60 Watts. Attenuation values can be provided from 3-40 dB.

The Assembly Model DAS-B28 shown is a 1u 19 inch sliding drawer tray that has (16) 20 Watt attenuator paths with in-line 4.3-10 connectors with inputs on one side and outputs on the other. The connector orientation is field adjustable.

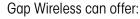
The modules are also available separately with option to stack 2 or more in a DIN rail rack with a choice of connectors, 7-16DIN, 4.3-10, or NEX10. They are also used in custom attenuation trays and various enclosures with multiple attenuation paths from a "few' to as many as 20 in a single tray that can be stacked in 19 inch Server Racks with capacity to "hundreds" of attenuation paths with high density packaging.

**LEARN MORE** 

# Hammond Manufacturing Rack Mounting Solutions

Did you know Gap Wireless has over 2,000 unique Hammond Manufacturing solutions available with inventory and service to support your needs? In addition, UV-cured printing services are now available from Hammond and can add value to

many of Hammond's products



- Competitive rates
- Modification capabilities as per project needs
- Rack/server room design
- Live stock updates every hour at store.gapwireless.com

Cabinets and rack mounting solutions from Hammond Manufacturing are designed and manufactured in Canada,

including the company's NEMA Rated communications cabinets produced in Guelph, Ontario.

End users, contractors, and consultants all find Hammond's communications cabinets to be indispensable in environments where dust-tight protection is imperative such as warehouses, greenhouses, and in the automotive sector.

**LEARN MORE** 

## Aaronia Spectrum Analyzers & Antennas

Aaronia offers affordable and portable RF and EMC spectrum analyzers and antennas as well as RF shielding products designed for RF applications dealing with:





- Frequency and channel selection
- Pre-compliance testing
- RF site surveys and studies
- RF electronic design
- Wireless product specification
- Interference abatement
- Frequency and general testing and measurement applications

Second to none, the Aaronia series broadband antennas offer unprecedented quality in design and performance, at a fraction of the cost of most competitors.

The Aaronia line of precision broadband antenna upholds the highest industry standards, with added durability and lightweight portability for any





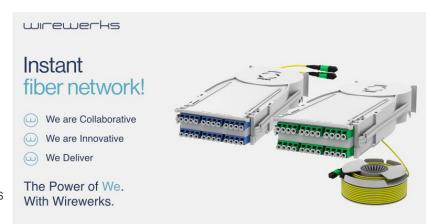
## **NextSTEP 3S FLEX Module**

NextSTEP 3S-FLEX modules contain an onboard reel with 30-meters of 12/24F factoryterminated MPO/MPO cable. Just pull for instant, exact-length, plug-and-play fiber networking -- no fiber training required.

The Wirewerks NextSTEP<sup>TM</sup> 3S-FLEX Module (patent pending) is a ready-to-use, plug-and play12/24F MPO-MPO factory-terminated cable assembly with up to 30 meters of trunk cable stored in an onboard reel, extendable to 500 meters through use of an Open Spool.

The 3S-FLEX Module is fully compatible with all NextSTEP Rack Mount Patch Panels and Wall Mount Enclosures. The 3S-FLEX Module features flush-mounted distribution ports and an extendable labelling plate under which test results can be found.

The NextSTEP 3S-FLEX Module may be deployed in two principal configurations:



- 1. Ready-to-Use MPO-MPO 24F trunk cable spooled on an integrated FLEX reel with an integrated NextSTEP 3S-LC Distribution Module
- a. 15M\* cable length
- 2. Ready-to-Use MPO-MPO 12F trunk cable spooled on an integrated FLEX reel with an integrated NextSTEP 3S-LC or SC Distribution Module
- a. 30M\* cable length
- \*Extendable to up to 500 meters through use with the Open Spool.

Wirewerks develops and manufactures advanced optical fiber and copper structured cabling systems that provide the crucial physical layer foundation for our customers' mission-critical ICT networks. Wirewerks solutions are engineered to satisfy our customers' ever-increasing needs for more network bandwidth, greater throughput, faster data rates, and greater reliability.

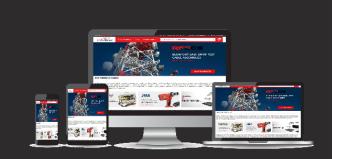
**LEARN MORE** 

### **Gap Wireless Web Store**



Browse the extensive Gap Wireless Web Store to discover the latest solutions from our network of more than 60 world-class manufacturers. You'll find a wide variety of test and measurement equipment, ICT equipment, and telecom infrastructure equipment.

Visit Web Store Now



### **Gap Wireless**

Gap Wireless is a leading provider of products and services for wireless network operators and contractors, as well as electronic labs in the Government, OEM, and Education markets. Gap Wireless works with industry-recognized vendors to stock and distribute thousands of wireless infrastructure, public safety, and test & measurement products across North America. Gap Wireless also provides value-added technical/engineering services.

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