



AT THE CENTER FREQUENCY

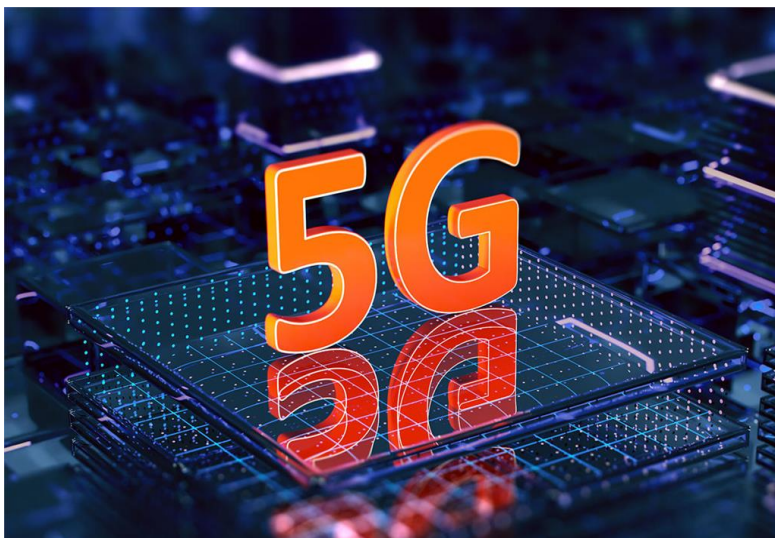
An e-Newsletter from Anatech Electronics

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What's News...

Verizon Launches Private 5G Network

On Site 5G, Verizon's first private 5G network indoor or outdoor facilities is managed by Verizon and delivers the company's "5G Ultra-Wideband" capabilities for high-speed, high-capacity, low-latency connectivity. It combines 5G small cells with the LTE packet core and interconnects with the organization's LAN infrastructure. The company has previously built custom solutions for Corning, Marine Corps Air Station (MCAS) Miramar, the University of Michigan, Tyndall Air Force Base.



Magnets in Phones Affect Medical Implants: study

A Word from Sam Benzacar

More Interference to Come – in Vehicles

By Sam Benzacar



The need to keep electromagnetic energy in check has been crucial since Henry Ford's production line started rolling. Over the years, sources of electrical and electromagnetic interference have multiplied, and the result is an environment rich with signals spanning very low frequencies to the microwave region that can, in the worst cases, render a vehicle immobile or cause a critical subsystem to malfunction. This problem will only worsen with the "digitalization" of vehicles that, in the not-too-distant future, will make them rolling IoT platforms. As always, EMI and RF and microwave filters will be the basic interference cancellation solution.

Consider that in today's vehicles there are multiple signal buses, up to 150 electronic control units (ECUs), and various wireless communications systems (such as navigation, Wi-Fi, and cellular), as well as radar, cameras, ultrasonic sensors, keyless entry, and infotainment systems. And every one is a potential contributor to or recipient of EMI or RFI, and this list covers just the internal systems and not external interference caused by power lines and other electrical systems, and cellular and other communications systems. What's more, all radio transmitters and other RF components can emit not just the desired frequency but others, typically at lower signal strengths but still strong enough to cause problems.

And now electric vehicles are beginning to appear in larger numbers. The heart of an EV is the powertrain, called an electric drive unit (EDU), that consists of an electric motor, a power electronics module, and a transmission. This integrated solution solves some important EMI problems because it brings together three main vehicle components, reducing the amount of high-voltage cable and replacing it with a busbar approach. However, as everything in the vehicle will be electrical or electronic, interference sources may actually increase.

iPhones with wireless charging such as the iPhone 12 Pro Max can interfere with implanted pacemakers and implantable defibrillators, according to a recent study. The implantable devices respond to external magnetic sources and the phones have magnets used for interacting with the charging base. This generates a magnetic field that can affect the implanted devices. In the study, an iPhone 12 Pro Max inhibited the action of a defibrillator when held over the patient's chest and also modified the pacing of a pacemaker. It's a safe bet that this also applies to any phone with wireless charging.



EW Market to Reach \$23.5 Billion by 2028

A report published by Allied Market Research says the global electronic warfare market generated \$15.8 billion last year and will reach \$23.56 billion by 2028, a growth rate of 5.6%. The airborne segment had the greatest market share last year and is projected to register the highest increase (6.1%) during the forecast period. Although the U.S. was the biggest market in 2020 accounting for about one-third of it, Asia-Pacific is expected to register the highest growth through 2028.



Anatech Microwave Company

After EVs will ultimately come autonomous vehicles that will use more sensors and wireless systems and will be processing and transferring data up to 10 Gb/s that translates into an operating frequency around 5 GHz, so signals at least this high frequency must be attenuated. So, while the auto industry is reinventing itself it is bringing along all the interference sources (and more) that have in most cases been solved by filters.

Anatech has been solving all these types of automotive interference problems for more than three decades, so if you're designing a communication system, involved in EW, have interference coming from an RF source, or involved in the RF section of vehicle electrical or electronic systems, and need a solution, we're here to listen, and find a solution..

Below are same links to products that helps Technically RF filters are in most cases specifically designed as a narrow band frequency selective device in the design of communication systems or to remove interference coming from a co-site transmitter, Sattelites, wireless communication site.

We can always find a solution!

[Standard Band Pass Filters library](#)

[Standard Low Pass Filters Library](#)

[Standard High Pass Filters Library](#)

[Standard Band Stop/Notch Filters Library](#)

OR

[send us your specification](#)



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

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Anatech Microwave Company is a subsidiary of Anatech Electronics manufacturing and offering RF products, such as Directional couplers, Power Dividers, Circulators, Isolators and More.

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