



NEWSLETTER

Advantech
wireless broadband culture

Issue IBC Amsterdam, Fall 2010

Pioneering the SSPA market with GaN -technology

Continuing its market leadership in developing new and more efficient SSPA technologies, Advantech is first to market with a complete product line of GaN (Gallium Nitride) SSPA's in various powers.

What are the main advantages of GaN -technology:

- * Power efficiency is dramatically increased allowing for a greater maximum temperature than that of traditional GaAs (Gallium Arsenide) devices.

- * Reduced power dissipation and higher temperature limits enable the product's cooling system to be reduced, allowing the unit to be almost 50% smaller than GaAs.

For instance, the 100 Watt version just measures 31.8cm (L) x 15.2cm (H) x 20cm (W) while only a 50 Watt version with GaAs would be available in the same size.

- * The amplitude response of GaN SSPA is more linear than compared to the TWTA (Traveling Wave Tube Amplifiers) characteristic, making the use of special linearizers obsolete.

- * GaN SSPA's provide the same level of Intermodulation Distortion at 3.5dB back-off from saturated power while a TWTA provides the same response only at 6dB back-off. In practice, this means that all previous SSPA-disadvantages as compared to TWTA, such as size, power density and pricing are now eliminated and might indeed mean the epitaph of the TWTA era.

- * MTBF (Mean Time Between Failure) increases. When compared to the existing GaAs technology, the MTBF is increased by over 80.000 hours (more than double).

This makes the new G-series one of the most reliable SSPA's/SSPB's on the market.

Advantech now has 50W or 100W (2200-G series), and 150W – 200W (3200-G series) output power for Ku and X bands.

We can supply them as either SSPA (RF input), or as an SSPB version (L-band input with integrated block frequency converter), while the standard RS485 and Ethernet ports provide full remote Monitoring & Control.

Developments for the other frequency bands are ongoing and will be announced at a later date on our website.

Being the first on the market, Advantech is definitely once more challenging the competition to keep pace with this revolutionary technology.

Further details are available on our website.

Happy Hour(s) @ Advantech

We hereby would like to invite all our valued customers and partners to join us for a drink during the IBC show at our booth on Sunday the 12th from 16.00h.

We are located in Hall 1, booth A-11 where we will welcome you to relax after the day with a beer, a wine or a soft drink and a snack while taking the time to have an enjoyable conversation.

If you can't make it on Sunday, you are still welcome at any other time on our booth or on our outside booth, located at OE107. (see article about our live demo).

Hope to see you there!

DVB-RCS: Live demo at IBC

Come and see a DVB-RCS -compliant & certified VSAT technology live demo!

Advantech is one of a few compliant & SatLabs -certified manufacturers in the marketplace today.

The demo is focused on two products: highlighting Advantech's efficiency of our IP capabilities over DVB-RCS (including SCPC and TDMA functionalities) and our range of mobile antennae with auto-pointing and tracking.

These products range from easily deployable fly-away and man-pack versions for military use to roof-mount drive-away (DSNG and fly-away) antennae, all with auto-pointing and -tracking.

We will be happy to welcome you on our outside booth, located at OE107. See you there!

Advantech awarded by L3-com

L3 Communications needs no introduction. This company is the sixth largest defense company in the U.S. and is a leading prime defense contractor, while often being a reference when it comes to set up new Civil and Military networks.

Advantech has been a longstanding partner of L3 as both a supplier of Modems and SSPA's complying to the Milcom standards, and also as a technical partner providing know-how and expertise.

As Advantech prides itself on its technical support, L3 got the same great service as all our other customers. We were therefore very happy that this yielded an award for "Outstanding Support" to L3's program, which was given to our Chairman and CEO, David Gelerman, recently. One more award to hang amongst the others in the office!

A specific kind of Encapsulator

It's so very easy to get confused when talking about encapsulators. Indeed, this term is perceived as very general and even vague.

So, let's try to make the difference by describing what Advantech's definition is and what it has to offer.

Most important for an encapsulator is it's ability to handle a minimum of both ASI and IP signals. When operating in DVB or ATSC networks, specific features, such as PAT and PMT generation etc. are also a prerequisite.

It also needs to perform a flawless handling of the different sources while making sure the applicable standards are respected.

Advantech's Ipe422 IP Encapsulator is probably the most versatile product in the market.

But let's explain why:

- * Compliant to standardized MPE and the more efficient GSE (Generic Stream Encapsulation) encapsulation standards.
- * 4 GbE IP inputs and 2 ASI inputs + 2 ASI Outputs
- * Multiplex ability of prioritized MPEG2 from ASI inputs and IP packets which are converted to MPEG2 from IP inputs.
- * PID filtering on ASI inputs (RCS signalling in redundant hub)
- * Support of MultiStream CCM, VCM and ACM in DVB-S2.
- * Bandwidth optimization by using opportunistic data insertion and support of section packing.
- * Support of 1:1 redundancy architecture with VRRP on the traffic Ethernet interface + relay contacts
- * Data rates up to 216 Mb/s
- * High product flexibility
- * Full SNMP with extensive control, monitoring and statistics.
- * Proven high reliability with competitive pricing



Due to its flexibility, this compact and versatile product easily integrates into satellite, cable and terrestrial networks (e.g. microwaves, primary TV distribution).

Extended Agile Freq Converters

Among Advantech's large range of different frequency converter types, we find the agile and synthesized "HP" series. They offer conversion from and/or to L-band on one side while going/coming to/from 70 or 140 MHz on the other end. Its modular concept also allows you to combine up to 4 converter modules into one chassis.

Now we have extended our L-band range. Previously, we were limiting the L-band from 950 to 1750 MHz. As we want to increase its flexibility, the range has been extended up to 1850 MHz (at the same price) and even to an optional 2150 MHz for all the versions available.

Routers on the road: ER9160

How does one differentiate a router amongst the myriad of existing products? The answer is simple: Advantech offers a versatile 1RU router compliant to all standard communication protocols. It also has a very high reliability while remaining cost-efficient.

On performance, we also have nothing to be afraid of: it handles up to 100.000 packets/sec and up to 1 Gigabit. On versatility, we offer two router interfaces, four switched LAN ports and one WAN port.

And on flexibility, you have extensive configurations for terrestrial and satellite solutions: DHCP, DNS and FTP/TFTP client services are obviously also present.

Its omnipresence in VSAT hubs, enterprise and government networks, or cable, satellite and terrestrial networks is the best reference we can offer. Don't hesitate to have a closer look at it. You'll be surprised about the cost vs. performance.

Dual Demod /Remux for DVB-T

One of the practical needs in DVB-T/H -networks is the recombination of 2 multiplexes received from 2 different satellites or transponders. These are often national programs to be combined with specific regional contents, which usually requires 2 demodulators, a demultiplexer and a remultiplexer. A rather expensive investment for a local TV broadcast!

Well, Advantech offers an integrated solution, giving you two full-blown S2 demods in one chassis, plus a demux/remux, filtering the PID's of both received signals. These signals can be either SCPC or MCPC content. More details on availability will follow soon.

Company moves:

We welcome following new members who have been added to our ever-growing sales team:

* **Joseph A. Zerucha** joined us last month as Vice President of Global Sales. Joe brings with him over 20 years of experience in the satellite and manufacturing industries, spanning both well-established multinationals and smaller, high-growth enterprises.

During his career, Joe has held several senior executive positions such as Director Worldwide Sales at Viasat Inc., COO at Tachyon Inc., and President at NSN, a subsidiary of Clear Channel Communications Inc. More recently, he worked as a management consultant, making major contributions to sales and operations strategy in a number of companies in the industry.

Joe is based out of Montreal and his email is

joe.zerucha@advantechwireless.com

* Mark Davidson recently joined our team as Sales Manager and will handle the Northern, Central, Western and Eastern-European areas for all our products. Mark has a long experience in the Broadcast market and feels particularly at home when talking about IP and networking systems. Mark is located in the UK and can be reached via email (mark.davidson@advantechwireless.com).

More information and data sheets on all new products can be found on our website
www.advantechwireless.com

Sales Contacts: HeadQuarters: info@advantechwireless.com

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