



# AT-THE CENTER FREQUENCY

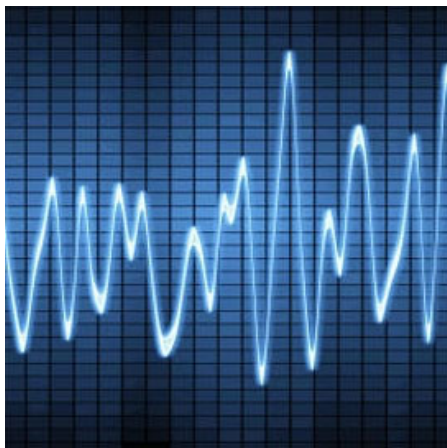
An e-Newsletter from Anatech Electronics

JULY 2020

## What's News...

### FCC Asked for comments on T band auction

The FCC has released a notice of proposed rulemaking (NPRM) to auction the T-band at 470 to 512 MHz. The NPRM seeks comments on issues such as where current T-band licensees might move to and what to do about other licensees as well. Numerous groups, including federal agencies, have questioned the benefits of auctioning the spectrum and have asked Congress to pass legislation to allow public safety to keep the T-band spectrum. The government accountability office noted in a 2019 study that the cost of relocating T-band users would be between 5 billion and \$6 billion and for some users alternative bands may simply not exist. Spectrum auction itself is likely to produce revenues of only \$2 billion, a drop in the bucket compared to other auctions.



### Raytheon gets big order for THAAD GaN-based radar

Raytheon Missiles & Defense has received a \$2.3 billion Missile Defense Agency production contract for

## A Word from Sam Benzacar

### Interference in space becoming a black hole

By Sam Benzacar



Here on Earth we have plenty of RF interference, but it also extended to space. Interference is becoming a major problem as there are at least 1500 active low-Earth orbit and a huge number of additional “small sat” being launch or proposed. So the problem will only get worse as the “commercialization” of space gains momentum. Most satellite applications and services use only a handful of bands, which has led to growing competition for spectrum and incidents of both unintentional and intentional interference or “jamming,” not just between satellites but between space and terrestrial services as well.

The latest outcry concerns company called Ligato Networks that for the last 17 years has been continuously fighting off challenges to its proposal for launching a low-power mobile satellite service (MSS) operating at 1526 to 1536 MHz, 1627.5 to 1637.5 MHz, and 1646.4 to 1656.50 MHz. That spectrum happens to be quite close to where GPS satellites operate, so it's not surprising that since its first application in 2004, the company has repeatedly modified its operating parameters to accommodate a growing group of GPS users including the Department of Defense, the Department of Commerce, the Department of Transportation, and the GPS industry in general.

However, on April 22, the company finally got approval, as the authorized operation assuming it can meet the a long list of requirements to ensure the safety of GPS. The FCC decision came as an unwelcome surprise to members of Congress, some of whom flatly condemned it. Jim Inhofe, (R-Okla.), chairman of the Senate Armed Services Committee said at the time:

seven GaN-based AN/TPY-2 radars as part of the Terminal High Altitude Area Defense (THAAD) system, which is designed to protect against incoming ballistic missile threats. The contract is part of a foreign military sale to the Kingdom of Saudi Arabia. The mobile AN/TPY-2 missile defense radar uses X-band to detect ballistic missile threats. The radar system is designed to operate in two modes: forward-based mode that missile launches and identifies any lethal objects as they rise after launch — and terminal and terminal mode that guides interceptors toward a descending missile's warhead.



**Audi bringing hybrid radio to vehicles sold in the U.S.**

Audi has announced that most of its 2021 vehicles sold in the U.S. and Canada will be equipped with Generation 3 infotainment technologies that will lead consumers use hybrid radio hybrid radio in an OEM receiver. Hybrid refers to a radio that has both over-the-air and internet connectivity. Two types of services will be supported, one FM-band analog and HD Radio terrestrial reception, and another for the SiriusXM 360L hybrid the primary benefit of FM-band hybrid radio is its ability to switch to streaming audio version of the radio signal when the over-the-air signal cannot be received. Other features include support for station logos and display of song title and artist metadata as well as album art and artist images.



**UK Prime Minister plans to ban Huawei from 5G**

"Ligado waited until the whole world was distracted by the virus and in total secrecy on a weekend passed the most controversial licensing bill in the history of the FCC," he said. "What I would want to do would be to get it reversed."

The uproar first started flurry of letters and public statements from senators and members of the House followed by a Senate hearing and several others. This is now accelerated into creation of at least one piece of legislation that would require an independent technical review headed by DoD and performed by the National Academies Science, Engineering, and Medicine of the FCC in place limits on the companies ability to use the license and the way it was granted.

The Ligado situation is just one of an increasing number of problems related either to GPS, other security concerns, and the growing number of small sats including more than Elon Musk's Starlink constellation that when completed will include up to 12,000 satellites, and possibly up to 42,000 if needed. The company's goal is to provide Internet access from virtually anywhere on the planet, a lofty goal. There are so many that they can even be seen and photographed with a smartphone as the accompanying illustration shows. Somehow, all of this seems unlikely to produce a happy ending.



Starlink captured with a smartphone

**Anatech Electronics core business is RF and Microwave filters. Please visit our website to get access to our large database of standard RF & MW filters, as well as the resources to get custom RF and Microwave filters. Just link to our technical dept. or to our easy to follow custom specifications form in our website**

[WWW.ANATECHELECTRONICS.COM](http://WWW.ANATECHELECTRONICS.COM)

Huawei is making a last attempt to convince Prime Minister Boris Johnson not to ban the company's telecom infrastructure 5G mobile networks by 2025. Johnson had previously allowed the company to play a limited role in infrastructure capped at 35% of supply. The move comes ahead of a critical meeting of the National Security Council on Tuesday, chaired by Prime Minister Johnson, who is expected to decide a 2025 deadline for the removal of the Chinese company's equipment. According to Ericsson, it could cost several billion pounds to remove existing Huawei equipment already installed.



(973) 772-4242



Send us an [email](#)

This email is intended for [eyal.nevo@anatechelectronics.com](mailto:eyal.nevo@anatechelectronics.com).  
[Update your preferences](#) or [Unsubscribe](#)

