



Capacity and stability

Atlantic Microwave, a recent subsidiary of ETL Systems, supplies RF and microwave solutions to the satellite communications market across telecommunications, broadcast, and defence. Satellite Evolution's Laurence Russell spoke to John Dunstan, Sales Manager, to see how they've handled operating since being acquired by ETL, and what new innovations they've brought to the industry.

Question: Last year you were acquired by ETL Systems. How has this benefited Atlantic Microwave? John Dunstan: As a company we have been developing components for over 30 years, and over the last four, we have expanded into the world of satcom testing.

ETL brings us increased capacity and stability of a larger manufacturer. We have more production power, a bigger pool of expertise to draw upon, and access to wider markets than we've ever seen before. We have been able to use them for board design and chip placement which has let us focus our attention elsewhere. We remain fairly autonomous, with the ability to work close to our strengths and communicate directly with our customers as we always have.

Question: We're interested in hearing more about your Test Loop Translators; what features do they offer?

John Dunstan: Our range of Test Loop Translators (TLTs) offer high stability, low phase noise, and local and remote ethernet control of the synthesiser controlling translation. They are designed to mimic the satellite uplink and downlink feeds to set up a satellite dish correctly.

Some teleports use arrays of in-built test equipment, although from what we've seen, plenty of test work is conducted through portable devices, because many station operators either don't have room in their installations or they don't have the capex to permanently install that kind of bulky equipment.

That's where we come in. Our TLTs allow dishes to be tested in S, C, X, Ku, Ka, and now Q-bands. Our technology incorporates fundamental frequency face-lock oscillators, double balance mixers for block translation and to strip out the convert frequencies. We can go uplink and downlink and run instantaneous monitoring of frequency power and modulation.

We're pleased to provide so much variety in our solutions, but we really shine with the degree with which we're able to work with our customers, listening to and delivering on their exact needs.

Question: What makes using reliable Satellite Simulators so necessary for the ground segment, and how do your simulators deliver on that?

John Dunstan: Our Satellite Simulators replace the role of a satellite for ground segment testing. A simulator tests offair offering a simple, reliable method of







verification without interfering with a live satellite. That differs from a test loop translator, which runs via a coax, which you would run in-house.

People test using Satellite Simulators instead of live satellites for much the same reason people test their brakes in a garage before going on the road.

Testing is essential because of how costly a confirmed fault can be. With a Satellite Simulator, you can avoid that completely.

Question: We spotted you back at Three Counties Defence and Security Expo showcasing the latest in satellite and RF technology to the military market. Do you consider military communications a strong growth area?

John Dunstan: We've got a lot of experience in the military market. Developing military comms has been a fundamental pillar of what we provide, which has fit well with our engineer-led bespoke approach to service. We work



Photo courtesy of Atlantic Microwave

closely with our customers to deliver the tightest of requirements and military compliance standards.

Atlantic Microwave has always worked like this, tailoring service direct to the customer, and it's how we always will.

The military vertical is not a place

one can find success with overnight. It's something that took us a great deal of time and effort to develop the foothold we have, steadily gaining our customers respect after delivering quality time and time again. We have found that our RF components are particularly in demand from our military customers, which are







faced with a number of unique challenges where having the right components in place is critical.

It's that kind of reliability and diligence that's at the heart of Atlantic Microwave.

Question: In the past, we've heard certain commentators claim that the ground segment needs to 'catch up' with rapidly advancing satellite technology across innovations such as HTS and LEO. Do you have any thoughts on that claim?

John Dunstan: The ground station absolutely has to keep up. The brave new world of new satellite technologies can make waves by racing ahead all it wants, but it all rather falls flat when the technology on the ground they're ultimately working with doesn't match the specs in orbit.

Ground stations have to adapt, and as they do the testing process will become steadily more stringent. Stations have to deliver lower phase noise, sharper defined bandwidths, and better ability to define group delay.

Some of our customers have started demanding these things, which we've been happy to deliver. As ground stations rush to modernise for the new era of satellite communications, we've found ourselves being chosen above others for delivering strong testing because we've worked so hard to stay ahead of the curve in that area.

Question: What are your expectations for the industry from your position in the years ahead?

John Dunstan: We major on both components and cables, that's our mainstay and we expect those to continue to be important for our customers. RF components are often overlooked as simply something that need to be purchased but getting it right can be key to ensuring resilience throughout the satellite networks.

At the same time the growth for us in satcom is Satellite Simulators and Test Loop Translators. That's where we've really been innovating, and that's what we've earned such a strong reputation for delivering.

Not only have we had a strong 2019, we've also got a lot more in store in the months ahead, so I would encourage the industry to watch this space, as we build upon our successes.

Andrew Bond, Sales & Marketing Director, ETL Systems added: "Having acquired Atlantic Microwave at the beginning of last year, we have been able to bring its range of RF components to our global customers. At the satellite communications industry continues to evolve, it is becoming increasingly challenging for customers to identify the right RF components for the intended application and specifications. Atlantic Microwave's broad range of components coupled with its unrivalled knowledge and understanding and ability to develop custom solutions, means that it is able to address those challenges and help our customers save investment in time and money."



7







The Middle East & North Africa's leading event for



CONTENT CREATION



BROADCAST



To book your stand, contact the CABSAT Team on +971 4 308 6552/6433 or email CABSAT@DWTC.COM



#CABSAT2020